# Who Matters in Corporate Biodiversity Reporting?

## Unveiling Stakeholders and Their Perspectives on Reporting in the CSRD Framework

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**Environmental Management and Sustainability Science**

AALBORG UNIVERSITY

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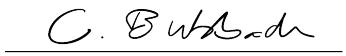
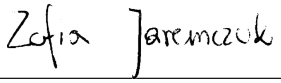
**Abstract:**

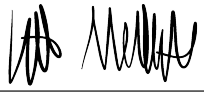
This thesis identifies stakeholders for biodiversity reporting under the EU Corporate Sustainability Reporting Directive and their perspectives, inter alia on challenges and opportunities, arising from the new requirements. The project first describes the topic of biodiversity and explains why is it important and the connected complexities, especially the wickedness of biodiversity loss. After that an explanation on the background for the stakeholder identification and perspective-mapping is given through the description of global frameworks and the new EU CSRD law, and an initial stakeholder mapping. Then a scientific literature review into the topic of CSRD and biodiversity is conducted which highlights many challenges but also a lack of coverage of the topic which can be attributed to the newness of the topic. The Research Question and Design explain the approach to the approach and the methodology chapter shows the theoretical approaches and how the literature reviews and interviews were conducted. In the analysis, the three sub-reseach questions on the identification, general perspectives and the views and challenges and opportunities are presented. The discussion widens the identification to highlight several possible stakeholder groups and discusses the potential of CSRD as a framework for enhancing biodiversity. The thesis concludes that it is highly relevant to map one's stakeholders and that the reporting process can be tackled more easily through improved stakeholder dialogue.



Carolin Butzbach



Zofia Jaremczuk



Laust Mellerup

*By signing this document, each group member confirms that everyone has participated equally in the project work, and that everyone is therefore collectively responsible for the content of the report.*

# Summary

The global biodiversity is in a state of crisis. Ecosystems, species and genetic diversity are being lost at an unparalleled pace. Scientists agree that the cause for this is human activities. In recent years, attention on companies and their impacts on not only climate but also biodiversity has increased. There are several global initiatives addressing biodiversity loss but they are mostly voluntary. The EU has last year published a law which requires a broad range of companies to report on their sustainability performance. This sustainability performance includes impacts on biodiversity and ecosystems. The law is called the Corporate Sustainability Reporting Directive (CSRD) and it is estimated that around 50.000 EU companies are affected by it.

Many people think that biodiversity is a topic that is difficult to understand, nevertheless report on. That is why this thesis is researching who should be included in a reporting process on biodiversity and what these different groups of people think about the new requirements of the CSRD in connection with biodiversity. In order to do this, a three-folded research question is posed, which is: *Who are the relevant stakeholders for biodiversity reporting under the Corporate Sustainability Reporting Directive, what are their perspectives on the new requirements and based on these, which challenges and opportunities do they identify?*.

To answer this question, the law texts of the CSRD and the accompanying European Sustainability Reporting Standards (ESRS) were analysed. After that scientific and non-scientific literature were explored. Observations from the group's collaboration with the consultancy Niras are also included. For more insights, seven interviews were conducted with people who work with CSRD in companies that have to report, consultancies, investment companies and NGOs. The so-called stakeholder theory is used as the theoretical background for the information from this project to give even more context to who the relevant groups of people for biodiversity reporting could be.

The analysis showed that, currently, it appears important to speak with the following stakeholders: Legislative authorities, Companies, Nature, Investors, Auditors, NGOs, Business relationships (including Consultancies), Academia, Owners and company internal decision-makers, Customers, Regional authorities, Local communities, and Civil society. The importance of these groups of people depends on the company but it is still relevant to be aware of each group. In this project, the perspectives of the law (legislative authority), companies, investors, NGOs, consultancies and academia are more deeply presented because they seem important in the current phase of biodiversity reporting under the CSRD. Their perspectives on the new requirements vary. Many find the requirements difficult but also hope for more structure for how to report. The stakeholders named many challenges for biodiversity reporting, most often the understanding of biodiversity and insecurity about information for reporting. The opportunities that were named are a better understanding of biodiversity, more transparency and ultimately better nature.

All in all, it can be said that this thesis identifies many different stakeholders for corporate biodiversity reporting and explores their points of view. Many find biodiversity reporting challenging but they also believe that the CSRD can ultimately support nature by providing more transparency on companies' impacts on biodiversity.

# Preface

This Master's thesis is the final project as part of the Master of Engineering program *Environmental Management and Sustainability Science* at Aalborg University. The thesis was conducted in the period 01.02.2024-06.06.2024 and covers 30 ECTS. The project was done in collaboration with a consulting company - Niras.

The topic of this Master's thesis is influenced by our previous Bachelor's education. Carolin graduated in Biodiversity and Ecology, Zofia in Natural Resources Conservation and Laust in Geography. Recognising the importance of biodiversity not only for the life of humanity but also for the lives of all beings living on Earth, with this thesis we want to bring attention to the current critical state of biodiversity and spread awareness about it.

The main objective of this project is to look at the key stakeholders in corporate biodiversity reporting within the CSRD and explore their views. We believe and hope that through this project the dialogue between stakeholders can be facilitated and sustainability reporting made more transparent and comparable, which in the long run can contribute to reducing biodiversity loss.

### Acknowledgements

As a group, we would like to thank our supervisor Søren Kerndrup for his guidance, advice and support in the process of writing this Master's thesis. In addition, we want to thank the Niras office in Aalborg for having welcomed us and for their eagerness to share their knowledge, which was very useful in the early stages of the project. We also want to thank all of our interviewees for the time and insight they provided.

We would also like to express our gratitude to our families and close friends for their love, support and encouragement, not only during the writing of this thesis but especially during the two-year Master's degree we had the pleasure of studying.

***Danke, dziękujemy and tak!***

### Reading guide

Together with the table of contents, reference list, and appendices, this report is divided into 8 chapters. Citations made in this project utilise the Harvard reference style. Therefore, the name of the author and the year of publication are as follows, enclosed in parenthesis: [the name of author, year]. When a source has more than two authors, the citation will look like this: [author's surname et al. year]. The end of the project includes the thesis's appendices and a full list of sources used. As the learning curve for this thesis is considered to be quite steep and concerns legislative documents, a glossary of legal terms and concepts has been developed and is included in Appendix B.1. The Grammarly software tool was used for spell-checking in this thesis.

# List of abbreviations

| Abbreviation | Description |
|---|---|
| CBD | Convention on Biological Diversity |
| CSR | Corporate Social Responsibility |
| CSRD | Corporate Sustainability Reporting Directive |
| EFRAG | European Financial Reporting Advisory Group |
| ESG | Environmental, Social and Governance |
| ESRS | European Sustainability Reporting Standards |
| ESRS E4 | European Sustainability Reporting Standard - Biodiversity and Ecosystems |
| EU | European Union |
| FI | Finance Institutions |
| GHG | Green House Gases |
| Green Deal | The European Green Deal |
| GRI | Global Reporting Initiative |
| IRO | Impacts, Risks and Opportunities |
| IPx | Interview Person X |
| NFRD | Non-Financial Reporting Directive |
| NGO | Non Governmental Organisation |
| SD | Sustainable Development |
| SDGs | Sustainable Development Goals |
| SMEs | Small and medium-sized enterprises |
| SOTA | State-of-the-art literature review |
| TNFD | The Taskforce on Nature-related Financial Disclosures |
| UN | United Nations |

# Contents

# Introduction 1

The introduction chapter of this thesis builds a foundation for the project. By starting with the importance of biodiversity for all living organisms on Earth, the sections of this chapter formulate a framework for the rationale of this project. The purpose of this chapter is to outline the context of the thesis and the focus of the research.

## 1.1 Introduction to biodiversity, its current state and importance

The current loss of biodiversity observed over the years is so rapid that many scientists believe that Earth is about to face a dramatic extinction crisis. It is also believed that both direct and indirect human pressure on the natural environment and ecosystems is the primary cause of this crisis [Palombo, 2021]. This anthropogenic accelerated extinction is even being referred to as the "sixth mass extinction", putting it alongside the previous five mass extinction events [Ceballos et al., 2010]. While the number of species lost does not qualify the current loss of biodiversity as a mass extinction, the rate at which species are being lost does [Rull, 2022]. Biodiversity loss is mentioned along with climate change as the two most critical and interrelated environmental threats that humanity is currently facing [Shin et al., 2022].

According to multiple sources, well-functioning communities depend on well-functioning natural environments [Pimentel et al., 1997; World Health Organization, 2015]. Given that biodiversity encompasses not only global species diversity, but also genetic variability both within and between species populations, as well as the distribution of species across continents and seas, and in local habitats, ecosystems and landscapes, there are numerous reasons for recognising its importance [National Research Council et al., 1999, p. 20, 43]. Biodiversity is proven to enhance agriculture production, provide food security, mitigate adverse effects of pollution and possibly mitigate climate change impacts [Dannenberg et al., 2024; Hisano et al., 2018]. Conversely, the loss of biodiversity equates to an increase in pathogen transmission and disease severity among humans, other animals and plants [Keesing et al., 2010]. The processes by which natural ecosystems and the organisms that live in them support human life are referred to as ecosystem services [Daily, 1997, p. 455-456]. According to the Organization for Economic Cooperation and Development in 2019 ecosystem services that humans obtained from Nature overall were estimated at around 125-140 trillion US dollars per year (around 787,5-882 trillion Danish kroner).

Figure 1.1 presents ecosystem services that are directly connected to biodiversity.

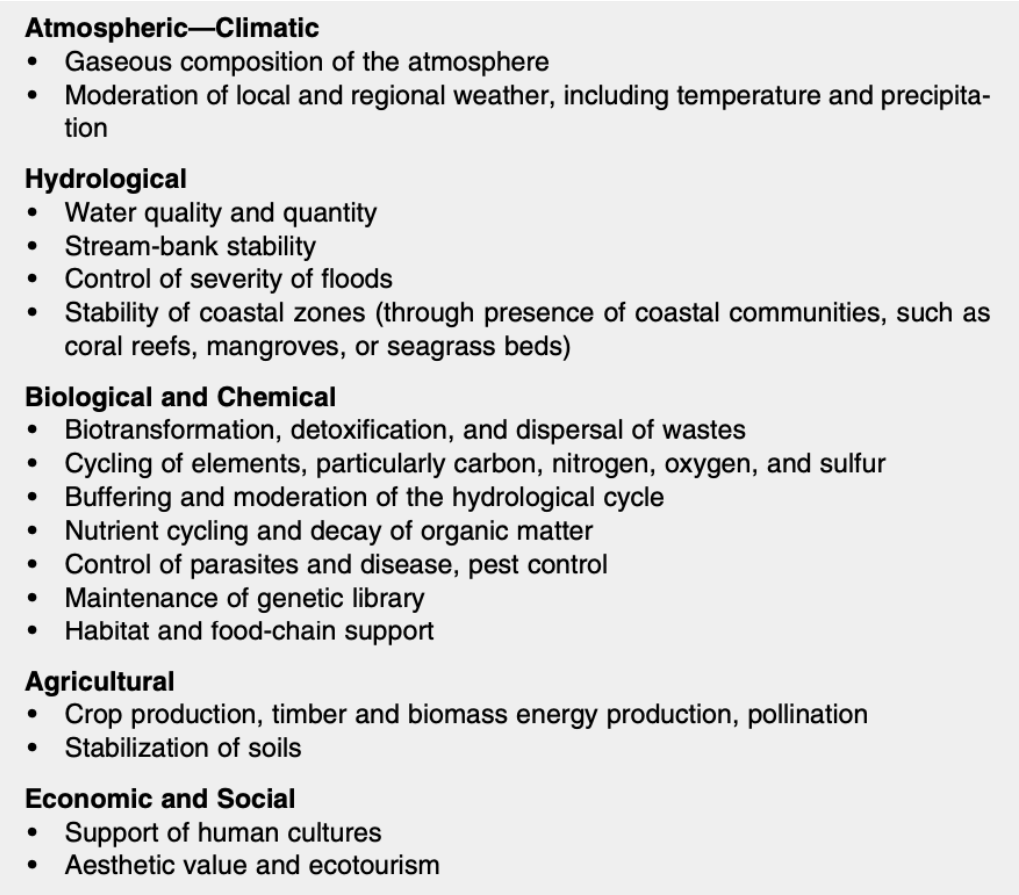



***Figure 1.1.*** Biodiversity-related types of ecosystem services [National Research Council et al., 1999, p. 52].

As can be derived from above, biodiversity, apart from its inherent value, creates a great amount of benefits for human lives. With these beneficial effects that biodiversity brings to humanity and all life on Earth, and in consideration of the current threats it faces, several initiatives have been and are being taken aimed at slowing, halting and reversing the loss of biodiversity.

## 1.2 Companies and corporate responsibility

With just 100 corporations responsible for 71% of global greenhouse gas emissions since 1988, it can be said that they do have an impact on the natural environment [Riely, 2017]. Companies, therefore, are expected to be involved in the solution to this issue as they contribute to the loss and deterioration of biodiversity through emissions and other activities [Liempd and Busch, 2013]. The debate on whether corporations play a primarily economic role or have a broader impact on society dates back to the 1930s [Pollman, 2019]. In the 1950s, economist Howard Bowen defined what now is known as corporate social responsibility (CSR) to be obligations for businesses to pursue policies that are desirable in terms of society's values [Carroll, 1999]. According to Kaźmierczak [2022] *"CSR refers to the need of organizations to strive to achieve a balance between profits on the one hand and contribute to sustainable socio-economic development and improve the quality of life of the community in which it operates on the other hand"*. Recently, however, a shift from

CSR to Environment, Social, and Governance (ESG) can be observed in the corporate responsibility landscape, as ESG data, as of now, is considered to be the best method for quantifying a company's influence on the environment and society. The concept of ESG aims to provide a set of measurable factors of a company's non-financial activities in the context of a broadly interpreted notion of sustainability to assure accountability of the organisation for evaluation by stakeholders and investors. As the name implies, ESG understanding of sustainability is considered in three different dimensions: Environment, Social, and Governance. This can be considered an expansion of sustainability reporting from the previous focus on social (CSR) factors mostly. Examples of factors considered regarded under 'environment' are inter alia GHG (greenhouse gas) emissions; regarded under 'social' for example gender diversity and under 'governance' it could be ethics and anti-corruption [Kaźmierczak, 2022]. A term overlapping both CSR and ESG used in the corporate world is "non-financial information". Non-financial information is simply *"information that is not expressed in financial terms", therefore this term can also be used when discussing risks, strategy, corporate performance and intellectual capital information"* [Tarquinio and Posadas, 2020].

The European Union (EU), taking into consideration the development of the EU Biodiversity Strategy for 2030, the 2030 Agenda for Sustainable Development and the Paris Agreement and acknowledging companies' impact on the environment, has worked on legislative measures intended to make businesses sustainable and to protect and promote human rights. To make non-financial information accessible to stakeholders, the EU adopted the Non-Financial Reporting Directive (NFRD) in 2014, which was in 2022 expanded by the Corporate Sustainability Reporting Directive (CSRD) [Duarte and Matias, 2022]. The CSRD is described in detail in Section 2.3.1. Through legislation such as the NFRD and CSRD, the EU is seeking to facilitate the assessment of companies' sustainability performance and improve the transparency on companies' activities and their significant and negative impact on the environment [Kubicka and Kupczyk, 2016; European Commission, 2023].

Given the aforementioned biodiversity crisis, the fact that the world's largest companies are heavily dependent on nature and biodiversity, and the EU's call for non-financial reporting, it seems more than reasonable to take a look at biodiversity reporting and the associated complexities [Whieldon et al., 2023]. What is also important to mention, is that with a growing understanding of the importance of Nature and the goods it provides to humankind, the environment is being defined by some as one of the key stakeholders of companies [Jastrzębska, 2016].

Recognising the importance of biodiversity, its value not only for human life but also for all life on Earth, and the concept of corporate responsibility, the next chapter will delve into the complexities of biodiversity as well as its conservation at global and national levels and the legislative tools involved.

# Problem analysis 2

Regardless of whom one asks, there appears to be a general consensus on the notion, that *'biodiversity is a difficult topic'* and corporate biodiversity reporting even more so. This chapter, therefore, aims at explaining why biodiversity is so difficult, and which international initiatives there are to address this complex topic to make possible the understanding and reporting on biodiversity. The focus of this chapter will be centred around the EU Corporate Sustainability Reporting Directive and how it, supported by the European Sustainability Reporting Standards, sets new requirements for companies and reporting on biodiversity. In the last part of this chapter, an initial stakeholder mapping is presented in order to explain who should be included when considering corporate biodiversity reporting under the CSRD.

## 2.1 The complex nature of biodiversity and its evaluation

Biodiversity is a subject difficult to understand, as is its measurement [Sarkar and Margules, 2002; Valera and Bertolaso, 2016]. This difficulty stems from the fact that it is a multidimensional concept [Purvis and Hector, 2000; Kruk, 2014; Valera and Bertolaso, 2016; Stepping and Meijer, 2018]. Some scholars even state that the commonly used definition and understanding of biodiversity is still very limited [Stepping and Meijer, 2018]. Despite the fact that some argue that biodiversity *"cannot be reduced sensibly to a single number"* or that it is not possible to quantify it directly, there are a number of ways and methods to asses and measure it [Kruk, 2014; Ette and Geburek, 2021; Purvis and Hector, 2000, p. 212]. Some of the most popular ways of measuring, for example, species richness in a certain area are: species richness, Simpson's Diversity Index, Margalef Index, Shannon–Wiener Index, Jensen-Shannon Divergence Index, Modified Shannon Index, Sørensen Similarity Index and many more [Kruk, 2014; van Strien et al., 2012]. According to Kruk [2014] and Jongman [2013] there is currently a lack of coordination in the monitoring and measuring of biodiversity and numerous methods of biodiversity assessment are applied at various levels of practice. Only lately, however, have efforts been made to standardise these procedures. This lack of standardisation creates even more confusion around the topic of biodiversity. According to Stepping and Meijer [2018] there is not a single, all-inclusive indicator available for tracking and evaluating biodiversity. As a matter of fact, some scholars even use the term "wicked problem" when discussing biodiversity-related topics which are described in more detail in the following section.

### 2.1.1 Biodiversity as "wicked" problem

In 1973, Rittel and Webber [1973] described complicated, ambiguous and hard-to-formulate (not to mention to solve) problems as "wicked". Several scholars consider topics related to the loss of biological diversity to be precisely that, a wicked problem [Sharman and Mlambo, 2012; Maron et al., 2016; Eastwood et al., 2020].

Sharman and Mlambo [2012] outline five reasons for what makes biodiversity a wicked problem. Firstly, the very definition of biodiversity and its loss is extremely difficult to clearly determine. As biodiversity is both site- and scale-dependent it is an incredibly troublesome task to define the loss of it on a global scale. Another reason for the "wickedness" of the biodiversity loss problem is connected with the one already mentioned. Since there is no clear and explicit definition of biodiversity loss, there is also no articulate and final goal and therefore solution for biodiversity loss. What is being done instead of specifying one clear solution and one precise goal, is setting stepping stones to bring the desired goal closer. For example, the targets included in the Convention on Biological Diversity (CBD) and SDGs can be seen as just such milestones. Thirdly, this problem, unlike "tame" (solvable) problems, cannot be attempted to be solved by trial and error method, as the attempt to solve the issue has an impact on it and therefore by trying again the problem is already altered by the influence of the earlier attempt. A fourth reason for why biodiversity and its loss is a wicked problem originates from the complexity of the subject as there is no single specific or main reason for its loss. Singh et al. [2021] point to seven reasons for biodiversity loss: pollution (water, air and soil), habitat loss, hunting, introduction of invasive species, overexploitation of preferred species, climate change and natural disasters. Kleespies and Dierkes [2020] list as many as 16 threats directly affecting biodiversity. The number of causes of biodiversity loss and the discrepancy between the numbers stated among scientists shows that the topic of biodiversity and its loss is complicated. As the reasons for this challenge are so numerous, it is close to impossible to focus on one and actively prevent it. Finally, Sharman and Mlambo [2012] emphasise that due to different perspectives and understandings of biodiversity loss, each interpretation has an impact on the proposed solutions. Different perspectives on a topic often cause additional confusion when the addressed topic is not spoken about in the same way.

This, next to the already mentioned complexity of the problem and the different reasons for it, means that it is not only exceptionally challenging to identify the source of the problem but also to determine the solution. It should also be mentioned that sometimes offsetting is proposed as a solution to negative impacts on biodiversity. This is highly controversial though, as biodiversity is not understood well enough and it often takes more than hundreds of years to fully compensate for impacts on biodiversity in another area [Apostolopoulou and Adams, 2017]. This makes it incredibly difficult to mitigate negative impacts on biodiversity.

These struggles regarding biodiversity measurement and the "wickedness" of the problem further prove how difficult the subject of biodiversity is to understand. Good understanding, however, is now needed more than ever. As mentioned in Section 1.1, biodiversity loss together with climate change is the most paramount crisis humanity is currently facing [Shin et al., 2022]. The growing recognition of the impact of companies on the environment and biodiversity is also an important factor to acknowledge, in the context

of sustainability. In the next section, several frameworks, strategies, treaties, targets and legislation are presented, including many of the main institutions recognised worldwide (such as the UN or the EU).

## 2.2 International frameworks and initiatives regarding biodiversity protection

This section presents international frameworks and initiatives that address biodiversity. Recognising not only the importance but also the serious and dire state that biodiversity is in, a number of internationally acclaimed frameworks have been implemented with the aim of its protection, preservation and enhancement.

### 2.2.1 Initiatives on a global level

Currently, the globally most important document on biodiversity is the Convention on Biological Diversity (CBD) of the 1992 United Nations Conference on Environment and Development. The CBD goes far beyond previous conservation treaties and well beyond the scope of traditional environmental tracts [de Chazournes, 2009]. The objectives of the Convention are the conservation of biological diversity, the sustainable use of its components and the fair and just distribution of the benefits derived from the utilisation of genetic resources [United Nations Environment Programme, 1992]. The Convention was ratified by 196 nations and it is the first worldwide treaty to address biological variety in all its forms [United Nations, 2023; The Secretariat of the Convention on Biological Diversity, 2013].

An important framework building up on the original CBD protocol is the Kunming-Montréal Global Biodiversity Framework. Approved by the Fifteenth Conference of the Parties (COP15) in 2022 the framework aims at activating, facilitating and stimulating urgent action by governments to halt and reverse the loss of biodiversity. The framework sets four long-term goals related to the UN's 2050 Vision for biodiversity and 23 action-oriented targets to complete by 2030. The 2050 Vision has an objective of "valuing, conserving, restoring and wisely using" biodiversity [United Nations, 2022, p. 8]. The global targets for 2030 are grouped into three groups and are planned to "facilitate reducing threats to biodiversity", "meeting people's needs through sustainable use and benefit-sharing" and "offer tools and solutions for implementation and mainstreaming" [United Nations, 2022, p. 9-13]. The Kunming-Montréal Global Biodiversity Framework is considered to be one of the most ambitious environmental agreements in the 21st century [Hughes and Grumbine, 2023].

When it comes to the UN Sustainable Development Goals (SDGs), biodiversity is both a focus and simultaneously has an important role in achieving some of the other SDGs. The SDGs that aim to protect biodiversity are SDG 14: Life below water and SDG 15: Life on land. The SDGs where biodiversity has a crucial place in achieving them are SDG 1: No poverty, SDG 2: Zero hunger, SDG 3: Good health and well-being, SDG 5: Gender equality, SDG 6: Clean water and sanitation, SDG 8: Decent work and economic growth, SDG 9: Industry innovation and infrastructure, SDG 11: Sustainable cities and communities, SDG 12: Responsible consumption and production, SDG 13: Climate action,

SDG 14: Life below water, SDG 15: Life on land, SDG 16: Peace, justice and strong institutions and SDG 17: Partnership for the goals [The Secretariat of the Convention on Biological Diversity, 2018]. According to Obrecht et al. [2021], given that the SDGs interact with one another, the preservation of biodiversity is one of the most effective strategies for accomplishing sustainable development. This is also illustrated in Figure 2.1 below.

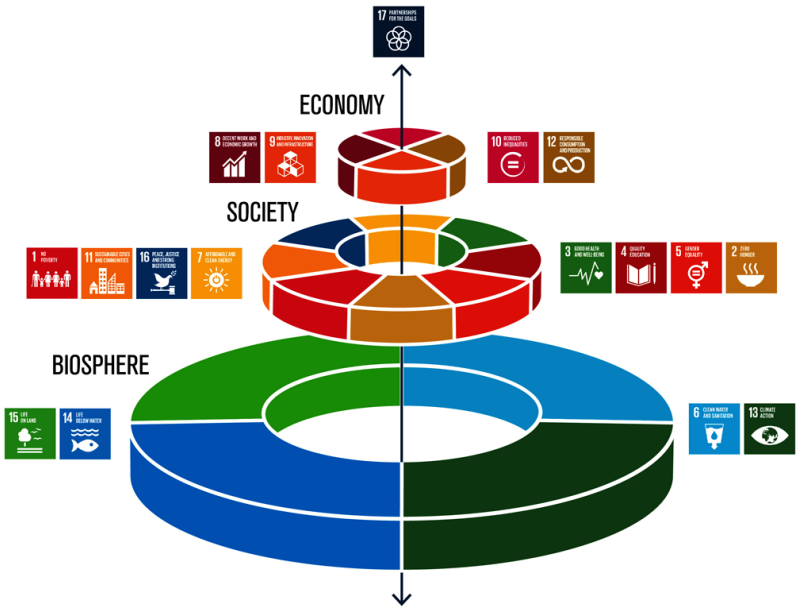



***Figure 2.1.*** The SDGs "wedding cake" by Stockholm Resilience Centre [2016].

The figure shows that a well-functioning biosphere, and therefore biodiversity, is the backbone of societies, and economies and key to achieving all of the Sustainable Development Goals [Obrecht et al., 2021].

An important framework describing the threshold up to which humanity can safely use the Earth's resources is the planetary boundaries. These boundaries, as described in 2009, are the frames within which humanity is expected to be able to function safely [Mace et al., 2014; Rockström et al., 2009]. According to Rockström et al. [2009], crossing one or more of these boundaries can even be catastrophic. The nine boundaries that were identified in 2009 are climate change, ocean acidification, stratospheric ozone, global P (phosphorus) and N (nitrogen) cycles, atmospheric aerosol loading, freshwater use, land use change, biodiversity loss and chemical pollution. Since then, they have been revised several times and currently, they are classified as: climate change, introduction of novel entities (meaning synthetic chemicals and substances, e.g. microplastics, organic pollutants), stratospheric ozone depletion, atmospheric aerosol loading, ocean acidification, biogeochemical flows (with phosphorus and nitrogen cycles), land-system change, freshwater use and biosphere integrity [Stockholm Resilience Centre, 2023; Richardson et al., 2023]. As the functioning of the biosphere depends on its genetic diversity, a planetary boundary previously called "biodiversity loss" is currently called "integrity of the biosphere" and it considers genetic diversity as well as biological diversity [Richardson et al., 2023; Steffen et al., 2015]. Figure 2.2 presents the current state of all of the nine boundaries.

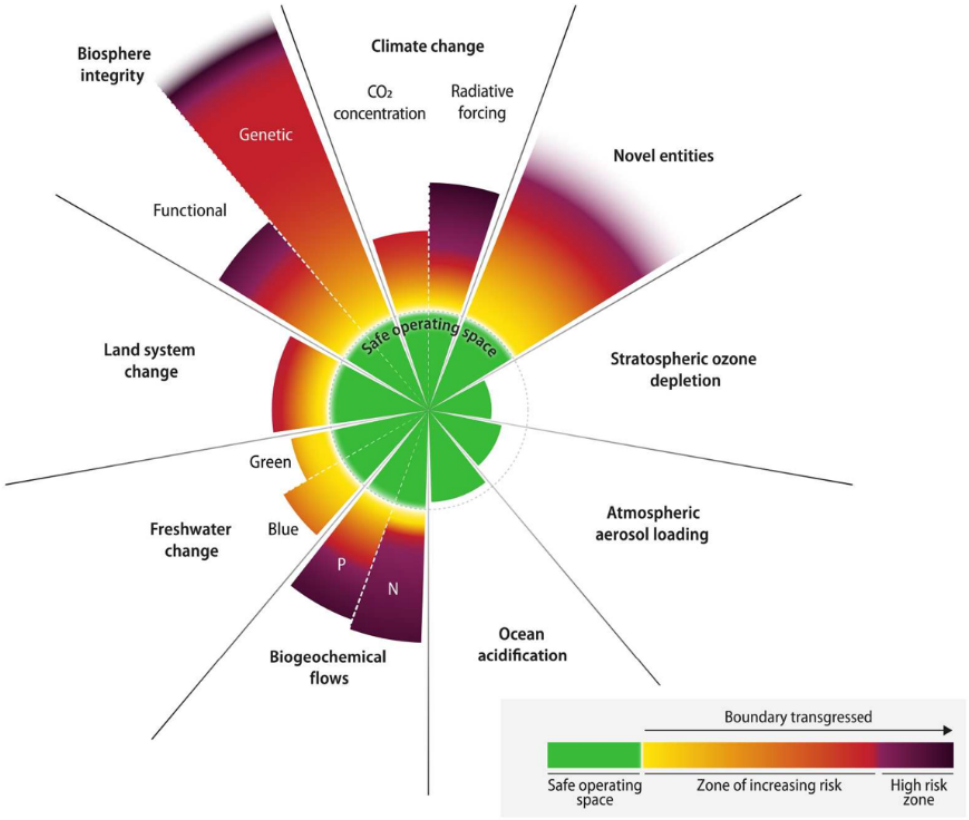



***Figure 2.2.*** Present status of planetary boundaries according to Richardson et al. [2023]

As can be seen, as of 2023, six out of nine planetary boundaries have been transgressed, including the one considering biodiversity loss and genetic diversity of species. Existing evidence suggests that crossing the boundary either of climate change or biosphere integrity may lead to a much more dramatic increase in the risk of rising gradients (i.e. higher probability of crossing) in other barriers [Richardson et al., 2023].

