Investors and Companies' Biodiversity and Natural Capital Reporting and Performance

Assessing the request for and use of company reporting on biodiversity and natural capital by asset managers and fund managers

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Executive summary

Asset managers' and fund managers' role in preserving biodiversity and natural capital

On their websites and in interviews, asset managers and fund managers indicate that they take the impact and dependencies of investee companies with regard to biodiversity and natural capital (BNC) into account. We are interested in finding out in which way and to which extent they do so, and we thereby specifically focus on the BNC-related issues of climate, water, land use and chemicals. The reason is that in this way, asset managers and fund managers may contribute to the worldwide public goal of BNC preservation as among others included in the UN Sustainable Development Goals.

This study is a qualitative study. After finishing the literature research, we conducted multiple semi-structured interviews with mostly Dutch as well as a few foreign asset managers and fund managers, and with some key Netherlands-based large investee companies. The goal was to examine how BNC plays a role in the investment strategy of asset managers and fund managers and how they engage with investee companies, i.e. do they prompt their investee companies to improve their BNC performance? On the basis of the research findings, we analysed in which way public policy makers can enable asset managers and fund managers on the one hand and investee companies on the other hand to improve the quality of the information on the BNC performance of investee companies. The research findings as well as the recommendations based thereon were tested in two expert meetings, one with Dutch experts and the second one with experts from multiple countries.

In this study, we particularly investigate in which way the EU Directive 2014/95 on mandatory non-financial reporting, and its predecessors, can be helpful (1) for the specific needs of asset managers and fund managers in terms of taking BNC-information into account in their investment decisions and engagement practices and (2) for reporting companies in collecting and organising their BNC-information. In order to assess this question, we first need to understand the role of asset managers and fund managers in the process of engagement with company and in which way they can exert influence. This is what we refer to as the 'external feedback loop' in the Theory of Change.

Investors increasingly take BNC into consideration

Our research results reveal that asset managers and fund managers are indeed interested in information on investee companies' BNC performance. However, it became clear that, for various reasons, in particular carbon emissions draw the attention of investors. The other three concepts, water use, land use, and chemical pollution, hardly played a role in designing investment policies and in the financial analysis of companies. These three aspects are looked at by investors mainly on an ad hoc basis whenever problems or issues are expected or occurring, and then they can become part of the engagement process.

Few investors whom we had interviewed indicated that they use investee companies' BNC information in their regular financial analyses of the companies' business case. Environmental Social and Governance (ESG) aspects of companies' performance are overall still predominantly evaluated by the sustainability departments of asset managers and investment managers, and problems in these area's usually first lead to engagement rather than to disinvestment although that could ultimately be the investor's decision.

Yet, more can and should be done

As BNC is not yet fully integrated in financial profit and risk analyses nor in the investment decision procedures and strategy, we tried to find out which obstacles are currently hindering this and how obstacles could be addressed. We note that the materiality of BNC is in the process of becoming understood by investors, and that the materiality of carbon emissions for corporate financial performance is increasingly acknowledged by the selected investors.

The main impediment to integrating BNC-related data in the investment strategy and trading process is the lack of reliable and comparable data on investee company and sector level. The interviewed investors indicated that whilst there is still much to be gained if more companies would adopt current reporting formats (integrated reporting, GRI and others), these reporting formats are not aligned with each other, and thus the results cannot be easily compared. Investors often take decisions on the basis of rankings and in order to compose a clear ranking of corporate performance on BNC, all investee companies should report in the same way on the same topics and in according with the same reporting formats. Moreover, it is crucial that the information is true and correct, thus independently verified. Still, even in the existing methodologies, gaps exist in the ways of measuring data, which cause problems in fully assessing investee companies' BNC-related impacts and dependencies. Even in regard of companies' reporting on carbon emissions, there are large variations, e.g. re scope 3 information.

Engagement helps, but could be better

The companies which we interviewed indicated that discussions with investors do have an impact on a company's strategy, ambitions and thereby performance in the long run. Engagement makes it easier for internal supporters of BNC to put BNC issues 'on the agenda' and/or helps them to get their agenda implemented. However, the companies interviewed complained that whenever an engagement takes place in regard of their BNC performance, the focus of investors is mostly on the negative corporate impact on BNC while they do not seem to value any positive impacts on BNC established by these companies.

Some of the interviewed investors acknowledged that they do not regard BNC as a central issue, but added that they do include BNC in their engagement strategies. The lowest relative amount of BNC engagements amongst the interviewed investors was 6%. Conversely, sometimes BNC themes form the primary focus of an investor.

Need for more in-depth engagement and standardised data gathering

Companies indicate a need for a more in-depth conversation on BNC. A more productive form of engagement may be so-called 'firelight sessions' (i.e. strategic sessions with the board of directors or management board about a company's strategy and ambitions). In such strategic sessions, views on developments and trends in the sector could be exchanged. The interviewed companies expect that such an approach can contribute more effectively to improving their company's BNC strategy and profile than the current engagement approach consisting of an issue-based ad hoc approach.

The interviewed companies would also welcome uniform standards for measurement and reporting as they currently have to spend much time responding to ESG rating agencies' questionnaires, which often ask for similar information, while each questionnaire diverges in indicators and methodology.

Recommendation 1: Standardisation of BNC reporting methodologies

In reporting on BNC there is the need to strike the right balance between stimulating reporting along common standards (standardisation) and leaving room for different approaches as the relevant BNC impacts and dependencies vary among companies and sectors.

Require standardised reporting

The common opinion of investors and companies is that BNC measuring and reporting methodologies are currently well enough developed to be used.

Generally, the asset managers and fund managers stated that they do not see a responsibility or role for themselves in imposing a certain methodology on their investee companies. They see this as a matter for companies among themselves to select a common approach, i.e. per BNC-theme and maybe also a sector-based approach. The interviewed persons also indicated the relevance of revealing the geographical location of production sites when reporting on BNC impacts and dependencies in order to create a better understanding of and insight in operational risks and opportunities. Such a reporting aspect can be supplemented by satellite data and may for instance help to establish the exact water use of a production site and possible land degradation issues in their vicinity.

The EU Directive, and/or the domestic implementation legislation, can assist in improving the uniformity and reliability of BNC reporting by making more explicit reference to such standard reporting methodologies, e.g. by imposing on companies to report in accordance with the GRI BNC guidelines.

Stimulate experimentation and methodological development

In regard of BNC issues, concerning which measurement and reporting methodologies are not that well developed, e.g. the use of the soil in agricultural practices - which is linked to the use of chemicals - it was recommended by the interviewees to start with a principle-based framework, celebrate best practices and start monitoring. Thus, a learning process and communities of practice need to be put into place. Governments can continue to fund the development and selection of appropriate methodologies and to stimulate their uptake. The selected methodologies should become part of the education of among others accountants and finance professionals, and environmental experts and lawyers. The government can also play a role in directing this.

Standardise the data gathering process

Standardisation of BNC reporting formats will also help to lower the costs of data gathering on the side of companies. Now every ESG rating agency has its own detailed questionnaire. A more standardised data gathering process not only lowers corporate costs, it also makes it possible to compare the findings.

Recommendation 2: Incentives for asset managers and fund managers to use BNC data in financial analysis

Public policies to protect BNC

Firstly, governments themselves play an important role in translating BNC impact and dependencies into corporate costs and benefits through for instance their regulation and taxation. Public policy makers can make the financial sector receptive for BNC accounting and reporting through signalling that they (will) maintain credible policies to protect BNC. Governments can also increase the number of investable projects with a positive BNC impact, for instance through public co-investments, procurement and by stimulating the green bond market.

Strengthen the evidence base of the materiality of BNC

Another way to increase the perceived benefit for financial institutions of BNC accounting and reporting is through building the evidence base on the materiality of BNC for financial institutions. Much research has been done on the financial risks and returns of ESG performance. However, specifically on BNC more research is needed. More BNC research may provide more insights into the financial materiality of the issue. For instance, scenarios could be developed similar to the scenarios developed for the carbon bubble. Scenarios could start from the assumption that internationally agreed goals with regard to BNC preservation (biodiversity, water etc.) will be met. The scenarios could then show how these internationally agreed goals can be met and how meeting these goals will impact specific sectors, geographical locations, companies and asset classes.

Supervision of BNC risks

Supervisors and regulators, like the Dutch Central Bank and Financial Markets Authority, are important players in the Dutch financial market. They see to it that financial institutions conduct proper assessments of all material risks – also the ones originating from BNC impact and dependencies. When such instructions become more strict, financial institutions are incentivised to pay closer attention to BNC.

Stimulate long-term investing

Lastly, there is the wider issue of reform of the financial sector. The financial sector should focus more on the real economy and the long term, as this will make this sector more aware of BNC impacts and dependencies. Several proposals have been brought forward to make banks and asset managers more forward-looking and more conducive to ecological issues. A more forward-looking approach can be stimulated by for instance establishing performance criteria and fees with a long-term perspective for asset managers, quarterly reporting by asset managers instead of the current daily, weekly or monthly reporting and by paying more attention to qualitative information (strategy of the organisation, goals set, processes) and their BNC performance.

1. Introduction

1.1 The financial feedback loop

Over the last two decades, reporting on Environmental, Social and Governance issues (ESG), part of the 'non-financial' reporting, has developed strongly, aided by a multitude of regulations, guidelines and initiatives that express the need for corporate transparency in these fields (García-Sánchez et al., 2013; Maas and Vermeulen, 2016; Lambooy 2010a; Lambooy and Kamp-Roelands 2007; Lambooy, Diepeveen, Van 't Foort 2015). Various stakeholders, including governments, have high expectations of the potential impact of reporting leading to improved transparency and accountability (Hahn and Kühnen, 2013) in addition to change in the behavior and performance of companies (Adams and McNicholas, 2007).

Maas and Vermeulen (2016) provide a systemic overview of the potential effects of non-financial reporting. This systemic overview shows how non-financial reporting is expected to result in companies' performance improvement. It shows that this theory of change behind efforts to stimulate and mandate non-financial reporting assumes multiple feedback loops. An important part of these expected effects depends on the feedback loops running from the users of the reports to the reporting companies. One of these feedback loops runs between investors and investee companies through responsible investment strategies. However, the effects of this feedback loop were largely built upon expectations and assumptions, as the evidence base is almost non-existent.

This research aims to start filling this gap. We have analysed whether and how engagement strategies – a part of responsible investment strategies – used by investors - asset managers and fund managers - leads to better reporting and company performance improvement with regard to biodiversity and natural capital (BNC).

Looking at the financial sector as an 'agent of change' in the field of biodiversity preservation is in line with another strand of research by the Netherlands Environmental Assessment Agency (PBL). PBL has suggested that if governments aim to achieve their stated ambitions on conservation and sustainable use of global biodiversity, there are alternative, parallel methods to strengthening intergovernmental cooperation. For example, global biodiversity governance can take a more pragmatic approach aiming at strengthening new non-governmental agents of change (Hajer, 2011). Financial institutions can be such agents of change, using their leverage towards investee companies that impact BNC and/or are dependent on BNC (Van Tilburg and Achterberg, 2016, Lambooy 2010b).

Gaining a more tangible insight into the role of the financial sector as a driver of the external feedback loop for company reporting and performance also helps to identify opportunities for the development of supporting or synergetic government policies (Maas and Vermeulen 2016, Van Tilburg and Achterberg 2016). In this regard a particularly important recent development is the implementation of the EU Directive on non-financial reporting (2014/95),[1] which had to be effectuated by 1 January 2017. This Directive aims to encourage an increase in information flows from companies to their shareholders (and other stakeholders) about also their BNC impact and dependencies.

[1] See at: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095&from=en.

1.2 Research objective, scope and questions

The main objective of this research is to see how public policy makers can enable asset and fund managers to prompt their investee companies to improve their BNC performance. In particular, how the EU Directive 2014/95 on mandatory non-financial reporting can be helpful for the specific needs of asset managers and fund managers.

In order to do this, we need to understand the role of asset managers and fund managers in the functioning and impact of the external feedback loop on the efforts of Dutch stock exchange listed companies. This also includes other companies that fall under the intended target group of the EU Directive 2014/95.

Within the financial sector we focus on the stockholders as these are, through their equity holdings, the owners of the companies that have an impact on BNC. Legally the asset owners (like pension funds, insurance companies and retail investors) are the real owners of the stocks and thus companies. In this research we focus instead on the asset managers and fund managers that asset owners hire to manage their holdings of stocks. It is these asset managers and fund managers who eventually decide on the buying and selling of stocks and who do most of the engagement with the companies. Although always based on some form of contract with the asset owners that defines their mandate. The asset managers and fund managers therefore have both a responsibility and the power to prompt their investee companies to improve their BNC performance.

It is the stockholders who also run the biggest financial risk when companies get into trouble, for instance due to their exposure to carbon (Weyzig et al. 2014) and thus have the strongest financial incentive to manage the BNC impact and dependency.

Unlike banks, asset managers and fund managers also have to rely on publicly available data, which makes the EU Directive 2014/95 most relevant for them.

Of the different assets through which asset managers and fund managers are connected to their investee companies we will focus on the holding of equity shares or stocks. As it is these assets that make them the (part) owner of a company, as opposed to bonds or other lending that is a financial agreement between two separate organisations.

Within the realm of BNC we focus on the aspects of land use, water use, chemical pollution and carbon emissions as these cover the most important BNC impacts and dependencies and hence they already receive most attention from asset managers and fund managers.

The following research questions will be answered:

<u>With regard to the asset managers and fund managers:</u>

1. To what extent and how is information on land use, water use, chemical pollution and carbon emissions presently used in investment decisions and engagement with investee companies? Is BNC assessment already a special area of interest, related to the risk assessment?
2. What BNC aspects are regarded most essential for investment decisions? Or is BNC information used on aggregate levels only, based on general ESG-ratings and -benchmarks?

3. How do asset managers and fund managers decide on applying a certain action in the event a company's activities negatively impact BNC (*e.g.* exclusion of worst offenders, inclusion of frontrunners, and/or engagement with companies and funds)?
4. If BNC information is not used for investment decisions: why not, and what has to change so that this information will be taken into account?

With regard to the companies:

5. Is interaction with asset managers and fund managers an important motivation for companies to change their reporting on BNC impacts and dependencies?
6. Is interaction with asset managers and fund managers an important motivation for companies to change their performance of BNC impacts and dependencies?
7. What are the expected effects on company reporting and performance of the different types of interventions by investors?

1.3 Research methodology

The study is based on desk research, ten interviews with asset managers and fund managers, four interviews with companies listed at the Euronext and two validation workshops.

A literature study, including academic literature and 'grey' literature, was conducted to collect existing research data and insights related to (a) the potential theories of change behind interventions of asset managers and fund managers (RQ 1, 2, 3 and 4), (b) effects and impact of these interventions on companies (focussing on strategy, internal processes, corporate governance, performance and reporting) (RQ 5, 6 and 7).

The interviews provided extra input for our results. Semi-structured interviews were used to test theory, to collect new and practical information, and to adapt our theoretical frameworks (the legal framework of EU Directive 2014/95 and the Theory of Change, ToC). By specifying how asset managers and fund managers and companies are influenced by each other, we reduce the potential bias included in the answers.

We interviewed four companies, DSM, AkzoNobel, Corbion, and Heijmans, that have a large impact on BNC. As regards the asset managers and fund managers, we have also tried to find a mix of managers along the whole spectrum of large and small, Dutch and foreign owned (and active) asset managers, and asset managers with proprietary funds (insurance companies), funds of institutional investors and retail clients. We have interviewed ACTIAM, Aegon, BlackRock, BMO Global Asset Management (BMO), MN, NN Investment Partners (NNIP), PGGM, Robeco, SPF Beheer and Triodos Investment Management (Triodos IM).

Based on the results, recommendations for government regulations on BNC reporting and supportive policies are drafted.

1.4 Outline of this report

This report is structured as follows. Chapter two starts with defining the concepts of BNC and how they are relevant for companies and investors and then describes the ToC and explains how the ToC is relevant for investee companies and their investors and how investors, through their engagement, try to improve the performance of their investee companies. Chapter three describes the legal framework on reporting. Chapter four provides an overview of the current state of affairs of BNC data transparency and use of these data by asset managers and fund managers based on existing literature. Chapter five describes the outcomes of the interviews with the asset managers and companies. Chapter six draws conclusions by relating the findings of investors and companies to each other and to the literature. Based on our findings, we formulate policy recommendations and questions for further research.

2. Theoretical framework

This chapter describes our theoretical framework. It starts with defining the concepts of BNC and how they are relevant for companies and investors. We then look how asset managers and fund managers, through their engagement, try to improve the performance of their investee companies in the field of BNC (i.e. the ToC). This ToC describes the expected change behind interventions of asset managers and fund managers, the effects and impact of these interventions on Dutch listed companies (focusing on strategy, internal processes, corporate governance, performance and reporting) and the potential role of the present EU Directive 2014/95 and supporting policies.

