PBL Netherlands Environmental Assessment Agency

BUSINESS FOR BIODIVERSITY

MOBILISING BUSINESS TOWARDS NET POSITIVE IMPACT

Mark van Oorschot, Marcel Kok and Rob van Tulder

Policy Brief

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Mobilising business towards net positive impact

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Main findings

Transformative change needed to stop further biodiversity loss and restore nature

Nature and biodiversity are being lost worldwide, and the capacity of ecosystems to provide vital contributions to people is deteriorating. Most of the Aichi targets for 2020 under the Convention on Biological Diversity (CBD) will not be achieved, and, if the trends of the last decades persist, biodiversity will continue to decline. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem services (IPBES) has stated that biodiversity goals may only be achieved through transformative change in society and economy, demanding fundamental changes in production and consumption patterns. The involvement of the whole of society is required, which also means that there is a vital role for non-state actors, such as those in business and finance.

This policy brief summarises research by PBL and partner institutes on nature-inclusive activities of Dutch businesses and financial institutions. It provides an analysis of the potential of the private sector to contribute to conserving and restoring nature, by identifying their different motivations and strategies to do so. Based on these insights, this policy brief suggests a possible intervention logic for governments to mobilise a broad spectrum of companies. The insights should particularly benefit those that are actively engaging with business and financial institutions in the realisation of biodiversity goals. The policy brief draws conclusions on how to increase business involvement in the post-2020 Global Biodiversity Framework and its further implementation, as a follow-up of the CBD Strategic Plan 2010–2020 and its Aichi targets.

Consequences of the corona crisis for the findings of this study

This analysis was already completed before the corona crisis arose. The worldwide spread of the coronavirus will undoubtedly have global economic consequences. This is likely to affect the financial stability of companies in different sectors, and will serve as a selection mechanism for the viability of certain business models. It may even affect the motivation and ambition to act on sustainability issues. The crisis can be understood as a consequence of the fragility of the global food and health systems, and is likely to reinforce efforts to make these systems more robust and resilient to sudden crises. In particular companies with purpose-driven strategies may prove to be more resilient in surviving the crisis. However, when such business models go together with higher prices, the higher the change that customers – that are facing serious income challenges – might choose 'cheaper' options. So, the effects on companies will depend on the way governments respond to the crisis, the kind of interventions chosen and whether they opt for targeted and conditional support to different sectors and types of companies.

When governments expect companies to contribute to reducing biodiversity loss and achieving the targets of the post-2020 CBD framework, they need to consider – even more

so than before the outbreak of the corona pandemic – what would be the most appropriate government role and intervention logic to involve different types of companies. This especially holds for the long-term ambition of transformative change in food production and consumption patterns. For instance, front runners and active companies have to be rewarded for their efforts to innovate and to shape entrepreneurship for sustainable food systems. To steer more reactive and passive companies towards responsible and sustainable methods of production, financial incentives and fiscal reform measures can be used. On the other hand, generic short-term policies or perverse incentives from specific subsidy policies may create negative unintended side-effects in favour of less active companies.

Economic sectors important for finding solutions to stop further biodiversity loss and achieve net-positive effects on biodiversity

Economic activities are important drivers of global biodiversity decline and loss of natural capital, while companies in several economic sectors depend on the resources and services that ecosystems provide. Due to both these impacts and dependencies, companies in different sectors – including that of finance – are important for implementing solutions to reverse biodiversity loss, work towards net-positive results for biodiversity, and maintain the benefits that nature provides both to businesses and society at large.

The impact of companies depends, first of all, on their physical relationship with nature, mostly determined by their *position* in supply chains that link resources to final products. This can be further understood by considering the economic sectors they belong to. Resource-producing companies in primary sectors (e.g. agriculture, silviculture, fisheries and mining) are in direct contact with nature, due to the soil- or water-bound nature of their activities. Manufacturing companies in secondary sectors (e.g. food, wood and paper producers) cause mostly indirect impacts through their supply chains. Companies in the tertiary sector deliver financial capital and services to other companies and are, therefore, also indirectly responsible for the impacts caused by the companies in their portfolios. A similar sectoral pattern with both direct and indirect relationships can be sketched in business and finance for dependencies on the benefits that nature provides.