Addressed above are several of the most prominent global frameworks that consider inter alia the topic of biodiversity. As mentioned before, is biodiversity extremely site-specific and thus it can be argued that approaches on a smaller scale are necessary to tackle the current biodiversity loss.

### 2.2.2 Initiatives on EU level

In the European Union (EU), the European Green Deal (Green Deal) has been put into place in 2020. The Green Deal is a "growth strategy" which is the EU's response to the changing climate and "environmental challenges". The objective of the Green Deal is to shape the EU into a modern society with a resource-efficient economy. One of the most prominent steps outlined is "no net greenhouse gas emissions by 2050" and for Europe to be the first climate-neutral continent in the world [European Union, 2019]. In terms of biodiversity, the Green Deal outlines the importance of ecosystem services, the declaration of expanding the Natura 2000 framework and the protection of forest ecosystems, notes the importance of nature-based solutions, especially regarding the "blue economy" and, most importantly, declares the development of Biodiversity Strategy for 2030 [European

Union, 2019, p. 13-14]. The Biodiversity Strategy for 2030 is a plan aiming at protecting nature, reversing the degradation of ecosystems and above all it is intended to ensure that European biodiversity is on a path to recovery by 2030 [European Commission, 2020; European Comission, 2020]. In the strategy, several key points of commitment are listed. Key commitments to be realised by 2030 regarding nature protection are:

1. Legally protect a minimum of 30% of the EU's land area and 30% of the EU's sea area and integrate ecological corridors, as part of a true Trans-European Nature Network.
2. Strictly protect at least a third of the EU's protected areas, including all remaining EU primary and old-growth forests.
3. Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately [European Commission, 2020, p. 5].

Regarding key commitments regarding the EU Nature Restoration Plan to be realised by 2030, these are:

1. "Legally binding EU nature restoration targets to be proposed in 2021, subject to an impact assessment. By 2030, significant areas of degraded and carbon-rich ecosystems will be restored; habitats and species show no deterioration in conservation trends and status; and at least 30% reach favourable conservation status or at least show a positive trend.
2. The decline in pollinators is reversed.
3. The risk and use of chemical pesticides is reduced by 50% and the use of more hazardous pesticides is reduced by 50%.
4. At least 10% of the agricultural area is under high-diversity landscape features.
5. At least 25% of agricultural land is under organic farming management, and the uptake of agroecological practices is significantly increased.
6. Three billion new trees are planted in the EU, in full respect of ecological principles.
7. Significant progress has been made in the remediation of contaminated soil sites.
8. At least 25,000 km of free-flowing rivers are restored.
9. There is a 50% reduction in the number of Red List species threatened by invasive alien species
10. The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction of the use of fertilisers by at least 20%.
11. Cities with at least 20,000 inhabitants have an ambitious Urban Greening Plan.
12. No chemical pesticides are used in sensitive areas such as EU urban green areas.
13. The negative impacts on sensitive species and habitats, including on the seabed through fishing and extraction activities, are substantially reduced to achieve good environmental status.
14. The by-catch of species is eliminated or reduced to a level that allows species recovery and conservation" [European Commission, 2020, p. 14-15].

As can be seen from the example of the Green Deal and the EU Biodiversity Strategy for 2030, the EU is setting ambitious goals regarding overall nature and biodiversity protection recognising its importance and humanity's dependence on it.

It is additionally important to mention that in terms of legal acts regarding nature and therefore biodiversity protection from EU, there are also the Habitats and Birds Directives

and originating from these acts, the Natura 2000 network [European Commission, 1992, 2009]. With Europe being home to 260 species of mammals, 500 species of fish, 500 species of breeding birds, 150 species of reptiles, 84 species of amphibians, 90.000 species of insects and around 20.000 species of vascular plants, the EU aims at safeguarding its natural heritage [The Secretariat of the Convention on Biological Diversity, 2020; Vido, 2016; Biodiversity Information System for Europe, 2019]. The Birds Directive (or Directive 79/409/EEC) was adopted in 1979 to safeguard all naturally appearing wild bird species found in the EU and their essential habitats and consequently allow them to recover and flourish in the future. It legally binds all Member States to protect all wild bird species and to preserve and restore their habitats [European Commission, 2009]. The Habitats Directive (Council Directive 92/43/EEC) aims at the protection of Europe's animal and plant species and also 230 characteristic habitat types. The general goal of the Directive is to ensure the conservation and subsequent restoration of species and habitat types in Europe [European Commission, 1992]. Both directives aim not only to halt the loss of species but also to restore and then allow them to continue to thrive. Additionally, based on these directives, a network of special areas of conservation called Natura 2000 has been established [European Commission, 1992]. The Natura 2000 network is currently estimated at more than 27.000 natural areas that altogether cover 1.219.416 $km^2$ [European Environment Agency, 2022].

Similarly to the Green Deal and EU Biodiversity Strategy for 2030, with the Birds and Habitats Directives, it is also apparent that the EU is concerned about nature and biodiversity on its territory. What is different from them, is the fact that directives are legally binding all throughout the Member States. As much as the Directives impart orientation for the protection of the EU's biodiversity, some experts argue that they are not enough [Vido, 2016].

## 2.3 Overview of legal literature

In order to directly address causes of biodiversity loss, the EU has implemented requirements for corporate reporting as companies are known to have a significant impact on biodiversity. The most recent directive is the Corporate Sustainability Reporting Directive which greatly expands on previous requirements for sustainability reporting from the SFDR and NFRD, which are not addressed in this project. Through the support of the European Sustainability Reporting Standards are the topics of biodiversity and ecosystems (ESRS E4) directly addressed. This part of the problem analysis thus presents an overview of the legislative framework for sustainability reporting (SR) in the European Union. First, the Corporate Sustainability Reporting Directive (CSRD) is presented. The reporting standards under the CSRD - the European Sustainability Reporting Standards (ESRS) follow and then the special reporting standard on biodiversity and ecosystems (ESRS E4) are then described.

### 2.3.1 The EU's Corporate Sustainability Reporting Directive

As described in Section 2.2 the EU introduced the Green Deal in 2020. This progressive plan built the basis for putting into place a number of other declarations with one of them being the Directive (EU) 2022/2464 - the CSRD, adopted in November 2022 [European

Commission, 2022; Hummel and Jobst, 2024]. The CSRD requires stock-listed companies to report on their non-financial information, including their value chain, all of which together in the CSRD is called *sustainable information* [European Commission, 2022]. This directive [CSRD] is adding to the requirements of the Non-Financial Reporting Directive (NFRD) adopted in 2014 [European Commission, 2023; Hummel and Jobst, 2024]. The NFRD, which amends the Accounting Directive (Directive 2013/34/EU), mandates large public interest companies with an average of more than 500 employees to report non-financial, diversity-related information along with environmental and social responsibility information. The number of enterprises which are subject to the NFRD amounts to approximately 11.600 companies [Hummel and Jobst, 2024; Tamm and Gurvitš-Suits, 2023].

The date from which CSRD reporting is required from companies varies depending on their total assets, net turnover and number of employees throughout the year. For companies that are already subject to the NFRD, the requirements from the CSRD are effective from 1st January 2024 financial year. For other large companies, the CSRD is effective from 1 of January 2025 financial year and for Small and Medium-sized Enterprises (SMEs), the CSRD is effective from 1 of January 2026 financial year with an opportunity to opt-out for an additional two years (then making it effective from 2028) [European Commission, 2022]. The total number of undertakings covered by the CSRD is estimated to be around 49.500 companies in the EU [Tamm and Gurvitš-Suits, 2023].

The CSRD is considered an expansion of the NFRD's scope [Tamm and Gurvitš-Suits, 2023]. It has been noted that with the growing awareness of society on sustainability topics, there is a *"very significant increase in demand for corporate sustainability information"* and with evidence that many companies avoid reporting on sustainability topics, the development of the CSRD was undertaken to facilitate standardised, reliable and comparable sustainability reporting practices [European Commission, 2022, p. L 322/18].

The Directive is structured into the preamble, where context, rationale, and background information for the new directive are given. After that follow eight articles, four of which are amendments to previous EU directives and regulations. These directives and regulations are: The "Audit Legislation" (Regulation (EU) 537/2014), the "Transparency Directive" (Directive 2004/109/EC), the "Audit Directive" (Directive 2006/43/EC), and the "Accounting Directive" (Directive 2013/34/EU). The other four articles are more 'bureaucratic' articles about the inclusion into EU Member State national law (Transpositions), reviewing and reporting on the CSRD over the next years, entry into force and application, and the addressees of the directive.

The CSRD works with several important concepts and two of these, ESG and Double Materiality, are worth mentioning here. ESG, as mentioned and explained in Section 1.2, in this Directive is used as a basis for sustainability reporting. The three topics of Environmental, Social and Governance are divided respectively as follows:

- Climate change mitigation including Scope 1, 2 and 3 of Green House Gas (GHG) emissions
- Climate change adaptation

- Pollution
- Water and marine resources
- Biodiversity and ecosystems (ESRS E4)
- Resource use and circular economy [European Commission, 2022, p. L 322/51]

Social and human rights factors are categorised into:

- Equal treatment and opportunity for all (which include gender equality, equal pay for work, employment and inclusion of people with disabilities and measures against harassment and violence),
- Working conditions (some of which are secure employment, adequate wages, social dialogue, freedom of association and work-life balance),
- Respect for human rights and fundamental freedoms (in line with core UN human rights conventions, for example, the UN Convention on the Rights of Persons with Disabilities, the UN Declaration on the Rights of Indigenous Peoples and more) [European Commission, 2022, p. L 322/51-52].

Lastly, the governance factors to be reported, are grouped into:

- Responsibilities of the company's management, administrative, and oversight entities concerning sustainability issues,
- Key principles of companies' internal control and risk management,
- Business ethics and corporate culture (with regard to anti-corruption and anti-bribery morals),
- Activities related to political influence also including lobbying activities,
- Management of relationship with customers including payment practices [European Commission, 2022, p. L 322/52].

This ESG information has to be reported on according to the concept of "double materiality" [Odobaša and Marošević, 2023]. "Materiality" refers to information that an organisation has to be aware of and disclose, as it has the potential to impact the company's primary business value [Wassénius et al., 2024]. The concept of double materiality is based on the notion of reporting not only on how the company and its performance are affected by external factors (financial materiality) but also on the company's impacts on people and the environment (impact materiality) [European Commission, 2022, p. L 322/24]. This concept is one of the new and challenging requirements of the CSRD compared to the previous requirements under the NFRD. An illustration of the idea is shown in Figure 2.3.

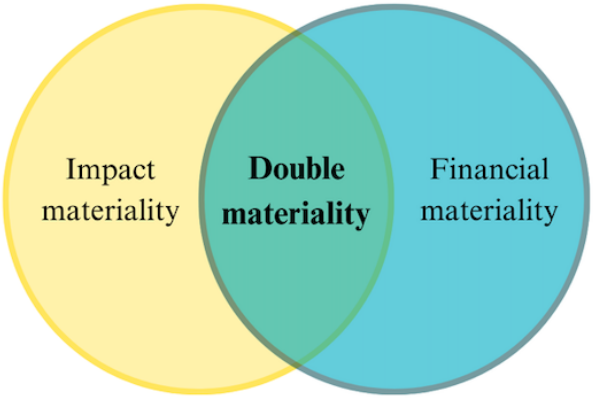



***Figure 2.3.*** Double materiality concept as visualised based on EFRAG [2023b].

The above figure is based on the European Financial Reporting Advisory Group's (EFRAG) implementation guidance document regarding materiality [EFRAG, 2023b].

In general, the CSRD, with its wide scope, focuses on smoothing the path of providing *"understandable, verifiable, relevant, comparable [information] [...] represented in a faithful manner"* for sustainability reporting about companies' strategies and business models [Glaveli et al., 2023]. Additionally, it is mentioned in the directive that the Commission shall adopt sustainability reporting standards. The Commission mandated the organisation EFRAG with this and the standards are presented in the following section.

### 2.3.2 The European Sustainability Reporting Standards

This section presents the European Sustainability Standards as prepared by EFRAG. There is a short overview of all standards and then, in more detail, information about the standards ESRS 1, 2 and E4.

The European Sustainability Reporting Standards (ESRS) are a set of guidelines that explain how to prepare a sustainability report that meets the criteria for corporate sustainability reporting set by the CSRD. The ESRS were prepared by the "European Financial Reporting Advisory Group" (EFRAG), a private association that provides knowledge to the European Commission, which was mandated with the development of these standards by the Commission in June 2020 [EFRAG, 2024a]. The standards went through several iterations, which included the weakening of reporting requirements due to concerns about the reporting burden from various stakeholders and were published in their (current) final form in Annex I of the Commission Delegated Regulation 2023/2772 on 22.12.2023 [European Union, 2023]. This regulation supplements "the Accounting Directive" (Directive 2013/34/EU), which in turn is amended by the CSRD (Directive (EU) 2022/2464).

The ESRS are divided into 12 different standards with some 1.200 reporting points. There are two general standards (ESRS 1 and 2), five environmental standards (ESRS 1-5), four social standards (ESRS S1-4) and one standard that concerns governance topics (ESRS

G1). The topics of the 12 twelve standards are defined as follows:

- ESRS 1 - General requirements
- ESRS 2 - General disclosures
- ESRS E1 - Climate change
- ESRS E2 - Pollution
- ESRS E3 - Water and marine resources
- ESRS E4 - Biodiversity and ecosystems
- ESRS E5 - Resource use and circular economy
- ESRS S1 - Own workforce
- ESRS S2 - Workers in the value chain
- ESRS S3 - Affected communities
- ESRS S4 - Consumers and end-users
- ESRS G1 - Business conduct

As this thesis is concerned with the topic of biodiversity and CSRD, the three standards that will be explained in more detail are the two general standards ESRS 1 and 2, and the relevant topical standard ESRS E4 (Biodiversity and Ecosystems). While all environmental factors like biodiversity and climate are highly interconnected, it is due to time constraints not possible to provide an elaboration on all standards. Thus, only the most relevant standards are here presented in more detail. The information provided here is supposed to help understand the respective standards in order to have context for the understanding of this thesis project.

The standards are predominantly structured into an explanation of the objective of the respective standard, an explanation of interactions between the respective standard and other standards in this set, an elaboration on the relevant "disclosure requirements" for the respective standard and one or more appendices, that give further information, such as additional help for reporting ("application requirements"). For reference on specific terms that are used in this section and the ESRS, see Appendix II of the Regulation [European Union, 2023] or the explanation of terms for and in this thesis (see: Appendix B.1).

**ESRS 1 General Requirements**

The ESRS 1 "General Requirements" explains how all of the 12 standards are structured, how the provided information is to be interpreted, and how to use the concepts. It also presents the general requirements for sustainability reporting as required by Directive 2013/34/EU (the Accounting Directive) and Directive (EU) 2022/2464 (the CSRD).

This standard is a so-called "cross-cutting" standard, meaning that it applies across all sustainability topics (to be applied in conjunction with all topical standards). ESRS 1 is structured into 10 main objectives and has 7 appendices (Appendix A-G). The objectives include a brief explanation of the many concepts that are used for the execution of the sustainability reporting. The appendices provide additional information, such as a first set of application requirements, which data points exactly and when to provide the required information, and examples of how the sustainability reports could look like.

One core concept and element of the ESRS is 'Double Materiality'. A brief explanation is given in Section 2.3.1. In the law texts of the CSRD, the ESRS and additional

implementation guidance [EFRAG, 2023b] longer explanations are given to explain the concept of double materiality. It is relevant to understand the concept of double materiality because this is, what sets the CSRD apart from previous reporting schemes, which mainly focused on reporting financially material information. The CSRD requires that *both* financially material as well as sustainability material information is provided, *including* the consideration of their overlap.

According to Cambridge Dictionary [2024] *materiality* itself indicates how important a certain information is. Double materiality is comprised of the two elements 'impact materiality' and 'financial materiality', as can be seen in Figure 2.3. And it means that either sustainability matters, or financial matters, **or both** are significant and of high importance.

Impact materiality, in general terms, means anything related to sustainability that is significant. The ESRS 1 defines impact materiality as follows: "*A sustainability matter is material from an impact perspective when it pertains to the undertaking's material actual or potential, positive or negative impacts on people or the environment over the short-, medium- or long-term. Impacts include those connected with the undertaking's own operations and upstream and downstream value chain, including through its products and services, as well as through its business relationships. Business relationships include those in the undertaking's upstream and downstream value chain and are not limited to direct contractual relationships*" [European Union, 2023, p. 10/284]. Impact materiality is thus based on many different factors. Though it may seem confusing at first, understanding materiality is not as difficult as it first appears when broken down into its smaller components.

Financial materiality indicates, as the name implies, anything significant related to finance. The prevalent term 'risks and opportunities' that can be found in the concept 'Impacts, risks and opportunities' (IRO), represents the financial perspective in the corporate sustainability reporting scheme. The definition of financial materiality found in the ESRS 1 is as follows: *"A sustainability matter is material from a financial perspective if it triggers or could reasonably be expected to trigger material financial effects on the undertaking. This is the case when a sustainability matter generates risks or opportunities that have a material influence, or could reasonably be expected to have a material influence, on the undertaking's development, financial position, financial performance, cash flows, access to finance or cost of capital over the short-, medium- or long-term. Risks and opportunities may derive from past events or future events. The financial materiality of a sustainability matter is not constrained to matters that are within the control of the undertaking but includes information on material risks and opportunities attributable to business relationships beyond the scope of consolidation used in the preparation of financial statements."* [European Union, 2023, p. 11/284]. It is also relevant to mention that the ESRS explicitly states that: *"[...], information is considered material for primary users of general-purpose financial reports if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that they make on the basis of the undertaking's sustainability statement."* [European Union, 2023, p. 10/284].

Understanding the concept of 'Double materiality' allows companies to conduct a double materiality assessment. That is the process where the company identifies which impacts,

risks and opportunities pose a significant influence on or from the company and thus need to be reported on for the corporate sustainability report. It can be expected that companies will initially consider this process to be difficult as the double materiality concept has an influence on many organisational levels and requires the interaction with many different stakeholders.

ESRS 1 also elaborates on 'Due Diligence', Value chain, Time horizons, Preparation and presentation of sustainability information, Structure of sustainability statement, Linkages with other parts of corporate reporting and connected information, and Transitional provisions. All these points are relevant for the preparation of a comprehensive corporate sustainability report but they will not be extensively elaborated on here due to the scope of this project. It is relevant to mention though that while the ESRS refers to the UN and OECD definitions of 'Due Diligence' in ESRS 1, section 4, objective 59, a new EU directive is expected to be published in 2024 on due diligence, commonly referred to as CSDDD (TBA) [European Commission, 2024]. Due diligence in the new directive will cover the integration of human rights and environmental concerns into companies' value chains.

**ESRS 2 - General disclosures**

The ESRS 2 "General disclosures" elaborates on what information needs to be provided in which manner (disclosure requirements) for the corporate sustainability report. These requirements apply to all companies and all sustainability topics, meaning that this standard is 'sector-agnostic' and 'cross-cutting'.

ESRS 2 is structured into five sections: 1. Basis for preparation, 2. Governance, 3. Strategy, 4. Impact, risk and opportunity management, and 5. Metrics and Targets.

The structure of ESRS 2 disclosure requirements broadly follows the scheme provided below.

The companies need to:

- provide the relevant data including the identification and description of the data
- explain how the data has been acquired
- describe what the company aims to do with the collected data
- explain who is involved, either in the generation of, by receiving information about, or by deciding about the data
- give explanations about changes in the data
- explain if and why data is not provided and how the company aims to change that
- explain how 'material sustainability matters are managed' in the company

Appendix A enclosed with ESRS 2 presents the application requirements and a further elaboration of what and how to report. Appendix B of ESRS 2 is a list of data points in the ESRS that derive from other EU legislation. Appendix C of ESRS 2 shows where ESRS 2 and other topical ESRS data points are connected and need to be considered together when reporting on them.

ESRS 1 and 2 are cross-cutting standards, meaning that they apply to all sustainability topics (environment, social and governance) and need to be applied in conjunction

with all other standards of the ESRS (E1-5, S1-4, G1). While these standards are highly relevant and applicable, more specific standards (sector-specific standards) and other implementation guidance are continually being worked on and published, inter alia by EFRAG, to clarify, specify and explain how to create a comprehensive corporate sustainability report (e.g. [EFRAG, 2023b]. The most important standard for this project, as it considers biodiversity, is the ESRS E4, and it is presented in the following section.

### 2.3.3 ESRS - E4 Biodiversity and ecosystems

ESRS E4 is the topical standard for "Biodiversity and ecosystems". The objective of the E4 standard is to enable users of the corporate sustainability report to understand how an undertaking affects and is affected by biodiversity and ecosystems according to their materiality assessment. Additionally, the standard specifies which other information needs to be provided, such as strategies and plans made, based on the materiality assessment of biodiversity and ecosystems. The data provided in the corporate sustainability report on biodiversity should be in the form of information describing significant positive and negative impacts, of both actual and potential impacts in the future. This should include drivers of loss and degradation of biodiversity and ecosystems [ESRS - E4 Biodiversity and ecosystems, 2023]. The corporate sustainability report must also include a description of any actions taken and/or planned to prevent or mitigate negative impacts. The E4 standard ESRS - E4 Biodiversity and ecosystems [2023] mentions the mitigation hierarchy, a tool typically used in environmental assessments for identifying which actions can be taken in order to avoid, compensate or otherwise mitigate activities that might harm the biodiversity and ecosystems [European Union, 2014]. The corporate sustainability report shall also show, how the undertaking will adapt its business model to be more sustainable. For this transition, there are a number of frameworks such as the Planetary Boundaries framework [Stockholm Resilience Centre, 2023] and the Kunming-Montreal Global Biodiversity framework [United Nations, 2022] that can or must be referred to.

In total, the companies are required to report on the following points: the undertaking's (the companies') nature, type, and extent of material risks, dependencies, and opportunities related to biodiversity and ecosystems, and how the undertaking manages them; as well as the financial effects on the undertaking over the short-, medium-, and long-term of material risks and opportunities arising from the undertaking's impacts and dependencies on biodiversity and ecosystems. The assessment of "dependencies" is only used in the framework of the E4 standard. As mentioned before in Section 2.3.2, biodiversity is a highly interconnected topic and the ESRS E4 also addresses this by mentioning the following points as main drivers for biodiversity loss and ecosystem change:

- Climate change, addressed in ESRS E1
- Pollution to air, water and soil (ESRS E2)
- Change of use in freshwater consumption and use of marine resources (ESRS E3)
- Extraction of non-renewable resources and transition for a more sustainable use (ESRS E5)

The structure for the information that needs to be provided by companies (disclosure requirements) for the ESRS E4 is as follows:

- Strategy
  - E4-1 – Transition plan
  - Disclosure Requirement related to ESRS 2 SBM-3
- Impact, risk and opportunity management
  - Disclosure Requirement related to ESRS 2 IRO-1, Description of processes to identify and assess material biodiversity and ecosystem-related IROs
  - E4-2 – Policies related to biodiversity and ecosystems
  - E4-3 – Actions and resources related to biodiversity and ecosystems
- Metrics and targets
  - E4-4 – Targets related to biodiversity and ecosystems
  - E4-5 – Impact metrics related to biodiversity and ecosystems change
  - E4-6 – Anticipated financial effects from biodiversity and ecosystem-related risks and opportunities

For each of the disclosure requirements, there are associated reporting points (datapoints). These are divided into 3 standard points that shall be reported on, and 58 voluntary points that may be reported on. In total there a 119 points that can be disclosed within the E4 standard. These points can be reported on in several different ways, some are to be narrative, some semi-narrative, some integer and some in relation to the area used. Examples of different ones can be seen in Table 2.1.

***Table 2.1.*** List of Disclosure Requirements (DR) and the respective data reporting type

| **DR** | **Paragraph** | **Name of section** | **Data type** |
|---|---|---|---|
| E4-1 | 13 f | Disclosure of involvement of stakeholders (biodiversity and ecosystems) | Narrative |
| E4-3 | 28 b | Financing effects (direct and indirect costs) of biodiversity offsets | Monetary |
| E4-4 | 32 e | Biodiversity offsets used in setting target | Semi-narrative |
| E4-5 | 35 | Number of sites owned, leased or managed in or near protected areas or key biodiversity areas that the undertaking is affecting negatively | Integer |
| E4-5 | 35 | Area of sites owned, leased or managed in or near protected areas or key biodiversity areas that the undertaking is affecting negatively | Area |

This chapter highlights that there are many requirements to be met for the new Corporate Sustainability Reporting Directive and the accompanying ESRS. And while the ESRS E4, according to EFRAG is aligned to the globally used TNFD LEAP approach, this could pose a problem to companies as the required inclusion of sustainability into annual reporting is comparably new, meaning that the process might not be fully established in companies yet. The first step to approaching corporate biodiversity reporting is to identify one's stakeholders to find the starting point on which topics are actually relevant. This is based on the requirements in the CSRD and ESRS to include stakeholders. Companies must inter

alia report on how the interests and views of their stakeholders are considered in strategies and business models [European Commission, 2022, p. L 322/43], [European Union, 2023, p. 49/384]. For this, the following section presents the stakeholder identifications in the CSRD, the ESRS and an additional document analysis.

## 2.4 Stakeholders in CSRD and ESRS

This section presents the stakeholder identifications made in the CSRD and ESRS and a contextualisation of their importance to outline who could be relevant to include for corporate biodiversity reporting under the CSRD.

One of the ambitions of the CSRD is to enhance the sustainability reporting done by listed companies [European Commission, 2022]. This yields far-reaching benefits for various stakeholders. According to the CSRD, these are at the forefront individual citizens and savers, who gain from increased transparency. They can make informed decisions about their investments by having access to comprehensive sustainability information [European Commission, 2022, p. L 322/18]. Additionally, investors, including asset managers, seek a deeper understanding of the risks and opportunities posed by sustainability issues. The investors want to evaluate the impacts of their investments on people and the environment. Civil society actors, such as non-governmental organisations and social partners, also play a crucial role. They hold undertakings accountable for their actions and advocate for responsible practices. Furthermore, other stakeholders leverage sustainability information to promote comparability across and within market sectors. On top of that, the CSRD fosters opportunities for the reporting to help create a better dialogue between undertakings and their stakeholders for driving a sustainable change from the current practice [European Commission, 2022]. The ripple effects of robust sustainability reporting extend beyond financial circles. A stable, sustainable, and inclusive economic system benefits all citizens. It fosters resilience, ensuring that the natural environment, communities, and future generations thrive. To unlock these advantages, the sustainability information disclosed in annual reports must primarily reach the two primary user groups, investors and civil society, according to the CSRD [European Commission, 2022]. Not specifically mentioned as stakeholders in the CSRD but highly relevant are auditors, as the corporate sustainability reports will need to be auditor accredited [European Commission, 2022]. In the ESRS stakeholders are also divided into two main groups but the definition is different than in the CSRD [European Union, 2023]. The first group are those stakeholders who are *"affected or may be affected - positively or negatively - by the company's activities and its direct and indirect business relationships across its value chain"* [European Union, 2023], these can also be actors. The second group of stakeholders mentioned in the ESRS are *"users of sustainability statements"*, including financial actors, *"business partners, trade unions and social partners, civil society and non-governmental organisations, governments, analysts and academics"* [European Union, 2023, p. 7/284].

As highlighted in Chapter 1 and Section 2.1.1, Nature and thereby biodiversity have an important role in the whole economic system and the overall society. Therefore it can be argued, that nature also is a stakeholder, also called a silent stakeholder in Jastrzębska [2016]. This is also covered in the ESRS, where it is stated that *"Nature may be considered as a silent stakeholder."* [European Union, 2023, p. 25/284]. Another stakeholder that is

also highly influential but not directly mentioned in the CSRD and ESRS is the EU itself, the legislative authority here, which presents its interest in the form of the CSRD and ESRS. While the CSRD and the ESRS describe and define some stakeholders, they do not address how the landscape is formed by the relationships between the different stakeholders. Who sets the agendas for creating a sustainable future, are there some who may be fighting for a particular cause? Some stakeholders may have challenges communicating their intentions to companies that report under the CSRD. Additionally, companies may have to comply with some of their stakeholders' requests for change. Stakeholders that may be outside of their direct value chain or even their business chain. Overall it can be said that while the CSRD and ESRS are clear on who they identify as stakeholders, it is not entirely clear how these stakeholders interact. This landscape still seems unclear. To verify the stakeholder identification from the CSRD and ESRS and expand the view on possible relationships between stakeholders, a brief document analysis is presented below to cover a different perspective on who might be relevant for corporate biodiversity reporting and how to start the process.

## 2.5 Introduction to stakeholder approaches towards reporting

This section presents a brief mapping of stakeholders on the voluntary biodiversity reporting market and a focus on the perspectives of selected investors and auditors on corporate biodiversity reporting in order to represent their importance as described in the above section and corroborate the stakeholder identification in this thesis up until now.

For this, first, a mapping of stakeholders involved in the voluntary biodiversity market from February 2024, shows that there are some 450 different key stakeholders, some of which are shown in Figure 2.4. These stakeholders, even though not directly linked to CSRD and ESRS and their legal form, can support the work on how to report on biodiversity, and develop best practices [Gradeckas, 2024]. This also helps shape the landscape of sustainable reporting and biodiversity and the different institutions involved. In the mapping Gradeckas, finds 4 overall groups; Suppliers, Integrity, Demand and Enablers. These each have different subgroups. The group that is identified as Suppliers holds different standard setters, methodologies, conservations and restoration, and other companies all centred around how to work with biodiversity. In Integrity, there are initiatives, such as the Taskforce on Nature-related Financial Disclosures and the Global Reporting Initiative. Furthermore, there are NGOs, for example, WWF, IGO, and many programs under the UN and research institutions, and the Stockholm Resilience Center. In Demand, users of biodiversity with regards to trading are found. The Enablers group has a subgroup of companies that for example have the tools for measurement. Others in that group are consultancies, asset managers and more. The fact that there is a legal directive in Europe, where there are at least 450 other actors that influence, or could possibly influence how to report on biodiversity, can make it very complex to work with and understand a "best practice" for corporate biodiversity reporting, as there can be many different interests to consider from many different stakeholders.