2.1 BNC

In economic terms, the concept of capital refers to a stock that is used to produce wealth. The term historically (Smith, 1776) refers to financial and manufactured capital, e.g. money and machines. It was after the economic growth years following WWII, when the environmental degradation as a result of economic activities became a societal concern, that the concept of natural capital was coined (Schumacher, 1970).

Natural capital can be defined as “the stock of renewable and non-renewable natural resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people” (Natural Capital Coalition, 2016, p. 12). The value of natural capital can be measured through the goods and services it provides. These (ecosystem) goods and services are defined as the contributions that ecosystems make to human well-being (EEA, 2011). Biodiversity is an essential part of natural capital and is defined as “the variability among living organisms from all sources (terrestrial, marine)” (Vos, Grashof-Bokdam and Opdam, 2014, p 18).

BNC is the fundament of human wellbeing and the economy. Whereas its ecological services can be enjoyed freely and some of the natural capital stock can be used as it has a certain capacity for regeneration, there are clear limits to its usage. Limits that are increasingly surpassed. The Millennium Ecosystem Assessment[2] found that human actions are depleting the natural capital, putting such strain on the environment that the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted. The five largest pressure factors on biodiversity are land conversion, climate change, the introduction of exotic and invasive species, overexploitation (including the use of water) and pollution (including chemicals) (PBL, 2014). In this research, we focus on the main pressures that cause loss of BNC: carbon emissions, land use, water and chemicals.

2.2 Economic and financial relevance of BNC

2.2.1 Economic costs of BNC depletion

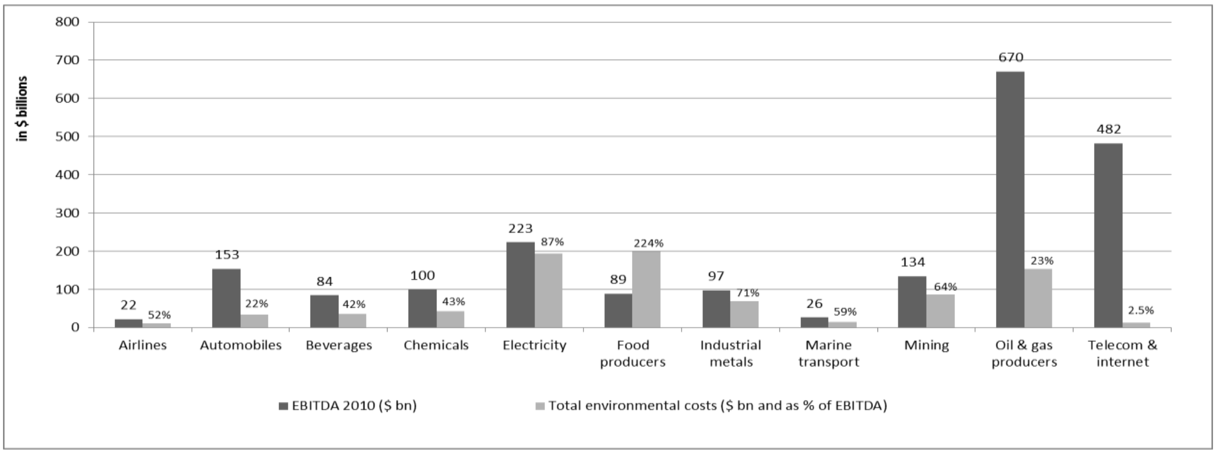
A clear relationship exists between companies and BNC. On the one hand, companies may affect BNC with their economic activities, for instance through land conversion or pollution of the environment. On the other hand, companies depend on BNC as production factors or inputs into production, such as wood, food, water, land or clean air. Due to companies’ dependence on BNC, BNC degradation may pose significant business risks (Lambooy 2010b).

[2] The Millennium Ecosystem Assessment (MEA) is a major assessment of the human impact on the environment, called for by the United Nations Secretary-General Kofi Annan in 2000, launched in 2001.

The Economics of Ecosystems and Biodiversity (TEEB) has monetised the loss of BNC at US$2–4.5 trillion per year (TEEB, 2010). A study by Trucost found that economic activities are estimated to generate US$7.3 trillion in external environmental costs per year or 13% of global Gross Domestic Product (GDP) (Trucost, 2013). Another estimate of the average annual economic cost of human-induced environmental degradation was US$6.6 trillion, equivalent to 11% of global GDP (UNEP FI 2011).

Being in the double digits, as a percentage of GDP, these highly variable numbers certainly are material. As a percentage of the company profit they are even substantially higher in most sectors. In 2010, the cost of environmental damage caused by 11 key industry sectors was equivalent to 41% (KPMG, 2012) to over half (UNEP FI, 2011) of their pre-tax profits (see Figure 1). Some sectors, such as food producers, would have no profits left if they had to pay the full cost of repairing/compensating for their negative environmental externalities (KPMG, 2012).

Figure 1 Negative environmental externalities (in US$ billion and percentage of EBITDA), 2010

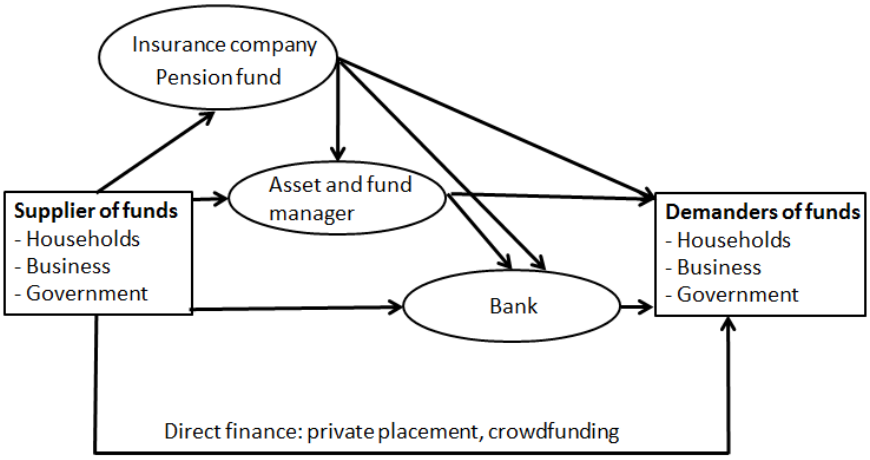


Source: KPMG (2012)

2.2.2 BNC impact and dependency of the financial sector

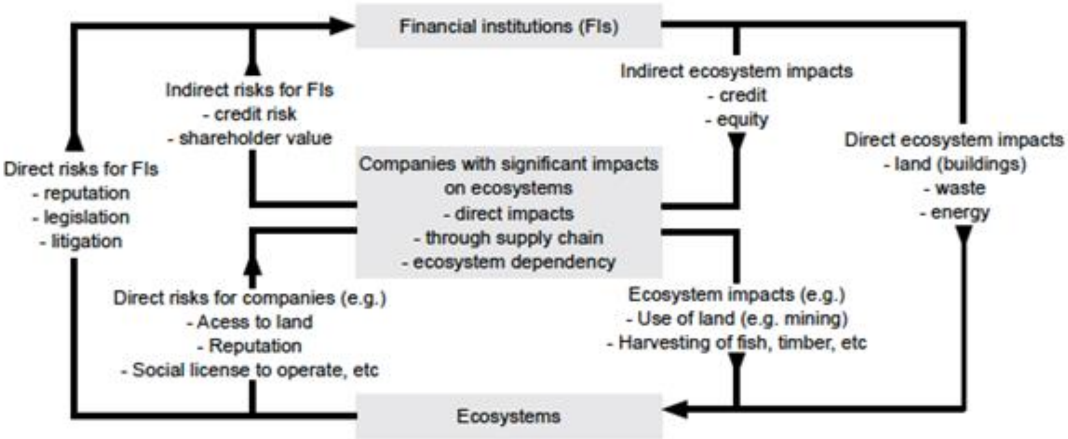
Figure 2 shows the different relations between suppliers and recipients of funds in the financial sector. These suppliers and recipients can find each other directly (e.g. through private placements or crowdfunding), but most of the funds are intermediated by either insurance companies and pension funds, asset and fund managers and banks. Insurance companies and pension funds can let asset and fund managers intermediate on their behalf, or invest themselves in banks as well.

Figure 2 Position of asset managers and fund managers within the financial sector



There are several (interlinked) ways through which the BNC performance of companies influence the (financial) performance of asset managers, fund managers and asset owners (see Figure 3).

Figure 3 Linking ecosystem impacts with financial institution risks



Source: NCD (2013)

The six main ways in which BNC management of investee companies can be(come) a material issue for asset managers and fund managers are through (UNEP FI 2008, NCD 2013, VBDO and CREM 2015):

- *Reputational risks.* As retail customers, business clients and funders may withdraw from doing business with an investee company as a result of BNC costs caused by such company that are deemed excessive;
- *Credit- and investment risks.* Losses at investee companies due to disrupted business operations caused by failing but essential ecosystem services that companies depend upon or the inaccessibility of crucial input (like virgin raw materials). Or as governments stop giving permits and concessions or end existing ones;

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Box 1 BNC related risks for palm oil producers

In a series of reports, Chain Reaction Research (CRR), a collaborative effort of AidEnvironment, Profundo and Climate Advisers, analysed how different listed palm oil companies are exposed to risks related to BNC impact and dependencies. In February 2016, CRR published a report predicting that the Round Table on Sustainable Palm Oil (RSPO) could suspend IOI Corporation from Malaysia due to the clearing of forests. When the RSPO did suspend IOI soon after, the company started losing purchases from 20 major customers such as Unilever, Nestlé and Kellogg's. IOI's share price fell 17.6%, while Moody's reviewed its debt for a downgrade. Losing major buyers is one clear risk. Another risk is the loss of concession areas, which can be developed into new plantations (the 'landbank') as governments increasingly protect their BNC. Indonesia recently announced a moratorium on new plantation developments (van Gelder 2016).

- *Credit- and investment opportunities.* Companies can also profit from the challenges of BNC preservation by providing solutions. Financial institutions may also themselves profit from new products inspired by nature (biomimicry) and the preservation of BNC like the growing green bond market and the market for responsible asset management. Preservation of BNC makes companies less dependent on BNC sources;
- *Legal liability risks.* These risks may become apparent as national laws, banking regulations and reporting requirements become more demanding and increasingly seek to require companies to include non-financial issues in corporate strategies and reporting. This liability may extend to financial institutions. Thus, not pro-actively raising ESG issues presents a very real risk to be sued for negligence (UNEP FI 2009);
- *Market and systemic risks.* Whereas an individual financial institution can adapt its portfolio according to the risks and opportunities it anticipates, not all BNC risks can be hedged in this way (CISL 2015); and
- *Regulatory risks.* Regulations' pace of introduction is likely to quicken and tighten, such as for combating climate change (see box below on the 'carbon bubble'), clean oceans or clean air, creating risks and opportunities.

Box 2 Case of carbon bubble

Insurance companies in particular have been aware of the physical risks that climate change poses to their business model. As the average global temperature increases, the frequency and intensity and therefore impact of hurricanes, flooding and wildfires will increase. However, there is also a financial risk if the global community succeeds in limiting climate change to the 1.5-2 degrees, as many financial assets derive their value from operations that are not compatible with the remaining carbon budget, for which countries have made pledges that are laid down in national regulation. For instance, estimates are that only 20-40% of all known fossil fuel reserves actually can be burned in the future due to climate change. This will reduce the value and creditworthiness of many companies engaged in that business (Carbon Tracker Initiative 2011). In this carbon bubble scenario, equity owners (e.g. pension funds, insurance companies) will be particularly hard hit, but also lenders (e.g. banks) will suffer because the percentage of non-performing loans will rise (Weyzig *et al*, 2014).

2.3 Shareholder engagement – explanation of the ToC

2.3.1 Responsible investment and engagement

As shown in the previous section, asset managers and fund managers are exposed to the potential risks that flow from BNC, through their ties with their investee companies. In order to mitigate these risks, asset managers and fund managers have several strategies that they can execute.

Basically, the following six investment strategies are all ways of deciding whether asset managers should hold more or less of a specific asset as a result of taking specific BNC issues into account. The UN PRI distinguishes six responsible investment strategies (UN PRI, 2016):

1. ESG negative/exclusionary screening;
2. Norms-based screening;
3. ESG positive screening and best-in-class;
4. ESG themed investments;
5. Integration of ESG issues; and
6. Engagement.

Strategies 1-4 present the most binary choice: whether to include or exclude a certain asset, like the stock or a bond of a certain company, from the investment universe. For instance, defining certain norms (like no involvement in controversies around basic human rights or no involvement in the production of cluster ammunition) and simply not investing in any companies that cross these red lines. This is also called norms-based screening.

The related but opposite strategy is to only invest in companies that score the best, either on an absolute measure (like providing solutions to climate change or water shortages) or on a relative one (belonging to the 10% lowest carbon emitters in the sector).

Another strategy is to integrate ESG in the regular investment process, using ESG data alongside the traditional financial data in valuing a company's stock. The decision to (dis)invest in a company is then taken on the basis of this valuation in relation to the company's stock price and risk profile. Here, the result is not so much an in- or exclusion, but a decision to (further) overweigh or underweigh the holdings of a certain asset, e.g. to hold more or less assets of a certain company than the market average (benchmark).

The last strategy the PRI distinguishes is engagement. Whereas all the previous strategies can be defined as exit (and entrance) strategies, i.e. executed through buying or selling off the stock of a company, with engagement the investor interacts through its 'voice', through engaging in a conversation with the investee company.

The broadest definition of shareholder engagement available is "the use of one's ownership position to influence company management decision making" (Clark and Hebb, 2004, p. 144). These authors propose a more concise description of its goals and practices, and describe the goals as the aim to "increase transparency and accountability and to raise social and environmental standards of corporate behaviour" (2004, p. 164). These goals can be sought simultaneously within engagement.

Current literature mainly describes engagement approaches and activities, while information on the results of engagement is limited.

It is important to bear in mind that engagement is often connected to the other responsible investment strategies. First, engagement can be started because a company is suspected of breaking or approaching certain pre-defined thresholds and thus risks being excluded. The result of an unsuccessful engagement can then be exclusion. Secondly, engagement can also be initiated before a decision is taken to include the company in a positive (thematic) fund. Successful engagement may then result in inclusion. Thirdly, engagement can be undertaken as a result of the analysis for ESG integration, when it is found that the company is an outlier on one or more ESG themes. Engagement can then create value if the investee company improves its performance in this particular field.

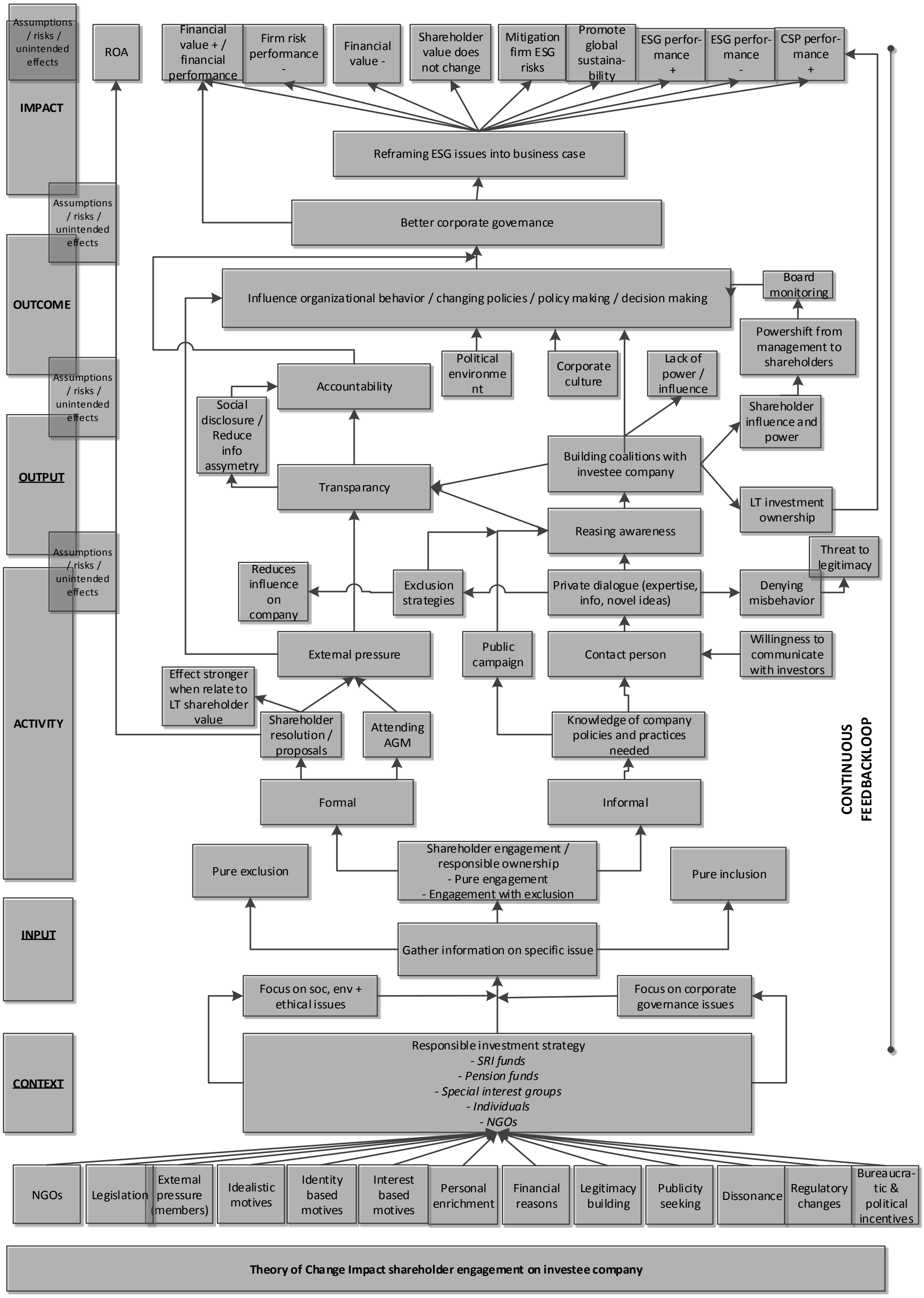
If the company proves to be very unresponsive to the requests made by the investor, this may signal further ESG-problems, which may even lead to the exclusion of the company from the fund. Thus engagement can be a source of information for the other responsible investment strategies as well.

2.3.2 The role of investor engagement in improving corporate BNC performance

Based on available literature, we have analysed what the expectations are of academics and practitioners of engagement. Based on this information, we have drafted a system diagram of the ToC (Figure 4).

A ToC runs from input to impact. This causal chain, also referred to as the 'impact value chain', distinguishes between the resources used for an action (input); the action itself (also referred to as project, activity, intervention or program); the immediate quantitative synthesis of the action (output); the direct changes in people, organisations, natural and physical environments, and social systems and institutions (outcome); along with highest order effects of the action (impact) (Clark, et al., 2004; Liket et al., 2014). Systematically depicting the ToC concerning engagement requires information on the process of engagement. Being explicit about the ToC behind engagement helps to get better insights in the results and effectiveness and to identify opportunities for improvement and design accompanying policies. The ToC on engagement will be used as one of our theoretical frameworks to analyse, based on the interviews, if the expected processes and results actually take place in practice.

Figure 4 ToC concerning engagement



2.3.3 Motivations

In shareholder engagement, asset managers and fund managers combine formal shareholder rights (see 3.2.2) with more informal forms of communication in order to influence investee companies (Logsdon and van Buren, 2009). Investors, such as pension funds, Socially Responsible investment (SRI) funds, other asset managers and fund managers, and individuals (Michelon and Rodrigue, 2015), could decide to engage based on different reasons. Socially responsible investors can decide to engage because of idealistic motives (O'Rourke, 2003; Goodman et al., 2014; Haigh & Hazelton, 2004). Investors can have interest-based motives or identity-based motives (Sjöström, 2008). Moreover, despite the fact that legislation only provides limited direct encouragement to private engagement behaviour (Yamahaki and Frynas, 2016), regulatory changes (Cowton, 2004) and bureaucratic and political incentives (Kolstad, 2016) also stimulates shareholder engagement. According to Kolstad (2016, p. 46), a possible reason for this move to engagement is that in increasing extent, the "institutional investors may have something to do with bureaucratic incentives among their staff, or, as in the case of sovereign wealth funds like the Norwegian Government Pension Fund Global, with political disincentives to use exclusion as a main approach to responsible investment". Furthermore, creating dissonance (Ferraro and Beunza, 2014), changing social pressure (Clark & Hebb, 2004), publicity seeking (Logsdon and Van Buren, 2009), legitimacy building (Gifford, 2012; Allen et al., 2012), external pressure (Ferraro & Beunza, 2014) and financial reasons (Clark and Hebb, 2004, Dimson, Karakaş & Li 2015, Barber 2006; Becht et al. 2010), can also be seen as drivers for shareholder engagement.

With an engagement strategy, asset managers and fund managers aim to increase transparency and accountability, and want to raise social and environmental standards of corporate performance (Clark and Hebb, 2004; Ivanova, 2016). In quantitative studies (Annex provides more information about the hypotheses, methods and outcomes of these quantitative studies), effects have been found in the form of increased transparency (Reid and Toffel, 2009), higher corporate environmental performance (Lee and Lounsbury, 2011) and better performance on ESG issues (Vasi and King, 2012). In qualitative studies, impacts are defined in different terms. O'Rourke talks about "changing a company's thought, rhetoric and behaviour toward a particular issue" (2003, p. 234). Logsdon and van Buren (2009) describe the effect of shareholder engagement as changing the priorities of company responses. Ferraro and Beunza (2014) observed how companies changed their positions, policies and actions in favour of a different political standpoint. They see the effect of shareholder engagement as one of shaping corporate debate. Moreover, a positive effect of shareholder engagement is also found on operating performance, stock market response, stock market performance (Dimson, Karakaş & Li 2015) and on financial results (Barber 2006; Becht et al. 2010). Becht et al. (2010) estimated that above average returns are largely associated with engagements rather than stock picking. Based on an empirical study of the 1993 and 1998 *Fortune* 500 companies that tested hypotheses on the relationships between institutional ownership and Corporate Social Performance (CSP), it is also argued that long-term ownership is positively correlated with CSP (Neubaum and Zhara, 2006). Moreover, looking at the literature of financial impacts of Corporate Social Responsibility (CSR), some scholars argue that it is unlikely that social activism will negatively affect financial performance (e.g. McLaren, 2004; Margolish and Walsh, 2001), or only in the short term, i.e. less than five till seven years (Eccles et al., 2012). Instead, it is argued that it may deliver financial gains (Cook and Deakin; 1999; Margolish and Walsh, 2001).

Research also shows contradictory effects of shareholder engagement. For example, Barber (2006) concluded that positive effects can be found on financial results of his targeted companies. However, he argued that institutional activism is a double-edged sword: "When prudently applied, shareholder activism can provide effective monitoring of publicly traded corporations. When abused, portfolio managers can pursue social activism to advance their personal agendas at the expense of those whose money they manage" (Barber, 2006 p. 18). Consequently, in this scenario social activism does not lead to shareholder value. Negative effects are found by David et al. (2007), who argued that engagement reduced even the CSP of investee companies. They infer that, rather than pressuring companies to improve CSP, activism may divert resources away from CSP to adverse political activities used by managers to resist external pressures and retain discretion. Hoepner et al. (2015) found a negative relation between ESG shareholder activism and corporate risk performance. They concluded that this may help the management and the board of the investee companies to develop a responsive plan and encourage a constructive dialogue (in the ToC implemented as the feedback loop).

2.3.4 Engagement practices

So we have seen that shareholder engagement does impact investee companies. Existing research mainly focusses on describing current engagement practices. As the ToC shows, the practices of shareholder engagement have been described as a combination of putting external pressure on management by means of formal shareholder rights, and more informal and collaborative forms of interaction (Ferraro and Beunza, 2014; O'Rourke, 2003). Existing studies show that shareholders are considered to bring information (Goodman et al., 2014), expertise (Logsdon and van Buren, 2009), novel issues (Goodman et al., 2014), novel ideas on the meaning and significance of an issue for the corporation (Ferraro and Beunza, 2014), novel frames on issues, particularly moral frames (Ferraro and Beunza, 2014) and publicity (Logsdon and van Buren, 2009). Moreover, current research show that shareholder resolutions focussing on socially responsible business practices (Guay et al., 2004; Sjöström, 2008) and a business case for ESG are "on the rise" (Allen et al., 2012; Gifford, 2012; Gond and Piani, 2012; Ferraro and Beunza, 2014). Unfortunately, no quantitative information about the amount of shareholder resolutions is available in the articles. A report from Eurosif (2006) shows that about 32% of the European pension fund equity allocation (i.e. 730 Billion Euros) uses engagement as a SRI strategy. In 2012 this figure increased already up to 1.95 Trillion Euros (Eurosif, 2012)

However, we still do not fully understand the nature of the influence and impact of engagement (Allen et al., 2012). Over the last years, several publications have looked at the question of when and how shareholders are able to influence investee companies through direct communications. These studies focus on the shareholder side of engagement (Allen et al., 2012; Barber, 2006; Becht et al., 2010), leaving the processes taking place within investee companies due to engagement under-examined.

2.3.5 How does shareholder engagement affect investee companies?

In order to know how shareholder engagement affects investee companies, it is also important to understand in what phase of the engagement the mechanisms behind shareholder engagement are at work. Based on existing literature, it seems that informal engagement usually proceeds in the following phases: *first*, an issue on which to engage has to be identified, and information has to be gathered (Goodman et al., 2014); *second*, a contact person at the investee company has to be found, and they have to agree to meet (Logsdon and van Buren, 2009); *third*, this internal contact person has to be, or become, convinced of the importance of the issue, and advocate it within the investee company (Gifford, 2012; Ferraro and Beunza, 2014); and *lastly*, this internal advocate has to be supported in his or her internal advocacy (Ferraro and Beunza, 2014). If a specific informal approach fails, a use of formal shareholder rights at the Annual General Meetings (AGM) may be the next step. AGM's are important and formal instruments to put pressure on the investee company.

According to Clark and Hebb (2004, p. 143), shareholder engagement could be understood as "*a power shift* within the firm away from managers and toward shareholders". However, in our study we would like to define it as a power shift within the company away from *some* managers towards others with the support of the shareholders. Despite this power shift, the ability of investors to affect the investee company depends on the engagement tactic of the investor. According to McLaren (2004), the spectrum of engagement in governance is as follows: rational ignorance (passivity), alignment measure (promoting financial incentives to align managers' interest), external control, internal governance (activism to protect voice and voting rights), dialogue and negotiation (dialogue and relational investing), board monitoring (influencing independence of the board) and proxy battles (for direct control). Exclusion strategies reduce the influence of the investor. Hence, exclusion means that the investor "can no longer exercise its rights to influence the company as an owner, by exercising influence at general meetings and through direct contact" (Norwegian Ministry of Finance, 2009, p. 129, cited by Kolstad, 2016, p. 48). Moreover, Dimson et al. (2015) argued that collaboration among activists is instrumental in increasing the success rate of environmental and/or social engagement.

Furthermore, it may be necessary to conceptualise how investee companies receive and process shareholder demands. Research shows that the strategic response of investee companies to shareholder activism depends on the shareholder influence and power (Hoffman, 1996; Sjöström, 2008). This suggests that managers' responses are symbolic; they settle with these powerful shareholders to demonstrate conformance but continue to resist making the substantive changes to core policies that can put their own interests at risk (David et al., 2007). Eccles et al. (2012) showed that companies with high CSR performance have better corporate governance systems in place. In line with this, Dimson et al. (2015) concluded that companies with inferior governance systems and socially conscious institutional investors are more likely to be engaged. It is also argued that success in engagement is more probable if the engaged company has reputational concerns and higher capacity to implement changes (Dimson et al, 2015). In line with this, large companies with special concern of society, such as tobacco, are more likely to be targeted with shareholder proposals (Rehbein et al., 2013; Sjöström, 2008).

It is argued that companies that are targeted with formal shareholder proposals are likely to be more transparent (Michelon and Rodrigue, 2015). Moreover, the results of a case study about a shareholder activist campaign to stimulate responsible investments shows that a certain campaign has raised investor awareness, increased dialogue between the investor and the company, and has led to an increase in transparency and the disclosure of information among targeted companies (Ivanova, 2016). This reduces the information asymmetry between shareholders and managers (McLaren, 2004) and helps the organisation to raise awareness, build coalitions with the investors, change company policies, improve its corporate governance, and consequently, reduce agency costs. However, to achieve this, the willingness to communicate with investors is a requirement. Moreover, if the investee company denies misbehaviour during the private dialogue, this is a threat for legitimacy of the company (Vandekerckhove et al., 2007; Sjöström, 2008).

Multiple authors have stated that shareholder engagement seems to influence and leverage specific groups or departments within the company (Logsdon and van Buren, 2009; Gifford, 2012; Ferraro and Beunza, 2014). By supporting those already in favour of the amendments inside the company, shareholders appear to be able to support a minority fraction in such a way, that they become able to influence organisational decision-making.

But how, exactly, do shareholders support these internal proponents? What makes minority fractions more influential? Whilst multiple authors have pointed to this characteristic, Ferraro and Beunza (2014) were the first to link it to social movement (Zald, Morrill & Rao 2005), which takes a political perspective on organisations. Organisations may present unified and coherent courses of actions just like states do. Internally however, minority fractions may have different ideas of what the proper goals and means for that particular organisation are. Social movements, a type of group actions like public discourse, development of certification or stakeholder activism, can affect organisations, by supporting minorities in the company that have sustainability ideas and ambitions that are not directly in line with the strategy and goals of the company, in three ways. *First*, social movements can connect to alternative identities of employees that are in line with movement goals and urge them to reconnect to these identities. *Secondly*, social movements can influence the perception of organisational liabilities as well as risk perceptions and lead to a broader perception and openness to change. *Thirdly*, social movements can affect the internal organization, like task structures and groupings, in organisations. Social movements are loosely organized but sustained campaigns in support of a social goal, typically either the implementation or the prevention of a change in society's structure or values. Although social movements differ in size, they are all essentially collective. Together, the authors argue that "social movements impact organisations not only by contributing to changing the costs and benefits of pursuing certain policies and practices, but also by changing the orientations and attitudes of organisational members. That means that we must pay attention to how movements contribute to the transformation of discourse, culture, symbolic categorisations, and frames" (Zald et al. 2005, p. 255).

2.3.6 Feedback loop

Goodman et al. (2014) argued that social shareholder engagement (SSE) is a change-seeking approach. The aim of this engagement is to get the companies going into a more sustainable behaviour. In order to improve the positive effects of shareholder engagement on the investee company, it is important that shareholders continually go through the phases of finding novel issues to engage on, gathering information on these issues, seek change by communication with the investee company, assess the outcomes of the communications and decide whether to adjust the issue or to close the engagement (Goodman et al., 2014). Only with this continually ongoing process, the desired effect that shareholder engagement can provide to both investee company as well as investors, can be fully exploited. Even though we have witnessed a dramatic ascendancy of what might be usefully referred to as *social shareholder activism*, we still have a limited understanding on whether it produces the intended outcomes as well as the mechanisms through which it influences corporate social behavior (Lee and Lounsbury, 2011). There is no research available actually showing the overall results of engagement (Logsdon and van Buren, 2009). In the interviews, we will dive into this issue. We will discuss with the investors if they use engagement techniques on specific BNC themes and with the companies whether is this engagement resulted in changed practices.

3. Legal framework

3.1 EU Directive 2014/95

3.1.1 Scope and content

Following up on the conclusion of the previous section stating that it is important that shareholders continually go through the phases of finding novel issues to engage on and gather information on these issues, it is important to examine the sources of information that are available to an investor. In that respect, it is important to note that in October 2014, the Council of the European Union and the European Parliament adopted Directive 2014/95/EU.[3] This Directive amended existing EU legislation and introduced new provisions with regard to corporate disclosure of non-financial and diversity information by certain large undertakings and corporate groups (Lambooy, Diepeveen, Van 't Foort 2015). The content of the Directive has to be implemented in the EU Member States' national legislation. The Directive stipulates that certain large undertakings, such as listed companies, banks and insurance companies,[4] in excess of an average number of 500 employees shall include a 'non-financial statement' in their annual report. A total of 18,000 companies operating in the EU are covered by Directive 2014/95.[5]

The non-financial statement has to be included in the management report of these large companies. Insofar necessary for an understanding of the company's development, position, performance and impact, Directive 2014/95 dictates what type of information must be included in the non-financial statement. The non-financial statement must include information on social and employee matters, environmental matters, human rights, anti-corruption and bribery.[6]

Important in the context of our study is the Directive's requirement that a company must provide in its non-financial statement a brief description of its business model and the policies that were set up in relation to environmental matters, including due diligence processes that were implemented. Large companies must also report on the outcome of applying their environmental policies and on principal environmental risks related to their supply chains. Whenever a large company does not pursue any environmental policies, it shall have to explain why this is the case.[7]

3.1.2 BNC

Although Directive 2014/95 does not explicitly mention BNC, it does refer to both themes by requiring companies to report about environmental matters and by referring to international frameworks such as the Global Reporting Initiative (GRI) Reporting Guidelines and the Organisation for Economic Cooperation and Development's Guidelines for Multinational Enterprises (OECD MNE Guidelines) that include the topic of BNC (see section 3.1.3). Non-financial disclosure is considered a vital instrument in the transition towards a sustainable global economy whereby profits are

[3] Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups (Directive 2014/95).
[4] European Commission, Non-financial reporting, <http://ec.europa.eu/finance/company-reporting/non-financial_reporting/index_en.htm#legal-framework> accessed on: 6 December 2016.
[5] European Commission (2013), Impact Assessment (SWD(2013) 127 final), pp.35-36.
[6] Article 1 (1) Directive 2014/95.
[7] Article 1 (1) Directive 2014/95.

combined with environmental protection. According to the Directive, in their reporting on environmental matters, large companies should include details of current or foreseeable environmental impacts as well as health and safety impacts. Among others, large companies have to report on their use of (non-)renewable energy, greenhouse gas emissions, air pollution and water use.[8] Especially the latter issues resonate well with three of this research's defined elements of BNC: climate change, chemicals and water use (see Chapter 1).