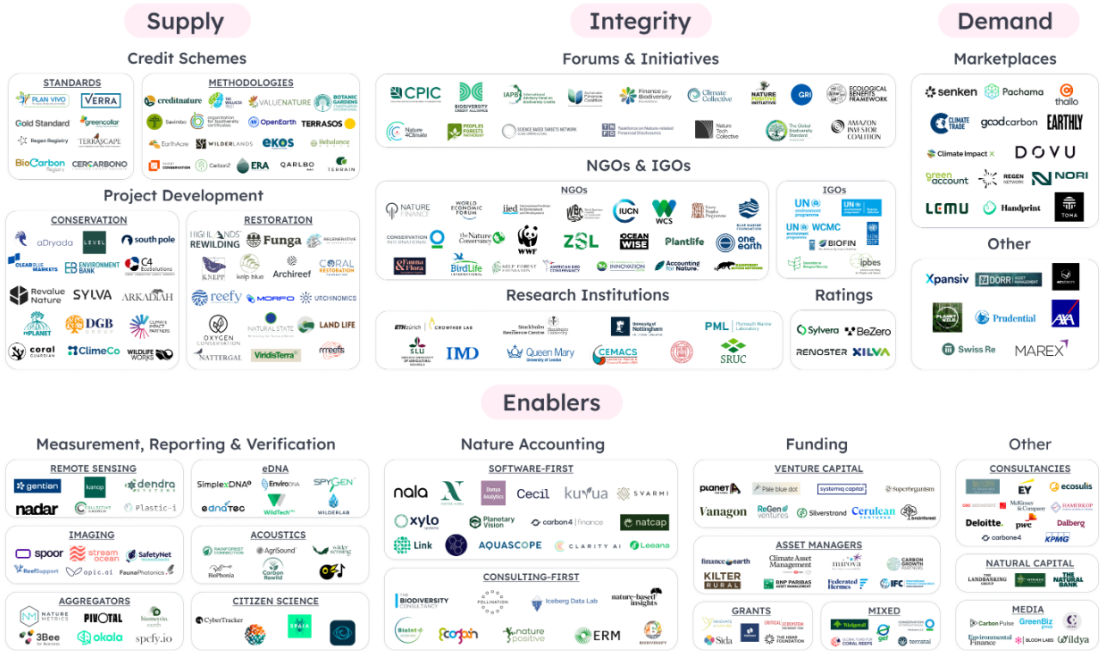



***Figure 2.4.*** Mapping of stakeholders in voluntary biodiversity market made by Gradeckas [2024]

The representation of stakeholders in Figure 2.4 represents the diversity of stakeholders that could be considered based on the voluntary market for biodiversity reporting. As this project is concerned with non-voluntary corporate biodiversity reporting, the focus is shifted to two main stakeholder groups that need to be considered for the reporting under the CSRD.

The focus of this following document review is on auditing and investment companies, as the CSRD report has to be auditor-certified, and investment companies are identified, next to being beneficiaries of the reports, as having a significant influence on the execution (final look) of the sustainability reports. Audit firms therefore play a role in how and what to report regarding sustainability reporting, and are in the best position to validate the report. The investigation on investment firms, in the case of this project, is focused on pension investment firms as these firms are important in the Danish market and may have an insight into which policies they are looking for. The investment companies, at least in Denmark, are also the primary users and stakeholders of the CSRD as mentioned in Sections 2.3.1 and 2.3.2.

### 2.5.1 Investors

This part focuses on two of the major Danish pension investment companies, ATP and PFA. ATP has an investment portfolio of nearly 1000 billion DKK and PFA - 600 billion DKK [ATP, 2023a; PFA, 2023a]. Both companies emphasise the importance of the biodiversity crisis and how they aim to be part of the solution. Both ATP and PFA have strategies on the importance of biodiversity when investing in companies and how they challenge them through active ownership [ATP, 2023b; PFA, 2023b]. ATP emphasises the importance of engaging in a dialogue with companies on how they can create positive change. They have grouped companies according to how they work with biodiversity, and

depending on the group, there are different benchmarks and methods for working with change in the company's impact on biodiversity. This can be interpreted to mean that individual goals are not important, but more important is strategic work on long-term improvement [ATP, 2023b]. PFA has decided to join Nature Action 100, an investor-led dialogue initiative that aims to bring together global investors to engage in dialogue with the world's most nature-dependent and impactful companies [PFA, 2023b]. This approach can be seen in relation to the CSRD and ESRS E4 report, where one of the key points is to develop a biodiversity strategy and a transition plan for how to change and improve one's impact, risk and opportunities. Both companies, ATP and PFA, also emphasise the importance of assessing the impact throughout the whole value chain and not only an undertaking's direct impact.

That both investment companies have ready plans on how to approach the new requirements of the CSRD and biodiversity reporting indicates that these companies are aware of their relevance in the reporting scheme and that they are willing to support the goal of transparency and comparability set by the CSRD.

### 2.5.2 Auditing companies

For the perspectives of auditing companies on corporate biodiversity reporting, the four biggest auditing companies by revenue are represented here. These are KPMG, Deloitte, EY and PWC, also known as the 'Big Four' [Gradeckas, 2024; Bhaskar and Flower, 2019]. KPMG does not state anything specific on how to report on biodiversity, only that companies should keep the CSRD and ESRS E4 in mind when reporting. For the reporting, they recommend The Taskforce on Nature-related Financial Disclosures (TNFD) as a tool [KPMG, 2023]. Deloitte neither state that they would like to see biodiversity reported on nor how it should be reported. It is only stated that companies need to be aware if their business is dependent on biodiversity and nature, which can be related to the double materially in CSRD (see: Section 2.3.1). It is furthermore mentioned that companies should use the TNFD LEAP approach as a tool[Deloitte, 2023]. EY has a short guide for how companies should work with biodiversity, where they also refer to TNFD for guidance, but do not otherwise state how to go further in-depth for corporate biodiversity reporting [Ernst & Young, 2022]. The last one, PWC, has the most comprehensive guidance for reporting on biodiversity in their 48-pager on *"Managing biodiversity risk and opportunities"* for the financial sector [PWC, 2023]. In this guideline, they go step-by-step through how finance institutions (FI) can work with biodiversity by using the TNFD LEAP approach. Here, in contrast to the other companies, they go in-depth with the methodology and considerations undertaking companies can make when working with biodiversity reporting in compliance with TNFD, and thus also ESRS E4. By going through different stages of a process, as can be seen in figure 2.5, they explain the opportunities and challenges in the process of working with biodiversity, and how to address them.


***Figure 2.5.*** PWC approach for the processes for working and reporting on biodiversity [PWC, 2023]

That only one out of four auditing companies provide a strategy for corporate biodiversity reporting can be considered unexpected given their anticipated importance under the CSRD. There is also no indication that these auditing companies provide recommendations as to whom could be other relevant stakeholders for the reporting companies.

To sum up the findings from the document analysis part, it can be concluded that only a few more stakeholders have been identified. There appears to be no consensus on which stakeholders to consider or include for the reporting on biodiversity under the CSRD, and neither is there a clear indication on how to approach the reporting for companies. Thus, more research is required. As stated in the ESRS, academic professionals are also seen as valuable stakeholders. It is therefore important to examine the state of the academic literature on biodiversity and sustainability reporting. This will be done in the following chapter.

# State-Of-The-Art 3

This chapter explores what and how the most recent research relating to CSRD and biodiversity can help to identify the current state of research and be a part of addressing any knowledge gaps in the literature [Machi and McEvoy, 2022]. It also serves as a representation of the perspectives of academia on corporate biodiversity reporting. In this chapter, only the most necessary parts of the methodology and reflection will be explained. The full methodology and reflection for the SOTA are described in Chapter 5.

## 3.1 State Of The Art Literature Review

This chapter contains the project's literature study, in the form of a state-of-the-art literature review, as this study focuses on a specific time frame where the newest research on CSRD and biodiversity is collected and analysed [Barry et al., 2022; Snyder, 2019]. The detailed methodology and thorough description of the processes can be found in Section 5.4.

The state-of-the-art literature review is based on the search terms presented in Appendix A.1. The general theme of the conducted SOTA was to explore the current understanding of corporate biodiversity reporting under the CSRD in the academic field, in order to explore the scientific knowledge on biodiversity reporting under the CSRD and additionally highlight the perspectives of academia as a stakeholder in the corporate biodiversity reporting process. The focus of the SOTA was initially to support the creation of a reporting guideline for corporate biodiversity reporting but inter alia due to the lack of relevant literature, the focus was shifted to stakeholder perspectives. The findings from the SOTA are nonetheless relevant to the new focus of the project and are thus presented here grouped according to the main themes that are covered in the literature.

In the following paragraphs, selected articles are clustered together according to the topic they address. It should be noted that not all articles fit into a cluster group, and therefore only the most relevant of these articles are presented. To facilitate the understanding and visualisation of the articles and the themes present, Table 3.1 is provided.

***Table 3.1.*** Overview of selected articles and identified themes

| **Article** | Legitimacy | Companies not ready for reporting | Lack of comparability or data | Possibility of greenwashing | Difference between the countries | Expectation for better comparability with CSRD |
|---|---|---|---|---|---|---|
| **Wassénius et al. [2024]** | | | + | + | | |
| **Erlandsson et al. [2023]** | | + | + | | | |
| **Kopnina et al. [2024]** | + | + | + | + | | + |
| **Marco-Fondevila and Álvarez Etxeberría [2023]** | + | | + | | + | + |
| Radu et al. [2023] | | | + | | + | + |
| Singhania and Saini [2023] | + | + | | | + | + |
| Primec and Belak [2022] | | + | | + | | + |
| Roszkowska-Menkes et al. [2024] | + | | + | + | | + |
| Heichl and Hirsch [2023] | | | + | | + | + |
| O'Reilly et al. [2023] | + | | | | | |
| Khatri and Kjærland [2023] | + | | | | + | |
| Glaveli et al. [2023] | | + | + | | | |
| Dow Jones Institutional News [2023] | | + | + | | | + |

As can be seen in the table, six main themes were identified within the selected articles. The colour-coded themes are centred around some of the challenges the different articles address. The plus sign indicates in which article which theme is present and the colour indicates to which group the article belongs.

The four key articles are highlighted in yellow and the authors' names are written in bold characters. The findings of the key articles are described in Section 3.1.1. These articles are chosen for further elaboration as the content is representative of the findings in other literature. The largest group of articles that can be clustered together consists of five articles (green group in the table). This cluster group deals with the different ways stakeholders report in connection with sustainability reporting and how good the quality is when evaluated with a scientific approach, where a larger number of reports are quantified and evaluated. Three of the reports, Heichl and Hirsch [2023]; Singhania and Saini [2023]; Roszkowska-Menkes et al. [2024], study whether there are different ways of working with sustainability reporting in the time before the adoption of CSRD. One of the articles focuses on the five largest economies in the EU, the other focuses on the Nordic countries. The articles find that there are differences in how reporting is done across countries and that the quality can vary from country to country. What they have in common is that all three of them conclude that they hope that the CSRD can help create a uniform direction in how reporting should be done within the EU. The other two publications, Radu et al. [2023]; Primec and Belak [2022], in this group, touch upon

stakeholders in specific countries and focus on how reporting is done in relation to the NFRD and the quality of the investigated sustainability reports. It is found that the quality can be variable and that there is a possibility of cherry-picking positive factors, which can be seen as greenwashing. Like the two previous articles, these two also express the hope that reporting will be streamlined when the CSRD and the corresponding ESRS come into force. These findings in the articles confirm that across the EU, before the introduction of CSRD, there has been a specific discourse and understanding on how to report for sustainability reports. It can be interpreted that the expressed desire for standardisation through CSRD in all four articles can affect the upcoming developments in corporate biodiversity reporting. The next two articles that were clustered are two articles that examine why companies do sustainability reporting and what their approach to it is [O'Reilly et al., 2023; Khatri and Kjærland, 2023]. Those are highlighted in blue colour. In the articles, the authors use legitimacy theory to analyse if companies use sustainability reporting to enhance their public image (symbolic approach) or as a genuine commitment to improving their social and environmental performance (substantive approach). This could enhance transparency as companies might have strategies and policies that were not previously public. The next group of articles mainly addresses that companies are not prepared for sustainability reporting and thus the requirements of the CSRD [Glaveli et al., 2023; Dow Jones Institutional News, 2023], these are the purple group. The findings in these two articles conclude that companies are not developed enough to handle the burden and appear not to be willing to report in the framework of ESG reporting. Glaveli et al. [2023] also state that the reports, if produced, are neither of sufficient quality nor are they fit for comparison with reports of companies in the same sector. Heichl and Hirsch [2023] are also touching on the topic of sector-specific standards. Their article calls for sector-specific standards with the introduction of the ESRS. These standards are being worked on in the ESRS working group, and are set to be published in 2024 [Michel, 2024].

### 3.1.1 Description of the selected articles

This subsection will describe the findings in the four articles that have been selected as key articles for this project (as presented in Figure 5.5, yellow coding). Furthermore, it will be described how these articles contribute with knowledge in relation to the thesis. These articles are representative of the knowledge on corporate biodiversity reporting under the CSRD found in the state-of-the-art literature review at the time of the research. Even though none of the articles were fully aligned with the focus of the project at that time, they were chosen to represent the general perspective of academia on CSRD and biodiversity.

The article **"Establishing the planetary boundaries framework in the sustainability reporting of ICT companies – A proposal for proxy indicators"** by Erlandsson et al. [2023] discusses and maps 16 proxies for sustainability reporting for information and communication technologies (ICT) companies under the framework of the planetary boundaries. The boundaries must be taken into consideration when reporting according to the ESRS E4 standard. This article provides knowledge on how to work with the boundaries and what challenges are laying in the work of using them as a framework for reporting. In said article, a large literature study was conducted to determine and differentiate the 16 proxies for reporting in the ICT sector. The case company was Ericsson. This fact may also play a role in this study, as based on Flyvbjerg [2000], it can be argued that

if a relatively large company like Ericsson does not have sufficient data for reporting on biodiversity, smaller companies cannot be expected to have the data either. The study is limited to looking at direct impacts and not the whole value chain. Another limitation is that the planetary boundaries are a non-binding framework, thus they cannot be directly compared to the CSRD. The study finds that Ericsson only had sufficient data for 2 out of the 16 proxies. It was also concluded that there is a lack of regard or prioritisation for biodiversity, even though it is a highly relevant topic to consider (as described in Section 1.1) and it is likely to have many interactions with other impact categories like climate. The authors also mention that the report of Ericsson fails to capture the complexity of biodiversity, for example, when talking about land-use change, many other aspects of biosphere integrity are neglected or forgotten. Thus the reporting standards are not capturing the complexity of biodiversity. Another finding is the discussion of what scale should be used when assessing sustainability reporting. Many authors seem to agree that for biodiversity reporting a local scale is necessary, yet for a reasonable overview and understanding of cumulative impacts, a larger scale is necessary. This is also an important point, when comparing this article to the use of ESRS E4, as there is no scale set in the standard either. The findings and challenges that prevail from this study are applicable also in this project regarding the discussion of what and how to measure what one reports. Furthermore, the finding of insufficient data could give an indication of the fact, that companies are not ready for sustainability reporting, as also stated in the clustering part of the literature review.

The next key article is **"The inclusion of biodiversity into Environmental, Social, and Governance (ESG) framework: A strategic integration of ecocentric extinction accounting"** by Kopnina et al. [2024]. The publication is highly focused on how to report on biodiversity and how the underlying understandings and views of nature might influence companies to report on it. The article uses the Global Reporting Initiative (GRI) as a framework. The GRI and ESRS are aligned, so even though the article utilises GRI as its framework, the findings can be compared and used in the context of the present project's focus on CSRD and ESRS [Lammerant et al., 2023]. In the article, the authors state that the current ESG indicators used by GRI exhibit an anthropocentric bias, limiting their effectiveness in protecting biodiversity. The authors state that this means that economic matters tend to come before biodiversity and therefore companies will not properly take action in terms of biodiversity protection, but just report on their current activities. This could, as they argue, lead to greenwashing by 'name-dropping' biodiversity. They argue for a radical change and more integrated and pragmatic extinction accounting with an ecocentric (deep ecology) perspective. With the desire to shift biodiversity reporting towards more of an ecocentric view, the authors also argue for the inclusion of non-human stakeholders, and thereby biodiversity, as a stakeholder, thus making a contribution to the existing theory on stakeholder engagement. This article contributes both knowledge and approaches that can be applied in this project when looking at how different companies work with biodiversity and what incentives there may be. From this article, it can be seen that, depending on companies' view of nature, there can be different outcomes in terms of what is reported on biodiversity. Is it an anthropocentric approach? Or is it an ecocentric one? Will it determine what efforts can be expected from a company? This can influence the discourse with which companies approach CSRD and

their approach to biodiversity reporting. Do they have an underlying self-understanding that they see biodiversity from a financial perspective, or do they want to make a real change for biodiversity, even if it does not show up on the bottom line? On a more general level, it can be discussed from the article who and what sustainability reporting is for, is it for personal gain or is it an opportunity to create a positive improvement for society in connection with ESG reporting, and how these two can perhaps go hand in hand.

Another article that focuses on the planetary boundaries is **"Essential environmental impact variables: A means for transparent corporate sustainability reporting aligned with planetary boundaries"** by Wassénius et al. [2024]. The authors propose 15 Essential Environmental Impact Variables, based on the planetary boundaries framework, that aim to capture information about the absolute, cumulative impacts of companies. The authors argue that existing reporting frameworks like the ESRS, ISSB and TNFD still fail to capture the connection between corporate activities and impacts, as stated in [Kopnina et al., 2024]. What is important for companies is focused on materiality thereby setting profit over real progress in sustainability and too often relying on relative metrics. The article also points out the challenges of reporting, e.g. that reporting is site-specific which increases the reporting burden. Due to nature's site-specificity, it is extremely difficult to capture total cumulative impacts. This also hinders the comparability, as the data will be custom to the specific site. They further argue that *that the responsibility of determining environmental impact materially should be shifted from companies to a transparent process underpinned by scientific evidence."Wassénius et al. [2024].* By that, the authors claim that the companies have too much leeway in what they would like to report on, which could lead to greenwashing in reporting. This leeway could arguably be mitigated by companies collaborating with a consultancy. Even though consultancy is not free of bias, nor purely scientific, they could nonetheless provide a more objective observation of a company's impacts and also provide data with increased comparability, if the same approach of assessment is used for several companies. The article, like the other two, does not fit fully into the scope of this project, as it neither discusses the CSRD or ESRS, nor does it include the topic of biodiversity in a specific manner, but it highlights some of the challenges for reporting. And comparing this article's recommendation to use planetary boundaries to the findings from Erlandsson et al. [2023], shows that the use of the boundaries is not easy to conduct in reality either. This again points to one of the challenges in biodiversity reporting.

The last article for this review is titled **"Trends in private sector engagement with biodiversity: EU listed companies' disclosure and indicators"** by Marco-Fondevila and Álvarez Etxeberría [2023]. In the article, the authors analysed 170 companies in five EU countries and their engagement with reporting on biodiversity in connection with the EU 2030 Biodiversity Strategy and what the improvement has been from 2018 until 2021. For this analysis, they set up three factors, engagement, materiality and performance. These factors are then translated into a quantitative format for assessing the companies' engagement. The article's main finding is that while there is an increase in engagement, the topic of biodiversity is still reported in an incoherent manner and that there are clear differences in sustainability reporting between countries as also stated in the clustering part. On the positive side, the articles also show that there is an increase in biodiversity reporting over the analysed years. This increase is explained though to be caused by

reputational considerations which constrains the companies' legitimacy, and not to actual desire for a real improvement in actual biodiversity matters. This article also provides the very relevant point that listed companies are much more likely to possess or acquire the information needed for biodiversity reporting than small- and medium companies. This article predates the publication of the CSRD but it still considers the same topics and it thematically builds with the same topics as making listed companies in the EU report on their environmental performance. This fits well with the scope of this project.

### 3.1.2 Snowballed articles on biodiversity reporting

In connection with this thesis, 'snowballed' articles that were not found using the structured approach, but were found via e.g. LinkedIn, and other searches in connection with knowledge collection and knowledge building around biodiversity, reporting and CSRD, have also been read continuously. Many of them state the same as the findings in the structured part. This will therefore only be a brief review of the findings. According to Liempd and Busch [2013] and Grabsch et al. [2012] companies seem not to focus on biodiversity reporting. Grabsch et al. [2012] goes as far as saying that biodiversity reporting appears to be "partial and biased" [p.17]. Taking into account the aforementioned definition of biodiversity that consists of three elements (see Section 1.1), a number of publications report that "ecosystem diversity, species diversity, and genetic diversity are reported in an unbalanced manner" [Ette and Geburek, 2021, p. 937]. Some scholars also state that genetic diversity - a key element for overall biological diversity is often omitted, measured less and misinterpreted [Kruk, 2014; Hoban et al., 2021].

These struggles further prove how difficult the subject of biodiversity is to understand. Good understanding, however, is now needed more than ever. As mentioned in Section 1.1 biodiversity loss together with climate change is the most paramount crisis humanity is currently facing [Shin et al., 2022]. As stated in Section 2.2, it can be seen that humanity seems to realise how critical the situation is and by proposing numerous frameworks, strategies, treaties, targets and legislation, many major globally recognised institutions (such as the UN or the EU) are trying put the loss of biodiversity to a stop. The growing recognition of the impact of companies on the environment and biodiversity is also an important factor to acknowledge, in the context of sustainability.

### 3.1.3 SOTA summary

Summing up the part of the SOTA done in this thesis, a couple of things can be said. Firstly, as of now, there seems to be a difference in how reporting is done between countries, which makes comparability between companies insufficient when it comes to e.g. investment comparisons. This is just the first problem described in the literature. Another point that adds to the group of 'hard to compare' is that some companies do not seem to be ready to report on ESG and biodiversity [Heichl and Hirsch, 2023; Singhania and Saini, 2023; Roszkowska-Menkes et al., 2024; Radu et al., 2023; Primec and Belak, 2022]. This can also be seen in the article on the company Ericsson, where the authors only find data for 2 out of 16 reporting points [Erlandsson et al., 2023]. This may seem surprising as Marco-Fondevila and Álvarez Etxeberría [2023] find that there is a guiding commitment, but that reporting is done in an incoherent way. This conclusion also adds to the finding

of the possibility of greenwashing in the context of sustainability reporting. Kopnina et al. [2024]; Radu et al. [2023]; Primec and Belak [2022], finds that cherry-picking can occur, so that only the positive impacts are reported, leaving out the negative impacts. Kopnina et al. [2024] also find that there may be a need for a radical shift in the view of nature, where a shift in the companies' view of nature and also sustainability reporting should shift from anthropocentric to ecocentric. The authors further argue that in the current sustainability reports, there is an anthropocentric approach and therefore find it difficult to make real changes for biodiversity. However, there is a common hope in the literature that CSRD and its standards can help address the various challenges that currently exist. One thing that almost no articles deal with is stakeholder perspectives on biodiversity reporting. Therefore, it can be argued that there is some form of a knowledge gap in the scientific literature, as it does not deal with the identification or views of various stakeholders for corporate biodiversity reporting. Therefore, it may be relevant to investigate how different stakeholders are affected by CSRD and how they see these effects.

Considering the importance of biodiversity, current legislation and the findings from the brief introduction and the SOTA, there seems to be a lack of understanding of relevant stakeholders to corporate biodiversity reporting under the CSRD and their perspectives on the new requirements. This therefore leads to the research questions in the next chapter.

# Research question and research design 4

This chapter presents the formulation of the problem of this thesis together with the main research question, sub-research questions and the research design.

## 4.1 Research Question

On the basis of the problem analysis presented in Chapter 2 which provides the description of biodiversity and its current state, international acts aimed at biodiversity preservation, an overview of the CSRD and the ESRS connected with it, as well as the SOTA included in Chapter 3, this Master's thesis intends to provide answers to the following research question:

***Who are the relevant stakeholders for biodiversity reporting under the Corporate Sustainability Reporting Directive, what are their perspectives on the new requirements and based on these, which challenges and opportunities do they identify?***

It is anticipated that this thesis will enhance the understanding of sustainability reporting, particularly in relation to biodiversity and how different stakeholders perceive the new framework enforced by the European Union in the form of the CSRD. This thesis is dedicated to identifying stakeholders in the CSRD biodiversity reporting framework. Given the very limited academic literature on CSRD and biodiversity reporting within it, it is believed that answering the research question will contribute to the current knowledge on the subject in the academic field.

To help comprehensively answer the main research question, three sub-research questions were formulated:

1. **Who are the relevant stakeholders for biodiversity reporting for the CSRD and what is their typology?**

   Identifying relevant stakeholders serves as a foundation of this thesis as it is the stakeholders that have a direct impact on the reporting practice. Since the CSRD is a very new concept, to gain a more extensive understanding a number of methods have been utilised. A state-of-the-art literature review, a review of legal documents on the topic and interviews have been carried out. The stakeholder theory is aimed at easing the process of classifying the identified stakeholders in their respective typology categories thus helping to create a clearer picture of the landscape around

stakeholders and their possible relationships.

2. **How do selected stakeholders perceive the new requirements of the CSRD on biodiversity reporting?**

   In relation to the first research question, the opinions and understanding of the above-mentioned stakeholders are extremely important to explore because, as mentioned above, they shape and create practice. Perspectives are defined as the ways in which interested parties see the effects of CSRD on current practice, their degree of flexibility when adapting the approach, and their general assessment of the effects of the CSDR on current practice. For the purpose of answering this sub-research question interviews, a state-of-the-art literature review, observations and an analysis of relevant documents were conducted.

3. **What do selected stakeholders identify as challenges and opportunities arising from corporate biodiversity reporting?**

   This sub-research question, very much connecting to the second one, aims to take a closer look into challenges and opportunities when it comes to reporting biodiversity for the CSRD. The emphasis put on challenges and opportunities comes from the text of ESRS 1, where it is mandatory to identify impacts, risks and opportunities and include them in strategies affecting sustainability matters. Here, the interviews, state-of-the-art literature review and analysis of documents conducted will assist in answering this question.

## 4.2 Research Design

To help answer the main research question with support from the three sub-research questions, a structured research design has been made. Figure 4.1 shows the structure of the different elements that go into the methods, theory and research approach.

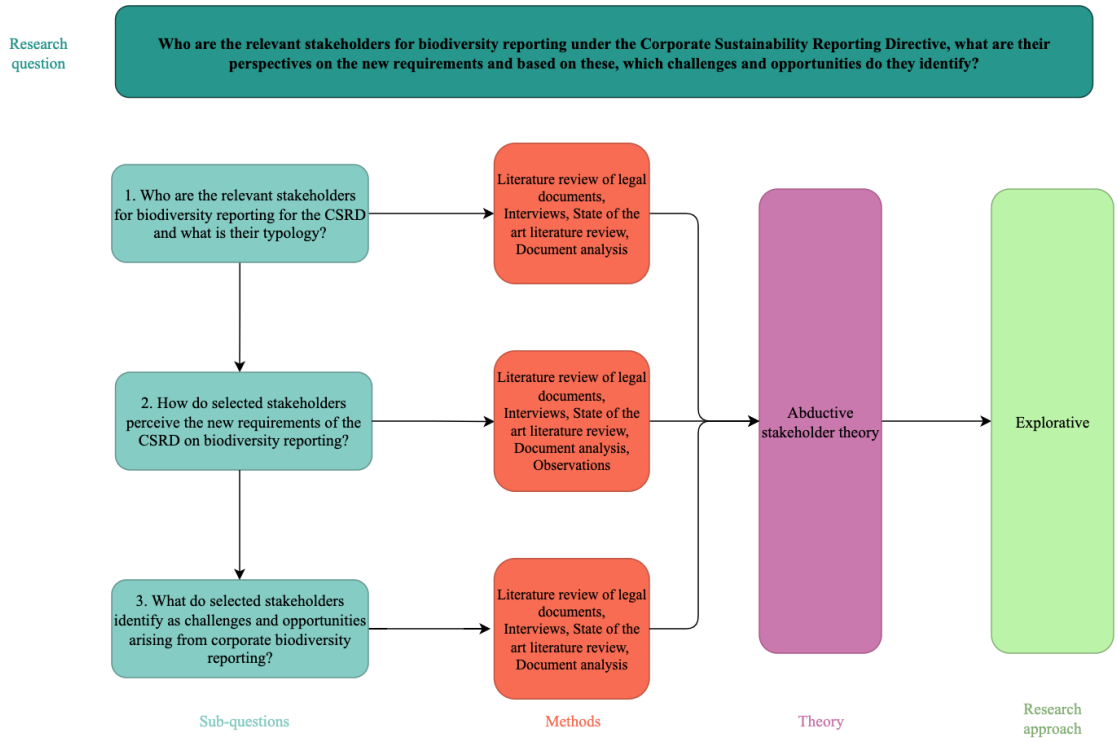



***Figure 4.1.*** Flowchart presenting the research design of this thesis. The figure should be read from left to right.

This thesis has an overall structure as explorative qualitative research. The explorative approach represents the desire of the project to gain insight into the poorly understood topic of the CSRD, sustainability reporting and stakeholder interaction [Ajimotokan, 2023, p. 3]. The qualitative research approach allows for the study and understanding of a complex, by using multiple qualitative methods, such as interviews, document study and a literature review [Creswell and Creswell, 2023, p. 180-182]. The theoretical approach taken in this thesis is abductive, meaning that the observed information is interpreted through the lens of the selected theory.

The research design starts with the main research question at the top to indicate that it provides the framework for the entire thesis. The research design provided aims to give a general idea of the connections between the three sub-research questions as well as the methods and theories taken to address these. As can be seen, the first sub-research question is situated above the second sub-research question and the second is above the third. The vertical arrows connecting them represent the sequence in which the sub-research questions should be addressed to obtain the most extensive answers to them and therefore to the main research question. The analysis is divided into several sections, with the first three corresponding to the relevant sub-research questions and the last serving as a place for synthesising all the answers to the sub-research questions. In order to get answers to the sub-questions numerous methods were used, which are described in detail in the following Chapter 5. As can be seen from the research questions, this Master's thesis is of a certain scope, which entails some inherent limitations, to be described in the below section.