According to Directive 2014/95, statutory auditors and audit firms should check whether a non-financial statement has been provided by large companies. In addition to this requirement, EU Member States may require in their national legislation that the large companies include a third party verification of the information provided in their non-financial statement.[9]

3.1.3 Reporting frameworks and guidance

When disclosing information, companies may rely on national, EU-based or international (reporting) frameworks. Directive 2014/95 specifies a number of them, such as the Eco-Management and Audit Scheme, the United Nations (UN) Global Compact, the UN Guiding Principles on Business and Human Rights, the OECD MNE Guidelines, ISO 26000, the International Labour Organisation's Tripartite Declaration of principles concerning multinational enterprises and social policy, and the GRI Reporting Guidelines. When reporting according to one of these standards, a large company must specify which framework it uses.[10] A reporting framework that is not mentioned in Directive 2014/95, but that was mentioned in the 'Impact Assessment' Report, which preceded Directive 2014/95, is the Carbon Disclosure Project (CDP). The CDP framework assists companies in reporting to investors on themes such as carbon, energy, water, forests and climate issues, and offers a framework to assess the climate performance of companies.[11] In the draft Order in Council (*Algemene Maatregel van Bestuur*) (see section 3.2.1) that implements the EU Directive in the Netherlands, the Natural Capital Protocol is available as a reporting framework.[12]

BNC aspects are covered by all international (reporting) frameworks to which Directive 2014/95 refers. For example, GRI developed four reporting guidelines about BNC. Companies have to report on issues covered by these guidelines if such issues are material, *i.e.* in case they have a significant impact on BNC and are of paramount importance to stakeholders (Lambooy 2013). Companies have to report about: (i) operational sites owned, leased or managed in (the vicinity) of areas of a high BNC value; (ii) significant impacts they may have on BNC; (iii) habitats that they protected or restored; and/or (iv) species that are affected by their operations.[13]

At the time of writing, the European Commission is still developing non-binding guidelines on a methodology for reporting on non-financial information. In September 2016, the European Commission compiled a report following a public consultation from January to April 2016. The

[8] Preamble Directive 2014/95.
[9] Preamble and Article 1(6) Directive 2014/95.
[10] Preamble Directive 2014/95.
[11] European Commission (2013), Impact Assessment (SWD(2013) 127 final), p.57.
[12] Besluit houdende regels ter uitvoering van richtlijn 2014/95/EU van het Europees Parlement en van de Raad van 22 oktober 2014 tot wijziging van richtlijn 2013/34/EU met betrekking tot de bekendmaking van niet-financiële informatie en informatie inzake diversiteit door bepaalde grote ondernemingen en groepen (PbEU 2014, L 330), p.6.
[13] GRI (2013), G4 Sustainability Reporting Guidelines. Implementation Manual, pp.100-104.

responses show some ambiguity when it comes to the exact formation of the guidelines. Some key findings are enumerated in Table 1.

Table 1 Key findings in the consultation of the European Commission on guidelines for reporting non-financial information[14].

Theme	Finding
Detailed guidelines or not?	Some argue for more detailed guidelines, whilst others argue that the guidelines should not be detailed on specific sectoral or thematic issues.
Including best practices or examples in the guidelines.	Many respondents opt for including best practices or examples on non-financial reporting in the guidelines.
Including general principles and key performance indicators in the guidelines.	A focus must be on general principles and reference could be made to key performance indicators in accepted frameworks. The guidelines may also explain how other frameworks could be best applied within the purview of Directive 2014/95.
Key themes for in the guidelines.	Materiality was addressed as a key issue and, to a lesser extent, the comparability of information. Information was considered material when it is useful for understanding the impact of the company's activities, to understand the position of the company, in ascertaining how a company manages its non-financial risks and when information is relevant to shareholders and investors in decision-making processes.

3.1.4 Transposition in national legislation

EU Member States were obliged to transpose the rules contained in Directive 2014/95 into national legislation by the end of 2016. Figure 5 shows the status of transposition as per the beginning of December 2016.[15] As depicted in Figure 5, just five EU member states[16] have transposed Directive 2014/95 into national legislation. The other member states are still lagging behind.[17] The Netherlands has transposed Directive 2014/95 on 6 December 2016.[18]

[14] European Commission (2016), Feedback statement on the public consultation on the non-binding guidelines for reporting on non-financial information by companies having taken place from 15 January to 15 April 2016, pp.2-23.

[15] 2 December 2016.

[16] Estonia, Greece, Hungary, Luxembourg and Slovakia.

[17] Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovenia, Spain, Sweden and the United Kingdom. The Netherlands was still included on the list.

[18] Besluit van 18 november 2016 tot vaststelling van het tijdstip van inwerkingtreding van de Wet van 28 september 2016, houdende wijziging van Boek 2 van het Burgerlijk Wetboek ter uitvoering van Richtlijn 2014/95/EU van het Europees Parlement en de Raad van 22 oktober 2014 tot wijziging van richtlijn

Figure 5 Transposition status Directive 2014/95[19]

3.2 Regulatory framework in the Netherlands

3.2.1 Reporting

Since 2005, pursuant to the EU Modernisation Directive,[20] article 2:391 of the Dutch Civil Code (DCC) contains stipulations regarding non-financial information disclosure. Pursuant to this provision, companies must publish an annual report (*bestuursverslag*), which provide – among others – 'a true and fair view' of the state of affairs of the company, of the developments that occurred during the financial year and of the results that the company achieved. If necessary for a good understanding, non-financial performance indicators as regards environmental and social matters must be included.[21] The same applies to groups of companies, in which cases the parent company must provide a consolidated annual report on the affairs of all group companies.

In December 2016, article 2:391 DCC was amended to meet the transposition requirements of Directive 2014/95.[22] Accordingly, article 2:391(5) DCC currently states that additional requirements regarding the content of the annual report can be laid down in an Order in Council.[23] A draft version of the Order in Council has been promulgated by the Dutch government in January 2017. The articles of the Order in Council resemble the articles of Directive 2014/95.[24] In this way, the additional

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2013/34/EU met betrekking tot de bekendmaking van niet-financiële informatie en informatie inzake diversiteit door bepaalde grote ondernemingen en groepen (PbEU 2014, L 330) *Stb.* 2016, 451.

[19] European Commission, Monitoring implementation and enforcement of Directives, <http://ec.europa.eu/finance/enforcement/directives/index_en.htm#non-financial-reporting> lastly visited: 11 January 2017.

[20] Directive 2003/51/EC of the European Parliament and of the Council of 18 June 2003 amending Directives 78/660/EEC, 83/349/EEC, 86/635/EEC and 91/674/EEC on the annual and consolidated accounts of certain types of companies, banks and other financial institutions and insurance undertakings.

[21] Article 2:391(1) DCC.

[22] Wet van 28 september 2016, houdende wijziging van Boek 2 van het Burgerlijk Wetboek ter uitvoering van Richtlijn 2014/95/EU van het Europees Parlement en de Raad van 22 oktober 2014 tot wijziging van richtlijn 2013/34/EU met betrekking tot de bekendmaking van niet-financiële informatie en informatie inzake diversiteit door bepaalde grote ondernemingen en groepen (PbEU 2014, L 330), *Stb.* 2016, 352.

[23] Draft versions of the Order in Council have been made available by the Dutch government. The draft resembles the content of Directive 2014/95. External verification is limited to whether the non-financial statement is included in the annual report, not whether the content of the statement is correct.

[24] According to the draft Order in Council, external verification is not limited to whether the non-financial statement is included in the annual report, but also entails a check of whether the content of the statement is

requirements pertaining to the non-financial statement as prescribed by Directive 2014/95 are included in Dutch corporate law.[25]

To conclude, large listed companies and other designated large companies must disclose as of 1 January 2017 more relevant corporate information on BNC as well as on their policies to detect risks and prevent risks, i.e. risks for the company itself and for other stakeholders. The provision of information may follow certain designated frameworks such as the GRI standards or the OECD MNE Guidelines. This type of information is one of the sources of information for the company's stakeholders such as shareholders, including asset managers and fund managers. In the next section, we will examine the rights that are granted under Dutch law to shareholders.

3.2.2 Powers of the general meeting of shareholders

According to Dutch law, the general meeting of shareholders has various powers. Figure 6 offers an overview of the rights endowed to the general meeting of shareholders. Among others, the most material competency of the general meeting of shareholders is the power to take one or more of the following decisions: to issue more shares, to decide on a reduction of the issued share capital, to liquidate the company, to adopt the annual accounts, to amend the articles of association, to require information from the board, and to appoint, suspend and dismiss (supervisory) board members. For example, asset managers and fund managers can propose that the company provides the general meeting with information about the company's BNC relationships, including negative impact, positive impact and dependencies. Or they can propose that the general meeting will not adopt the annual accounts if the company does not provide such information or answers to questions of shareholders in that respect. Suspending or replacing directors and/or supervisory board members is another strong instrument available to the general meeting. The general meeting generally decides with a simple majority, that is 50% of the votes plus one, however, the articles of association may provide otherwise. Hence, a single asset manager or fund manager cannot implement any of such measures by itself as long as it does not have the majority in the general meeting. What often happens in these cases is that an asset manager or fund manager forms an alliance with other shareholders in order to put pressure on the board to address the proposals of such a shareholder group, e.g. by submitting a shareholder resolution to the general meeting about which the meeting must vote. In section 2.3.4 above, we noted that shareholder resolutions are "on the rise", becoming more popular as an investors' instrument.

In addition, shareholders also have a right to propose items for the agenda of the annual general meeting. A group of 3% of the shareholders (capital rights and/or voting rights) can use this instrument. For example, they can propose as a subject for the agenda that the company will follow the CDP rules in reporting on greenhouse gas emissions. Or, that the company develops a BNC policy.

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correct (Article 5 Besluit houdende regels ter uitvoering van richtlijn 2014/95/EU van het Europees Parlement en van de Raad van 22 oktober 2014 tot wijziging van richtlijn 2013/34/EU met betrekking tot de bekendmaking van niet-financiële informatie en informatie inzake diversiteit door bepaalde grote ondernemingen en groepen (PbEU 2014, L 330) (Besluit bekendmaking niet-financiële informatie)).

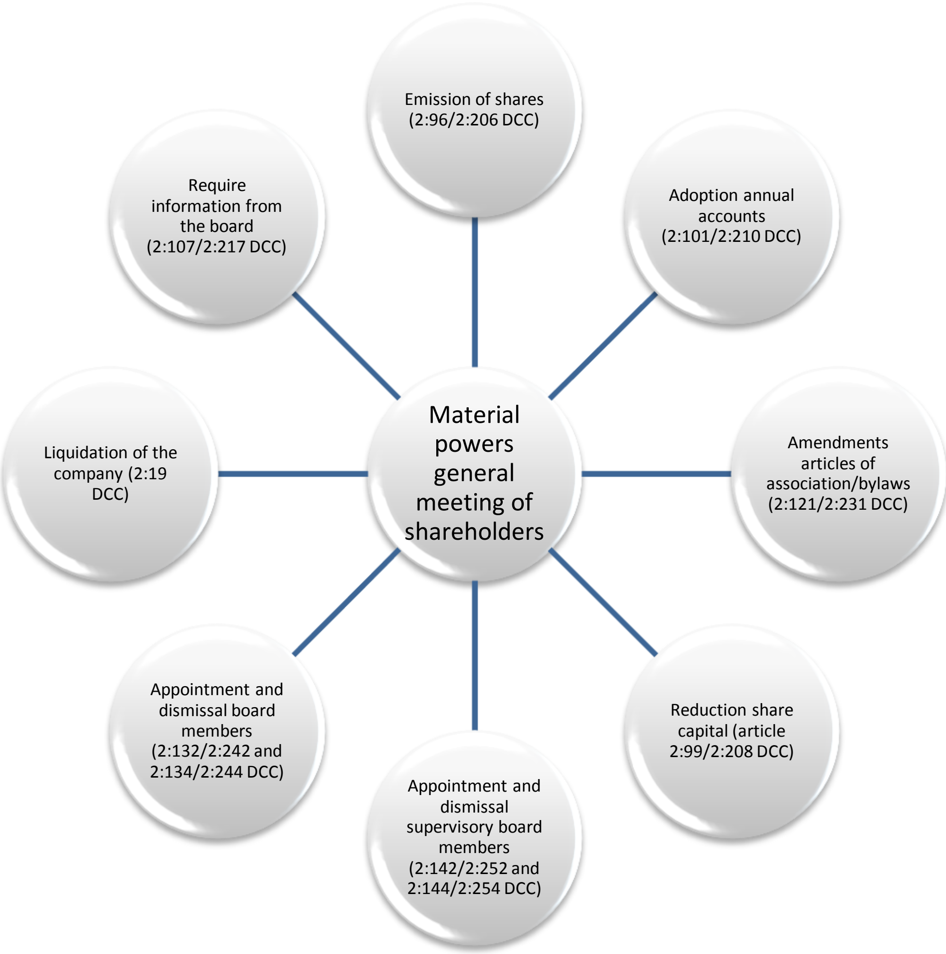
[25] Article 2:391(5) DCC; Besluit van 18 november 2016 tot vaststelling van het tijdstip van inwerkingtreding van de Wet van 28 september 2016, houdende wijziging van Boek 2 van het Burgerlijk Wetboek ter uitvoering van Richtlijn 2014/95/EU van het Europees Parlement en de Raad van 22 oktober 2014 tot wijziging van richtlijn 2013/34/EU met betrekking tot de bekendmaking van niet-financiële informatie en informatie inzake diversiteit door bepaalde grote ondernemingen en groepen (PbEU 2014, L 330), *Stb.* 2016, 451.

The company's board may decide whether it will submit the agenda item in a vote to the general meeting or, alternatively, will just discuss the item in the meeting.

Finally, shareholders can include in the company's articles of association that they have the right to give directions to the company's board. Again, this right does not relate to an individual shareholder but belongs to the general meeting.

To conclude, Dutch law grants various rights to shareholders so that they can exercise influence in regard of material issues. Most rights are allocated to the general meeting of shareholders, which usually decides with a simple majority. Shareholders can also combine their rights and form alliances with which they can exert pressure on the management. One of the rights pertains to information provision by the company to the shareholders. In view of our research question, we note that engagement can involve that asset managers and fund managers require (more specific) BNC information of companies, including scenario analyses concerning material risks caused by the deterioration of BNC and possible solutions to which the company can contribute.

Figure 6 Powers of the general meeting of shareholders



3.3 BNC reporting and accounting standards

The next step in our analysis is to find out what material risks and materiality means in terms of corporate reporting. We will briefly indicate which norms apply in this field.

The mainstream international accounting principles are the International Financial Reporting Standards (IFRS)[26] - which apply to Dutch listed companies - and the U.S. Generally Accepted Accounting Principles (US GAAP) - which can also apply to Dutch listed companies, i.e. in the situation in which their shares or derivatives are (also) listed on a stock exchange in the US. Both sets of standards require the reporting of all issues 'material' to a company. 'Materiality of information' is defined as being so relevant that its omission or misstatement could influence the economic decisions of users of the annual report.[27] It is therefore in the first place up to the company and its accountant to decide whether or not BNC impacts and dependencies are material in this sense and hence need reporting.

[26] IFRS is mandatory for companies listed on EU stock exchanges.
[27] This is defined in the IASB framework. For a reference to this definition see: http://www.ifrs.org/Current-Projects/IASB-Projects/Conceptual-Framework/Other-Public-Meetings-Observer-Notes/Documents/0509wss03.pdf > accessed on: 15 January 2017

Some supervisors have gone beyond this, explicitly requiring the reporting of certain risks associated with BNC. A development that started at emerging countries like Brazil and Bangladesh with economies that are particularly dependent on natural capital and with often less strict implementation of laws and regulations meant to protect natural capital (UNEP Inquiry 2015).