## 4.3 Scope and Limitations

As mentioned above, the project has a certain scope and limitations. Firstly, an overview of what falls within the scope of the project is provided. Companies that 'at some point' have to report are included in the scope of this project even though the ESRS allow for the phasing-in of sustainability reporting under the CSRD depending on the size of the companies. Another scope is the geographic focus of the selected companies. The thesis deals with Danish companies, which is due to the fact that Niras - a Danish consultancy, was a gatekeeper when contacting different stakeholders for interviews. Another point in the scope of this thesis is who it is aimed at. While the project aims to explore the CSRD and biodiversity stakeholder arena, and the challenges and opportunities therein as widely as possible, consultants and companies are the main target in terms of recommendations that the knowledge from the project can help provide. One reason for this is that the project was written in collaboration with a consultancy, as it presented a good opportunity to share knowledge and guidance in relation to recommendations and practical work with biodiversity and sustainability reporting and the CSRD.

A limitation of the project is that consumers have not been included in its scope and as stakeholders. This is due to the difficulty of identifying end-customers of the concerned companies. Instead, it was decided to concentrate on the investors. Another group omitted from the interviews is the local community. As this thesis concerns corporate biodiversity reporting for the CSRD in the context of mainland Denmark, it is difficult to identify relevant local communities to interview, as the scope of this thesis focuses on the whole country and not just one region.

With regard to the stakeholder identification and perspective, it is a limitation of this project that interactions and organisational change are not analysed. This thesis is concerned with the baseline of highlighting the importance of considering various stakeholders in the process of corporate biodiversity reporting under the CSRD and providing an initial representation of the views of selected stakeholders. While the identification of stakeholders in this project includes an initial mapping of possible relationships based on stakeholder views, it cannot be claimed here to provide an in-depth analysis of their relationships.

With the project's problem formulation and scope in mind, the next chapter presents the theoretical lens and applied methodology for this thesis research.

# Methodological framework 5

The following chapter presents the methodological approach utilised in this thesis. First, the theoretical framework will be presented. After that, the method for the state-of-the-art research and the additionally studied documents are shown. Lastly, the methods for the interviews are presented.

## 5.1 Theoretical framework

So far in this report, legislative organisations, investors, auditors and academia have been mentioned as stakeholders who influence and shape why and how to report on biodiversity. But there are also many other stakeholders. Therefore, the theory for this project will be framed around stakeholder theory, as it can be helpful to understand and map the different stakeholders. Stakeholder theory can be viewed as a managerial point of view for a baseline identification of relevant stakeholders which is in line with the research approach of this thesis. In this section, the project theory will be described. The theory consists of different parts of stakeholder theory. First, Freeman [2010] and his basic stakeholder theory will be presented. Subsequently, the different roles of stakeholders in relation to power, influence and urgency based on the theory of Mitchell et al. [1997] are highlighted. Finally, the connection between stakeholder theory and sustainability management theory by Hörisch et al. [2014] will be made.

The history of stakeholder theory can be traced back to longstanding philosophical views on the nature of civil society and the relationships between individuals. The term "stakeholder" in its current usage first appeared in an internal memorandum at the Stanford Research Institute in 1963 and was set for analysing the relationship between an organisation and its stakeholders. One of the core elements in stakeholder theory is to generate and identify mutual interests between stakeholders and through this, common interest, to help create value for all stakeholders over a long-term perspective. The theory also entails different normative cores, which can change over time. Through these or the shared core values between stakeholders and their relationships, a goal can be set to create value for all stakeholders [Freeman, 2010].

After 1963 a wide range of stakeholder definitions and theories were developed. The first definitions of stakeholder were wide as to who was a stakeholder in a given case. The definition from the 1963 memorandum was, "*those groups without whose support the organisation would cease to exist*" [Freeman, 2010]. That means that a stakeholder could be nearly anyone, who interacts with a firm, therefore a more narrow definition was developed over the first decades of stakeholder theory. One of the most used definitions was made by Freeman in 1984, where he defines a stakeholder as *" those groups and individuals*

*who can affect the achievement of an organisation's objectives or who is affected by the achievement of an organisation's objectives"* [Freeman, 2010]. This definition was further narrowed down by adding that a stakeholder is the one, whom the organisation depends on for the organisation's survival, thereby only excluding those who cannot affect (have no power or position) and those who are not affected (have no relationship). Even with this definition, the stakeholder definition is still very broad. Freeman [1994] in his 1994 article, questions the fact that there is still a lack of clarification of who or what is, more specifically, a stakeholder and whom the company should prioritise when it comes to dealing with stakeholders, especially as stakeholders can be active or passive in their relationship with companies.

The above-mentioned outlining of the stakeholder theory fits the project as it gives the basis for identifying *what* a stakeholder is and the most commonly used definitions in academia. This helps with setting the frame of *who* the relevant stakeholders are and how they are connected in a broader picture. However, the main finding to use from this part of the theory is the core scope of identifying whether mutual interests can be found between the different stakeholders. The identification of mutual interests between stakeholders can be used when analysing the interviews to see what and if there is some correlation between the statements they make, and thereby get an understanding of, e.g. what challenges there are when reporting on biodiversity. The theory does not research actor networks but provides an initial understanding of who is relevant to include in the corporate biodiversity reporting process.

As this part of the stakeholder theory is wide and somehow undefined and mostly based on assumptions in regard to the role of stakeholders, a more precise definition of what and who stakeholders are, is needed. These classifications of the different roles will be presented in the next section.

### 5.1.1 Classification of stakeholders

To get a more precise and narrow definition of what and who stakeholders are, some acceptable and justifiable sorting criteria can be applied. In the article of Mitchell et al. [1997], the authors find that there are three main sorting criteria or 'attributes', and these being **Power**, **Legitimacy** and **Urgency**. This identification was done via a literature review where the authors sorted and grouped rationales of stakeholder identification. **Power** can be divided into three types of power. The first is *coercive power*, based on physical resources, e.g. by using violence. The second type is defined as *utilitarian power*, where the power comes in the form of financial resources, like money, and the control of access to rescues. The last is *normative power* and it entails the use of for example material objects or historical legacies to achieve influence. Common for all three types of power is that they are not steady and can shift over time. Another attribute is **Legitimacy**. Legitimacy in its pure form focuses on how organisations maintain their right to exist in society. Do they fit into the various norms and frameworks that society has set, or do they break with them at one or more points? However, in stakeholder theory, legitimacy is seen as a way of emphasising the relationships between organisations and stakeholders, and that these relationships can affect the company in different ways. Here, legitimacy is not only about a company's understanding of norms but also how different stakeholders

perceive those norms and how they try to influence a given company in a certain direction. This form of understanding legitimacy interacts as an element with the use of power, as an entity may have a legitimate position in society or want a certain influence on a company, but has no power, so companies may not take specific entities into account [Mitchell et al., 1997]. Legitimacy could also be seen as an excluding factor from being a stakeholder, as the legitimacy in stakeholder theory is dependent on some basic human rights, such as the right to free speech. If this aspect is not present, this part can almost be cut out. In some cases, a major political power can also choose to disregard this part and make different initiatives come through the political process. The last attribute is **Urgency**. This aspect simply speaks to the urgency of the subject. Mitchell et al. states that in order to meet the criterion 'urgent', two conditions must be met, the first being that the relationship between the stakeholders or the claim of one stakeholder is time-sensitive, and secondly, that the relationship or claim is important or critical to a stakeholder. As described earlier in this project, there is a strong and increasing focus on biodiversity loss in sustainability reporting and this loss must be slowed and if possible reversed. Therefore, it can be said that any consideration for biodiversity and improving its conditions is urgent and must be treated accordingly. From these three attributes, stakeholders can be classified according to their possession of the three attributes, so if they hold one, two or all three of the elements. The visualisation of the attributes' interactions can be seen in Figure 5.1.

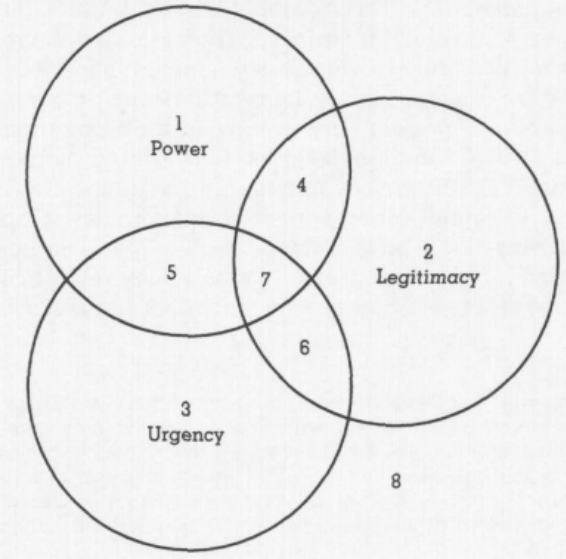



***Figure 5.1.*** The three attributes' interaction from Mitchell et al. [1997]

These three elements that form stakeholders' positioning in regards to a given topic, can also be seen in multiple layers. This means that depending on what the core element is that affects the relationship, the stakeholder position can shift between the different attributes, meaning that stakeholder roles are dynamic.

For this project, corporate biodiversity reporting is the core element, but if it were replaced by, for example, 'attitude towards legislation', the position of the different stakeholders could shift in the elements. This means that a stakeholder with a lot of power might become a stakeholder with little power if the central element shifts. The change can be seen in the visualisation of the model in 5.2.

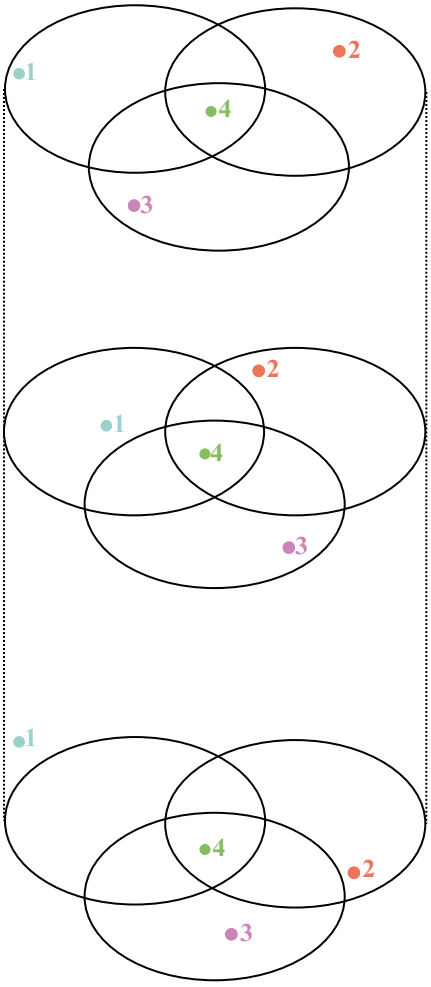



***Figure 5.2.*** Visualisation of stakeholders moving around in different layers in regards to the core topic

Therefore, it can be argued that this part of the theory can also be used to form a hierarchy between the different stakeholders. If one stakeholder keeps the same position, as nr. 4 in Figure 5.2, they keep a steady role in the overall picture and setting. This can also help to show how for example multilevel governance exists for a given topic. Depending on how stakeholders are positioned and thereby setting a frame of understanding, the governance forms multiple levels. Levels here can be the core elements, but can also be on different geographical scales. Another theory that can be included in this is institutional theory, as the different elements from that theory can also be seen as different stakeholders. These two theories will not be described further but can be used in the analysis section if the empirical data fits.

The stakeholder theory as elaborated thus far can be used to further categorise stakeholders according to the following classification system as based on Figure 5.1. Areas 1 to 3 can be described as *low salience class*, these latent stakeholders do not have a major influence

as they only affect one of the attributes. Numbers 4 to 6 have *moderate salience* as they hold two of the attributes. Since this group contains two of the elements, stakeholders in this group will also be able to "expect something" in the relationship. In the centre of the figure is area 7. This is the *highly salient* stakeholder that has all three attributes, power, legitimacy and urgency. These are particularly important stakeholders. A more detailed description of the different types of stakeholders is provided in the next section.

### 5.1.2 Typology of stakeholders

As shown in the previous section, the figure can be divided into different areas. In this section, these areas will be further elaborated on. This can help to place different stakeholders in relation to each other when analysed later in the project. The different types can be seen in Figure 5.3.

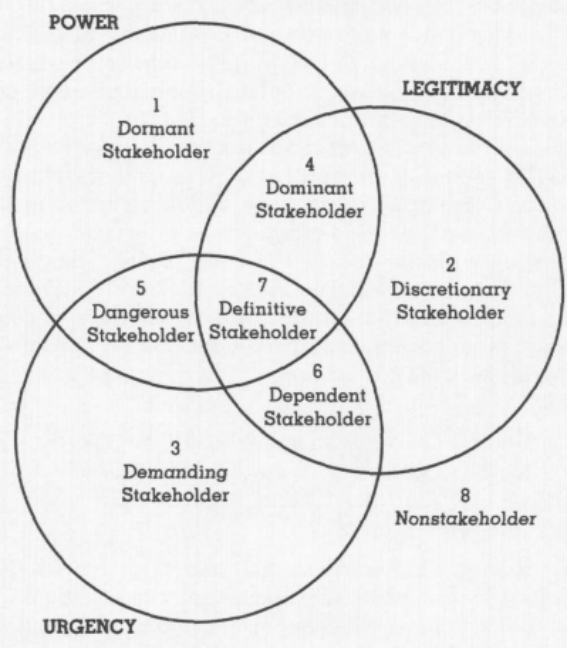



***Figure 5.3.*** Typology of stakeholders from Mitchell et al. [1997]

As can be seen in the figure above, 8 types of stakeholders are identified by Mitchell et al. [1997].

1. **Dormant stakeholders** are placed only in the power sphere. This stakeholder can only get influence by using one of the three types of power, and will have little or no interaction with a firm. And if they do, it will most likely be from the use of coercive power.

2. **Discretionary stakeholders** only have a legitimate purpose and there is an absence of power and urgency. Due to the lack of power, a stakeholder in this area may be overseen. However, the stakeholders can have an extremely high legitimacy in the surrounding society, and from that, they can have an influence, even if they do not have a direct relationship with another stakeholder.

3. **Demanding stakeholders** have an urgent purpose but lack the other two attributes. This type of stakeholder can have a "very" pressing and "important" claim, but no power to enforce it or legitimacy for the purpose. They can be said to 'march to the beat of their own drum'.

4. **Dominant stakeholders** are the first type of stakeholders, who possess two attributes. It is a stakeholder with a legitimate claim and has the power to act on these claims. The dominant stakeholder is probably the easiest stakeholder to recognise and relate to, as they are relatively easy to identify and companies pay attention to them. An example of a stakeholder from this area could be a labour representative on an executive board.

5. **Dangerous stakeholders** are a type of stakeholder, who have an urgent claim and are willing to use power to enforce it. It is in this group that more extremist religious groups (those willing to commit terror), or radical environmental groups (e.g. a group that released mink that caused a large amount of damage to surrounding areas) can be found.

6. **Dependent stakeholders** are those who have a legitimate claim with a sense of urgency to it, but lack the power to enforce it. This could be a different nature organisation, which has a given purpose e.g. protecting nature. However, they lack a form of power in the relationship between stakeholders. Therefore, they as a stakeholder may be willing to enter into collaborations with groups that have more power, from which they can jointly strengthen their ability to influence different stakeholder relationships.

7. **Definitive stakeholders** hold all three attributes and are therefore the most important stakeholder in relationships. They should be prioritised above other stakeholders. The stakeholders marked by numbers 4, 5 and 6 in the figure can transform into definitive stakeholders if they acquire the missing attributes. An example from this group could be shareowners for a company, as they possess all three elements.
8. **Nonstakeholders** are not further elaborated on by Mitchell et al. [1997]. The nonstakeholders are those who are not involved in and not affected by an organisation and their activities. These are mentioned to highlight that there are also people who are not involved with an undertaking.

Since the theory from Mitchell et al. [1997] is centred around companies, it can also be valuable for this project to elaborate on the connection between stakeholder theory and sustainability management, as the CSRD requires a change in a company's way of doing sustainability management. Therefore, the next section will present the relationship between sustainability management and stakeholder theory. The section is based on the article from Hörisch et al. [2014].

### 5.1.3 How does stakeholder theory match sustainability management?

Firstly, to answer this question, a definition of sustainability management is needed. Starik and Kanashiro define "*sustainability management as the formulation, implementation, and evaluation of both environmental and socioeconomic sustainability-related decisions and actions*". Reading this definition, it can be assessed that there are clear connections to some of the purposes also found in the CSRD. Therefore, the link between stakeholder theory and sustainability management can help to understand the complex link between environmental concerns and stakeholders. Regarding the link between the two concepts, there are some similarities and dissimilarities, which are stated in the article of Hörisch et al. [2014]. Some of the similarities stated in the article are profit-making, ties to strategic management, and purpose of business and complexity. The dissimilarities are the role of nature, as this is an explicit concern in sustainability management, and general sustainable development, as stakeholders theory is not tied to a single purpose when looking at the development of a company, where sustainability management aims for sustainable development and therefore has a narrow focus on development. From these dissimilarities Hörisch et al. [2014] identify three main challenges:

1. "Anchoring sustainability in the mindset of all stakeholders.
2. Creating mutual sustainability interests based on the particular sustainability interests of single stakeholders.
3. As nature is often not considered adequately by the most powerful immediate stakeholders, sustainability management is challenged to create approaches that empower societal stakeholders or more broadly civil society to act as intermediaries between nature and the company and to consider expected long-term challenges" [Hörisch et al., 2014].

These challenges can also be seen in light of some of the challenges related to biodiversity reporting, as found in the introduction, problem analysis and SOTA of this project. Hörisch et al. [2014] propose a solution on how to solve these challenges. They argue that through three interrelated mechanisms, challenges can be solved. The mechanisms are education, regulation and value creation. Education will help to anchor sustainability in different stakeholders and through education it will be possible to improve the sustainability mindset of stakeholders and educate them about nature as a silent stakeholder. Regulations will help to push companies' perceptions and standardise sustainability. This point is well covered by both the CSRD and ESRS. The last point mentions that *"sustainability-based value creations for stakeholders not only create monetary value for companies but also realise quality of life improvements for each stakeholder"* [Hörisch et al., 2014]. An additional element, compared to what the common stakeholder theory says, is found in the article of Freeman [2010]. The author is concerned with creating non-monetary relationships between stakeholders, a joint effort to work on sustainability agendas. Through interaction between the elements and working with them, it is possible to work with the challenges identified by Hörisch et al. [2014]. The interrelationship is visualised in Figure 5.4.

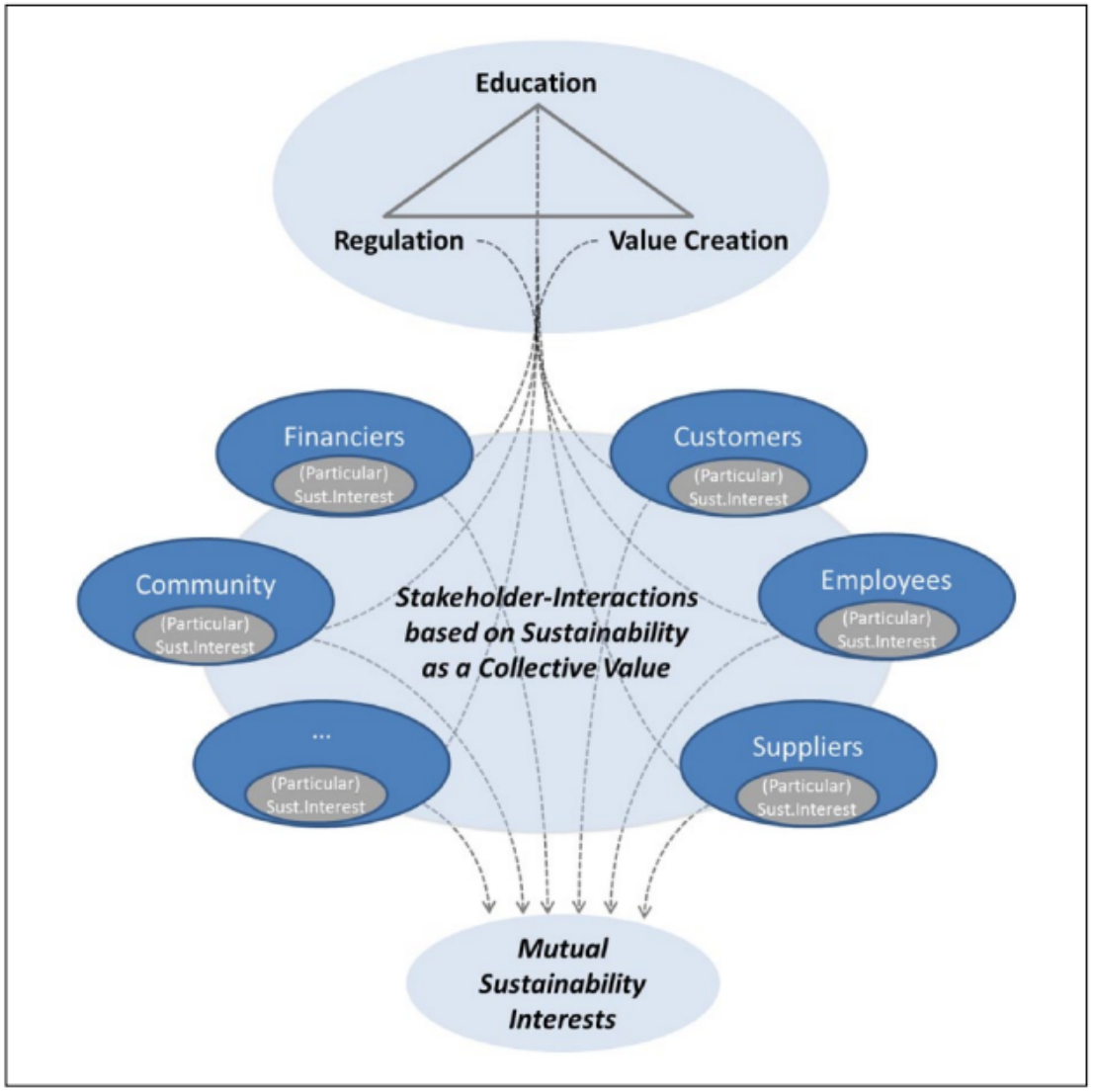



***Figure 5.4.*** Visualisation of sustainability management in the context of stakeholder theory from Hörisch et al. [2014]

This part of the theory can be used to analyse how the different stakeholders can work to create shared value centred around corporate biodiversity reporting. Additionally, this model can also be used to identify which different stakeholders there are. These are mentioned in the blue circles. This constitutes the theory that is used primarily in the project. To provide a brief insight into how the selected theories are used in this project the theories of science will be presented in the next section.

## 5.2 Theories of Science

This section presents the placing of the theoretical approach of this research in the field of Theory of Science and how the empirical data can be understood in the frame of the chosen approach.

**What is theory of science and for what**

Theories of Science explain what one can know and how one can know about it, or how that knowledge is produced. It is worthwhile to understand where one places one's research in the field of theories of science to understand how the presented knowledge is to be understood. There are several different currents in the field of Theories of Science, such as Positivism, Critical Realism and Constructivism. Positivism is considered the original understanding in science where those who follow this idea claim that there is true knowledge and that it can be described. In positivism, it is claimed that knowledge is objective and there is a physical world to be described. Many natural sciences follow this understanding. The streams of Critical Realism and Constructivism fall into the category of 'Post-Positivism', so the understanding that knowledge is in some way constructed. Critical Realism follows the understanding that there is a reality existing independently of our understanding of it as humans, and it is possible for humans to describe this reality, though that description is biased by our understanding. Critical Realism studies the mechanisms of why reality and our understanding of it are different. The last current that is introduced here is Constructivism. Constructivism represents the understanding that human knowledge is constructed and thus is reality. In this sense, Constructivism is often considered the opposite of Positivism. The object of study of constructivism is social constructions like behaviours and how they are socially constructed. Knowledge, in this current of the Theories of Science, is understood as inherently subjective, and there is no objective knowledge [Farthing, 2016].

The knowledge presented in this project can be interpreted through the lens of critical realism. The stakeholder theory used in this project assumes given structures that can be described and interpreted, which is closer to a positivist understanding of reality but it is also acknowledged here that the interpretation of the empirical data in this project varies depending on the interpreting person, be that the researchers or other stakeholders that interact with this project.

As Frederiksen and Kringelum [2021] describe, can critical realism offer explanatory value when empirical data is triangulated, meaning that analysing several types of empirical data can be helpful for verification and contextualisation. This can for example be seen in this project through the verifications of stakeholder identifications for the corporate biodiversity reporting under the CSRD based on various data sources such as the legislative texts, document analysis, literature review and interviews.

**Theoretical approach and contextualisation of empirical data**

The approach to the use of theory in this project can be considered as abductive [Farthing, 2016]. This means that reality is interpreted through theory. As explained earlier, the reality here is understood as something that can be described, though through the lens of human interpretation. In this project, the empirical data are focused on the perspectives of stakeholders. These perspectives on corporate biodiversity reporting under the CSRD are based on the societal understanding that biodiversity is under threat and that the EU, as an international law-giving organisation, is in the position to request an increase in communication about actions and impacts from other organisations like companies.

In this project, the research is considered to be active, meaning that even an inquiry of a researcher at an organisation is having an effect on the organisation [Camargo-Borges

and Rasera, 2013]. In this project's case, this can be seen with the interviews that were conducted. All interviewees were contacted about their willingness to participate in an interview about CSRD and biodiversity, which likely already caused the stakeholders to reflect on their perspectives on this topic. Further reflection was certainly caused by the interview questions and subsequent discussions between the researchers (this project group) and the stakeholders (the interviewees). Thus, it can be claimed that this project group actively participated as researchers in the initial phases of knowledge creation for corporate biodiversity reporting under the CSRD.

The theories that are described above are used to analyse the empirical data of this project. For the other methodological approaches that are utilised for the acquisition and analysis of the data, see the following section.

## 5.3 Methodology of observations

As mentioned previously in the Preface (see: Page viii) of this thesis, this project was done based on a collaboration with NIRAS, a Danish consulting company, specifically with the environmental department of the Aalborg office. The collaboration with the consultancy was helpful in many initial informal talks and discussions about the thesis topic. The collaboration also facilitated the process of learning about the consultancies' perspectives and interviewing the consultants (which are described in Section 5.5). This method of acquiring data is classified under the methods of observation. According to Ciesielska et al. [2018], observation can be considered the foundation of the daily social life of most people. The author recognises three types of the method: participant observation, non-participant observation and indirect observation. The type undertaken in this thesis is the non-participatory one. Through non-participant observation, without any preconceived notions and classifications, the researcher aims to gain a fresh perspective on the world, relationships, and interactions. With this type of observation, it is possible to examine a certain field more closely without interacting with it and therefore altering it [Ciesielska et al., 2018]. This observation, as already mentioned, was of great assistance in the initial processes of this Master's thesis.

## 5.4 Literature review methodology

This section is divided into two sections as two different reviews of different kinds of literature were conducted. Firstly, the methods of the legal document review are presented as those legal documents serve as the foundation of this thesis. Secondly, the methods of the state-of-the-art literature review follow.

### 5.4.1 Methods of reviewing legal documents

Prior to the scientific literature review, a number of legal documents were examined. These documents are the text of the CSRD (Directive 2022/2464/EU - Corporate Sustainability Reporting Directive) and the texts of ESRS 1, 2 and E4 (European Sustainability Reporting Standards in Commission Delegated Regulation 2023/2772) [European Commission, 2022; European Union, 2023]. These documents are considered essential reading due to the thesis topic focusing on the new CSRD regulations coming

into force. The ESRS 1 and 2 were examined as they are a collection of instructions that describe how to prepare a sustainability report that fulfils the requirements of the CSRD. ESRS E4 was examined as it is the topical standard for "biodiversity and ecosystems" outlining additional data to be supplied in accordance with the materiality evaluation of ecosystems and biodiversity. The documents are described in detail in Sections 2.3.1, 2.3.2, and 2.3.3 respectively.

### 5.4.2 SOTA's methods

In this thesis, a state-of-the-art literature review was conducted as an essential method of academic data analysis. A literature review is a method of gathering and combining previous research on the topic and can facilitate an overview of fields where research is diverse and interdisciplinary. The literature review carried out in this project is a systematic literature review, as it aims to identify and critically evaluate relevant studies, together with collecting and analysing evidence from chosen publications. Using this method allows to keep bias to a minimum [Snyder, 2019]. Through this search, it was also possible to identify and find problems or gaps in the scientific literature. It can therefore be argued that this SOTA is a problem identification review [Machi and McEvoy, 2022].

Due to the novelty of the topic researched in this thesis, the literature review was conducted in two phases.

The first phase was an initial one and was not limited to a specific time frame. The five search strings that were used were “CSRD” AND “biodiversity”, “corporate sustainability reporting directive” AND “biodiversity”, “CSR” AND “biodiversity”, “corporate sustainability reporting” AND “biodiversity”, "business model" AND "biodiversity" AND "CSRD". The search engines employed for this were: Primo, Google Scholar, Web of Science and ScienceDirect. As Google Scholar emerged to produce a huge amount of matches for search strings “CSR” AND “biodiversity”, “corporate sustainability reporting” AND “biodiversity”, "business model" AND "biodiversity" AND "CSRD" the time frame from the beginning of 2021 until 6th of March 2024 was used in those searches to achieve more relevant results. The first search phase resulted in 27.529 matched articles, with 48 chosen to be relevant after reading the title. During this search, it was concluded that the search strings are not accurate enough and Google Scholar is a search engine of too wide scope including irrelevant and not scientific publications. Following consultation with this project group's supervisor on the analysis of matches and their relevance given in phase one, it was agreed to undertake another, new phase of literature review. As much as the first phase did not provide satisfactory results, it has provided an understanding and overview of the state of the scientific literature regarding topics of CSRD and biodiversity reporting.

Based on learning from the first phase, phase two involved using new search terms and a slightly different set of search engines. Taking into consideration the large amount of matches from the initial phase, in the second one, the time frame for the literature review was set to be from the beginning of 2021 until the 6th of March 2024. Given that Google Scholar proved to provide matches with a large amount of material that was not explicitly scientific, this search engine was excluded from phase two. Search engines that were used in phase two were: Primo, Taylor and Francis, Web of Science and ScienceDirect. The number of search strings has been significantly expanded to 22. The

whole list of search terms can be found in Appendix A.1. Search terms involved words such as "impact", "risk", "challenges", "difficulties", "weaknesses" and "opportunities" to gain a thorough understanding of the topics searched. The words included in the search strings were combined with both the abbreviation "CSRD" and the expansion of it - "Corporate Sustainability Reporting Directive" as, in some of the publications, the abbreviation "CSRD" was used for a term with a different meaning. The combinations of words were also linked with the keyword "biodiversity" as the topic of biodiversity is a focus of this project. Using these search terms in the mentioned search engines resulted in 1.172 initial matches. After reading the titles of matched publications, 70 articles were selected for the next step of reading abstracts. From these 70, 28 were chosen for full reading and this final step resulted in 13 relevant publications with recurring themes and 4 articles that were regarded as the most relevant for the topic investigated in this thesis. Figure 5.5 depicts a flow chart presenting the approach to the literature review.

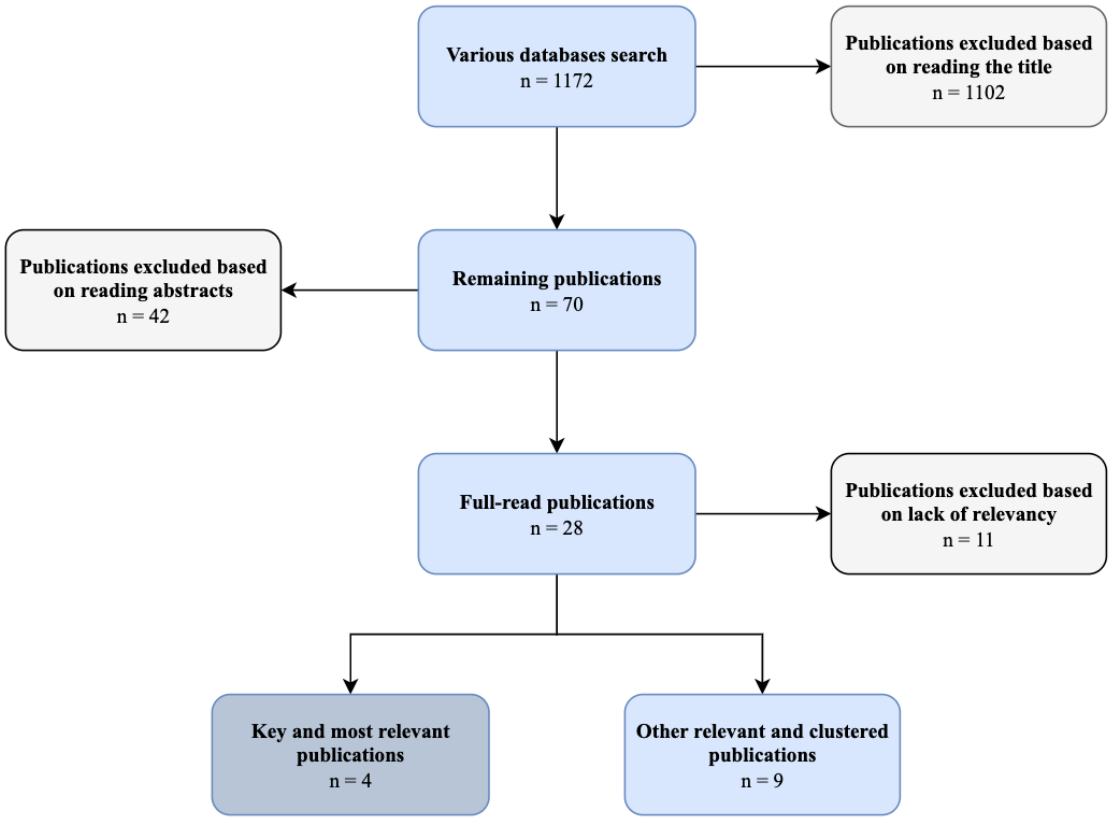



***Figure 5.5.*** Flow chart for presenting findings of the second phase of literature review

As can be seen in figure 5.5, four articles were considered key ones and their detailed description can be found in Section 3.1.1. The remaining 9 relevant articles have been grouped together and their recurring themes are presented in Table 3.1 in Section 3.1.

### 5.4.3 Methodology of document study

A document analysis is a systematic process for examining or assessing existing documents. The documents to be analysed can vary, they can be both printed and electronic and can be anything from books, meeting notes, newspapers to reports [Bowen, 2009]. The document

analysis in this thesis was conducted to identify those stakeholders' views which are not yet sufficiently covered in this project through the presentation of nature as a silent stakeholder (mentioned in Chapter 1), legislative authorities as stakeholders (mentioned in Section 2.3 and the point of view on corporate sustainability reporting for the CSRD from the scientific community (as described in Chapter 3).

For the search of who the 'missing' relevant stakeholders are, a recent mapping of key interest players in the voluntary market for reporting on biodiversity from February 2024 was used [Gradeckas, 2024]. The information on stakeholders for the voluntary market was chosen for identification in addition to the knowledge on relevant stakeholders provided through the CSRD, ESRS and scientific field, in order to maximise the understanding of possible stakeholders. Using this mapping, it was decided that the focus of the document analysis would be on auditing and investment companies and their expectations in terms of how they would like to see reports for biodiversity, thus helping to steer the practice on what both companies and consultants need to be aware of in connection with the new requirements of CSRD. Additionally, this document study serves as a representation of the selected stakeholders and aims to examine the state of knowledge and actions taken by the selected organisations. The analysed documents are guidelines and policies publicly available online on the websites of the selected stakeholders. The selected stakeholder groups are auditing companies (KPMG, McKinsey, EY, PWC) and two Danish investment companies (PFA, ATP).

In general, the further analysis of these stakeholders and their expectations seemingly provides good insight into what companies have to report on for biodiversity. Furthermore, the policies, if available, were found and presented in a comprehensive manner on the organisation's websites under their publications, which has made it easier to work with.

## 5.5 Methodology for interviews

To get an insight into the hands-on experiences, perspectives of various stakeholders and expertise of practitioners on the topic of sustainability reporting with a particular focus on biodiversity, interviews were conducted. The type of interviews conducted were semi-structured interviews, which are characterised by a certain flexibility, using open-ended questions to provide the interviewee with the opportunity to elaborate and clarify on specific details [Alsaawi, 2014]. These questions are pre-planned prior to the interview and formed into the interview guide aimed at addressing the objective of the study [Adeoye-Olatunde and Olenik, 2021; Alsaawi, 2014]. The interview guides with questions asked can be found in Appendix C.

Semi-structured interviews are also the suggested form of data collection when the researcher's goal is to get a better grasp of the participant's unique perspective rather than a generic understanding of a phenomenon [Adeoye-Olatunde and Olenik, 2021]. Given the objective of this thesis to understand each stakeholder's unique perspective, this type was considered to be adequate.

In total, seven interviews were conducted. One of the interviews was considered an expert interview. According to Döringer [2021], expert interviews focus on the expert's knowledge, defined as expertise in a specific field of activity. Given the deep experience of said

interviewee, the decision was made to treat said interview as an expert interview. All but one of the interviews were recorded with the prior consent of each interviewee. Recordings were done in order to ease the later process of transcribing and analysing different opinions and views of each stakeholder. All but one interview were conducted in English. The one exception was conducted in Danish due to the preference of the interviewee. All interviews took between approximately 30 and 45 minutes. Due to the semi-structured nature of the interviews, each interview, although having a similar set of questions, was tailored to the interviewee and whenever the respondent wanted to go into more detail about a certain topic, those contributions were allowed and appreciated. This was seen as an opportunity to explore various intriguing aspects of dimensions that would otherwise remain undiscovered.

The questions asked in the interviews served a couple of different purposes. Since the research question presented in the above Chapter 4 investigates relevant stakeholders for corporate biodiversity reporting, their perception of new reporting requirements and the challenges and opportunities arising from them, the questions focused on these topics. All of the interviews started with questions asking about the interviewees' understanding of biodiversity and its importance to the business they work at. Given that each interviewee is different as a person and works for different companies specialising in different subjects, these questions served as a way to develop a profile of the interviewees and to get to know them better as individuals. Later, questions directly related to the topic of this work were asked in order to explore their respective opinions. Lastly, each interviewee was given the opportunity to add their own comment or topic that they felt was important to bring up. The sets of questions varied as they were tailored to the type of job done by the interviewee. This resulted in a total of four slightly different sets of questions: for company employees, for consultants, for the investor and for the environmental NGO, which can be found in Appendix C.

The transcriptions of the interviews were primarily created through a programme called "Descript", and afterwards they were manually improved. The transcriptions were then prepared for analysis by colour-coding the relevant information after the following themes.

The two main themes are 'Baseline and preparedness' and 'Effects of the CSRD and perspectives on it'. The baselining theme includes the topics 'Understanding of biodiversity', 'Importance of biodiversity', 'Considering biodiversity as material', 'Previous biodiversity reporting experience' and 'Stakeholder identification'. The arguments for these topics are that it was found relevant to explore the interviewees' understanding of biodiversity due to the assumption that this could potentially affect their perspective on the new requirements for corporate biodiversity reporting under the CSRD. The information on how the interviewees and the companies that they work at see the importance of biodiversity is considered relevant in order to identify their perspectives on potentially reporting on biodiversity for the CSRD. The question of whether biodiversity might become considered as a material topic under the CSRD for the respective companies is a more direct attempt at identifying the stakeholders' perspectives on the importance of biodiversity. Whether or not interviewees had previous experience with corporate biodiversity reporting is considered important to highlight companies' preparedness for tackling the new reporting requirements. Lastly for this theme, interviewees were asked to

identify relevant stakeholders for corporate biodiversity reporting. On the one hand, was this done to verify the initial stakeholder mapping as presented in Section 2.4, and on the other hand to once again explore the interviewees' preparedness, as a stakeholder mapping is a crucial part of impact assessments for this thesis.

The theme of 'Effects of the CSRD and perspectives on it' includes the topics 'CSRD affecting current practice', 'Willingness to adapt strategies', 'Opportunities' and 'Challenges and barriers'. The topic of 'CSRD affecting current practice' aims to capture the experienced and expected changes incurred by the new requirements from the CSRD. The 'Willingness to adapt strategies' gathers information on whether interviewees think that companies are willing to adapt their strategies based on changing stakeholder demands. This question is centred around the expectations and opinions of stakeholders on the anticipated developments under the CSRD. The last two topics are 'opportunities' and 'challenges and barriers' which interviewees perceive and expect from the the new requirements of the CSRD on corporate biodiversity reporting.

### 5.5.1 Interviewees

In order to learn about the perspectives of various stakeholders, various practitioners active in the field of corporate sustainability reporting were interviewed. As mentioned above, all but one of the interviews were recorded and all interviewers were anonymised, as were the companies they worked for. Their names were replaced by an IP code denoting "Interview Person" and were given a number according to the order of the interviews.

Table 5.1 presents the interviewees with their respective code instead of their name, their job title, the sector they work in and their motivation for the interview.

***Table 5.1.*** Overview of interviewees

| **Interviewee** | **Sector** | **Job title** | **Motivation for interview** |
|---|---|---|---|
| IP1 | Energy | Senior Environmental Advisor | IP1 works as an environmental manager in an energy company. Considering the fact that the company has a biodiversity policy and the IP has a background in biology their opinion as a stakeholder was considered very valuable. |
| IP2 | Agriculture | CSR Specialist | The company that IP2 works for a company which owns a large amount of land in Denmark, it was considered important to investigate what their view is as a stakeholder. |
| IP3 | Undisclosed, big European manufacturing company | Senior Project Manager in Nature Department | IP3 works for a big European company in the Nature and Biodiversity team. With the size and impact of the company, it was seen as important to get to know their perspective as a stakeholder [not recorded]. |

| | | | |
|---|---|---|---|
| IP4 | Consulting | Environmental Consultant | IP4 works for a consultancy in the environmental team and is directly responsible for educating both clients and other consultants about CSRD. |
| IP5 | Consulting | Environmental Consultant | IP5 has over 15 years of experience working with sustainability and environment-related subjects in a consulting company. With their experience and knowledge, this interview was treated as an expert interview |
| IP6 | Investment | Senior ESG Director | IP6 works as a director in the ESG team of an investment company. Their perspective and opinions as an investor were considered very valuable. |
| IP7 | Nature organisation | Communications and Partnership Manager | IP7 works in an organisation which aims at popularising the concept of biodiversity in cities and urban spaces. Their perspective and knowledge of biodiversity in the corporate environment were essential to explore in this project. |

As can be seen, the interviewees are colour-coded into four different groups. Blue represents practitioners who work in ESG or environmental departments in their companies, yellow is used to code environmental consultants, purple indicates an investor and green represents an individual working for an environmental NGO (Non-Governmental Organisation).

**Company practitioners**

The three first interviews were conducted with company practitioners. All three have similar positions and their work includes CSR responsibilities, ESG reporting or disclosing the environmental impact of the activities of each of their companies. When the CSRD is implemented, it will be these professionals who will be responsible for reporting under the Directive. Interviews were conducted to obtain their previous experience of sustainability reporting, as well as their views and expectations of the CSRD. Each of these individuals, despite having similar job responsibilities, work for companies that are different in terms of both their business activities and their size and scope of operations, so although the set of questions was the same, the answers varied. This illustrates that, despite an identical set of questions, each stakeholder, considering their unique background, and skill set, may have a different view of CSRD.

**Consultants**

The two following interviews (coded with yellow colour in the above table) were conducted with consultants working for environmental departments in a consultancy. These interviewees provided their experience in advising a wide variety of companies on environmental issues, as well as their own perspectives and opinions on CSRD and its

challenges and opportunities. One of them (IP5), because of their extensive and long-standing experience, was treated as an expert.

### Investor

An interview with the investor was conducted to get to know their perspective from a different point of view. As an important stakeholder, their opinion on CSRD-related issues was crucial.

### Nature NGO

A practitioner working for a nature NGO was interviewed to obtain the views of an NGO specialising in nature conservation on specific issues related to CSRD and biodiversity. This person represents a rather different type of stakeholder, but is consistently highly important, as it is considered in the scientific literature that it is the environmental NGOs that are mostly concerned with biodiversity issues and it is them that are also said to be a crucial stakeholder to establish collaboration with [Kopnina et al., 2024].

Having described the theories together with the methods, the next chapter presents the analytical work of this thesis. There, the data collected with the aforementioned approaches will be described and analysed with the help of theory, among other things.

# Analysis 6

This chapter presents an analysis of the empirical data collected for this thesis and builds the foundation to answer the main research question stated in Chapter 4 alongside providing answers to the three supporting sub-research questions. The first part of this chapter is an analysis of who the relevant stakeholders are for corporate biodiversity reporting and how they can be classified. This aims to answer the first sub-research question. An analysis of perspectives is then presented to answer the second research question on how the selected stakeholders perceive the CSRD and the new requirements on corporate biodiversity reporting. Lastly, the analysis of collected data is done with the objective of providing answers to the third sub-research question, which looks into what different challenges and opportunities the selected stakeholders identify. The answers from the three sub-research questions build the answer to this thesis' main research question, which is *Who are the relevant stakeholders for biodiversity reporting under the Corporate Sustainability Reporting Directive, what are their perspectives on the new requirements and based on these, which challenges and opportunities do they identify?*. Some of the findings will also be included in the discussion, Chapter 7. Here, some of the findings or lack thereof will be discussed to bring new angles and perspectives to the data. This can subsequently also help to expand on the answer to the main research question. A visualization of the approaches taken in the analysis can be seen in Figure 6.1.

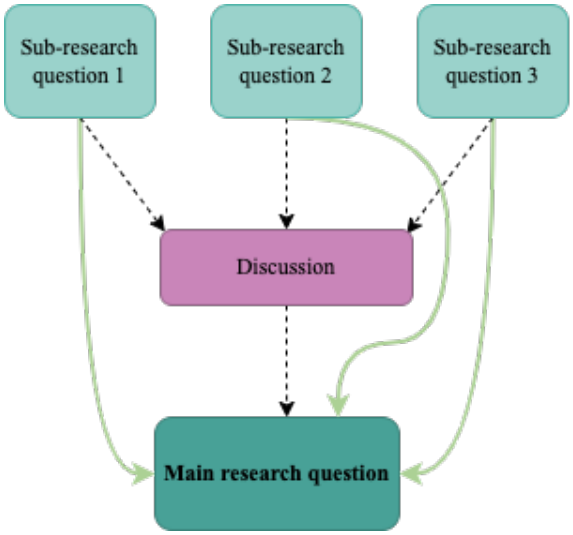



***Figure 6.1.*** Visualization of the design for the analysis

## 6.1 Identification of Stakeholders

This section aims to answer the first sub-research question of the project. This is done with the following approach. First, a sum-up and analysis of the stakeholders that have been identified in the project so far is presented. Subsequently, the conducted interviews are analysed to verify whether the already identified stakeholders fit with the results from the other empirical data and after that, stakeholders are categorised to determine which typology the different stakeholders could match according to Mitchell et al. [1997]. This helps explore whether any common goals or understandings among the stakeholders around CSRD and biodiversity can be identified. Finally, a conclusion to the first sub-research question *Who are the relevant stakeholders for biodiversity reporting for the CSRD and what is their typology?* is presented.

### 6.1.1 Stakeholders in CSRD, ESRS, academia and theory

Until now in this project, several types of stakeholders have been identified. As described in Section 2.4, the CSRD and ESRS mention different stakeholders. They are divided into two groups, users and stakeholders. Both are here considered a form of stakeholder though with different roles. The CSRD sees investors as the primary users of the sustainability reports because, due to the new standardisation of reporting, they now have better opportunities to compare companies with regard to sustainability before actual investments. The second group of users is society, who will also have the opportunity to better understand and compare how companies are working with sustainability, this is an increase in transparency. Stakeholders, as defined in the ESRS, are those who are *"affected or may be affected"* by a company's activities. Interestingly, the ESRS also identify Nature as a silent stakeholder. The definition is provided as a "may"-data point, which means that undertaking companies do not have to consider Nature as a stakeholder, but that it would be best practice to do so (see: Appendix B.1).

The ESRS also recognises academia as a stakeholder. This supports the argument for conducting the state-of-the-art literature review to highlight the existing perspectives on corporate biodiversity reporting and to identify which stakeholders academia sees as relevant to this topic (see: Chapter 3). It should be noted that the scientific literature shows a lack of knowledge with regard to corporate biodiversity reporting under the CSRD and thus the specific suitability of the stakeholder identification based on the SOTA is somewhat lower than from the other data sources utilised in this project. Nonetheless, the literature is useful in describing the current understanding of practices and perspectives. From the identified stakeholders from the scientific literature, some common themes can be described. They all have in common that they naturally deal with companies in one way or another in relation to reporting. In Kopnina et al. [2024] the authors describe how Nature should be seen as a silent stakeholder that should be taken into consideration when companies work with stakeholder relationships and mapping. Two of the reviewed articles cover and highlight the importance of the planetary boundaries as a way to assess the impacts of companies for sustainability reporting. This helps to show that academia not only helps to show the challenges but that it can also help to create metrics and solutions for sustainability reporting, like the planetary boundaries which originate from the academic field [Rockström et al., 2009; Steffen et al., 2015]. Another recurring theme in many of

the articles is the use of different frameworks. In particular, the TNFD framework and their LEAP approach for assessing biodiversity and GRI guidelines are the most commonly mentioned frameworks [Radu et al., 2023; Primec and Belak, 2022; Kopnina et al., 2024; Wassénius et al., 2024]. This is interesting in so far as that the LEAP approach and the GRI are both global frameworks. Lammerant et al. [2023] explain though that these frameworks for reporting are relatively well aligned and reporting will follow similar structures and requirements as the ESRS. However, there are some more differences between the GRI and TNFD frameworks and the ESRS that are relevant to highlight. The first two provide voluntary standards for reporting on biodiversity, whereas the ESRS is directly binding by law, as it is part of the Commission Delegated Regulation 2023/2772 [European Union, 2023]. When regarding this from the perspective of the stakeholder theory from Mitchell et al. [1997], this highlights some interesting points. From Section 5.1.2, where typologies of stakeholders are described, it can be assessed that the two voluntary standards must be sorted into a different category than the ESRS. Since they are voluntary and provide an urgent desire for improvement on biodiversity, but lack at least legal power, it can be considered that the two standards would belong to category 6 - dependent stakeholder. For the frameworks to switch into more important stakeholder roles, the organisations behind them would need to be part of a coalition with someone who has power to achieve a legitimate position for companies. Regardless of the potential lack of power of the reporting guidelines on biodiversity to European companies, it is still interesting to regard who recommends using these standards. Utilising the TNFD's LEAP approach in particular is recommended by big auditing companies like 'The Big Four' (KMPG, Deloitte, EY, PWC) when they make recommendations on how they prefer to work with and see biodiversity reporting being done in a structured and transparent manner (Section 2.5.2). Auditing firms can be considered category 4 stakeholders - dominant stakeholders, as they have, towards companies, both power and legitimacy under the CSRD, as they have to audit the report as stated in section 2.4 This could be one of the reasons why the TNFD LEAP approach is widely in use. More reasons for that could be that TNDF's standard is more developed and better known than the ESRS due to the LEAP approach being older [The Taskforce on Nature-related Financial Disclosures, 2023]. TNFD also has a global outlook where as ESRS are focused solely on reporting in the EU. But, when looking at the focus of this project, the ESRS E4 can be identified as a definitive stakeholder, as they, for Danish companies and their reporting, hold all three elements: power, in the form of 'legal power', 'legitimacy' in the form of the importance of trying to solve the biodiversity crisis as stated in intro 1 and the 'increased interest' and expectation from society that companies should 'do something'. Based on this, it is to be expected that the ESRS will become the most important standard for corporate sustainability reporting among European companies within the next few years in comparison to the standards currently used by firms, as it would be best to follow the standard that companies are required to follow by law.

Of course, stakeholder theory also identifies various stakeholders and describes the relationships between them. In the analysis here, the described stakeholders will not be analysed as they are already shown and described in 5.1. However, some other findings have been made that are worth highlighting. The first is the definition of Freeman [2010] on what a stakeholder is. They define stakeholders as *"those groups and individuals who can*

*affect the achievement of an organisation's objectives or who is affected by the achievement of an organisation's objectives"* [Freeman, 2010]. This theoretical definition is very close to how the CSRD and ESRS define a stakeholder in practical use, which is that they are: *"affected or may be affected - positively or negatively - by the company's activities and its direct and indirect business relationships across its value chain"* [European Union, 2023]. The two definitions are almost identical. This fact helps to increase the validity of the theory used to match the practical definition [Scribbr, 2024]. Another finding in the theory is how the authors see Nature as a stakeholder and who should speak for it. This has not been addressed in the CSRD. In the ESRS and in the articles used for the SOTA in this project it has only been stated that nature should be included as a silent stakeholder but no spokesperson has been identified. Hörisch et al. [2014] claim that it should be academics who should fulfil the role of speakers for nature. However, it can be difficult to place academics in the typology, as they could be placed in two positions depending on how they can provide influence. If they have an influence on, for example, politicians who are responsive to expert judgements, then they have an inherent power element and will therefore be in number 4 - dominant stakeholder, where with the addition of nature they move towards the middle, 7 the definitive stakeholder. But if academics find themselves in an arena where politicians are not responsive, as seen around certain environmental topics, academics quickly pass into the position of group 6, dependent stakeholder, as they then would be dependent on others to get power in the relationship. This fit into the part of theory, of stakeholders moving around in regards of the core topic, and how it is interpreted by different stakeholders as seen in figure 5.2. The same concept applies to NGOs which can also help influence an issue or raise awareness in society. Academic roles can also be seen in the light of the article of Hörisch et al. [2014], where the authors state that educating people should help create a common understanding about a sustainable future. Here, universities are actors, as they both educate new (smart) students in sustainability who will go into all parts of society, and they also have an opportunity and duty to contribute to the general societal debate and thereby influence discourses.

This part shows which stakeholders for sustainability reporting, or more specifically corporate biodiversity reporting, are identified from laws, academia and theory. In the next section, it will be analysed how the other empirical data created for this project fits in with these findings.

### 6.1.2 Stakeholders identified through interviews

In this section, the empirical data collected from the conducted interviews is analysed. The aim is to find stakeholders' different typologies based on biodiversity as a mutual interest. In addition, this section of the analysis is used to identify further relevant stakeholders and verify whether the interviewees in practice the same stakeholders as those mentioned in the previous section. The analysis is structured in such a way that the interviewees are analysed one by one. As the analysis aims to be as textual as possible, there may be some stakeholders whose typology cannot be classified if they are not described in enough detail by the interviewees. An overview of the different interviewees can be found in Table 5.1.

IP1 is working with biodiversity in the company's strategy and through projects. The company has a relatively new (under 1 year) existing strategy where they have set aside 5%

of their areas for biodiversity enhancement. This is done through a collaboration between the company and Danmarks Naturfredningsforening (DN), a Danish Nature NGO. This process was initiated by the company itself, as DN apparently often have an opinion on how nature should be cared for in their projects. The work to find an agreement has taken over 1 year according to IP1. This relatively long collaboration can be placed in context to the theory from both Freeman [2010] and Hörisch et al. [2014]. Freeman emphasises the importance of creating long-term relationships that can help to strengthen mutual interest for shared value creation among the various stakeholders. Here, collaboration between a company and an NGO can be seen as an attempt to create shared value creation. In the context of the theory from Hörisch et al. [2014], the collaboration can also be seen as a desire to create common sustainability goals on a specific topic which is highlighted as a tool for creating a sustainable future. IP1 identifies DN, the NGO, as an important stakeholder by stating that *"DN is an important stakeholder for us, so that's why it makes the most sense to collaborate with them"* [Interview Person 1, 02.05.2024]. From this quote, and together with their relationship with DN, it is also possible to classify the role of the NGO for this company according to the understanding of Mitchell et al. [1997]. Looking at the theory, an NGO will usually be classified as a group 2 stakeholder - discretionary stakeholder or 3 - demanding stakeholder. But since it is the company that has taken the initiative to the cooperation, it can be interpreted as a sign that they see that DN has a form of power, as the organisation has the right to complain in connection with construction projects, which is why the company may be able to mitigate and work with some of the issues DN has about the company's projects. This helps to push the NGO into the position of being in group 7 - definitive stakeholder, as, in this relationship, they fulfil all three elements of possessing power, legitimacy and urgency according to the classification of Mitchell et al. [1997]. Another group that IP1 highlights as important are investors, who are described as a *"huge topic"* for them. Investors are seen both as those directly investing in the company but also as customers who have the opportunity to buy the energy products that the company produces. It is described as *"big companies that would like to offtake some electricity from our company"* Interview Person 1 [02.05.2024]. This combination of the two roles means that these investors can be placed in group 4 - dominant stakeholder, as it does not seem that they do not, towards the company, have an urgent need. Or their placement is stretched towards the middle to no. 7 - definitive stakeholders, as IP1 states that the company has made their strategy because of external parties asking questions about how they work with biodiversity. And since the company already works with climate action, it would be obvious to work with biodiversity. Since working with biodiversity can be seen as an attempt to avert the biodiversity crisis, which is addressed in the Intro 1, it can draw investors and customers towards being a definitive stakeholder for this company.

The next interviewee, IP2, identifies the company that they work at as a stakeholder since they are a big land owner and they *"set a trend, set an example"* and as they want to look well towards the local community [Interview Person 2, 03.05.2024]. This identification is difficult to fit into some of the applied theories, but it may indicate a desire to create a common understanding between this company and the local community in what they do. IP2 also explains that the end user, or customer, is one of their most important stakeholders. However, it is not made clear how they understand this in relation

to biodiversity. It is most likely that the interviewee sees the consumer as a dominant stakeholder due to their power in terms of their purchasing power and legitimacy in terms of their place in society. Next, IP2 mentions Ministries as they help create the rules and standards that the company must adhere to. Here, there is no deeper explanation of the relationship between them, so it can be difficult to relate to the typology. Ministries can be placed as a relevant stakeholder according to Hörisch et al. [2014] though, as the authors explain that regulation can help drive a sustainable transition and thereby solve some of the arising challenges. It should also be noted that IP2 comes from an agricultural organisation that has a long history of a complicated relationship with the authorities. This potential change in relationship roles is visualised in Figure 5.2, where we argue that stakeholders can change typology, depending on what the core element or mutual interest is in a given arena. Authorities addressing biodiversity as a general topic would be considered to be in a weak position towards the company that IP2 works at but if the core element of concern is subsidies, then the relevance and position of ministries would increase, explains IP2. When IP2 was asked about whether they would change their strategy based on changing stakeholder demands, they explained that it depends on who is asking. Dansk Naturfredningsforening, to this company, has little power and their approach would not be considered important in the company, whereas if the local community of the municipality where the company resides would approach them, it would be much more likely that they would consider the appeal. As can be seen, there are very different reactions to demands depending on who approaches the company. The company sees DN purely as an NGO, without or little power, as described in the theory by Mitchell et al. [1997], which is why the NGO, here, can be considered a dependent stakeholder, as they lack real power to be able to get their wishes through and must therefore depend on others if they want to achieve change. However, when looking at the local community, the company seems to be much more willing to adapt its strategies according to the community's wishes. The local community therefore seems to have some sort of power and legitimacy. The interview with IP2 gives no indication of the urgency of a potential approach from the local community. This places the local community as a dominant stakeholder, that could potentially move towards being a definitive stakeholder.