France has recently introduced a law (article 173 of the Energy Transition Act) pursuant to which financial risks related to climate change must be reported by listed companies. Furthermore, institutional investors have to report on how their policies align with the national strategy for addressing transitions to a low-carbon economy.[28]

[28] The official French text can be found here: <www.legifrance.gouv.fr/eli/loi/2015/8/17/DEVX1413992L/jo#JORFARTI000031045547 > accessed on: 6 December 2016. See for English commentaries: UNPRI et al. (2016), French Energy Transition Law. Global Investor Briefing, pp.6-9.

4. BNC and finance: current state of affairs

In the previous chapters, we argued that the worldwide deterioration of BNC is a relevant risk factor for both companies and their investors. We discussed that asset managers and fund managers have several strategies to cope with these risks. In this chapter, we will sketch the current state of affairs of how asset - and fund managers take BNC factors into account as found in the literature. We will also discuss the barriers that keep investors from integrating BNC factors more fully in their investment strategies.

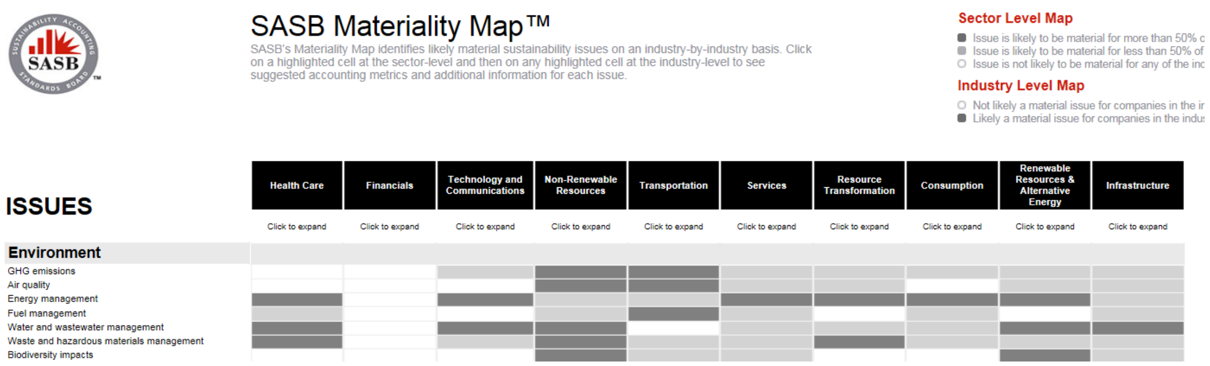
4.1 Investors' strategies for taking BNC into account

4.1.1 Growing investors' interest in corporate BNC performance

Research completed in 2010 on integrating companies' impact and dependence on BNC[29] in investment decisions revealed that institutional investors were ‘not very interested’ in the BNC performance of investee companies (Lambooy, 2010b). Asset managers and fund managers seldom requested information about BNC-friendly investments from sustainability rating agencies (for example Sustainalytics or RobecoSAM). Also, asset managers did not assess BNC in investment decision-making processes, hardly understood the implications BNC loss could have on business, and they found it difficult to ascertain the business risks of BNC issues (Lambooy, 2010b). In general, a sense of urgency regarding BNC issues was lacking amongst asset managers.

This attitude has changed. The Sustainability Accounting Standards Board (SASB)[30] has for example developed a materiality map pointing out for which economic sectors BNC is judged to be of ‘material’ importance (Figure 7 below).

Figure 7 SASB Materiality map[31]



However, although BNC risks sometimes are identified by asset managers or fund managers, so far, literature and our empirical study reveal that there is little progress in terms of risk assessment. In case a BNC risk is assessed, this is almost exclusively done in a stand-alone fashion, i.e. unrelated to the main risk framework.

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[29] The author speaks about Biodiversity and Ecosystem Services (BES) which is comparable to BNC.
[30] The SASB is an independent non-profit aiming to develop and disseminate sustainability accounting standards that help public companies to disclose decision-useful information to investors.
[31] http://www.sasb.org/materiality/sasb-materiality-map/ accessed on 13th of December 2016.

4.1.2 Different approaches of BNC integration

In Chapter 2, we explained the different approaches for asset managers and fund managers eager to integrate BNC into their decision-making framework. In a more practical fashion, these different approaches lead to different strategies to reduce risk and to seize opportunities.

4.1.2.1 Setting minimum norms and engage or exclude

The first way to take BNC performance of companies into account is through setting some kind of minimum norm or threshold that each company needs to take. This can be formulated along policy or governance lines, like having a certain policy in place to flag and mitigate BNC issues, or can be in terms of certain real exposures.

The use of exclusion with regard to the worst offenders of international agreements is widespread, being often the first step taken when it comes to responsible investment. By 2016 the UN-backed Principles for Responsible Investment (PRI) has been signed by more than 1500 asset owners and managers over 50 countries, representing US$60 trillion in assets under management.

The uptake has been particularly strong among Dutch pension funds. According to a survey conducted by the Dutch central bank in 2016, nearly 90% of the more than 200 pension funds surveyed have put in place a RI policy to some extent (DNB, 2016).

The role played by BNC in these exclusion strategies is unknown but they mostly focus on human rights violations.

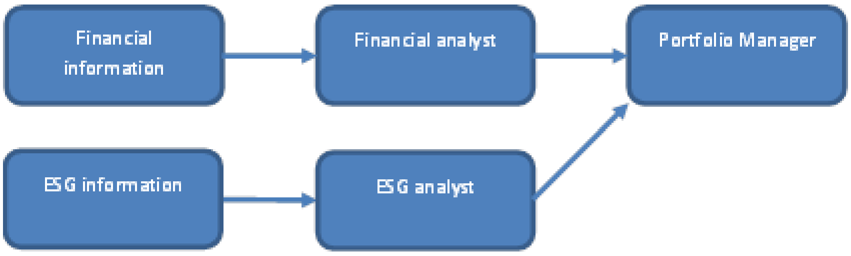
4.1.2.2 Integrating BNC in risk analysis and valuation models

Despite the fact that over the recent years several tools have been developed to assist financial institutions in assessing BNC related risk, a scoping study of the Natural Capital Declaration (NCD) found that only a few financial institutions were systematically quantifying their exposure to these risks and opportunities at a portfolio level (NCD, 2015a). With regard to investments, the picture is rather similar as nearly 50% of asset managers do not analyse climate risks and opportunities at all (High Meadows Institute, 2015). Given the poorer data and generally perceived materiality of other BNC themes, the overall picture will most probably be even less positive.

The Dutch Association of Investors for Sustainable Development (VBDO, 2014) has sketched the development of approaches to the use of ESG data where these play an increasingly central role, literally integrated, in the process of risk analysis and investment valuation.

First ESG information is collected and analysed whole separate from the financial analyses. An ESG analyst presents his conclusions separate to the portfolio managers who needs then to decide how to use this information. For instance, when the ESG analysis shows that minimum norms are not respected the portfolio manager may exclude the stock.

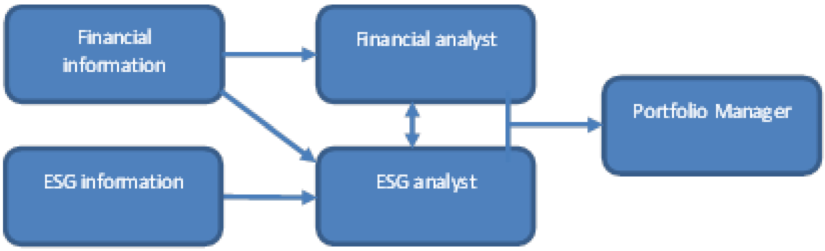
Figure 8 ESG and financial analysis made in separate way



Source: VBDO (2014)

In the next phase, the ESG and financial analysis are integrated. There is still a specialisation, the financial analysis is still initially made regardless of ESG information, but the portfolio manager receives one integrated analysis.

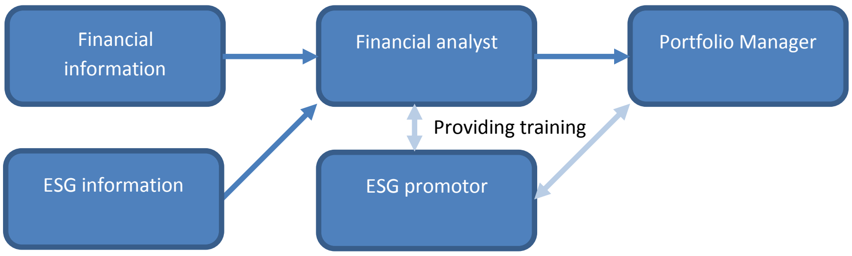
Figure 9 Integration of ESG and financial analysis



Source: VBDO (2014)

Full integration is achieved when the financial analyst uses both the financial and ESG information in an integrated manner. ESG is thus one of the many factors taken into account when making the valuation of a company. Here the role of the ESG-department is much less analysing the data itself, but rather training the financial analyst and portfolio manager in the use of the ESG information, recent developments in the field etc. Here it is possible that the 'sustainability' department is smaller while sustainability information does play its full role in the investment process.

Figure 10 Full integration of ESG in the investment process



Source: VBDO (2014)

Box 4 Robeco integrates ESG performance in equity valuation
Asset manager Robeco has integrated the valuation of the ESG performance of companies in its valuation of equities. Since January 2014, its financial analysts are required to explicitly quantify the impact of the most material ESG issues in their analysis. Analysis of the first results show that 'environmental management' and BNC factors such as 'climate strategy' and 'product stewardship' are especially material in the resources sectors (energy, materials, industrials and utilities). ESG was decisive in 9% of 178 portfolio changes made and in 28% it played an important role. The effect of ESG factors on the valuation (the so called 'target price') is 5% overall, and 10% for those equities where a change was made on the basis of ESG-factors. Target price changes ranged from -23% to +71%. The very preliminary findings of the impact on the financial performance are also positive. As the ESG-driven portfolio decisions outperformed their relative sector indices on average by over 5% annualised (Schramade, 2016).

4.1.2.3 BNC engagement

The UN Principles for Responsible Investment (UNPRI) has an ESG engagement team that identifies key ESG themes and orchestrates collaborative initiatives, such as engagements between UNPRI signatories and companies.[32] Through their collaborative platform, UNPRI signatories can endorse joint letters to companies, request support for shareholder resolutions and can jointly engage on specific ESG-related themes.[33] Key environmental themes selected by UNPRI are palm oil, fracking, climate change and water scarcity.[34] In particular, UNPRI guidance is aimed at climate change lobbying and water scarcity in the agricultural sector. In the former case, guidance is provided for companies that display a certain incongruity between their own actions and their support to trade associations, think tanks or other third parties in relation to climate change.[35] In the latter case, guidance concentrates on the largest user of fresh water, the agricultural sector, and takes a first step towards an exploratory engagement through dialogue with 54 corporations.[36]

4.1.2.4 Public affairs and lobby policies

Recognising that they cannot isolate themselves from climate change, investors have joined forces to influence the public policymakers to take the necessary steps to reduce climate change. In the run-up to COP21, 350 investors representing more than US$24 trillion in assets under management called on the world leaders to forge a meaningful and ambitious climate agreement, in recognition of the risks that climate change presents to their investments. However, no such initiative of the financial institutions was taken in the run up to the Convention on Biological Diversity.

[32] UNPRI, ESG Engagements, <www.unpri.org/about/pri-teams/esg-engagements> accessed on 16 August 2016.
[33] UNPRI, Collaboration Platform <www.unpri.org/about/pri-teams/esg-engagements/collaboration-platform> accessed on 16 August 2016. More information on exact engagements is only available for UNPRI signatories.
[34] UNPRI, ESG Engagements, <www.unpri.org/about/pri-teams/esg-engagements> accessed on 16 August 2016.
[35] UNPRI, Investor expectations on corporate climate lobbying, p.1.
[36] UNPRI, PRI-coordinated engagement on water risks in agricultural supply chains. Investor guidance document, pp.8 and 16-20.

4.1.2.5 Request for disclosure and transparency

Financial institutions also voiced their need for data. More than 822 institutional investors, representing over US$95 trillion in assets, are signatories of the CDP and asked companies worldwide to disclose their carbon emissions and how they are managing climate change issues. With the Montreal Carbon Pledge, 120 investors representing over US$10 trillion in assets, committed to disclosing the carbon footprint of their investment portfolios (Novethic 2016, p. 4).

A limited number of financial institutions are involved in developing BNC accounting methodologies. BNC accounting could help investors to make better decisions and take BNC into account in risk assessment and valuation tools. Mostly through contributing in kind, testing beta versions and requiring companies to disclose their BNC impact. Following the cooperation around the Natural Capital Protocol (NCP) a new role for financial institutions seems to be emerging as corporations and financial institutions (and NGOs) give a different priority to reporting. This can be seen in the discussion on the application of the NCP. This has amongst the primary intended applications to help financial investors make decisions about the management of their asset portfolios by enabling comparisons of the sustainability of peer-group companies and their management of natural capital resources. However, in line with the preference of most of its corporate members the Natural Capital Coalition explicitly states that the NCP is primarily meant to support better decision making, and not as a reporting framework: "although it will aim to standardise the process for assessing impacts and dependencies on natural capital, it is not intended that it should provide absolute comparability of results for external disclosure" (NCC 2016, p. 3). Most corporate stakeholders stated that "reporting externally on natural capital was not yet a corporate priority" (NCC 2016, p.19).

4.1.2.6 Setting quantified goals to reduce exposure

Despite the fact that data often lack we see that asset owners, and in their slipstream asset managers and fund managers, increasingly set themselves goals for the reduction of the exposure of their portfolio to in particular carbon emissions. By signing the Portfolio Decarbonisation Coalition, 27 investors with in total over US$300 billion in assets under management pledged to gradually reduce their carbon exposure (UNEP FI 2016, p. 5). In the Netherlands the two largest pension funds, ABP and PFZW, set themselves the goal to reduce the carbon footprint of their portfolio in 2020 with respectively 25% and 50%.

4.2 Barriers to the integration of BNC in investment decisions

Whereas BNC is seen as material in several sectors by most companies and investors, real integration of the risk assessment is still limited. What keeps financial institutions from fully integrating BNC in their risk assessment? The main reasons mentioned are limited budgets, personnel and capabilities to analyse BNC risks (NCD, 2015b), resource constraints, knowledge and understanding and/or personal misconceptions of ESG issues, competing organisational priorities, existing disagreement about good practices for responsible investment, and fiduciary duties (UNEP FI et al. 2015).[37]

[37] *I.e.* a party prudently and loyally acting in the interest of another, be it its clients or other beneficiaries such as pension holders. UNEP Finance Initiative et al. (2015), Fiduciary duty in the 21st century, pp.14-18; UNEP Finance Initiative et al. (2015), Complying you're your fiduciary duty: A global roadmap for ESG integration. Freshfields: 10 years on.

4.2.1 Lack of long-term incentives to take BNC into account

In career promotion decisions, asset management firms give more credits to employees who have developed into generalists than to employees who have developed specific expertise such as in the field of BNC and related risks. Moreover, by setting short-term performance criteria for asset managers, systemic barriers were created that prevent asset managers to fully invest in comprehending BNC aspects in an investment context (Lambooy, 2010b).

Timelines for financial decision-making are often based on short-term financial objectives at the expense of long-term performance (Haldane and Davies 2011; Fink 2016, WRR 2016). A McKinsey survey found that 63% of board members of companies feel increasingly under pressure to demonstrate short-term financial performance. While 86% of the same respondents believed that taking a longer time perspective in business decisions, would positively affect corporate performance (Barton and Wiseman, 2014).

Short-term pressures on companies often come from investors, such as institutional shareholders. This is paradoxical, given the liabilities of pension funds and insurance companies that stretch over generations.

Reasons that are given for this short-termism are the following (van Tilburg, Demmers, and Remmers 2016; Ambachtsheer and McLaughlin 2015; van Tilburg 2009):

- Regulation (e.g. overstressing the importance of liquidity);
- Social pressures from the sector (to stay in line with the benchmark and the general market expectations);
- Missing a clear long-term investment model with appropriate performance criteria;
- Perverse incentives throughout the subcontracting chain (i.e. selection of performers and methods of reward); and
- The availability of real-time and easy to handle short-term financial data (i.e. availability bias).