The interview with IP3 was not recorded due to the wishes of the interviewee, and therefore only holds limited insights to the stakeholders, as it is based on notes taken during the interview. IP3 stated that they, from their point of view, have two groups of stakeholders, the first of them being top management. They stated that top management as of now, had a focus on biodiversity and that they consider the topic to be as important as climate, even though the biodiversity impact might not be considered material to them in their materiality assessment. Nonetheless, the company sees the opportunity to work on improving biodiversity around its operations. This work is eased due to a large financial surplus. This means that internal decision-makers have the financial leeway and may also perceive an obligation to society to work with biodiversity based on the reputation of the company. Classifying them according to the theory of Mitchell et al. [1997] is not possible, due to the lack of specific information from the interview. However, this point still highlights the importance of top management with regard to steering company-internal work with biodiversity. The second group that IP3 mentioned as important stakeholders is investors. The two groups of stakeholders relevant to the company that IP3 works at

are also interacting according to the interviewee, as the company's work with biodiversity is partially based on being compliant with the investors' policy demands and expectations. This can be seen as a desire to create a long-term relationship between the company's top management and investors to create a sustainable future as described by Hörisch et al. [2014].

This concludes the analysis of which stakeholders the case companies have identified and which typology their respective stakeholders could have according to Mitchell et al. [1997]. Two of the interviewees find investors to be important in terms of reasons for working with biodiversity. Two of them identify NGOs as an important stakeholder, but they look at them in different ways. IP1 is inclusive in their collaboration with NGOs and their approach, while IP2 does not see NGOs as having an impact on the company. IP2 is the only one who mentions consumers as a stakeholder for the company but does not specifically relate them to biodiversity. IP1 mentions consumers but mostly in their role as potential investors. The next section of stakeholder identification is based on the interviews with two consultants.

IP4 identifies nature as a stakeholder based on the information provided in the ESRS. When asked further about stakeholders they mentioned that stakeholders probably change depending on which companies want consultant support for biodiversity reporting without further specifying which these could be. IP4 does, however, mention that they do not believe that stakeholders currently consider biodiversity as material which could indicate that many stakeholders are not aware of their roles and the importance of stakeholder dialogue for the topic of corporate biodiversity reporting. One reason for this could be that mapping and general thinking about biodiversity in businesses under the CSRD is still early in the process.

IP5 finds that two groups of stakeholders are the most important - *owners and customers* [Interview Person 5, 06.05.2024]. The interviewee sees the change for a more sustainable future being driven by these. With regard to the owners, IP5 hypothesised that some made strategic choices as in that they *"looked so far ahead into the future that they could see this regulation coming"* [Interview Person 5, 06.05.2024] so that their company policies now match with the new requirements which ultimately now benefits the company. For the group of customers, who can be seen as part of civil society, IP5 says that there has long been a desire to increase sustainability in corporate affairs. So between the two stakeholders, it can be argued that addressing and trying to solve one of the identified challenges that Hörisch et al. [2014] finds, creates a common sustainability interest. However, it is not possible from the interview to identify the approaches that are used to create this common understanding, other than if sustainability and biodiversity are important to owners and customers, then it should be important to the company. Combining these insights with previous knowledge, typologies for these two types of stakeholders can be determined. Since both have power and a legitimate purpose in their interaction with companies and their views on, for example, biodiversity and that they want to do something about the biodiversity crisis now, gives the matter urgency. Thus both stakeholder groups can be classified as definitive stakeholders for companies. Another interesting quote from the interview with IP5 is how the interviewee has experienced a shift in whom companies consider as important stakeholders. IP5 says that companies in the

*"last five years have been more focused on investors than on customers"* [Interview Person 5, 06.05.2024]. This is in line with what 2 of the 3 company interviewees also mentioned, where they say that they work with sustainability and biodiversity because the companies want to attract investors and look their best. NGOs are also stated as being important, but not as top stakeholders. IP5 also finds that the regulation has contributed to a change for investments being more sustainable. This fits with one of the tools that Hörisch et al. [2014] explain that should be used for creating a more sustainable future.

IP6 is in the ESG team of an investment company as described in Table 5.1. As can be seen from the interviews with IP 1,3 and 5, investors are considered as important stakeholders by several sources. When it comes to who investors see as stakeholders they are having a hard time identifying them though. This is partially due to that the selected example investment company operates on the global market and possible companies exist in a local arena which makes the mapping of relevant stakeholders difficult. From that, IP6 does not see the investment company having direct contact with local stakeholders, but they do expect *"the companies to have some kind of dialogue with their stakeholders" [Interview Person 6, 08.05.2024].* This can be seen in the light of what Camargo-Borges and Rasera [2013] states, that dialogue is an important tool when it comes to co-creating value between stakeholders. As the main local stakeholder, IP6 identifies NGOs that work within the biodiversity field, such as for example Dansk Naturfredningsorening in the Danish context. IP6 did not further specify his views on these stakeholders and thus it is not possible to classify them according to the typology of Mitchell et al. [1997]. IP6 also identifies Nature as being a silent stakeholder, which is in line with the CSRD / ESRS definition. The companies that IP6 invests in, are arguably also a stakeholder to them. This relationship is complex, as can be seen in the quote above. IP6 further states that *"that [the companies are] changing the practices based on the feedback we give them"* [Interview Person 6, 08.05.2024]. From this, it is clear that the investment company seems to have some sort of power towards the companies through the dialogue with them. This fits with statements from IP1 who says that they are willing to change their strategies if an investor demands a change in direction with regard to their biodiversity strategies. The enhanced dialogue between stakeholders is also one of the goals of the CSRD [European Commission, 2022, p. L322/18]. The directive aims at strengthening the dialogue between companies and investors and thus helps create mutual interest in working with sustainability. This can be seen as a use of dialogue in practice.

The last interviewee, IP7, identified many different stakeholders but was reluctant to classify their relevance, worrying that biodiversity is becoming a buzzword, and that this could lead to serious work for biodiversity being prevented, as it can easily be turned into greenwashing activities by non-informed stakeholders who attempt to only profit financially from seemingly addressing the newest sustainability focus [Interview Person 7, 15.05.2024]. With this restraint in mind, IP7 identifies several possible stakeholders that have a role in corporate biodiversity reporting. The interviewee emphasises though the worry that there may be too many different stakeholders and none of them having enough knowledge about the topic of biodiversity for proper reporting. The relevant stakeholders for corporate biodiversity reporting identified by IP7 are consultants, academia and those who communicate about corporate biodiversity reporting. Additionally, IP7 highlights the importance of accountants but explains that difficulties can be expected in their

interaction with the topic as information on biodiversity needs *"to be translated to whatever business language they speak"* [Interview Person 7, 15.05.2024]. The interviewee identifies several stakeholders and highlights several challenges that need to be overcome for proper reporting. There is too little information to classify the mentioned stakeholders according to the selected theory here. IP7 ends the interview with a comment on biodiversity reporting under the CSRD: *"I'm very interested in it and a bit sceptical about it"* [Interview Person 7, 15.05.2024].

Table 6.1 presents an overview of classifications of stakeholders. Based on this, the landscape surrounding stakeholders in biodiversity reporting can be drawn. Investors appear to be the most relevant from the different perspectives, even though it is only possible to identify a typology once, which is from the interview of IP1. This finding fits with the aim of the CSRD, that the investors are a main group of users of the upcoming sustainability reports. NGOs are mentioned three times. For this stakeholder type, it can be seen that the two companies have different approaches to how they see NGOs as stakeholders in relation to them as companies. One, IP1, sees them as important and a definitive stakeholder. IP2 sees them as a dependent stakeholder towards them. The rest of the identified roles are mentioned twice or once. These will not be analysed further, but they help to give a picture of the landscape. And it can be seen from the table that the landscape of biodiversity reporting is not uniform and is very diverse depending on the company. For some, NGOs are important, for others, it may be the customer who a company finds most relevant to communicate to that they are working with biodiversity and trying to enhance it.

***Table 6.1.*** Typology of stakeholders based on the findings from interviews according to [Mitchell et al., 1997]

| | **1. Dormant** | **2. Discretionary** | **3. Demanding** | **4. Dominant** | **5. Dangerous** | **6. Dependant** | **7. Definitive** | **8. Non-Stakeholder** | **9. Non-placeable** |
|---|---|---|---|---|---|---|---|---|---|
| Investors | | | | IP1 | | | | | IP3, IP5, IP6 |
| NGO | | | | | | IP2 | IP1 | | IP5 |
| Consumer / Customers | | | | IP2 | | | IP5 | | |
| Nature | | | | | | | | | IP5, IP6 |
| Local community | | | | IP2 | | | | | |
| Internal | | | | | | | | | IP3 |

### 6.1.3 Who are the relevant stakeholders? - summary

When looking at stakeholders in biodiversity reporting, it can be concluded that there is no one-fits-all solution to understand who the relevant stakeholders are, as this is highly dependent on who the stakeholder identifier is. The most relevant stakeholders for this

project are the interviewees themselves and the stakeholders listed in Table 6.1. Although not all stakeholders that are identified in the first part of the analysis in Section 6.1.1 from the law, SOTA and theory, have also been identified by the interviewees, it is still possible to see a consistency in which stakeholders are seen. This helps to verify the stakeholder identifications made in the different sections and supports the understanding that the literature background and stakeholder identification in practice are aligned, indicating fewer challenges in upcoming thorough stakeholder mappings for companies.

The CSRD and ESRS are clear in who and what they define as stakeholders. This definition is coherent with the theoretical definitions. However, when looking at what the interviewees say about stakeholders and classifying their relevance in accordance with the theory, there is no agreement between the different interviewees. It is particularly interesting to see how companies have different approaches to who and how they work with stakeholders as they e.g. have different ways to work with NGOs. As for the typologies, it has been difficult to categorise them all. This is because the interviewees did not provide specific enough information about the different stakeholders. Some are merely mentioned as being a stakeholder without further substantiation. However, whether or not they mention a given stakeholder can help give a picture of whether and for whom the stakeholder is relevant to work actively on the relationship with them. From Table 6.1 it can also be said, that the interviewees to a large extent seek to include actors outside the business chain and give them power, legitimacy or urgency, e.g. NGO from Interview Person 1 [02.05.2024]. Another possible reason for the difference in their view on stakeholders is that it depends on the interviewees' jobs, as colour-coded in Table 5.1. From this, it could be argued that from the inherently different roles as stakeholders, their functions and the company values, the interviewees' perspectives on stakeholders influence the landscape.

In the next section, the identified stakeholders are further analysed and their perspectives on the new requirements of the CSRD on corporate biodiversity reporting are explained and contextualised.

## 6.2 Stakeholder perspectives on the new CSRD requirements for biodiversity reporting

This section aims at providing answers to the second sub-research question. Following the stakeholder analysis in the section above, this section provides perspectives on the CSRD's corporate biodiversity reporting requirements by the identified stakeholders. Through perspectives, this project aims to show how stakeholders perceive CSRD influencing current practice, their willingness to adapt strategies and their overall opinion on the impact of the CSDR on existing practice. The section is divided into two subsections. Firstly, the perspectives of stakeholders identified in the CSRD, ESRS, SOTA, observations and document analysis are presented, which are secondly followed by a detailed description and analysis of the interviewees' perspectives.

### 6.2.1 Perspectives of stakeholders identified in CSRD, ESRS, SOTA, observations and document analysis

As mentioned at the beginning of this chapter, numerous stakeholders have already been identified in the process of writing this Master's thesis. The perspectives on the current state of potential developments are presented here. Starting with the CSRD and the accompanying ESRS (with a special focus on ESRS E4), these documents by default expect comparable and transparent corporate sustainability reporting. They set the requirements which are subject to different interpretations and perspectives of various stakeholders represented in this section of the project. It is important to mention that a number of the reporting points described in ESRS E4 are voluntary, which can be understood as easing the process of reporting on biodiversity and ecosystems [ESRS - E4 Biodiversity and ecosystems, 2023]. In addition, the reporting requirements underwent many changes in the process, which ultimately meant that the requirements are now less rigorous compared to those originally planned [EFRAG, 2024].

As described in Chapter 5, the observations made at the consultancy together with the analysis of legislative documents were also highly beneficial in the initial process of becoming familiar with the subject of corporate reporting. Based on the observations of the consultants, it was possible to deduce their perceptions with regard to requirements for biodiversity and sustainability reporting. Depending on the position and role they have in the consultancy, their perspective varies. Only a small number of consultants are well informed about the CSRD with the majority having little knowledge of the requirements described in the directive. Their general perceptions and attitudes are characterised by a belief in positive change, which is also reflected in the statements of the interviewed consultants.

Moving towards perceptions represented in the academia taken from the SOTA conducted in this thesis, the perspectives presented also vary. In one of the key articles written by Wassénius et al. [2024], the authors believe that the sustainability reporting required by the CSRD facilitates companies to disclose information leading to better monitoring of ecosystems, which can lead to improvements in the biodiversity of a site. Another article by Radu et al. [2023] sees the CSRD requirements as a way to standardise the sustainability reporting process, as the authors believe that one of the biggest problems of non-financial reporting information to date is precisely the lack of standardisation. The article by Primec and Belak [2022] heavily focuses on and mentions numerous times the new and more demanding requirements with which corporate sustainability reporting has to be done through the implementation of the CSRD. Roszkowska-Menkes et al. [2024], similarly to Radu et al. [2023], mention the opportunity to test and see how the standardisation mechanisms regarding sustainability reporting enforced by the CSRD work in real life practice. Lastly, the Dow Jones Institutional News [2023] press release states that, if properly understood, the directive can be a source of value generation, but if disregarded, the company's long-term viability could be threatened.

Viewing the perspectives from the standpoint of auditing companies represented in this thesis by the document analysis in Section 2.5.2, two points emerge. According to the PWC [2023] biodiversity management guidance, sustainability reporting done based on the CSRD will improve data availability for clients, users and society. The KPMG [2023]

biodiversity integration report outlines the perception that the directive sets out clear reporting guidelines.

To sum up the perspectives of stakeholders presented in CSRD, ESRS, SOTA, observation and document analysis of the CSRD requirements regarding corporate sustainability reporting, it can be concluded that they are diverse yet with a similar theme. Most of the stakeholders presented above have shown interest in the development of corporate biodiversity reporting under the CSRD and highlighted the importance and opportunities that correct and proper sustainability reporting can bring. The need for standardisation of the reporting process was also outlined and the expectation that the CSRD requirements would deliver positive change was expressed by many.

### 6.2.2 Interviewees' perspectives

From the interviews, it can be seen that interviewees' perspectives and approaches towards CSRD requirements vary. This is expected as the interviewees are different people, with different educational backgrounds working for very different companies. Even if they belong to the same category of practitioners depicted in Table 5.1 (see: Section 5.5), owing to for example differences in the firm's activities or size, their respective approaches and opinions differ. The text below presents each of their opinions in detail.

Starting with the interviewee working for a Danish energy company (IP1) it can be seen that biodiversity preservation is already a part of their business strategy for the next three years. As mentioned in the previous section, the company is even collaborating with the well-known Danish nature NGO DN by agreeing to commit 5% of the land the company is using in their terrestrial projects to be reserved for biodiversity and nature conservation. The interviewee stated that the company they work for has experience in conducting EIAs (environmental impact assessments) and other processes related to other environmental and nature-related issues. The company is very thorough and precise in its data collection for multiple environmentally related projects. This leads to the current situation where they as a company have a lot of data, however, it is not yet organised for CSRD reporting. Regarding IP1's expectations of the new CSRD requirements, the interviewee is mainly focused on making the data collection process more systematic than before and hopes to be able to combine the CSRD and EIA requirements to avoid a situation where the company duplicates work and performs parallel processes on the same matter [Interview Person 1, 02.05.2024]. This multiplicity and availability of data from environmental projects indicate that both IP1 as a Senior Environmental Advisor and the company they work for are prepared and ready to report on biodiversity within the CSRD framework. What is also important to mention is the fact that IP1 considers biodiversity loss to be as important as the current climate crisis and their opinion is also shared by some of the board members of the company. From this interview and others, as well as from general knowledge, it is becoming clear that the importance of biodiversity is increasingly recognised in society and is placed alongside the topic of climate change and how climate change and biodiversity are interlinked. A statement like that from the Senior Environmental Advisor also demonstrates the high level of awareness about the importance of the environment and biodiversity that is present in the company.

Moving on to the second interviewee who works as a CSR Specialist for a large agricultural

and forestry company that owns large amounts of land in Denmark. The company is also involved in poultry farming and biogas production. They are PEFC (Programme for the Endorsement of Forest Certification) certified for sustainable agriculture and forestry. As for the approach of IP2 and their company to the CSRD requirements, it consists of monitoring the situation in terms of CSRD development, but otherwise, they are not very knowledgeable on the subject [Interview Person 2, 03.05.2024]. The interviewee mentioned that the company does already monitor many of their environmental impacts due to other legislation but that this data is not centrally collected. Furthermore, they add that the awareness about the importance of biodiversity itself varies strongly among the employees of the company, though the management appears to be aware of the importance of biodiversity and the reporting. Compared to the company that Interview Person 1 works for, the company where IP2 works seems to not be as prepared for corporate biodiversity reporting. Additionally, motivations appear to be different. Where IP1 mentions willingness to show that they as a company are front-runners in biodiversity topics, does IP2 see a more reserved approach in the company where they work about the overall ambitions for corporate biodiversity reporting.

In terms of IP3 working for a big European manufacturing company, so far, their strategy regarding sustainability reporting has emphasised a measured approach to transparency, but there is a noticeable shift towards higher transparency in reaction to the upcoming CSRD requirements. However, according to the interviewee, the environmental strategy of the company they work for is not based on CSRD, as they believe that the directive does not provide a sufficiently effective structure. They do consider it a good reporting tool that can be used for communication with their stakeholders though. As of the time of the interview, IP3 and their company see the CSRD as a compliance requirement and not as a catalyst for strategic change [Interview Person 3, 03.05.2024]. This may indicate that their policy is already sufficient enough so that CSRD does not improve their position as it does in terms of other companies.

The fourth interviewee, who works as an environmental consultant and regularly works with a number of companies, when interviewed replied that he has not observed increased client interest in developing more sustainable and responsible strategies aimed at preserving biodiversity. When asked about the possibility of the CSRD affecting current practice, IP4 expressed that they forecast it to influence business strategies mostly. IP4 also foresees an increased focus on biodiversity in sustainability reporting and bettering the quality of sustainability reporting from the CSRD requirements [Interview Person 4, 03.05.2024].

A fifth interview was conducted with a consultant with rich experience in environmental consulting, who can be considered an expert in the field of sustainability reporting. When asked about biodiversity matters, the interviewee often compared it to climate reporting from around 10 years before, as they believe that biodiversity is gaining the same momentum and recognition as climate-related issues did around that time. When asked about the CSRD requirements affecting current practice, IP5 responded that what they perceive as a driver towards more sustainability-oriented change in terms of companies' strategy transformation is stakeholder interest. IP5 emphasises that in their understanding of the CSRD and the accompanying requirements they are 'framework setting rules' to understand the impacts of companies on the natural environment and making those

impacts transparent [Interview Person 5, 06.05.2024].

The sixth interviewee, who is working as a senior director in an investment company in the ESG team, believes that instead of reporting 'as much as possible', the CSRD should motivate companies to report more on the most relevant topics focusing mostly on topics considered as material by a respective company. IP6 also believes that considering issues regarding biodiversity will grow in popularity across sustainability reporting, however reporting on biodiversity should be done in a unified way using unified metrics. When asked about the impact of the CSRD on current practice, IP6 replied that due to its unstructured nature and the fact that the topic is so novel, it was difficult to discuss *current* practice. However, the interviewee believes that companies are ready to adapt their strategies to the changing requirements of stakeholders originating from the CSRD. Based on the questionnaire done regularly in the company with the companies that the investment company collaborates with, it can be seen that collaborating firms are willing to change their strategies to the feedback they get from the investment company in their role as stakeholders. As sustainability reporting is their 'public reputation', companies collaborating with the investor seem to be very much willing to go with what the different stakeholders expect of them. IP6 sees the CSRD mostly as 'another' reporting tool though [Interview Person 6, 08.05.2024].

The seventh and last interviewee works for a Nature NGO as a person responsible for communication and partnership. IP7 believes that companies' perspectives and perceptions of biodiversity will improve with both growing awareness of the topic and the CSRD requirements. Regarding the CSRD influencing the current practice of sustainability reporting, the interviewee answered that the change can most definitely be seen, as the CSRD is generating publicity for biodiversity and an overall sense of urgency regarding corporate reporting regarding environmental matters. From IP7's experience in working with companies, few companies have experience or knowledge of biodiversity at the beginning of the collaboration [Interview Person 7, 15.05.2024].

As mentioned at the beginning of this section each interviewee's opinions vary, yet some common themes can be outlined. In terms of interviewees working for their respective companies (IP1, IP2 and IP3), IP1 seems to be prepared and they are knowledgeable of the CSRD requirements, however, they do not state a specific opinion on the requirements themselves. IP2 also does not have a specific opinion on the CSRD requirements, which may be explained by the limited knowledge they have of the subject. IP3, similarly to IP1, seem to be well prepared and has sufficient knowledge of the directive. In the case of this interviewee and their company, the CSRD does not dictate strategy changes within the company, it is treated as a compliance requirement and a reporting tool that they will have to respect. Both of the consultants (IP4 and IP5) foresee a positive change in the realm of reporting and strategy changes due to the CSRD. IP5, who is considered an expert consultant also sees the requirements as a framework outlining principles for sustainability reporting. IP6 and IP7 have similar opinions about the requirements in the CSRD, with both of them anticipating growing recognition of environmental matters in sustainability reporting. IP6, who works for an investment firm, reiterates what IP3 stated about the perception of CSRD as a reporting tool that companies should comply with. It can be observed that the concept of seeing CSRD and accompanying requirements as a driver

for positive change in the recognition of environmental and therefore biodiversity issues in corporate sustainability reporting is the most popular, as it emerged in the perception of four out of seven respondents.

These different perspectives have been created by the CSRD, which can be seen as a regulation according to the theory of Hörisch et al. [2014] as seen at the top of Figure 5.4. The introduction of the CSRD has thus changed the current landscape of regulation and reporting which, as shown in the SOTA (see: Chapter 3), seems to be incomplete when looking at the uniformity of reporting, and generally the desire, willingness and ability to report on biodiversity for companies, academics and consultants. It can be seen that the CSRD has a generally positive influence on the perspectives on biodiversity reporting, as people know of the CSRD and interviewees see opportunities to work with biodiversity. This can ease the creation of mutual interest in the different stakeholder relationships that are highlighted as being important in stakeholder theory [Freeman, 2010; Hörisch et al., 2014]. The reason for this can be attributed to the high level of awareness of some stakeholders regarding the current state of biodiversity loss, corporate sustainability reporting and their experience of working with a number of external companies of said interviewees (IP4, IP5, IP6 and IP7). This lack of knowledge of IP2 on the subject of corporate biodiversity reporting under the CSRD, which is expressed by them just following the situation, could perhaps be improved by training companies' employees as Hörisch et al. [2014] suggests. Another possibility to create a mutual interest for biodiversity could be through a closer dialogue with the relevant stakeholders about sustainability and biodiversity and the change that will be given to their organisation [Camargo-Borges and Rasera, 2013].

### 6.2.3 Perception of stakeholders on the CSRD and biodiversity - summary

To conclude this section which aims to provide answers to the second sub-research question *How do selected stakeholders perceive the new CSRD requirements for biodiversity reporting?*, a couple of different perspectives can be outlined. Starting with the legislative documents, it can be understood that the CSRD and ESRS are not directly aimed at ensuring self-perception, as they are mainly oriented towards perception and being perceived by others. The SOTA literature review carried out as part of this thesis has shown that in many publications it is possible to see a perspective of hope and wish for better biodiversity reporting once the CSRD and ESRS are implemented. This hopeful approach can also be seen in the analysis of statements from 'The Big Four' auditing companies and how they perceive the CSRD. According to them, the CSRD and ESRS should provide more standardisation of sustainability reporting practices. As far as the perspectives of the interviewees are concerned, as mentioned above, they vary depending on the job the interviewee is doing. It can be noted that respondents working in environmental teams in their companies (IP1, IP2 and IP3) rarely express an open opinion. Two out of three interviewed company workers (IP1 and IP3) seem to be prepared and have a good understanding of the requirements. IP3 is the only employee of the company who expressed an opinion, stating that CSRD is treated by them and the company they work for as a compliance requirement [Interview Person 3, 03.05.2024]. On the other hand, interviewees working as consultants (IP4 and IP5), an investor (IP6) and a manager in a nature NGO

(IP7) seem to express similar opinions characterised by an expectation of positive changes in sustainability reporting and also recognition of environmental matters in relation to the implementation of the requirements from the CSRD and ESRS. It can be said that this division in the opinions expressed is a result of the experience of working with external companies that the respondents have (IP4, IP5, IP6 and IP7), while company employees only work for one company with limited stakeholder interaction, hence their more cautious answers. To simply answer the sub-research question it can be stated that selected stakeholders perceive the new CSRD requirements for biodiversity reporting differently. These differences, as mentioned above, arise from who these stakeholders are, (whether it is academia or an investment company), what the stakeholders do (whether they work for an agriculture company or are environmental consultants), what the company they work for does and on what scale it operates, and even the fact of the scientific background of the stakeholder in question matters.

## 6.3 Identified challenges and opportunities

Similarly to the perspectives of various stakeholders, the recognised challenges and opportunities of incorporating biodiversity considerations into business strategies or operations vary. They are specifically analysed to highlight the importance of understanding the CSRD as framework for biodiversity reporting and taking an initial step to improve the representation of the relevant points to address when considering reporting on biodiversity. The challenges and opportunities differ, similar to their perspectives, based on the stakeholders' backgrounds, fields of work, specialisations and experience. This section will present both challenges and opportunities grouped together based on the theme they cover. First, the challenges and opportunities found in the CSRD, ESRS, SOTA and document analysis will be presented, followed by the challenges and opportunities recognised by the interviewees and described in detail. In the case of the interviewees, difficulties and opportunities were identified through direct questions on the subject, as can be seen in the interview guide in Appendix C.

### 6.3.1 Challenges and opportunities identified in CSRD, ESRS, SOTA and document analysis

Starting with the CSRD and ESRS, these documents do not identify any challenges or opportunities of corporate biodiversity reporting under the CSRD. This possibly stems from the fact that the CSRD and ESRS take the role of frame setters and drivers of transparency and compatibility within the sphere of corporate reporting. Given that the CSRD is a very new directive and reporting under ESRS E4 can be omitted for the first two years (if a company has less than 750 employees), it can be said that the difficulties and opportunities are difficult for the EU to perceive, as reporting on biodiversity under the CSRD has not yet taken place [European Union, 2023, p. 34]. The European Commission will need to submit a report on the performance of the CSRD by 2029 and thereafter regularly every three years. This will provide more insights into challenges and opportunities identified by the EU in the upcoming years [European Commission, 2022, p. L 322/40]. The CSRD and ESRS should be impartial though, as their role is to provide guidance and requirements that reporting companies must comply with, hence the lack of

obvious challenges and opportunities identified by them. What can be seen as a response to the challenges expressed by stakeholders in the initial interrogation and development phase of the laws is the lowering of requirements in ESRS E4, making most reporting points voluntary [EFRAG, 2024].

Moving to the observations done while collaborating with the consultancy, as described in Section 6.2.1, it remains difficult to determine what the challenges and opportunities are according to the gross of the consultants, as very few consultants have a good understanding of the CSRD, let alone corporate biodiversity reporting under it, as it is a very new, specific and niche focus.

Continuing with the notion of corporate biodiversity reporting under CSRD being quite a specific and niche topic, an analysis of challenges and opportunities regarding this topic found in the SOTA is also quite a challenging task. While none of the articles identified for the SOTA were specific enough on the issue of the opportunities and challenges of corporate biodiversity reporting under the CSRD, any information on overall sustainability reporting is used as an indicator of what those could be. Starting with Erlandsson et al. [2023] the authors outline a challenge related to data collection due to the lack of relevant data. The focus of Kopnina et al. [2024] concerns accounting for biodiversity and the challenges outlined in that publication related to long and complex supply chains and how difficult it may be for practitioners to be aware of and report on those supply chains for which reporting is mandatory according to the CSRD. Another publication included in the SOTA of this thesis, written by Wassénius et al. [2024] outlines a possible difficulty arising from additional reporting requirements. While, as mentioned, a good number of the reporting points in ESRS E4 are voluntary, they are still novel and additional and still have the potential to create difficulties for those reporting. The next publication mentions several difficulties related to sustainability reporting and according to the authors' research, which concerned SMEs, the biggest reporting challenges for them are, respectively: lack of knowledge and education, lack of resources, lack of data, lack of motivation to report and lack of interest in the topic [O'Reilly et al., 2023]. The press release by Dow Jones Institutional News [2023] revealed that regarding the impending implementation of the European CSRD directive, 45% of European businesses have not yet taken any action, which in itself can be seen as the challenge of 45% of European businesses not being ready for sustainability reporting under the CSRD.

Moving on to the document analysis, an accurate and extensive document by PWC [2023] outlines a fair amount of potential difficulties. Some of these are the lack of biodiversity data, the lack of understanding of biodiversity among practitioners, the difficulty of measuring targets and interpreting results and identifying appropriate measurements as well as funding for action. One of the first difficulties mentioned, however, is the need to improve the qualifications of employees and managers on the importance and measurements of biodiversity.

Published papers included in the SOTA that mention the possibilities are the ones written by Radu et al. [2023] and Roszkowska-Menkes et al. [2024]. The first sees an opportunity to better standardise and thus provide more structure to sustainability reporting [Radu et al., 2023]. The second piece details how some authors believe that the CSRD offers a chance to elevate sustainability reporting and institutionalise it better [Roszkowska-Menkes et al.,

2024].

To summarise the challenges and opportunities presented above it can be said that publications from the SOTA and document analysis identify many more challenges than opportunities. What this may mean is that there is a lot of room for improvement in the sustainability reporting sphere, especially in the corporate biodiversity reporting arena. It also indicates that as of now there are quite a lot of initial difficulties for companies and therefore for the reporting practitioners according to academia. It can be also seen, that several of the identified challenges concern the lack of knowledge and awareness about biodiversity, its importance and measurements. However, the challenge of lack of data is the most frequently mentioned (by Erlandsson et al. [2023]; O'Reilly et al. [2023]; PWC [2023]). This demonstrates that, according to academia and the document analysis undertaken in this thesis, there is insufficient data for reporting and that a large number of practitioners do not have knowledge of biodiversity at the appropriate level. This aligns well with the notion of the 'wickedness' of biodiversity and how the subject itself is difficult. In order to gain another perspective from the practitioners themselves, interviews were conducted in which they were asked about the difficulties and opportunities arising for and from biodiversity reporting. Their responses and an analysis thereof are described in detail below.

### 6.3.2 Challenges identified by interviewees

In total 48 challenges related to incorporating biodiversity considerations into business strategies have been identified. Table 6.2 presents the challenges grouped into four groups; the blue colour indicates the *data* challenge group, the red colour indicates the challenges regarding company internal difficulties related to corporate biodiversity reporting, the purple colour encodes the challenge group associated with interactions with other stakeholders, and lastly, the yellow colour encodes the challenges that did not fit into these three groups. The plus signs symbolise which interviewee identified the challenge and the last column shows the number of interviewees agreeing with each other. The identified challenges are also numbered to facilitate an overview of which challenges are referred to.

***Table 6.2.*** Challenges of corporate biodiversity reporting under the CSRD as identified by the interviewees

| Nr. | Challenges | IP1 | IP2 | IP3 | IP4 | IP5 | IP6 | IP7 | Agree number |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Difficulty regarding biodiversity measurement | + | | | + | + | + | + | 5 |
| 2 | Difficulty with assessing when biodiversity is 'good enough' | | | | + | + | + | + | 4 |
| 3 | Difficulty with putting value on biodiversity | | + | | + | | | + | 3 |
| 4 | Specificity of biodiversity impacts | | | | | + | + | + | 3 |
| 5 | Need for more scientific data | | | + | | + | | | 2 |
| 6 | Issues of systematicity of data collection | + | | | | | | | 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 7 | Streamlining efforts to comply with several frameworks/guidelines | + | | | | | | | 1 |
| 8 | Unwillingness to read lengthy reports by upper management | | | + | | | | | 1 |
| 9 | Uncertainty about requesting relevant information | | | | + | | | | 1 |
| 10 | Lack of data | | | | + | | | | 1 |
| 11 | Issue of tackling several sustainability topics at the same time | | | | | + | | | 1 |
| 12 | Lack of tools | | | | | + | | | 1 |
| 13 | Optionality of most items in ESRS E4 | | | | | + | | | 1 |
| 14 | Size of the value chain and issues with its assessment | + | | | + | + | + | | 4 |
| 15 | Lack of internal awareness | + | | + | | | | | 2 |
| 16 | Burden of reporting | | | + | | + | | | 2 |
| 17 | Risk of wrong foci for strategies | | | | + | | + | | 2 |
| 18 | Unwillingness to invest in long-term strategies | | | | | + | + | | 2 |
| 19 | Difficulty seeing opportunities | | | | + | | + | | 2 |
| 20 | Problem of 'convincing' co-workers | + | | | | | | | 1 |
| 21 | 'Convincing' internal decision makers of relevance of biodiversity | | | + | | | | | 1 |
| 22 | Biodiversity as an obstacle of a smooth planning process | | | | + | | | | 1 |
| 23 | Companies trying to avoid biodiversity reporting | | | | + | | | | 1 |
| 24 | Uncertainty about decision-making | | | | | | | + | 1 |
| 25 | Biases regarding biodiversity | | | | + | | | | 1 |
| 26 | Lack of suitability of CSRD for strategy making | | | + | | | | | 1 |
| 27 | CSRD requirements not fitting existing company strategies | | | + | | | | | 1 |
| 28 | Unwillingness to consider own value-chains | | | | + | | | | 1 |
| 29 | Difficulty balancing time-perspectives | | | | | + | | | 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 30 | Financing the efforts for proper reporting | | | | | + | | | 1 |
| 31 | Sense of loneliness and lack of clarity about requirements | | + | | | | | | 1 |
| 32 | Difficulty of communicating biodiversity and its importance to various stakeholders | | | + | | + | | + | 3 |
| 33 | Worry about reputational risks | | | + | + | | | + | 3 |
| 34 | Scrutiny from Danish society on biodiversity reporting | | | + | | + | | + | 3 |
| 35 | Public pessimism about biodiversity from professionals and laypeople | | | | | + | | + | 2 |
| 36 | Getting the focus right | | | + | | | + | | 2 |
| 37 | Issues with identifying the relevant stakeholders | + | | | | | | | 1 |
| 38 | Ownership of produced data (for CSRD requirements) | | | + | | | | | 1 |
| 39 | Lack of knowledge among other stakeholders | | | | | + | | | 1 |
| 40 | Difficulties with understanding of biodiversity | | | | + | + | + | | 3 |
| 41 | Complexitiy of biodiversity | | | | | + | + | + | 3 |
| 42 | Difficulties with law interpretation | | | + | | | + | + | 3 |
| 43 | General difficulty with biodiversity reporting | | | | + | | | + | 2 |
| 44 | Newness of the field | | | | | + | + | | 2 |
| 45 | Biodiversity becoming a 'buzzword' | | | | | | + | + | 2 |
| 46 | Risk of greenwashing | | | | | | + | | 1 |
| 47 | Risk of arbitrary reporting | | | | | | + | | 1 |
| 48 | Difficulty of biodiversity initiatives | | | | | | | + | 1 |

As can be seen, the first group of challenges regarding **data - its analysis and management** consists of 13 challenges. It can be observed that most of the interviewees (five) identify measuring biodiversity as a challenge. Overall, it can be seen, that the challenges that interviewees agree on the most are those relating to the difficulty of understanding, assessing and correctly valuing biodiversity (challenges 1-4). This shows that multiple stakeholders regardless of fields and areas of work find this difficult and it further proves the 'wickedness' of biodiversity as a concept, as described in Section 2.1, and additionally demonstrates how difficult and complex biodiversity is to work with. In this regard, biodiversity was often compared to climate and measuring and evaluating humanity's impact on it through the kilograms of $CO_2$ emitted. This comparison was

drawn to indicate that biodiversity is not like climate in this respect. The next four challenges are related to the issues relating to the process of systematising data collection in the companies and also the lack of scientific data (challenges 5-8). These concerns were mostly expressed by practitioners working as advisors or managers in environmental teams for the respective companies. This points to the fact that practitioners working in the environmental teams of these companies are struggling with an overabundance of data, a lack of knowledge about its organisation and a lack of assistance from academia and possibly from upper management in the companies they work for. This may also be coupled with a sense of 'loneliness' and lack of clarity about the sustainability reporting requirements of the second set of challenges (challenge number 31). The following difficulties were expressed by consultants where their opinions did not coincide (i.e. one expressed one thing and the other something different) (challenges 9-13). Three of these challenges concern the lack of tools, data and the difficulty in addressing numerous environmental topics at once. Lastly, the challenges with numbers 9 and 13 which concern, respectively, uncertainty about requesting relevant data and the fact that most of the reporting points included in ESRS E4 are voluntary can be very specifically assigned to consultancies, as these challenges are in the scope of environmental consulting work.

Moving on to the next group of challenges, which are clustered under **internal difficulties**, it can be seen that this is the largest group of challenges (challenges 14-31). Starting with the opinion expressed by most of the interviewees relating to the difficulty of assessing the size of the value chain, it can be seen and also as expressed during the interviews, most of the stakeholders find reporting on the value chain (which is obligatory under the CSRD) fairly troublesome. The next challenges with numbers 15 to 26, can be grouped as challenges related to the fact that biodiversity internally in companies seems to be misunderstood and companies seem to be unwilling to report on such a complex topic. This can be seen by the challenge of, e.g. lack of internal awareness about biodiversity, multiple problems of internally 'convincing' co-workers and management that it is an important topic, how biodiversity is sometimes seen as a barrier to efficient planning and also how some companies are hesitant to make long-term strategy investments, as biodiversity is a long term issue. This confirms also what Hörisch et al. [2014] stated as being one of the main challenges in regards to sustainable development, that sustainability is not anchored with the respective organisation. A way to mitigate these internal difficulties surrounding biodiversity in corporations is by education as stated by Hörisch et al. [2014] as a possible solution and also highlighted by PWC as being a starting point for work with biodiversity reporting PWC [2023]. The role of being an educator towards companies could be done by regular schooling through academia, by expert groups, or by e.g. consultancies.

All of these 11 challenges can be also linked to the aforementioned 'wickedness' of biodiversity and biases when it comes to understanding it. The next two challenges (numbers 26 and 27) mentioned by Interview Person 3 [03.05.2024] relate to the CSRD not fitting the strategy-making processes in the company that IP3 works for. As mentioned, it can come from the fact that the company that IP3 works at seems to be very well prepared and their strategy could be on a different level compared to what the CSRD requires. Challenges 28 to 30, expressed by both consultants, touch upon the topic of companies having difficulties with proper reporting. The complexity and difficulty of reporting on biodiversity are demonstrated by the challenges of not wanting to take into account their

value chains, not being able to invest in the necessary work for appropriate reporting, and having to balance different temporal perspectives.

The following group of challenges coded by the colour purple in the table, presents the challenges related to **interactions with other stakeholders**. Here, the first challenge in this group (number 32 in the table) concerning the challenge of conveying the value of biodiversity to other, outside stakeholders is again connected to the 'wickedness' of biodiversity. The next three challenges (numbers from 33 to 35) relate to overall pessimism relating to biodiversity, concerns about making mistakes or not understanding the reporting process and the impact that any mistakes could have on the company's reputation. The next four challenges (numbers 36-39) all relate to the lack of knowledge and overall confusion that can be observed around the topic of CSRD. It is apparent that interviewees struggle to appropriately focus biodiversity reporting, are unclear of other stakeholders who are of importance to them, and seem confused about the ownership of the data produced.

The last group of challenges highlighted in yellow is a group of **other** challenges that do not fit in the previously described groups. The first two challenges (challenges 40 and 41 in the table) relate yet again to the difficulties of properly understanding and handling biodiversity-related issues. The challenges marked by numbers 42, 43 and 44 can be said to relate to the novelty of the field of corporate biodiversity reporting. Those difficulties, for example with law interpretation, can lead to unclear reports and later to difficulties in comparison between the companies. Challenge number 45 illustrates a very interesting aspect presented by Interview Person 6 [08.05.2024] and Interview Person 7 [15.05.2024]. The interviewees have expressed that the increase of interest in biodiversity creates a risk of it becoming a 'buzzword', meaning that it is used too often without adequate understanding, possibly leading to a situation where the word would lose its substance. The next two challenges (46 and 47) are related to a number of risks that the investor identifies, these being that there is a worry about companies using the reports for greenwashing and the reports being arbitrary and not relevant. The last challenge (number 48) describes the overall difficulties with any initiative relating to biodiversity which once again presents how demanding and complicated working with this complex topic is.

Summing up Table 6.2 and therefore all of the challenges identified by the interviewees, a couple of things can be concluded. Firstly it is important to take a look at the number of challenges identified by certain interviewees. The number of challenges identified can be taken here as an indication of how much understanding a person has of the topic of corporate biodiversity reporting. It can be seen that Interview Person 5 [06.05.2024] identified the highest number of challenges (19), which can be interpreted as confirmation of their extensive experience and in-depth knowledge from working as a consultant for many years. Following IP5, Interview Person 4 [03.05.2024], Interview Person 6 [08.05.2024] and Interview Person 7 [15.05.2024] who respectively work as Environmental Consultant, Senior ESG Director in an investment company and Communications and Partnership manager in a Nature NGO also identify a great number of challenges, further underscoring what has been stated in Section 6.2, that those interviewees (IP4, IP5, IP6 and IP7), due to the collaborative nature of their work and having a lot of contact with various companies (for example with companies that IP1, IP2 and IP3 work for), have a lot of experience and

therefore knowledge of how those companies function and what could be a challenge for them. From the group of company employees (IP1-3), it can be seen that Interview Person 3 [03.05.2024] shows a good knowledge of the topic of corporate biodiversity reporting, as shown by the 13 difficulties they identified. Interview Person 1 [02.05.2024] presents seven challenges, which shows their quite good understanding of biodiversity reporting, and Interview Person 2 [03.05.2024] reports only two, which confirms their previously mentioned moderate understanding. Another very important thing to observe is that the challenges on which interviewees most often agreed were those related to the difficulty of understanding biodiversity. This is mainly evident in the first group concerning data, but the theme of 'the difficulties of biodiversity' pervades and is noticeable in each group of challenges. This confirms, as has been mentioned many times before, how demanding it is to work with this subject. Another important observation is that the group of challenges related to internal problems within the company is the largest, with as many as 18 challenges. It is this group that the company's employees (IP1, IP2 and IP3) were the most aware of, as they had the most to say here compared to the other groups of challenges. This reveals that there are a lot of internal difficulties and sometimes disagreements regarding approaching corporate sustainability and especially biodiversity reporting within the companies concerned. What is also very important to keep in mind when reflecting on the aforementioned challenges is that all of the stakeholders identify challenges from their observations and experience of practice up until now, which is before the time the CSRD and ESRS were implemented. It can be stated that a number of those challenges will be solved by default by implementing the CSRD into actual sustainability reporting practice.

### 6.3.3 Opportunities identified by interviewees

In total 34 opportunities emerging from incorporating biodiversity considerations into business strategies have been identified. Similarly to presenting challenges, Table 6.3 presents the opportunities grouped into five groups; the blue colour indicates the opportunities related to data, those related to internal challenges regarding improving economic performance are indicated by the red colour, those related to enhanced transparency and comparability are indicated by the purple colour, those related to the environment benefiting from the process of corporate reporting are indicated by the yellow group, and the orange colour presents those that did not fall into any of these four categories. The last column displays the number of those interviewed who agreed with each other, while the plus signs indicate which interviewee recognised the opportunity. To make it easier to see which opportunities are being discussed, the identified opportunities are also numbered.

***Table 6.3.*** Opportunities stemming from corporate biodiversity reporting under the CSRD as identified by the interviewees

| Nr. | Opportunities | IP1 | IP2 | IP3 | IP4 | IP5 | IP6 | IP7 | Agree number |
|---|---|---|---|---|---|---|---|---|---|
| 1 | More framework for comparable reporting | | + | | | + | | | 2 |
| 2 | Merging reporting processes (EIA, etc) | + | | | | | | | 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3 | Companies seeing that they already have needed data | + | | | | | | | 1 |
| 4 | More structured reporting | | + | | | | | | 1 |
| 5 | Competition advantage to get investors | + | | | | | + | | 2 |
| 6 | New business opportunities | | | | | + | + | | 2 |
| 7 | Improved resource management | | | | + | + | | | 2 |
| 8 | Reduced investment risks | | | | | + | + | | 2 |
| 9 | Showing best-practice | + | | | | | | | 1 |
| 10 | Improved reputation | | | | + | | | | 1 |
| 11 | New market acquisition | | | | | | + | | 1 |
| 12 | Enhanced comparability | + | | + | + | | + | | 4 |
| 13 | Enhanced transparency | | | | + | | + | | 2 |
| 14 | Transparency for better investment decisions | | | | | + | + | | 2 |
| 15 | Chance to streamline reporting practice | | | + | | | | | 1 |
| 16 | Chance to improve business strategies through increased transparency | | | | | + | | | 1 |
| 17 | Improved understanding of biodiversity among stakeholders | | | + | + | + | | | 3 |
| 18 | Enhancing biodiversity, reducing impacts on biodiversity | | | + | | | | + | 2 |
| 19 | Overall improved sustainability considerations among stakeholders | | | | | + | + | | 2 |
| 20 | Biodiversity as an enabler to understand environmental and social impacts (improved sustainability understanding) | | | | | + | + | | 2 |
| 21 | Improving dialogue between stakeholders | + | | | | | + | | 2 |
| 22 | Increasing focus on biodiversity | | | | + | | | | 1 |
| 23 | Potential for increasing ambitions towards biodiversity | | | | | + | | | 1 |
| 24 | Incentive to use scientific methods | | | | | + | | | 1 |
| 25 | Less risk of greenwashing | | | | | + | | | 1 |
| 26 | Reducing the fear of the risk of greenwashing | | | | | + | | | 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 27 | Chance to show that considering biodiversity can make a difference | | | | | + | | | 1 |
| 28 | Chance for more and improved biodiversity initiatives | | | | | | | + | 1 |
| 29 | Improved nature protection | | | | | | | + | 1 |
| 30 | Biodiversity initiatives become easier | | | | | | | + | 1 |
| 31 | Change of practice | | | | | | | + | 1 |
| 32 | Reporting being done properly | | | | | | | + | 1 |
| 33 | Transparency drives change | | | | | + | | | 1 |
| 34 | Increasing pressure on stakeholders and legislation for better biodiversity | | | | | | | + | 1 |

The first group of opportunities concerns **data** and consists of four identified opportunities. The most agreed-upon opportunity addresses the CSRD offering a framework for comparable sustainability reporting. It can be regarded as a very valid observation, as one of the main objectives of the CSRD is to increase the comparability between companies. This can also be connected with opportunity number 4, as it presents an opportunity voiced by Interview Person 2 [03.05.2024] relating to the expectation for more structured biodiversity reporting. Two of the other opportunities in this group provided by Interview Person 1 [02.05.2024] relate to the possibility of combining the CSRD reporting with other environmental reporting processes (for example, Environmental Impact Assessment (EIA)) and the fact that they see that the company may already have the data needed for the sustainability report.

Next, the second group of potentials coming with incorporating biodiversity considerations into business strategies consists of seven opportunities (number 5 to 11) and relates to **improving the economic performance of the company by bettering their strategy through the CSRD**. The first two opportunities, which are agreed upon by two interviewees can be put together as they both relate to similar notions of biodiversity reporting giving companies an advantage over the competition on the market leading to new business opportunities. The environmental consulting experts (IP4 and IP5) raise the next opportunity, which is the potential for better resource management. The following potential is a possibility to decrease investment risks as presented by an expert consultant and IP6, who works for an investment company. Opportunity number 9 voiced by IP1 is the possibility of showing best practices on the market and therefore becoming a front-runner in their respective field, which this interviewee believes to be brought on by the strategy-making based on the CSRD requirements. The last two opportunities are connected with each other as both present the possibility of improving reputation which can possibly lead to new customers and new market acquisition.

The following group of opportunities coded by the purple colour relates to **transparency and comparability** (12 to 16). In this group, the first opportunity listed is the one that most of the interviewees agree upon and it concerns the enhanced comparability within

the sectors. This observation, the same as the first opportunity in the table (number 1) is a very pertinent one, as enhanced comparability is one of the key objectives of the CSRD. The following two potentials (13 and 14) are also very much in line with the CSRD aim of increased transparency among reports. The last two opportunities (15 and 16) pertain to ways in which the previously described potential for more transparency may be used to enhance reporting practices and business strategy. The third interviewee emphasised the possibility and importance of using help from consultants to enhance said reporting procedures [Interview Person 3, 03.05.2024].

Another group of potentials recognised by the interviewees concerning **environment as a beneficiary from corporate sustainability reporting processes** is coded in yellow colour and is the biggest group of opportunities (numbers 17 to 32). The first opportunity in the group relates to the possibility of improving the understanding of biodiversity among the various stakeholders. This understanding was said by the interviewees to also include a better comprehension of the complexity and interconnectedness of biodiversity with other sustainability topics. The next opportunity relates to the belief that considering biodiversity while developing business plans can lead to enhanced biodiversity levels by reducing impacts on it. The next three opportunities (numbers 19-21) are related to how considerations regarding biodiversity among the stakeholders are overall improving dialogue and understanding of other environmental and other (e.g. social) sustainability reflections. Opportunities listed in the table with numbers 22 and 23 regard how not only the focus but also the ambitions towards biodiversity actions can be improved. The following opportunity (number 24), according to Interview Person 5 [06.05.2024], entails companies being more willing to use scientific methods when measuring, assessing and reporting on biodiversity instead of previously used arbitrary measurements. Opportunities numbers 25 and 26, also stated by IP5, relate to greenwashing and how they believe that by incorporating biodiversity considerations into business strategies, companies doing so are less likely to greenwash and the concern about greenwashing could be also reduced. IP5 also expressed that in their opinion considering biodiversity in the business strategy *can* make a difference in the realm of overall sustainability and especially regarding biodiversity itself [Interview Person 5, 06.05.2024]. The next three opportunities (numbers 28-30) expressed by Interview Person 7 [15.05.2024] concern the expectation of how the biodiversity itself can be enhanced. The interviewee sees potential to enhance nature conservation and raise the standard for biodiversity initiatives, in addition to possibilities for the processes of biodiversity initiatives to be made easier. Finally, opportunities to change practice to be more environmentally focused through improved business strategies and activities (number 31) and the potential for proper reporting (number 32) are mentioned.

The last group of opportunities which in the table is coded in orange colour consists of two potentials. Firstly, the opinion that transparency drives positive change (number 33) is expressed by Interview Person 3 [03.05.2024] and secondly, the anticipation of increased pressure and influence on various stakeholders and legislation (opportunity number 34) is highlighted.

To summarise on Table 6.3 and thereby all of the prospects for integrating biodiversity concerns into company strategies, a few things can be noted. Firstly, it is important to mention that the opportunity that was mentioned most often, is a chance for an enhanced

comparability of biodiversity performance of companies within one sector, but also across sectors. As has previously been stated twice, this is a crucial remark as the CSRD's goal is to enhance comparability. This is also an element on which most interviewees agreed. The second most frequently mentioned opportunity by stakeholders as a result of the new CSRD requirements is a better understanding of biodiversity among stakeholders. This includes understanding the complexity of biodiversity and its interconnectedness with other sustainability topics, in particular climate. That the CSRD may hold an opportunity for better stakeholder knowledge fits with the statements of Hörisch et al. [2014]. First of all, the interviewees see the CSRD as an opportunity to counter the lack of comparable approaches to sustainability among stakeholders. This fits with the statement by Hörisch et al. that regulation could help create that mutual understating. But it also, again, highlights the potential and opportunities that lay in the education of stakeholders, such as for them to be better suited to work with CSRD and biodiversity. Another important observation is the number of opportunities identified by certain interviewees. Same as in the case of aforementioned challenges, Interview Person 5 [06.05.2024] recognised the highest amount (15 in total) of the potentials. This again proves their extensive knowledge and experience and validates the choice to treat this interviewee as an expert consultant. Following IP5 are, again, Interview Person 6 [08.05.2024], Interview Person 7 [15.05.2024] and Interview Person 4 [03.05.2024]. This once again confirms that the interviewees, who are in contact with many companies in their daily work, have a lot of experience and a good overview of what might be relevant to these companies. A further crucial aspect is the fact that the opportunities clustered in the group recognising an environment and therefore biodiversity as beneficiary is the biggest group of 16 opportunities. This aspect indicates that the interviewed stakeholders could be 'environmentally biased'. The people interviewed were generally aware of the importance of biodiversity, very often with a background in natural sciences or working with natural environmental issues on a daily basis, indicating that they are environmentally minded people, hence the number of opportunities identified.

### 6.3.4 Challenges and opportunities identified by selected stakeholders - summary

Overall, more challenges than opportunities are identified by the selected stakeholders. This can have several reasons. One could be that stakeholders lack knowledge of corporate biodiversity reporting under the CSRD and become overwhelmed by the uncertainties that they perceive. Another reason could be that the identified challenges include concerns not only related to the current state of biodiversity reporting but also challenges from *before* the CSRD that are going to be addressed through the implementation of the reporting requirements into business strategies. Of course, it is also possible that the before-mentioned points exist in combination with and in addition to the challenges that directly arise from the *new* reporting requirements.

Throughout the identification of both challenges and opportunities, the topics of understanding and data management appear regularly. The understanding of biodiversity is considered by all to be a challenge but stakeholders also see the opportunity for enhancement of this knowledge thanks to the implementation of the CSRD requirements. It can thus be argued that the challenge of lacking an understanding of biodiversity

is going to be solved if companies are willing to educate themselves on the topic to achieve comprehensive corporate biodiversity reporting. The challenges and opportunities regarding data management most often concern the handling of biodiversity data, including measurement of biodiversity and the communication about that, but also the comparability of biodiversity performance among companies between sectors. Stakeholders consider the communication of biodiversity data company-intern and to other stakeholders as important. If stakeholders under the new framework of the CSRD become successful in organised data management and communication, it can be expected that the challenges that stakeholders currently identify will be reduced.

To answer the sub-research question three *What do selected stakeholders identify as challenges and opportunities arising from corporate biodiversity reporting?*, it can be said that challenges are concerned with data management, company internal difficulties, interactions with other stakeholders, and others, especially the difficulty in understanding and measuring biodiversity. Opportunities cover the themes of data management, chances of improving company strategy, transparency and comparability, and the environment as beneficiary. All of these topics are in one way or another connected to the understanding of biodiversity and the handling of the needed data for corporate biodiversity reporting for the CSRD.

## 6.4 Synthesis of the analysis

The first part of the analysis on the identification of stakeholders and the classification of their typologies highlights that stakeholders can together identify a broad range of other stakeholders but few have a comprehensive overview of which stakeholders need to be involved in the process of corporate biodiversity reporting. This can be explained through the lack of understanding of the importance and the roles of stakeholders. The role, or importance, of stakeholders also heavily depends on the identifying party, which explains why there is no 'across-the-board' solution to a stakeholder mapping for corporate biodiversity reporting under the CSRD.

The second part of the analysis explores stakeholders' perspectives on the new requirements of the CSRD on biodiversity reporting. The analysis shows that stakeholders, especially those interviewed, have surprisingly positive attitudes towards the directive and high expectations for the development of corporate biodiversity reporting under the new framework. Yet, the overall opinion of all the stakeholders described, varies as these stakeholders differ, as highlighted in Section 6.1. Additionally, it can be seen that companies' willingness to adapt their strategies on biodiversity based on changing stakeholder demands depends on the stakeholder's typology, so ultimately on their power, urgency, and legitimacy.

The third part of the analysis researches which challenges and opportunities stakeholders identify under the new requirements of the CSRD for biodiversity reporting. Here, the most important and most frequently mentioned topics are understanding and data management. The understanding covers mostly the understanding of the topic of biodiversity itself. Data management concerns the availability and handling of data. All stakeholders identify the before-mentioned points as difficult but express various forms of hopes and expectations

for improvement on all of these topics based on the implementation of the requirements of the CSRD.

The findings from the analysis highlight that a thorough stakeholder mapping, as attempted in Section 6.1, for corporate biodiversity reporting under the CSRD is in fact challenging and it can be argued that collaborative processes between companies and other stakeholders like consultancies, academia and/or NGOs can help to achieve a comprehensive stakeholder mapping for the reporting company and support the data development and management.

Furthermore, the findings from the second part of the analysis on the stakeholders' perspectives indicate that challenges and opportunities can be seen as a part of the perspectives instead of an expansion of the research, as visualized in the below figure.

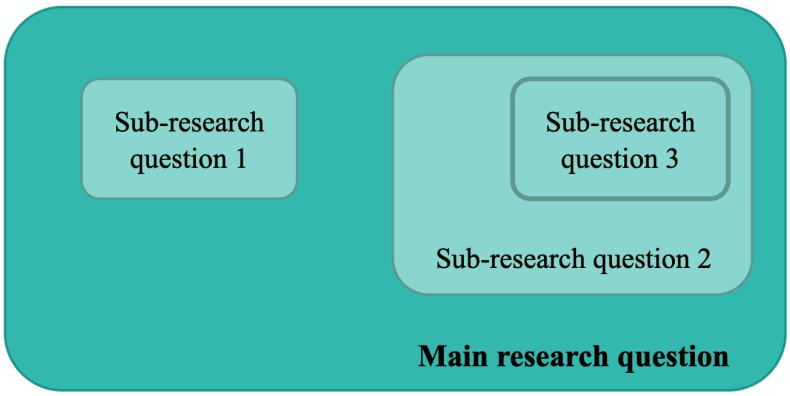



***Figure 6.2.*** Visualization of the adapted analysis design

The adaption for the analysis design can be made, as after the findings from the third sub-research it becomes clearer that they are a part of the second sub-research question. This finding was made after a reflection on the findings and the structure of the analysis. For this reason, the first design as captured by Figure 6.1 is not changed.

The surprisingly positive attitude of stakeholders towards the potential of the CSRD for corporate biodiversity reporting can be better understood in more depth when considering the challenges and opportunities that stakeholders see. More challenges are identified by the selected stakeholders, but it is at the same time that the stakeholders expect these to be improved on through the implementation of the requirements of the CSRD. This is especially concerning the understanding of biodiversity and the management of biodiversity data and the comparability thereof within sectors.

# Discussion and recommendations 7

In this chapter, the study's findings or lack thereof are further interpreted and explained. The methods and frameworks utilised in this Master's thesis are also discussed and can be found here.

## 7.1 Discussion of frameworks and methods applied

Given that during the course of the project it became increasingly clear that stakeholders play a very important role in the corporate sustainability reporting system, the chosen theory seems more than suitable for this paper. Given that stakeholders seem to have a crucial impact, especially on biodiversity reporting, as companies seem to be very unsure how to deal with the topic of finding common interests between relevant stakeholders, choosing stakeholder theory seems a good starting point. A limitation is the existing difficulty in assessing whether the relevance of stakeholder identification will maintain the same importance over the course of time and in different arenas. Another limitation may be that the chosen stakeholder theory develops three themes ('power', 'legitimacy' and 'urgency') that can be considered as theories in themselves. A different theoretical approach would be to use all three of them and combine them independently to receive a more differentiated view. This could be very useful, especially when analysing power relations between stakeholders.

Observations done while collaborating with the consultancy and particularly non-participant observation utilised in this project enabled receiving an initial understanding of the CSRD and ESRS. It was beneficial to have access to first-hand opinions and perspectives from consultants, who are some of the important stakeholders identified in this project. This method is especially useful as the field of corporate biodiversity reporting for the CSRD and ESRS E4 is so novel, that scientific literature has not yet sufficiently covered the topic. The limitation of observations as a method is also focused on the newness and thus the speed of knowledge development. It is impossible to keep up with the opinions and approaches that are being published on a daily basis and it is very likely that some interesting ideas were thus unfortunately overlooked. Another limitation is that through observation one can become too biased, taking the perspective of the observers, in this case consultants, as one's own.