4.2.2 Fiduciary duty

Around ESG and finance there is a long standing discussion whether taking ESG factors into account is permissible under the fiduciary duty that financial institutions have, the legal obligation of one party to act in the best interest of another. Traditionally, opponents of ESG integration argue that fiduciary duties make it hard or even impossible to actually practice ESG integration. In their view, a focus on ESG issues leads to a trade-off with investment performance. Proponents of ESG integration assert the exact opposite. According to proponents, fiduciary duties may impose an obligation to integrate ESG issues and not integrating such issues may be seen as a breach of fiduciary duties (UNEP Finance Initiative et al., 2015 pp.14-18).

In 2005, a group of UNEP FI asset managers together with legal firm Freshfields, published a ground-breaking report titled: A Legal Framework for the Integration of Environmental, Social and

Governance Issues into Institutional Investment.[38] The report, widely referred to as the Freshfields report, argued that "integrating ESG considerations into an investment analysis so as to more reliably predict financial performance is clearly permissible and is arguably required in all jurisdictions." In the months that followed, a group of investors, led by UN Secretary-General, Kofi Annan, developed and subsequently launched the Principles for Responsible Investment (PRI) at the New York Stock Exchange. The six principles commit signatories to integrate ESG issues into investment decision-making and ownership practices.[39]

In the last decade, the discussion has continued and UNPRI, UNEP FI, UNEP Inquiry and Generation Investment Management launched a statement in June 2016. In their statement, the parties call on policy makers to clarify investors' duties and obligations in relation to ESG integration.[40]

4.2.3 Lack of company BNC data

The availability of data concerning corporate impact and dependency on BNC is considered insufficient, even for the best-developed BNC theme of carbon. As the taskforce on climate related financial disclosures (TCFD) noted: "Users of climate-related financial disclosure commonly identify inconsistencies in disclosure practices, a lack of context for information, and incomparable reporting as major obstacles" (2016, p 3).

Also research providers and consultancies can give only partial insight into the BNC related risks and opportunities. In its scoping study, the NCD (2015b) found that:

- Only 26 out of 66 research providers and consultants have detailed methodologies available to offer environmental risk-related research or capacity to analyse company performance on BNC factors;
- Eight of the 66 research providers and consultants have quantitative capabilities with BNC datasets; and
- The most common BNC indicators on which research providers and consultants focus are GHG-emissions, water risks, climate risks and air pollution. Few methodologies focus on indicators like agricultural production and over-exploitation risks, forestry and land use and wider pollution impacts.

4.2.3.1 Carbon accounting

After the GHG-protocol was established, and thanks to the work of the CDP, currently over 4,500 companies provide some form of carbon data, including 82% of the 500 biggest companies in the world (CDP 2014, Rogers 2015). Which is not to say that carbon accounting and reporting is where it should be. Especially with regard to forward-looking statements there is still a lack of information. Data from the SASB on the 2014 financial filings by the top US-listed companies shows that 27% of companies identified no climate risk at all. Of the 70% that did, only 15% used metrics, and 40% only

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[38] UNEP Finance Initiative et al. (2005), A legal framework for the integration of environmental, social and governance issues into institutional investment, http://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf.

[39] Freshfield, Complying With Your Fiduciary Duty: A Global Roadmap For ESG Integration Freshfields: 10 Years, http://www.unepfi.org/fileadmin/documents/complying_with_fiduciary_duty.pdf.

[40] UNEP Finance Initiative et al. (2016), Fiduciary duty in the 21st century. Global statement on investor obligations and duties, p.3.

“broad, nonspecific wording”. Users of climate-related financial disclosure commonly identify inconsistencies in disclosure practices, a lack of context for information, and incomparable reporting (Rogers 2015, Taskforce 2016).

4.2.3.2 Biodiversity and land use

MacLaughlin, van der Kruijf and van Dijk (2015) show that of the 265 companies within the six industries evaluated (diversified metals, food products, oil & gas producers, paper products and forestry, precious metals and steel):

- 80% report on BNC and land use issues through the identification of risks and implicitly through their related activities;
- 56% directly recognise BNC issues and implement programmes to address their impacts; and
- The average quality of reporting of those companies that report on BNC and land use issues is considered weak.

4.2.3.3 Water use

The same study shows that of the 373 companies assessed across four industries that have a relatively high impact on local water demand and at the same time are vulnerable to reduced water supply (food products, paper and forestry, precious metals, and steel):

- 65% report on their management of recognised water use issues;
- Of the companies reporting on water extraction only 41% provided information on their water consumption;
- The average reporting quality of the companies that report on water issues is considered adequate; and
- Between the four industries, food product companies had the highest percentage of companies with strong water management systems at 40%.

In sum, this chapter sketched the current state of affairs of the interaction between BNC and finance, and more specifically in regard of asset management and fund management. In literature, we found a growing interest of investors in corporate BNC performance. We also distinguished different approaches of BNC integration by investors and possible barriers for such integration, such as the lack of long-term incentives to take BNC into account. In the next chapter, we will delve into these issues, and more, even further and we will try to corroborate the findings from literature through empirical findings retrieved from interviews.

5. Interview results and analysis

This chapter presents the findings from the interviews with companies and asset managers and fund managers. First, we will present the interviewees. Then we will present the outcomes of the interviews with the asset managers and the companies respectively.

5.1 Investors and companies interviewed

5.1.1 Investors

A broad range of investors was selected. Of the ten asset managers interviewed the largest held US$5,100 billion of assets under management (BlackRock, the biggest asset manager in the world) whereas the smallest (Triodos IM) has €3 billion of assets under management.

Some of the asset managers also manage their own proprietary assets of the insurance business (Aegon, NNIP). MN, SPF Beheer and PGGM manage mostly the assets of the same pension fund that own the asset manager, while the others are wholly independent companies.

BlackRock and BMO are both active in the Netherlands, but only for a small part of their overall business. Robeco originates from the Netherlands (Rotterdam), but now has Japanese owners (previous owner was the Rabobank).

As mentioned, MN, SPF Beheer and PGGM are owned by Dutch pension funds or only have Dutch clients (the asset owners). Aegon and NNIP are Dutch by origin but have clients worldwide. Aegon and NNIP are listed on the Dutch stock exchange, but given the international nature of their shareholders, the majority of their shareholders are from abroad.

Lastly, most asset managers work exclusively or predominantly for institutional parties (mostly pension funds), except BlackRock and Triodos IM. BlackRock is one of the biggest asset managers for retail clients and Triodos IM works almost exclusively for retail clients via Triodos Bank branches and third party distributors.

Table 2 provides an overview of some basic characteristics of the investors that were interviewed.

Table 2 Characteristics investors interviewed

	Core business	Assets under management	Number of employees	Operational focus
ACTIAM[41]	Fund and asset manager	€55 billion	130	National
Aegon[42]	Financial services organisation (life insurances, pensions and asset management)	€707 billion	31,530	International
BlackRock[43]	Investment manager	US$5,100 billion	12,000	International

[41] ACTIAM, About us, <www.actiam.nl/en/who-we-are/> accessed on: 8 December 2016.
[42] Aegon, At a glance, <www.aegon.com/en/Home/About/At-a-glance/>; Aegon, Aegon today, <www.aegon.com/en/Home/Investors/Aegon-in-2015/> both accessed on: 8 December 2016.
[43] BlackRock (2016), Built for change. Annual report 2015, p.10; BlackRock, About BlackRock, <www.blackrock.com/corporate/en-us/about-us> accessed on: 8 December 2016.

BMO[44]	Asset manager	US$238 billion	6,400[45]	International
MN[46]	Pension fund service provider	€114 billion	1,206	National
NNIP[47]	Asset manager	€199 billion	1,200	International
PGGM[48]	Pension fund service provider	€200 billion	1,363	National
Robeco[49]	Asset manager	€276 billion	1,218	International
SPF Beheer[50]	Pension fund service provider	€18 billion	195	National
Triodos IM[51]	Impact investor	€3 billion	137	International

The interviews with these asset managers were held with different finance professionals. Mostly with people that work primarily on responsible investing and within the office responsible for engagement. Some of the interviewees have a commercial background or previously worked as a financial analyst.

5.1.2 Companies

A limited amount of five companies were initially selected to be included in this research. One of the companies indicated that the role of investors on their BNC performance is very limited. The results of this company are not further taken into account. The remaining four companies are mainly frontrunners or companies that aim for a strong sustainability performance. Table 3 provides an overview of some basic characteristics of the companies interviewed.

Table 3 Characteristics companies interviewed

	Core business	Number of employees	Revenue	Operational focus
AkzoNobel	Chemicals	45,586	€14,86 billion	International
Corbion	Bioproducts	1,673	€0,918 billion	International
DSM	Chemicals	21,819	€8,9 billion	International
Heijmans	Construction	8,000	€1,98 billion	International

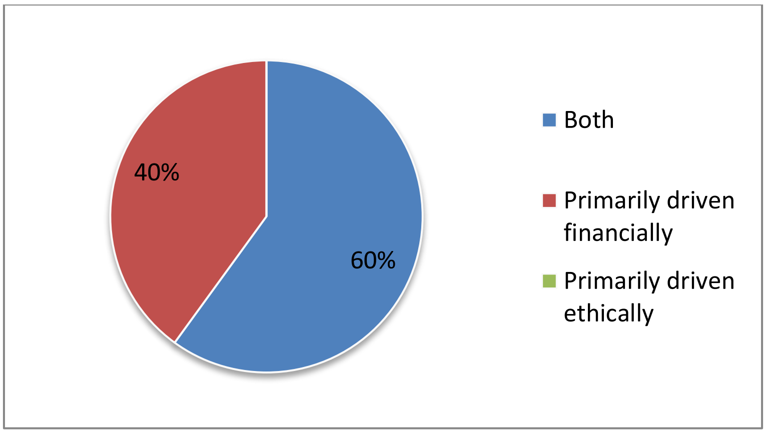
[44] BMO Global Asset Management, About us, <www.bmo.com/gam/about-us/g/overview> accessed on: 8 December 2016.
[45] This also includes BMO Insurance, BMO Nesbitt Burns, BMO InvestorLine and BMO’s Private Banking.
[46] MN, Homepage, <www.mn.nl/en/> accessed on: 8 December 2016.
[47] NN Investment Partners, About us, <https://nnip-careers.com/about-us/> accessed on: 8 December 2016.
[48] PGGM (2016), Annual Report 2015, p.33; PGGM, Who we are, <www.pggm.nl/english/who-we-are/Pages/Default.aspx> accessed on: 8 December 2016.
[49] Robeco, Facts and figures, <www.robeco.com/en/about-us/facts-figures.jsp>; Robeco, Over Robeco, <www.robeco.com/nl/over-ons/over-robeco.jsp> both accessed on: 8 December 2016.
[50] SPF Beheer, Kenmerken, <www.spfbeheer.nl/Wie-zijn-we/Kenmerken> accessed on: 8 December 2016.
[51] Triodos IM (2016), Annual report 2015, p.8; Triodos IM, Who we are, <www.triodos.com/en/investment-management/who-we-are/> accessed on: 8 December 2016.

5.2 Outcome and analysis of interviews with asset managers

5.2.1 BNC and investors' objectives

When asked whether the respondents were primarily financially driven or ethically driven the majority replied they were both. None responded that they were exclusively ethically driven; financial returns are relevant to all respondents. More than a third responded that they were primarily financially driven. However, also these respondents recognised the materiality of BNC for their financial performance, and hence the need to take this into account in setting and executing its investment strategy (see Figure 11).

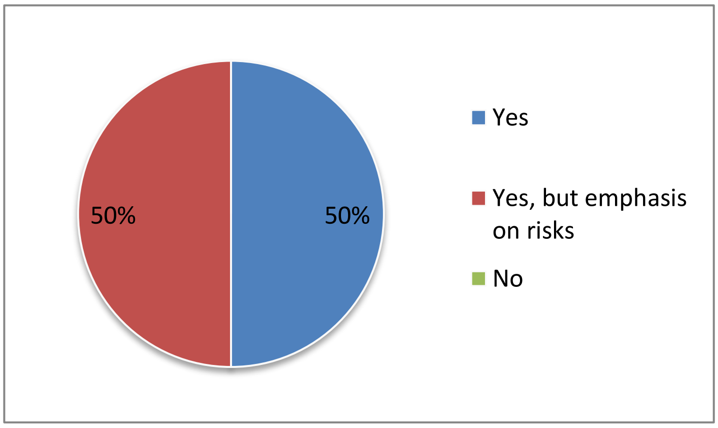
Figure 11 Finance first or ethics first investor



Most respondents indicated that BNC has moved up on the agenda in recent years. Whereas some have been active with BNC for a longer time, the frontrunners amongst the mainstream respondents around 10 years, others have only truly started to integrate BNC into their financial analysis quite recently (last 1-2 years). Based on the interviews we can conclude that BNC has moved from a niche to the mainstream. Which is not to say that it currently plays a very large role with all respondents.

BNC integration has started from a (reputational) risk focus, and has moved to a credit, liability or market risk, driven by regulation. Increasingly also BNC-specific opportunities are recognised. About 50% of the interviewed investors say BNC has a positive impact on the perspective of the investor on the investee company.

Figure 12 Is BNC a material factor for the financial performance of investee companies?

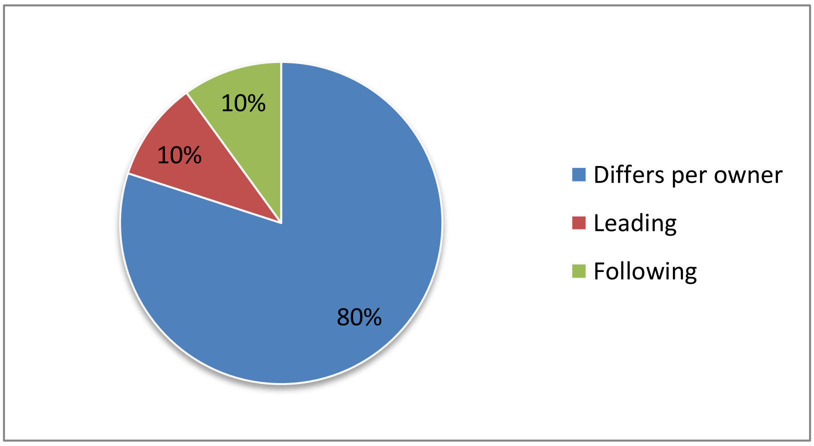


Also, the recently adopted Sustainable Development Goals, which include goals in the field of water, biodiversity, climate, land use, poverty and others, are driving interest in BNC amongst investors.

The internationally active asset managers mentioned the European, and specifically Dutch, asset owners (mostly pension funds) as one of the main drivers for taking BNC into account. These asset owners expect integration of BNC aspects in the investment process as well as engagement in this field when necessary.

However, most asset managers indicated that they are themselves very much aware of the materiality of BNC and thus do not need asset owners to lead them in this field. Overall, most asset managers indicated that some asset owners were leading and others following their BNC-initiatives. 10% indicated that in recent years it were asset owners that actually led the developments. Likewise, 10% indicated their asset owners were actually following.

Figure 13 Are asset owners leading or following the asset managers and fund managers in ESG integration?



Box 5 Division of tasks between asset owner and asset manager
An asset owner may choose to outsource asset management and engagement activities to asset managers. The interviewed investors were asked whether outsourcing such activities must be considered as a strength or a weakness of the asset owner. 75% of the respondents argued that outsourcing by an asset owner must be seen as a strength. The rationale behind their point of view is that by concentrating on core tasks, specialisation may lead asset managers to perform tasks more efficient and effective than asset owners. None of the respondents deemed outsourcing a weakness.

Another driver for taking BNC into account mentioned by the interviewees is the regulatory push. For this reference was made to the recently amended IORP (Institutions for Occupational Retirement Provision, EU pension regulation) which demands transparency on ESG risks, the French energy law whose Article 173 demands transparency on climate and energy transition risks, the Financial Stability Board's Taskforce on Climate related Financial Disclosures (TCFD 2016), and the investigation of the Dutch central bank into the financial risks of the energy transition and climate change and on responsible investments of Dutch pension funds.

The growing academic literature on the financial materiality of ESG/BNC factors helps convincing financial analysts and portfolio managers of the need to take these systematically into account. Just like BNC-related scandals with a huge financial impact that have occurred over recent years, like with companies as BP and VW.

5.2.2 What BNC themes are taken into account?

Whereas all respondents do take BNC into account to some degree, when asked whether the term natural capital resonates within the investor's organisation. Respondents indicated that terms such as BNC are difficult to define and mostly considered too fuzzy to operationalise. Rather, respondents translate BNC into concrete components such as water or climate.

All respondents stated that carbon is seen as by far the most material BNC-aspect and thus receives most attention. Water follows at quite a distance, followed by land. Chemicals is hardly a theme that makes the short list of themes to work on, or only with very specific companies in agriculture or the chemical sector. Some respondents indicated that they thought the materiality of non-carbon themes is underestimated and that there may be too much focus on carbon.

From the interviews it becomes clear that carbon is seen as material to most sectors and that agriculture and food and beverages are seen as relevant to most different BNC themes.

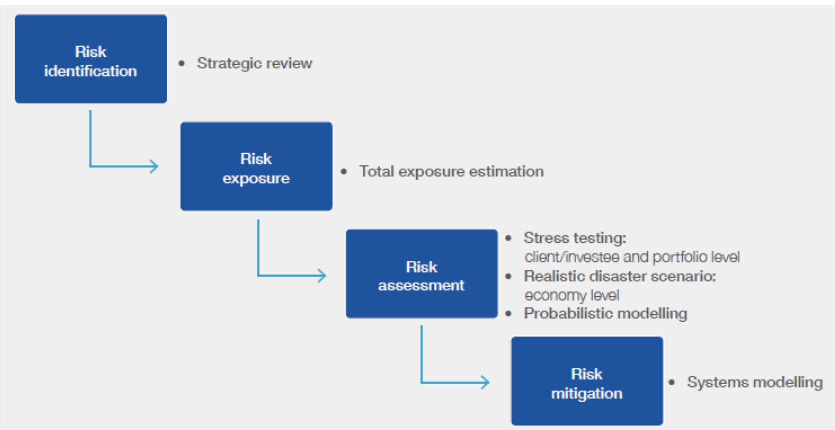
Whereas chemicals as a general theme may receive relatively little attention, it is a central theme in some of the highest profile engagement trajectories in recent years with regard to pesticides that are harmful to BNC (Syngenta, Monsanto and/or Bayer with ACTIAM, BlackRock and/or Robeco).

Between the respondents there were little differences as to what BNC themes were seen as most material in which sectors. However, some themes (like chemicals for textile) were seen as emerging by one or two respondents.

5.2.3 How asset managers take material BNC themes into account

In this section, we describe the way that asset managers take BNC into account along the steps of the risk framework as specified by the University of Cambridge Institute for Sustainability Leadership (CISL). The CISL describes the following steps to be taken: identification of a specific risk, measuring the exposure of the portfolio to that risk, assessment of this risk and the mitigation strategy to handle this risk in an adequate way.

Figure 14 Elements of CISL risk framework



Source: CISL (2016)

As we have seen before, many investors identify BNC as a material risk factor, albeit to a differing degree. We therefore here discuss the BNC risk exposure, risk assessment and mitigation strategy.

5.2.3.1 BNC risk exposure

Exposure to risks is best measured with regard to the most prioritised theme of carbon. However, it is not wholly clear how the causality here lies. It may be that carbon is also seen as most material because the data on carbon exposure of its companies are most available (the 'availability bias'). Reporting on carbon exposure has been a frontrunner, as in this field a common methodology was established first (GHG-protocol in 2001) and an investor-supported initiative started to demand reporting (CDP).

However, despite it being the most widely and best reported BNC theme, respondents indicated that also around carbon many question marks remain about their real exposure. Especially with regard to scope 3 emissions (elsewhere in the supply chain, with suppliers and customers), which may be the most relevant part.

With regard to water and land, the availability of data is considered to be even more of a problem. Despite efforts like CDP Water and CDP Forest, the GRI and ESG-data providers collect data on water and land as well. An extra problem is that the relevance of data about water and land use and pollution are highly dependent on the specific local situation. Satellite images are sometimes used to gather data on the status and impacts of mining on land. However, to link data and impacts to specific companies is often a problem as data on the location of production facilities and ownership of land is not available.

Most respondents use several ESG data providers, with MSCI and Sustainalytics being used most broadly as the main data providers. A specialised data provider as South Pole was mentioned by two respondents as provider of more enriched data on carbon and water. Based on such data, investors can estimate the exposure for companies for which no or incomplete data is available by using proxies.

Almost all respondents use ESG-scores from data providers and complement their analysis with their own analysis, in particular for outliers. For those analyses, annual reports and other public sources are used as well as engagement and regular financial analyst calls.

Whereas a lack of standardised, trustworthy and complete data is considered an overall problem respondents differ in their reaction to this problem. All respondents say that they support investors' calls for more transparency, like from the CDP or UNPRI. However, some also feel that they cannot really push too hard on this, as they see a lack of common methodologies/standards for reporting. Others stress that this lack of reporting methodologies/standards may be true, but that the only way to overcome this issue is to push for meaningful reporting, thus stimulating the uptake of common reporting methodologies/standards.

5.2.3.2 BNC risk assessment

Whereas some respondents report that BNC, especially carbon, is increasingly taken into account in the valuation of companies, the integration of BNC risks remains difficult. Sometimes quantitative estimates can be made for the financial impact, but those calculations are often highly uncertain.

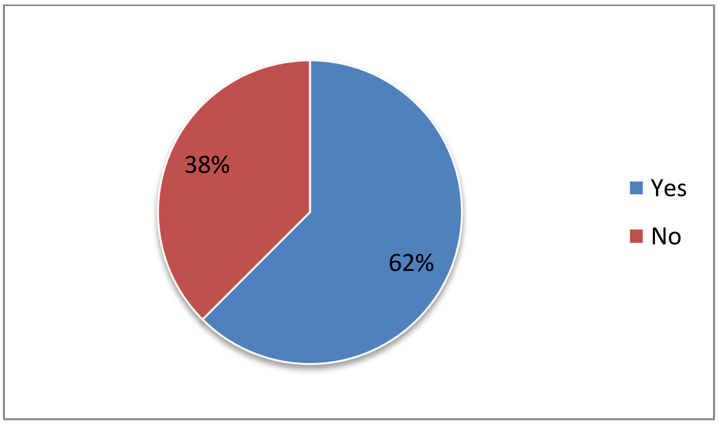
Most respondents try to integrate ESG analysis and financial analysis. In an integrated approach, BNC over-/underperformance is translated into a plus or minus in the valuation. An interesting development is that two major data-driven respondents are developing specific quant models that incorporate ESG data (Robeco, BlackRock).

5.2.3.1 Quantitative targets and mitigation strategies

Despite the fact that both the measurement of risk exposure and the assessment of this risk are partial at best, BNC does have a material impact on investment decisions. Thus, the lack of data is no barrier for developing mitigation strategies, although ideally the mitigation strategy follows from the risk assessment.

Figure 15 shows how many respondents have set such quantifiable goals with regard to BNC. The respondents that have set quantitative targets have specified targets for CO_2. A total of 62% of the respondents have set up quantified goals with regard to CO_2. 38% has not set up any quantified goals.

Figure 15 Established quantified CO_2 goals



The fact that there is no clear exposure and agreed upon method for risk assessment also translates into quite different mitigation strategies. ACTIAM has set its goal for reducing the carbon exposure of its portfolio at 25% in 2025.[52] Calculations of BlackRock show that within a broad index this reduction of exposure can be achieved with a minimal tracking error of 40 basis points. However, most asset managers have set themselves a longer period for this reduction in order to achieve this not only through exclusion of the heaviest carbon emitters, but rather/also through engaging with the companies in order to improve their performance.

Whereas the quantitative goals focus on carbon exposure, several respondents stressed that this is only a proxy for the actual risk and return. Better risk assessment should allow for more precise and meaningful mitigation strategies.

[52] ABP and PFZW were not included in the interviews, but also set quantitative goals. ABP has stated it wants to achieve 25% CO_2 reduction in 2020 and PFZW aims at a reduction of 50% in 2020.

5.2.3.2 Engagement

Incidentally, active engagement on BNC themes is the primary focus of a respondent. For these respondents, engagement is regarded as an important mechanism to improve the BNC performance of investee companies. For other respondents, BNC is not a primary focus. However, BNC is oftentimes still considered as part and parcel of the investor's engagement strategy. For respondents that do not consider BNC as their primary focus, engagement on BNC themes ranges from 6% (BlackRock) to 30% (BMO) of the total engagement activities.[53]

Engagement follows a general pattern, also known as the escalation hierarchy (*escalatieladder*). At the bottom level of the hierarchy, an investor commences engagement with a letter addressed to the investee company. This letter may be followed by (formal) dialogues with the company. If dialogues do not lead to the intended result, investors will issue shareholder resolutions. At the highest level of the hierarchy, if all other measures fail, investors may opt for exclusion. Exclusion is an *ultimum remedium* and is mostly used as a pressure factor, only to be effectuated when a company refuses to cooperate or does not show any improvement. Exclusion is not the preferred approach if an investor still wants to exert influence, but may be an appropriate avenue if an investor wants to prevent any involvement in future controversies.

In the absence of quick fixes, engagement may take several years from starting a dialogue to seeing first instances of actual change evidenced. Some respondents define the maximum duration of an engagement effort, within which timeframe changed behaviour of the investee company is expected. Engagement periods mentioned were two years and three years. Engagement takes time. Therefore, some respondents indicate that perseverance is an essential element of successful engagement.

The total number of engagements (so not only on BNC) realised ranges across the different respondents from 70 (MN) to 768 (BMO) per year. Engagement may target specific sectors or may be executed independent of the sector. Sometimes engagements were also structured as a concerted effort of investors through platforms such as UNPRI, Eumedion and GES (SPF Beheer, NNIP, ACTIAM). These collaborations were successful in certain instances. Successful results were for example achieved with regard to sustainable palm oil (BMO), High Conservation Value Forests (Robeco) and fracking (Triodos IM). Engagement may also be geared towards specific themes, such as CO_2, or to increased reporting, such as reporting to CDP and water. Some respondents are reluctant to attribute success to their engagement efforts, because causality between engagement efforts and the results achieved may be difficult to establish. As a result, these respondents proceed with caution when claiming successes.

5.3 Outcome and analysis of interviews with companies

5.3.1 Influence of companies' BNC performance and reporting

When asked whether the terms BNC resonate within the company, almost all of the companies (except one) indicated that this is not the case. Respondents indicated that terms such as BNC are too general and thereby difficult to define. Rather, the companies try to make this theme more

[53] BNC engagement efforts as a percentage of total engagements other investors: 23% (PGGM), 20% (NNIP).

concrete by operationalizing it into more specific issues, such as water, climate, or land use. Natural capital as separate topic does not seem to count yet.

It seems to the interviewees that investors are only interested in BNC when there is a clear and direct link to (reduced) financial risks. The companies do not have the idea that their BNC performance has any material influence on investors. Similarly, when focussing specifically on reporting and transparency none of the companies has the idea that their transparency strategy influences their investors. Sustainability performance in general does have an influence. It helps companies to get included in specific sustainability funds.

5.3.2 Investors engagement approach

All companies confirm that investors do have an active engagement approach. However, existing investors' engagement approaches focus mainly on financial performance. Specific engagement strategies focussing on BNC or even sustainability performance as such seems to be non-existent. If companies are questioned about sustainability issues it is always in relation to financial risks or opportunities.

One exception is the VBDO. The VBDO is always present at the Annual General Meeting of Shareholders (AGM) to ask questions related to sustainability themes. Companies are positive about their presence and consistency. Their presence makes it easier for the companies to get the sustainability topics internally 'on the agenda'. BNC has been on the agenda of the VBDO and specifically the themes biodiversity, climate and water. However, the companies also emphasised that the VBDO sometimes asks too general and easy to answer questions. Finally, the VBDO is not always seen as the spokesman for institutional investors. This is mainly because the members of the VBDO only enclose relatively few institutional investors.

5.3.3 The main information sources for investors related to BNC

Investors have a relative limited focus on BNC according to the interviewed companies. If investors collect or use information on BNC for their investment decisions, these data are mainly obtained from third parties. In addition, sustainability or integrated reports and data from websites are sometimes used.

5.3.4 The role of institutional investors in companies' BNC performance

We discussed with the companies whether (institutional) investors could help companies to perform better in the field of BNC. The companies all confirmed that there is a role to play for institutional investors. The companies argued however that investors could better ask for more information on the process, the planning and quantitative targets set for BNC, mostly in regard to CO_2 emissions. Next to that, investors could ask for sustainability performance directly, instead of only indirectly by relating it to (financial) risks. In this way, the company realises the importance of BNC for the investors. Companies said to regret that investors mainly focus on negative impact while they do not seem to value positive impacts. Like contributing to biodiversity or having a negative impact on greenhouse gases.

Two companies argued that it would be very welcome if investors would also use other engagement strategies, such as 'firelight sessions' (i.e. sessions with the board of directors or management board). It would also be appreciated if investors or spokesmen of investors, e.g. VBDO, could provide more information, present and discuss trends, future expectations and international best practices.

5.3.5 Adaptation of company BNC strategy and measurement if requested

Companies said they would be willing to adapt their BNC strategies if that would be requested by investors during engagement. However, in reality there are not a lot of requests by investors related to BNC in general.

Nevertheless, one company explained that they increased their quantitative targets to reduce negative BNC impacts based upon a discussion with the VBDO during the AGM. This shows that these kinds of discussions do have an impact on a company's strategy, ambitions and therefore performance in the long run.

We also discussed whether companies would be open to change their measurement methods, valuation methods or reporting format if institutional investors would request this (either for benchmarking or for absolute valuation). In general, the companies seem to be reluctant to adapt new measurement methods, valuation methods or reporting formats as such. Especially if all investors would ask for different measurement schemes, companies would be loaded with extra work. Furthermore, the companies made clear that the questionnaires of rating agencies (like Sustainalytics or RobecoSAM) sometimes already ask for specific calculations and/or indicators. From this point of view, companies would welcome standard measurement and reporting methods.

6. Conclusions, recommendations and further research

In this chapter, we present the conclusions of our research. Our answers to the research questions are based on the literature study and our interviews. On the basis of these results, we formulate several policy recommendations for the government that may enable asset managers and fund managers to better engage with companies, in order to improve their BNC performance and thereby contribute to public goals as well as address financial risks and opportunities in this field.

6.1 Conclusions

6.1.1 With regard to the asset managers and fund managers

1. *To what extent and how is information on land use, water use, chemical pollution and carbon emissions presently used in investment decisions and engagement with investee companies? Is BNC assessment already a special area of interest, related to the risk assessment?*

The interviews found that BNC is not a special area of interest in itself, since terms such as BNC are too general. However, both the interviews and the literature study found that the underlying themes are increasingly being taken into account when designing investment policies and in the financial analysis of companies. The business case for BNC is clearly "on the rise", even though the term itself is not commonly used.

However, this does not yet imply that BNC is fully integrated in financial analyses and risk management. Where the materiality of BNC is increasingly acknowledged, and the materiality of carbon is acknowledged by all investors we interviewed, the step to actually measure the potential impact on financial results and risks remains a challenge. Both the literature and the interviews showed that a (quantified and complete) risk assessment based on potential impacts and dependencies on BNC is seldom made. However, we do see that asset owners and managers increasingly take mitigating measures, like setting quantitative goals for the reduction of their exposure to carbon emissions.

2. *What BNC aspects are regarded to be most essential for investment decisions? Or is BNC information used on aggregate levels only, based on general ESG ratings and benchmarks?*

The interviews confirmed the findings from the literature that, in particular, carbon is seen as a material factor for many companies and sectors. This is increasingly, but to a lesser extent, also the case for water, land and (much less so) chemicals.

The interviewed investors use specific data on carbon, water, land and chemicals from the ESG-data providers, supplemented with their own research and findings from engagement with the investee companies.

Looking at the 'materiality matrix' of BNC themes and sectors that we distilled from the interviews, we see that all themes, i.e. carbon, water, land and chemicals, are relevant for agriculture. The literature showed that agriculture is also the sector with the highest costs, and thereby risk, related to externalities as a percentage of its profits. Carbon is an issue in almost all sectors.

The interviews showed that general ESG ratings are increasingly used. However, when companies are outliers on one of these aspects (i.e. performing much more negative or positive than their peers) investors may develop their own analysis. Such an analysis can include data from public sources (annual reports), proprietary databases and engagement.

At some of the investors interviewed, engagement is no longer the exclusive domain of engagement specialists and/or the responsible investing department. Since ESG factors are more and more included in the regular financial analysis, also financial analysts may ask questions about ESG factors, including BNC, during regular meetings and analyst calls. According to some of the interviewees from the investor side this may even be a more powerful form of engagement than the traditional one. However, about this engagement on BNC-issues by financial analysts only anecdotal information is available, it is not part of the public reporting on engagement of asset managers and fund managers.

This integration of BNC in the financial analysis strengthens the financial feedback loop. As companies currently know that being an outlier may translate in exclusion from the investment universe, or inclusion in specific impact funds, the internal ESG-stakeholders can now, as a next step, also point out that less dramatic deviations from the benchmark in the field of BNC will influence the valuation of a company and thus have a real financial impact.