Moving on to the state-of-the-art literature review, an important aspect of this method is the ability to examine the latest state of scientific knowledge on the subject and to explore the scientific community's views on new legislation. Through this method, it was possible

to establish and confirm the assumptions made that this is a very novel topic, to the extent that there are no academic papers on corporate biodiversity reporting for the CSRD. It is crucial to note, that the SOTA was conducted in the beginning of the project where the exact problem formulation of the thesis had not yet been finalised. Later in the process it was concluded that it serves more as a tool to support the problem formulation. Thereby, this means that, although the literature review has produced a large amount of knowledge, its initial purpose is somewhat different from the end goal of the project. Nevertheless, the SOTA in its initial form has been retained in the project to document the scientific process of this work and to highlight existing findings.

The document analysis undertaken in this paper is based mostly on the methodology of a grey literature review with non-linear searches in various mediums on anything related to the project's thematic focus. This has turned out to be highly informative, yet, the same limitations as with observations apply, namely that it is likely that some interesting ideas and information were overlooked due to circumstance and the quickly developing field of corporate biodiversity reporting under the CSRD. The advantage of a document review is that such documents are published more quickly than the scientific literature and by different stakeholders (e.g. investment companies, auditing companies or environmental NGOs), allowing multiple perspectives to become known relatively quickly, for example, as in the case of this project, when new regulations come into force. An important limitation of the document review is that sometimes published documents may not be scientifically validated. This can lead to situations where biased or incorrect information may be made public.

Moving to the interviews, one of the most significant insights obtained from this approach was the knowledge and 'hands-on' perspectives on the CSRD drawing on their experience in their respective fields. The semi-structured approach allowed interviewees to add any thoughts and commentary they wished to further share beyond the questions asked. The selected interviewees provided an accurate identification of stakeholders who were also consistent with stakeholders identified in various data sources (legislative literature, observations, SOTA, document analysis, and other interviews), indicating the importance of the selected interviewees as stakeholders. What could be very insightful and useful is to conduct interviews with more company practitioners (like IP1, IP2 and IP3) on their thoughts on corporate biodiversity reporting and to increase the validity of the findings, though this was not done due to the assumption that the companies that would have been willing to be interviewed about the topic, would have provided the same or very similar information as the three selected cases. What is also very important to mention is the fact that the interviewees are likely 'environmentally' biased through their backgrounds, often from natural sciences. Furthermore, the fact that the interviewees were willing to be interviewed indicates that they are interested in the topic of corporate biodiversity reporting enough to talk about it. As a limitation, it can be considered that companies that do not wish to include biodiversity in their CSRD sustainability reports were not interviewed, and therefore their perspectives may have been unintentionally omitted from this study. This may lead to a situation where the perspectives presented and the challenges and opportunities identified may be 'more positive' than they actually are, as possible negative attitudes have been overlooked.

**Discussion of the validity of the results**

As at least two data sources relate to each of the project's findings, all are considered reasonable and valid. It is strongly believed that this master's thesis supports the understanding of corporate biodiversity reporting under the CSRD in the scientific field as well as in the field of consulting. Given that the importance of stakeholder identification for corporate biodiversity reporting is considered to be very valuable, and its importance seems to be underestimated in the current discourse, it is believed that this project can contribute to improving stakeholder identification and thus dialogue with stakeholders. Moreover, the results are consistent with stakeholder theory, confirming the validity of the findings. However, it should be reiterated that the interviewees interviewed for this thesis are likely to have positive attitudes towards biodiversity, as they are willing to consider the topic and broaden their understanding, as well as share knowledge about their approach to corporate biodiversity reporting. As potential negative stakeholder attitudes may have gone unnoticed, the identified opportunities and challenges may appear 'too positive' compared to what they actually might be.

## 7.2 Discussion of stakeholders

In this project, many stakeholders for corporate biodiversity reporting have been identified. The identification varies according to the source or in fact the stakeholder. This section discusses stakeholders that are not sufficiently covered in the project yet.

The following list shows the important stakeholders recognised during the research carried out as part of this thesis:

- Legislative authorities
- Companies
- Nature
- Investors
- Auditors
- NGOs
- Business relationships (including Consultancies)
- Academia
- Owners and company internal decision-makers
- Customers
- Regional authorities
- Local communities
- Civil society

This list is not indicative of their rank of importance to the process of corporate biodiversity reporting since, as argued in Sections 5.1 and 6.1, the importance depends on the respective, identifying stakeholder (or for example company). This list is more extensive than that which is presented in the analysis because in the analysis there are only those stakeholders which other stakeholders identified. It is important to mention though, that few stakeholders have identified themselves as relevant to the process, most likely because they either deemed it obvious that they themselves should be included, or because they forgot that they are relevant to the process.

Legislative authorities here are those institutions that created or transposed the law relevant to sustainability reporting. In this case, the EU, which created and published the Corporate Sustainability Reporting Directive, is the main legislative authority. The authorities that have to transpose the law are the national governments of the EU member states. These are relevant stakeholders as they set the frame for what needs to be reported and are ultimately also the institutions that will need to control whether the law is being upheld. It is likely that no stakeholder mentioned legislative authorities because often they only see 'the law' as a fixed structure and not the many stakeholders like the EU, EFRAG, national governments, and all other contributors that stand behind it.

Nature is the only non-human stakeholder in the above-mentioned list. It is important for most sustainability topics but its importance needs to be especially highlighted for the topic of biodiversity and ecosystems. Nature is the ultimate beneficiary of successful sustainability reporting and strategies. This is a socio-ecological point of view and one could also argue that humans, by proxy, are the ultimate beneficiaries, as humanity benefits from an intact nature but it is here claimed that humans are a part of planet Earth and thus Nature. There is no assigned spokesperson for nature as a stakeholder but nature NGOs and academia have been identified through other stakeholders and themselves as to be speaking on behalf of Nature. Companies should be aware of this when considering reporting on biodiversity for the CSRD as they need to consider whom to include in their stakeholder mapping in order to select the best-suited source of information for nature-related information. It could also be argued that consultants might be considered as spokespersons for nature if they advocate for enhanced biodiversity strategies. This depends on the individual's approaches to consulting though or the consultancy's general policy towards biodiversity consulting.

Auditing companies are not identified by many of the selected stakeholders in this project but their importance is non-debatable. The sustainability reports will need to be audited, which is highlighted in the CSRD and ESRS. Possibly, the auditors' importance is not actively stated by other stakeholders as it is considered self-evident or because some stakeholders are not yet aware of the importance of auditing companies. It is interesting to note that few auditing companies appear to be prepared for the topic of biodiversity reporting as can be seen in Section 2.4. Only PWC provides guidance to financial institutions on how to consider biodiversity topics at the time of the research. This can be considered a worrisome lethargy on the side of auditing companies with regard to the chance of enhancing biodiversity and nature in general. Several stakeholders and observations support the understanding that auditing companies are not prepared because they lack the expertise to audit these highly specific sustainability topics but it can be argued that it is high time to include this expertise due to the rising demand for auditing corporate sustainability reports due to the CSRD.

Non-governmental Organisations, more specifically those that work on nature-related topics, are considered spokespersons for Nature and have been identified as stakeholders for corporate biodiversity reporting by several other stakeholder groups. Whether they have recognised their (potential) role in the scheme of corporate sustainability reporting yet appears to depend on the organisation. While organisations like WWF already provide guidance on how to report on biodiversity, other smaller organisations like Dansk

Naturfredningsforerning (DN) appear not to be ready to act as stakeholders. DN had been approached for an interview for this project but the organisation rejected it, claiming that they are just in the process of building their expertise on corporate biodiversity reporting and could thus not be of help to this research. This can be considered as surprisingly slow as corporate sustainability reporting has been a requirement for many years under the SFDR and NFRD, and the CSRD merely expands the scope of companies that have to report on these topics. IP7 also comments that DN is locally considered a "slow organisation" [Interview Person 7, 15.05.2024]. NGOs have the potential to achieve great benefits for nature and biodiversity if they are willing to take on the role as stakeholder for Nature and cooperate with companies for the corporate biodiversity reporting. The cooperation between Dansk Naturfredningsforening and the company that IP1 works at can be seen as an example of the potential [Interview Person 1, 02.05.2024].

Business relationships are also stakeholders in the process of corporate biodiversity reporting. While most companies will likely consider their business partners in the upstream and downstream value-chain, Freudenreich et al. [2020] propose to also consider consultancies as business partners. Considering one's business partners from upstream and downstream value-chain operations is obligatory under the CSRD. Consultancies can be approached for additional support for the reporting process, which would be recommendable to companies if they do not have their own sustainability department with the expertise to cover corporate biodiversity reporting. Consultancies need to be aware of their potential importance to corporate biodiversity reporting as they can be an active facilitator and change agent towards enhancing biodiversity by providing the companies with relevant information and support for assessments and strategy-making [Ottaway, 1983].

Academia can be a more or lesser active stakeholder for corporate biodiversity reporting. Depending on the interaction between stakeholders, academia can act as a spokesperson for Nature, as a data provider for the assessments in companies, for information on approaches and strategy-making or as observant of the process. Currently, it could be considered beneficial for the process of corporate biodiversity reporting under the CSRD to include academia as an active participant and stakeholder, as publishing scientific literature is a comparably slow process and valuable knowledge could be overlooked because of that. This project can be considered as an active integration of academia in the process of knowledge creation both for the collaborating consultancy Niras and the other stakeholders who were interviewed for the project. As mentioned in Section 5.2, the research can here be deemed to be an active stakeholder in the process of knowledge creation for corporate biodiversity reporting.

Customers can be considered as two different stakeholders. One type of stakeholders are business-to-business customers who fall under the category of business relationships according to the ESRS as they belong to the value chain. The other type of customer-stakeholder are non-business customers or end-consumers. Few of the selected stakeholders in this project mention customers as relevant stakeholder to the process of corporate biodiversity reporting. This can be explained through the typology of stakeholders as explained in Section 5.1.2. The power, legitimacy and urgency of customers depend heavily on the respective product and the company that they are interacting with. Some

customers might care about the topic of biodiversity but as non-organised groups do they often lack the power to achieve change. Thus the importance of customers to companies as stakeholders depends heavily on their relationship. Additionally, it needs to be considered that not everybody is willing to or even has the privilege to purchase sustainable options.

It is important to understand who one's stakeholders are, in order to achieve a comprehensive overview of one's impacts, dependencies, risks and opportunities. This is especially relevant for the topic of biodiversity and ecosystems since these topics are so highly complex, and 'wicked', and it is thus easy to accidentally forget an important part. Choosing the right stakeholders to interact with, depends heavily on the timing in the process and the company. Landscapes of stakeholders and their importance are immensely variable and it is not possible to provide an 'across-the-board' list for whom to involve. Nonetheless, the stakeholder mapping can be chosen as a starting point for corporate biodiversity reporting under the ESRS E4 and it is to be recommended to utilise an enhanced stakeholder dialogue to identify the mutual interests to create relevant and concise corporate biodiversity reports.

## 7.3 CSRD and the ESRS E4 - Impacts, Risks and Opportunities of the frameworks

The CSRD was published by the EU in December 2023 and many stakeholders are actively working on achieving compliance with the law (or going beyond). There appears to be a general consensus on the directive that 'it is difficult', yet at least for the topic of biodiversity reporting, many stakeholders mention the hope that it will achieve the directive's aim, which is to enhance transparency and comparability on companies sustainability performance (in order to meet the goals set in the European Green Deal). It does not appear to be the public opinion that the CSRD is unfit to meet these goals but the exact method for achieving those goals appears to cause difficulties.

For the topic of corporate biodiversity reporting for the ESRS E4 - Biodiversity and Ecosystems, the standard that describes how to meet the requirements for corporate biodiversity reporting for the CSRD, possible problems are that the requirements can be and are interpreted differently by different stakeholders. Additionally, it can be easy to drown in uncertainty over the amount of new requirements for corporate sustainability reporting when stakeholders lack the necessary knowledge. These difficulties by proxy are also relevant to the CSRD.

Because the CSRD states that the undertaking companies have to take action about these ESG challenges it is possible that companies will aim for compliance only with the directive. They may in principle have a big impact on biodiversity, but no desire to do anything about it. Which is in fact not against the law, as long as they comply with the reporting requirements. Therefore, it is yet to be observed whether the CSRD ends up being a reporting burden or whether there is a real opportunity for the CSRD to create an expectation for a sustainable future. If change is to be created, how should this be done and who should take the leadership for it? Companies can, of course, be ambitious and move beyond compliance. Here it can be argued that, based on the analysis, companies may need help with reporting, as they generally saw fewer opportunities and challenges than the

other interviewees. Therefore, it may be that consultants should take on the role of change agents, as far as possible in relation to the companies' wishes. However, it can be seen from the analysis that if companies want to be at the top in terms of attracting investment, they need to move beyond compliance. Therefore, companies should be ambitious when it comes to biodiversity, especially when biodiversity is becoming a relevant topic for both investors and civil society.

## 7.4 Recommendations

It is considered most important by this project group to know one's stakeholders when approaching corporate biodiversity reporting under the CSRD. Thus, the strongest recommendation of this project is to conduct a stakeholder mapping when starting the process of biodiversity reporting. This mapping should include a classification of the stakeholders to identify the importance for the current phase of the reporting process and the company in general. Additionally, the mutual interest between the stakeholders should be identified to streamline the reporting process.

The second most important step is to identify where to receive help for reporting. Biodiversity is a highly complex topic as stated several times throughout the project. Therefore it makes most sense for the companies undertaking the reporting on biodiversity to tackle the topic in a team, be this by stakeholder dialogue, by engaging the support of consultancies, or by educating oneself through for example work-shops.

The third recommendation of this project is tailored towards consultancies and it is a reminder that they should be aware of the impact that they can have in this process of corporate biodiversity reporting. Many consultancies have the expertise and if they choose to apply a standardised approach to helping consultancies, they can strongly support the CSRD's goal of enhancing transparency and comparability and achieving a more sustainable future. The consultancies could thus be considered as facilitators for being a change-agent under the scientific framework of Ottaway [1983].

# Conclusion 8

This project researches stakeholders and their perspectives on the new requirements for corporate biodiversity reporting under the CSRD and what they perceive as challenges and opportunities arising therefrom. In order to map stakeholders' perspectives, the relevant stakeholders need to be identified. This process turned out to be highly relevant and also highlighted the importance of knowing one's stakeholders for the process of corporate biodiversity reporting. The findings of this project can be considered a baseline research on the perspectives of Danish stakeholders on the process of reporting on biodiversity under the CSRD. Stakeholders have been identified as required for sustainability reporting under the CSRD, classified, and their perspectives mapped, which supports both the understanding on the topic within the academic field as well as with the interviewed stakeholders, especially the consultancy Niras with which this project was written in collaboration.

The main Research Question of this master's thesis is

**Who are the relevant stakeholders for biodiversity reporting under the Corporate Sustainability Reporting Directive, what are their perspectives on the new requirements and based on these, which challenges and opportunities do they identify?**

This can be answered as follows: The relevant stakeholders for biodiversity reporting under the CSRD vary, a selection of them being Legislative authorities, Companies, Nature, Investors, Auditors, NGOs, Business relationships (including Consultancies), Academia, Owners and company internal decision-makers, Customers, Regional authorities, Local communities, and Civil society. Their role and importance depend on the identifying stakeholder, making stakeholder roles dynamic. The selected stakeholders in this project perceive the new requirements on corporate biodiversity reporting as challenging but expect more comparability among companies within sectors. The main identified challenges are how to measure biodiversity and biodiversity data management and communication. Opportunities of the CSRD for inter alia companies include more structure for reporting and improved knowledge on biodiversity.

A shift is coming whereby the EU requires listed companies to report on sustainability topics through the CSRD. One of the sustainability topics that must be reported on is biodiversity and ecosystems. Biodiversity is proven to be a highly complex field in biology and is considered a 'wicked problem' due to its complexity and interconnectedness to other sustainability topics. Methods utilised in this Master's thesis highlight that the topic of corporate biodiversity reporting is considered to be difficult and companies undertaking

the reporting seem to need guidance in the process. While many stakeholders need to be considered throughout the corporate biodiversity reporting process, consultancies can serve as change agents and facilitators to support the CSRD's goal of enhancing transparency and comparability among companies, provided they offer structured expertise. As highlighted by several selected stakeholders in this project, the importance of the business strategy, especially in the first years, is more important than their direct impact on biodiversity. The first strategy that is highly recommended when approaching corporate biodiversity reporting is to prioritise activities. A priority when considering biodiversity reporting for CSRD should be stakeholder identification, which is also required by the CSRD and ESRS. This is important for a comprehensive overview of companies' impacts, dependencies, risks and opportunities related to biodiversity; and to enhance stakeholder dialogue to achieve maximum transparency across the value chain. Who the most relevant stakeholders are depends largely on the reporting company, and while it is not possible to provide a 'one-size-fits-all' list for every company, it is recommended to consider the above list of stakeholders as a starting point. Having identified the relevant stakeholders, the mutual interests and objectives between stakeholders in corporate biodiversity reporting should be established through stakeholder dialogue. Doing so can assist in achieving the best possible overview and is likely to support the reporting process. Said process can facilitate a better understanding of biodiversity and compliance with the requirements set by the CSRD and ESRS for biodiversity reporting. Given the importance and urgency of increased biodiversity awareness, adequate attention must be given to ensure that reporting practices during the process are done correctly.

## 8.1 Further Research

As the research of this thesis concerns a relatively new European directive, it is highly recommendable to revisit the topic of CSRD and biodiversity regularly. This is to verify the relevance of the early stakeholder involvement and to understand how the understanding of biodiversity among companies develops in the coming years. It would furthermore be interesting to include companies in the research approach that are unwilling to consider biodiversity as material for their sustainability reports. Another interesting approach to expand on this project's research would be to compare the findings to the current perspectives of stakeholders on the other Environmental standards of the ESRS (ESRS E1, E2, E3, E5). It could also bring a more comprehensive overview to this research if small- and medium enterprises that are not currently obligated to report under the CSRD, were analysed under the same research approach to map their perspectives on corporate biodiversity reporting.

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# Appendix A

## A.1 Search string list

This appendix contains the list of search terms used in the second phase of the state-of-the-art literature review described in Section 5.4.

1. “CSRD” AND “biodiversity”
2. “corporate sustainability reporting directive” AND “biodiversity”
3. “corporate sustainability reporting” AND “biodiversity”
4. "business model" AND "biodiversity" AND "CSRD"
5. “impact, risk and opportunity” AND “biodiversity”
6. “impact, risk and opportunity” AND “biodiversity” AND “CSRD”
7. "CSRD" AND "challenges"
8. "CSRD" AND "difficulties"
9. "CSRD" AND "weaknesses"
10. "CSRD" AND "opportunities"
11. "corporate sustainability reporting directive" AND "challenges"
12. "corporate sustainability reporting directive" AND "difficulties"
13. "corporate sustainability reporting directive" AND "weaknesses"
14. "corporate sustainability reporting directive" AND "opportunities"
15. "biodiversity" AND "CSRD" AND "challenges"
16. "biodiversity" AND "CSRD" AND "difficulties"
17. "biodiversity" AND "CSRD" AND "weaknesses"
18. "biodiversity" AND "CSRD" AND "opportunities"
19. "corporate sustainability reporting directive" AND "biodiversity" AND "challenges"
20. "corporate sustainability reporting directive" AND "biodiversity" AND "difficulties"
21. "corporate sustainability reporting directive" AND "biodiversity" AND "weaknesses"
22. "corporate sustainability reporting directive" AND "biodiversity" AND "opportunities"

# Appendix B

## B.1 Glossary of relevant concepts and terms from the ESRS

As the ESRS use certain concepts, terms and expressions some of them are listed here for reference in the main text of this project. The full glossary for the ESRS can be found in the Commission Delegated Regulation 2023/2772 Appendix II [European Union, 2023].

Differentiation between may and shall:
**May** - expresses a best practice, something that a company may do if they so wish.
**Shall** - expresses a requirement, a company must follow this instruction

**Disclosure requirement** - Information that **must** be provided.

**Impact** - positive and negative effects on and from environmental, social and/or governance topics (included in IRO)

**Risks and opportunities** - positive and negative effects on and from financial topics (included in IRO)

**Metrics** - "Qualitative and quantitative indicators that the undertaking uses to measure and report on the effectiveness of the delivery of its sustainability-related policies and against its targets over time. Metrics also support the measurement of the undertaking's results in respect of affected people, the environment and the undertaking." (from Annex II, page 273, Commission Delegated Regulation 2023/2772)

**Targets** - "Measurable, outcome-oriented and time-bound goals that the undertaking aims to achieve in relation to material impacts, risks or opportunities. They may be set voluntarily by the undertaking or derive from legal requirements on the undertaking." (from Annex II, page 281, Commission Delegated Regulation 2023/2772)

**Cross-cutting standards** - applying to all sustainability topics (ESRS 2, paragraph 1, page 41, Commission Delegated Regulation 2023/2772)
**Topical standards** - sector-agnostic, i.e. applying to all companies regardless of sector, have a topical focus, such as Environment (E), Social (S), or Governance (G)
**Sector-specific standards** - specific to the sector that they address, not to be found in the Commission Delegated Regulation 2023/2772 (Drafts have been published by EFRAG in March 2024) [EFRAG, 2024b]

**Material/Materiality** - relevant/important/significant; varying scope depending on impact materiality or financial materiality (see definition in the Section 2.3.2)

**Impact materiality:**

- defined as impacts and risk from the company (inside out) by some
- an "undertaking's material actual or potential, positive or negative impacts on people or the environment over the short-, medium- and long-term.",
- for better understanding see Objective 3.4, paragraphs 45 and 46. (see ESRS 2, objective 3, paragraph 37 (a))
  - severity of negative impacts is based on scale, scope, and irremediability
  - materiality of positive impacts is based on
  - scale and scope for actual impacts
  - scale, scope and likelihood for potential impacts

**Financial materiality:**

- defined as impacts and risk from outside on the company by some
- "A sustainability matter is material from a financial perspective if it generates risks or opportunities that affect (or could reasonably be expected to affect) the undertaking's financial position, financial performance, cash flows, access to finance or cost of capital over the short, medium or long term." (Annex II, page 267, Commission Delegated Regulation 2023/2772)
- "[...], information is considered material for primary users of general-purpose financial reports if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that they make on the basis of the undertaking's sustainability statement." (ESRS 1, page 10, Commission Delegated Regulation 2023/2772)
- "A sustainability matter is material from a financial perspective if it triggers or could reasonably be expected to trigger material financial effects on the undertaking." (ESRS 1, page 8, paragraph 49, Commission Delegated Regulation 2023/2772)

**Double materiality** - "Double materiality has two dimensions: impact materiality and financial materiality. A sustainability matter meets the criterion of double materiality if it is material from the impact perspective or the financial perspective or both." (Annex II, page 266, Commission Delegated Regulation 2023/2772)

**Value chain** - "The full range of activities, resources and relationships related to the undertaking's business model and the external environment in which it operates." (Appendix II, page 281, Commission Delegated Regulation 2023/2772)

**Users** - "Users of sustainability statements are primary users of general-purpose financial reporting (existing and potential investors, lenders and other creditors including asset managers, credit institutions, insurance undertakings), as well as other users, including the undertaking's business partners, trade unions and social partners, civil society and non-governmental organisations, governments, analysts and academics." (Appendix II, page 281, Commission Delegated Regulation 2023/2772)

**Stakeholders** - "Those who can affect or be affected by the undertaking. There are two main groups of stakeholders:

- **Affected stakeholders** - individuals or groups whose interests are affected or could be affected – positively or negatively – by the undertaking's activities and its direct and indirect business relationships across its value chain;

- **Users of sustainability statements** - primary users of general purpose financial reporting (existing and potential investors, lenders and other creditors including asset managers, credit institutions, insurance undertakings), as well as other users, including the undertaking's business partners, trade unions and social partners, civil society and non-governmental organisations, governments, analysts and academics. Some, but not all, stakeholders may belong to the two groups." (Appendix II, page 278, Commission Delegated Regulation 2023/2772)

**Undertaking** - the company (that needs to report)

**Due diligence** - "Due diligence is the process by which undertakings identify, prevent, mitigate and account for how they address the actual and potential negative impacts on the environment and people connected with their business." (ESRS 1, page 12, Commission Delegated Regulation 2023/2772)

**Application requirements:**

- "ESRS 2 Appendix C Disclosure/Application Requirements in topical ESRS that are applicable jointly with ESRS 2 General Disclosures provides a list of the additional requirements in topical ESRS that the undertaking shall apply in conjunction with the general level disclosure requirements of ESRS 2." (ESRS 1, paragraph 9, page 6, Commission Delegated Regulation 2023/2772)
- "Application requirements AR 1 to AR 5 provide further guidance regarding entity-specific disclosures." (ESRS 1, paragraph 11, page 6, Commission Delegated Regulation 2023/2772)
- "In addition to Disclosure Requirements most ESRS also contain Application Requirements. Application Requirements support the application of Disclosure Requirements and have the same authority as other parts of an ESRS." (ESRS 1, paragraph 17, page 7, Commission Delegated Regulation 2023/2772)
- in same/other words: Application requirements provide a list of additional requirements that undertakings shall apply together with the general level disclosure requirements; they provide further guidance; support the application of Disclosure requirements and have the same authority as other parts of the ESRS
- many of the application requirements are formulated with "may"

**Data point** - "ESRS structure the information to be disclosed under Disclosure Requirements. Each Disclosure Requirement consists of one or more distinct data points. The term "data point" can also refer to a narrative sub-element of a Disclosure Requirement." (ESRS 1, paragraph 16, page 7, Commission Delegated Regulation 2023/2772)

# Appendix C

## C.1 Interview Guide for companies' workers

Below questions were asked to Interview Person 1; Interview Person 2 and Interview Person 3.

1. Can we record this interview and use it in our project?
2. Can you please introduce yourself and what is your position at the company you are working at?
3. What is your understanding of biodiversity?
4. How important, would you say, is biodiversity for the company/business, with regard to your company's business activities?
5. Do you think biodiversity will be considered as material in the company that you work at? Why?
6. Does your company have experience with reporting on biodiversity? Has it been done previously?
7. Who would you consider as relevant stakeholder when considering corporate biodiversity reporting?
8. How do you see CSRD affecting current practice? (overall but especially regarding biodiversity reporting)
9. Do you think the company where you work is willing to adapt its strategies and policies due to changing stakeholder demands?
10. What opportunities do you see from incorporating biodiversity considerations into your business strategy or operations?
11. What challenges or barriers have you encountered (or do you expect to encounter) in incorporating biodiversity considerations into your business strategy or operations?
12. Do you have any more comments or something you would like to address that we have not covered yet?

## C.2 Interview guide for the consultants

Below questions were asked to Interview Person 4 and Interview Person 5.

1. Can we record this interview and use it in our project?
2. Can you please introduce yourself and explain your role and position at the consultancy?
3. What is your understanding of biodiversity?
4. Have you previously provided consulting to companies on the topic of biodiversity?

5. How important, would you say, is biodiversity for the companies that you are providing consulting for, with regard to the company's business activities?
6. Do you think biodiversity companies are willing to consider biodiversity as material (CSRD understanding) for their corporate sustainability report?
7. Who would you consider as a relevant stakeholder when considering corporate biodiversity reporting?
8. How do you see the CSRD affecting current practice? (overall but especially regarding biodiversity reporting)
9. Do you think the companies that you provide consulting to are willing to adapt their strategies and policies due to changing stakeholder demands?
10. What opportunities do you see from incorporating biodiversity considerations into business strategy or operations?
11. What challenges or barriers have you encountered (or do you expect to encounter) in incorporating biodiversity considerations into business strategy or operations?
12. Do you have any more comments or something you would like to address that we have not covered yet?

## C.3 Interview guide for the investor

Below questions were asked to Interview Person 6.

1. Can we record this interview and use it in our project?
2. Can you please introduce yourself and what is your position at the company you are working at?
3. Could you explain to us your understanding of biodiversity?
4. Does the investment company that you work at consider biodiversity as important and why?
5. How important, would you say, is biodiversity for the companies that you would invest in?
6. With regard to the CSRD, do you think biodiversity will be considered as material in the companies that you invest in/consider for investing? Why?
7. Do you have experience with corporate biodiversity reporting? Have you seen it previously or is it new under the CSRD?
8. Who would you consider as relevant stakeholder when considering corporate biodiversity reporting?
9. How do you see CSRD affecting current practice? (overall but especially regarding biodiversity reporting)
10. Do you think companies are willing to adapt their strategies and policies due to changing stakeholder demands?
11. What opportunities do you see from incorporating biodiversity considerations into the business strategy or operations of your company? What about for the companies that you invest in?
12. What challenges or barriers have you encountered (or do you expect to encounter) from incorporating biodiversity considerations into the business strategy or operations of your company? What about for the companies that you invest in?
13. Do you have any more comments or something you would like to address that we have not covered yet?

## C.4 Interview guide for the nature NGO

Below questions were asked to Interview Person 7.

1. Can we record this interview and use it in our project?
2. Can you please introduce yourself and what is your role at the organisation you are at?
3. What is your understanding of biodiversity?
4. How important, would you say, is biodiversity for companies, with regard to their business activities?
5. Are you familiar with the concept of materiality (as used in the CSRD)? If yes, do you think companies that you are in contact with, would be willing to consider biodiversity as material under the CSRD? Why?
6. Do you have any experience with reporting on biodiversity?
7. Who would you consider as relevant stakeholder when considering corporate biodiversity reporting?
8. How do you see CSRD affecting current practice? (overall but especially regarding biodiversity reporting)
9. Do you think companies that you are in contact with are willing to adapt their strategies and policies due to changing stakeholder demands?
10. What opportunities do you see from incorporating biodiversity considerations into business strategies or operations?
11. What challenges or barriers do you see from incorporating biodiversity considerations into business strategies or operations?
12. Do you have any more comments or something you would like to address that we have not covered yet?