3. *How do asset managers and fund managers decide on applying a certain action in the event a company's activities negatively impact BNC (e.g. exclusion of worst offenders, inclusion of frontrunners, and/or engagement with companies and funds)?*

Our interviewees applied all the motivations from the literature to take BNC into account and engage on it: idealistic motives, regulatory changes, financial reasons, aiming to increase transparency, raise social and environmental standards. The financial motivation seems to particularly weigh more heavily over recent years due to the increasing evidence of the materiality on BNC both in empirical literature as in recent high profile cases, such as BP and Volkswagen.

The interviews found that by using engagement, asset managers and fund managers combine formal shareholder rights with more informal forms of communication.

As found in the literature, the engaged companies generally have reputational concerns and a higher capacity to implement changes. The interviews added that market leading or 'iconic'-companies, which can set the standard in the sector, are specifically targeted by investors.

During the interviews, the investors stressed the importance of collaboration in engagement and the fact that an engagement often takes a long time to become effective and lead to actual change in performance (2-3 years).

The existing literature mainly describes the form of engagement approaches and activities. Information on the actual results of engagement is very limited. We provide information of this as reported by investors themselves. We found that mostly the targets set for engagement are achieved. However, attribution of the success of engagement is difficult as many external aspects influence the engaged companies, the investors often being only one of many stakeholders engaging with the company on a specific topic. Investors are also quite optimistic about the success of engagement in the field of BNC, as BNC issues simply make a strong business case and hence companies are eager to grasp the opportunities better performance in this field offer.

4. *If BNC information is not used for investment decisions: why not, and what has to change so that this information will be taken into account? Do the various voluntary and mandatory reporting formats provide all of the required information in respect of a company's BNC impacts and dependencies?*

Both the literature and the interviews show that the main impediment to using BNC-related data is the lack of reliable and comparable data. Whereas there is still much to be gained if more companies would adopt current reporting formats (integrated reporting, GRI and others) many gaps remain as well in the existing methodologies that prohibit a full assessment of BNC-related impacts and dependencies. The perceived lack of standards and alignment between existing standards also for reporting on important carbon emissions (scope 3), makes it hard for investors to fully take these factors into account.

It is for this reason that much of the engagement focuses on increasing transparency of BNC performance. However, some investors stressed that sometimes there also is a lack of commonly accepted methodologies to measure BNC outputs, outcomes and specifically impacts. In those cases, like carbon scope 3, they therefore do not push their investee companies.

Lastly, particularly for land and water, much data are available through satellites that could be linked to specific production locations of companies. However, except for the mining companies, most companies do not (fully) disclose the location of their fields and factories.

6.1.2 With regard to the companies

5. *Is interaction with asset managers and fund managers an important motivation for companies to change their reporting on BNC impacts and dependencies?*

This is not the case for the companies we interviewed, which may be explained by them being relative frontrunners in this field. From the literature and the interviews of the investors it became clear that a large part of the engagement in the field of BNC is actually aimed at motivating companies to improve their reporting on BNC. As the companies interviewed complain about the burden of different reporting demands from different ESG data providers, they signal that without this they might not have reported in such a specific way. Although the question that remains is whether the different reporting formats that data providers send to companies actually increases the transparency of their BNC performance in a meaningful way

6. *Is interaction with asset managers and fund managers an important motivation for companies to change their performance of BNC impacts and dependencies?*

Interviews with companies showed that discussions with investors do have an impact on a company's strategy, ambitions and thereby performance in the long run. Engagement makes it easier for internal supporters of BNC to put this issue on the agenda and/or helps them to get their agenda implemented in practice. This finding is in line with the expectations based on the ToC.

However, the companies interviewed do not have the idea that their BNC performance has the interest of investors. Also, specific engagement strategies focussing on BNC or even sustainability performance as such appear to be non-existent. If companies are questioned about sustainability issues it is always in relation to direct financial risks or opportunities (will this lead to better/worse financial performance?). When there is an engagement in the field of BNC, the focus is mostly on the negative impact while they do not seem to value positive impacts that companies themselves also focus and report on. The exception being VBDO that does address BNC in a structured way, and in a wider and more positive context. However, VBDO is not always seen as the spokesman for institutional investors.

7. *What are the expected effects on company reporting and performance of the different types of interventions by investors and fund managers?*

Exclusion is not an issue with the companies interviewed as they do not belong to the companies that are negative outliers on material issues. Rather, they are companies that are or could be included in positive ESG funds. Being included on the basis of positive BNC performance is something that is valued by the company, even though it does not have a material impact on the finance of a company.

The integration of BNC in financial analysis is not something that consciously affects the interviewed companies. The companies are not aware of any impact on the availability of finance. However, the investors stated and the literature showed that companies increasingly do integrate BNC in their financial analysis with a material impact on the valuations made.

This apparent contradiction can be explained by:

a. BNC being a recent and not yet very strong developed issue on the investors side (still only ‘weak signals’);
b. The use of BNC data being done mostly in the ‘back office’ of the investors: the financial analysis that now includes BNC data as one of the many (around 100) factors being taken into account in valuing a company’s stock; and
c. BNC being a new channel of interaction in the purely financial domain that does not necessarily reach the people in the company that work on sustainability, so that it can have a financial impact but one that the companies sustainability people are not aware of.

As concluded before from the literature and confirmed in the interviews, the direct result of engagement is mainly a power shift within the company away from some managers towards others with the support of the shareholders. This leads to changes in the orientations and attitudes of organisational members.

What can be done better according to the companies, as suggested in the interviews, is that investors could ask for more information on the process, the planning and quantitative targets set for BNC. Investors could ask for sustainability performance directly, instead of only indirectly by relating it to (financial) risks. A more productive form of engagement may be so called ‘firelight sessions’ (i.e. sessions with the board of directors or management board) about a company’s strategy and ambitions. It would also be appreciated if investors or spokesmen of investors, e.g. VBDO, could provide more information, present and discuss trends, future expectations and international best practices to companies.

The interviewed companies would also welcome standard measurement and reporting methods as they currently have to spend much time responding to questionnaires that often ask for similar information, while each questionnaire requires its own specific indicators for filling it in. This burdensome way of collecting BNC data may also lead to a wrong view of especially smaller companies, as they do not have specific persons employed for filling in questionnaires. Their performance therefore may be better, but may look poorer.

6.2 Policy recommendations

So how can public policy makers enable asset and fund managers to induce their investee companies to improve their BNC performance? In particular, how can the EU Directive 2014/95 on mandatory non-financial reporting be helpful for the specific needs of asset managers and fund managers? What supporting policies in BNC reporting by companies can be advised to make the EU Directive 2014/95 in the Netherlands more effective in reducing negative corporate BNC impacts?

The frontrunner companies and investors we interviewed did not have very high expectations of the changes that will be realised by the EU directive. Although it was stressed that it will be helpful in levelling the playing field by improving the reporting of laggards.

Investors stressed in particular the need for reliable and comparable data. For this standardisation is needed in the methodologies used to report the BNC impacts and dependencies. The EU Directive could play a role here by being more descriptive of the use of existing reporting formats like the Integrated Reporting Framework and the Guidelines on Responsible Investing.

Several recommendations for supporting policies have been found in the literature and have been provided by the interviewees. The recommendations can be clustered into two issues, each comprising several possible policy interventions:

1. Standardisation of BNC reporting methodologies;
2. Incentives to use BNC data in financial analysis.

These are not two wholly separate clusters. Better available standardised BNC data will be in itself an incentive for financial institutions to use these data. And when financial institutions are incentivised to take BNC into account they will need, and thus push for, more reporting thus increasing the availability of standardised BNC reporting and reporting methodologies.

6.2.1 Standardisation of BNC reporting methodologies

In reporting on BNC there is the need to find the right balance between stimulating reporting along common standards (standardisation) and leaving room for different approaches as the relevant BNC impacts and dependencies are different between companies and sectors.

<u>Require standardised reporting</u>

Where methodologies are well enough developed, a requirement to report following those methodologies will stimulate the use of these data by investors. The EU Directive can be used for this by making more explicit reference to such standards, like the Integrated Reporting Framework and the GRI. A specific reporting requirement could refer to the geographical location of production sites. Such requirement may supplement available satellite data and may for instance help to establish the exact water use of production sites and possible land degradation issues in their vicinity.

Stimulate experimentation and methodological development

However, one must be careful not to disrupt what is in essence a creative process. Where methodologies are not that well developed, it is better to start with a principle-based framework, celebrate best practices and start monitoring. Thus, a learning process is put in place.

In many fields of BNC, like carbon scope 3, the methodologies available still lack a commonly felt trustworthiness. Here, further development is required. Further development is also needed, when it comes to the development of scenarios and transition pathways against which financial portfolios can be stress tested and benchmarked.

Governments can continue their role as funder for efforts to develop methodologies and stimulate their uptake, as they have done together with foundations for instance in the field of the Natural Capital Protocol. This ethical and public funding source also helps to make this collaboration as open as possible, to all parties from the financial institutions as well as to knowledge institutions and NGOs. In order to diffuse this knowledge it should find its way to education, particularly that of accountants and finance professionals.

Standardise the data gathering process

Standardisation of BNC reporting formats will also help by lowering the costs of data gathering on the side of companies. Currently, every rating agency has their own detailed questionnaire, where a more standardised data gathering process not only lowers costs, but also makes it possible to make data more openly available, thereby further reducing the costs.

6.2.2 Incentives for asset managers and fund managers to use BNC data in financial analysis

Ethical considerations aside, BNC matters to financial institutions in as far as it (potentially) translates into financial risks and opportunities. Increasing the availability of reliable and comparable data will help the financial sector to judge whether and how BNC impacts and dependencies can have financial effects.

There are however other ways through which governments can contribute to raising the awareness of the financial sector of the financial effects of BNC impacts and dependencies, and hence stimulate financial institutions to act upon this by engaging with their investee companies to improve their performance.

Public policies to protect BNC

Firstly, governments themselves play an important role in translating BNC impact and dependencies into financial costs and benefits through for instance their regulation and taxation. Public policy makers can make the financial sector receptive for BNC accounting and reporting through signalling that they (will) maintain credible policies to protect BNC. Governments can also increase the number of investable projects with a positive BNC impact, for instance through public co-investments, procurement and stimulating the green bond market.

Strengthen the evidence base of the materiality of BNC

Another way to increase the perceived benefit for financial institutions of BNC accounting and reporting is through building the evidence base on the materiality of BNC for financial institutions. Much research has been done on the financial risk and return of ESG performance. However, specifically on BNC more research could help to increase the insight in the financial materiality of the issue. For instance, scenarios could be developed similar to the carbon bubble, that start from the assumption that internationally agreed goals with regard to BNC preservation (biodiversity, water etc) will be met, that show how this can be done and how this will impact specific sectors, geographical locations, companies and asset classes.

Supervision of BNC risks

Also supervisors and regulators, like the Dutch Central Bank and Financial Markets Authority, are an important influence. They see to it that financial institutions have a proper assessment of all material risks. Hence, also the ones originating from BNC impact and dependencies. Increasingly, supervisors are looking at carbon (BoE 2015, DNB 2016) and in emerging markets also to other themes (UNEP Inquiry 2015). When these practices become more widespread financial institutions are incentivised to pay closer attention to this.

Stimulate long-term investing

Lastly, there is the wider issue of financial reform to focus the financial sector more on the real economy (SFL 2011) and the long term (Barton and Wiseman 2014, Bloomberg 2016) as this will make it more aware of BNC impacts and dependencies as these will only have a financial impact in the medium to long term.

Several proposals have been brought forward to make banks and asset managers more forward-looking and more conducive to ecological issues (van Tilburg, 2009, Kay 2012, FCLT 2015, van Tilburg et al 2016, CISL 2016, Dijkstra 2016) such as performance criteria and fees with a long-term perspective for asset managers, quarterly reporting by asset managers instead of the current daily, weekly or monthly reporting and paying more attention to qualitative information (strategy of the organisation, goals set, processes) and their BNC performance.

6.3 Questions for further research

In this paper we have been able to identify, based on a sample of asset managers, how the EU Directive on non-financial reporting can be a more effective instrument in reaching public goals in the field of BNC. We also presented other possible ways for governments to stimulate financial institutions to pay attention to the BNC performance of their investee companies and engage with them to improve it.

An important question for governments relates to the BNC fields in which the methodologies for reporting are sufficiently developed to warrant a requirement to use these methodologies. Much work has been undertaken in recent years to further develop reporting methodologies. However, a clear and widely shared view amongst investors and companies on the current status seems to lack. The interests of investors and companies here also seem to diverge, with investors looking for comparable data and companies primarily using BNC measurement as a way to improve their strategy. Further research can identify those areas where investors and companies agree that reporting can be done in a reliable and comparable way and where both, or one of these groups, thinks this is not the case and what major methodological questions still remain.

This research has looked at asset managers and fund managers. Thereby also asking questions about the asset owners, being institutions like insurance companies and pension fund and retail investors. However, the use of BNC data in banks has not been looked at. This can be a major omission as banks are globally, and especially in Europe, still the largest financier. However, much of this credit is rather short term whereas the issue of BNC is probably more related to the long term and risk bearing investments that are mostly the domain of asset managers. Still, it would be interesting to see how banks take BNC into account in their lending practices.

The sample of asset managers, fund managers and companies has been small. It would be interesting to interview more investors and companies, especially in other European countries.

Another valuable addition would be to collect more quantitative data on specifically the investors. Much data are available through the PRI transparency reports but additional questions can be asked in the field of BNC and the strategy of engagement.

Another source of data is the own engagement databases of asset managers. Here the BNC related engagements could be isolated and their effect researched.

Finally, the interviews with investors focused on the use of BNC in valuing the shares of companies. Other asset classes are also relevant for BNC, like the direct investments in land (PBL 2016).

Glossary

Asset manager

Financial institution managing the funds of asset owners.

Biodiversity

Biodiversity entails the total variety of living organisms, within species and between species.

Engagement

When an investor exerts its shareholder rights to influence an investee company's management decision-making, this is called engagement. Engagement can take on various forms, such as sending letters, proposing shareholder resolutions and informal conversations.

EU Directive 2014/95

In October 2014, the Council of the European Union and the European Parliament adopted Directive 2014/95/EU. This Directive introduced new provisions with regard to corporate disclosure of non-financial and diversity information by certain large undertakings and corporate groups. The Directive stipulates that certain large undertakings, such as listed companies, banks and insurance companies, in excess of an average number of 500 employees shall include a 'non-financial statement' in their annual report.

Exclusion

Exclusion means that an investor decides to disinvest in an existing investee company or not to invest in a potential investee company at all. An investor may have an exclusion list of activities that warrant exclusion of an investee company involved in such activities (e.g. trade in weapons, pornography or involvement in child labour).

Fiduciary duty

Fiduciary duty refers to the legal obligation of one party to act in the best interest of another. For instance, a pension service provider has an obligation to pension holders that they receive their pension money.

Fund manager

Financial institution offering funds where asset owners can invest in.

Integrated reporting

Integrated reporting takes place when an organisation communicates about how it creates value in the short, medium and long term by concisely reporting about its strategy, governance, performance and prospects, in the context of its external environment.

Natural capital

Natural capital encompasses all natural assets, such as earth, air, water, flora and fauna, and ecosystem goods and services.

Materiality

Materiality has different meanings depending on its context. Within the financial sector, a matter is material when it substantively affects an organisation’s ability to create value.

Abbreviations

AGM	Annual General Meeting of shareholders
BES	Biodiversity and Ecosystem Services
BMO	BMO Global Asset Management
BNC	biodiversity and natural capital
CDP	Carbon Disclosure Project
CICES	Common International Classification of Ecosystem Services
CISL	University of Cambridge Institute for Sustainability Leadership
CRR	Chain Reaction Research
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
DCC	Dutch Civil Code
EBITDA	Earnings before interest, taxes, depreciation, and amortization
ESG	Ecological, Social and Governance
GDP	Gross Domestic Product
GRI	Global Reporting Initiative
IFRS	International Financial Reporting Standards
IORP	Institutions for Occupational Retirement Provision
MEA	Millennium Ecosystem Assessment
NCD	Natural Capital Declaration
NCP	Natural Capital Protocol
NNIP	NN Investment Partners
OECD MNE Guidelines	Organisation for Economic Cooperation and Development's Guidelines for Multinational Enterprises
PBL	Netherlands Environmental Assessment Agency
PRI	Principles for Responsible Investment
RSPO	Round Table on Sustainable Palm Oil
SASB	Sustainability Accounting Standards Board
SRI	Socially Responsible investment
SSE	social shareholder engagement
TCFD	Taskforce on Climate-related Financial Disclosures
TEEB	The Economics of Ecosystems and Biodiversity
ToC	Theory of Change
Triodos IM	Triodos Investment Management
UN	United Nations
UNPRI	UN Principles for Responsible Investment
US GAAP	U.S. Generally Accepted Accounting Principles
VBDO	Dutch Association of Investors for Sustainable Development

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