Understanding the variety in business activities for Biodiversity and Natural Capital

A wide variety in nature-inclusive activities and concrete measures are employed by Dutch companies. What companies are doing can be explained by several factors. These factors need to be understood and taken into account in government policies to stimulate companies to move to more advanced ambitions of nature-inclusive company strategies.

The *position* of companies in supply chains determines whether they have a direct or indirect relationship with biodiversity and ecosystem services. *Specific measures* that companies take are the logical consequence of this position and, for example, include reducing the environmental pressures of their production process, the circular use of resources, sustainable exploitation of ecosystems, restoration measures, use of compensation schemes for negative impacts or for creating positive impacts. These measures shape the so-called no-net-loss approach for biodiversity, a logical and stepwise approach for taking

action. When this approach is implemented in a coherent way, either as a single company or in cooperation with other actors, it may lead to positive change. Furthermore, the *capacity for networking, partnering and cooperation* that companies possess provides them with awareness of the consequences of biodiversity loss, access to knowledge on solutions, and practical experience on implementation. Cooperation with other actors is crucial, as knowledge on these aspects is usually not found within companies. The *ambition and motivation* for taking action depends on the basic *attitude* of companies towards responsible entrepreneurship and on their *responsiveness* to societal concerns, such as biodiversity loss and unsustainable ecosystem use. These motivational aspects determine the strategies that companies choose for integrating biodiversity and natural capital into their business model, and the speed with which companies move in such a transition. Motivation also defines the extent to which companies are susceptible to particular policies of governments.

Four different business strategies on biodiversity and natural capital

We distinguish four different strategies on biodiversity and natural capital (B&NC) integration. Companies with a relatively **inactive** or passive strategy see sustainability mainly as a task for the government. Their focus is on the continuation of the company and safeguarding their own interests. **Reactive** companies are more responsive to societal issues than inactive ones and use a defensive strategy. They do not alter their business models, but incorporate sustainability to avoid financial risks – or achieve lower costs – and protect their reputation and brand value. **Active** companies manage risks presented by both impacts and dependencies in a strategic way, and are looking for new market opportunities. **Pro-active** company strategies are intertwined with sustainability challenges. Their business models explicitly include societal values and aim at transformative change of the whole system.

These strategies have developed along two motivational dimensions: attitude and responsiveness. The basic attitude of a company is determined by how companies respond to risks and responsibilities related to impacts and dependencies – either in a tactical or strategic way – and how they perceive accountability. For some, accountability has a limited scope, and is based on liability (law-based norms). Others act strategically out of responsibility, and see accountability in the light of stakeholder interests (beyond shareholders). The other dimension is responsiveness to societal issues, with on the one hand companies that act mainly out of self-interest (intrinsic motivation), and on the other hand companies that take the interests of societal stakeholders into account (extrinsic motivation). They look for new market opportunities and contribute to sustainability challenges and systemic economic change.

The described strategies can be portrayed as phases in company transitions – an iterative process of innovation, piloting and alignment. Companies can also stagnate into a particular phase and attitude. Identifying strategies and motivations are key to understanding the drivers and barriers of company transition processes that underly transformative change towards net positive biodiversity impacts. These insights provide entry points for an effective and appropriate policy interface to enhance a more active approach of businesses towards B&NC integration.

Companies are integrating B&NC into their business models, but, as yet, there are no signs of mainstreaming

Research on a sample of Dutch companies, also corroborated by international research, shows that until now most companies treat B&NC issues in a reactive way, as a defensive response to external triggers coming from actors, such as civil society organisations, consumers and financial institutions. Such reactive strategies are aimed at dealing with reputational risks, reducing costs, and preventing further regulation. Companies with more active strategies exist, but they form a minority. Even front runners were found with pro-active strategies that work on contributing to transformative change. These companies experiment in particular with innovative ways of accounting, to show and capture product values that are of interest to both the company and customers.

The found preference for reactive strategies is consistent with findings of similar studies on other societal issues (e.g. poverty, water sanitation). We conclude that, at present, integration of B&NC issues into business models is not yet mainstream.

Incentives to stimulate change in private sector may come from different societal actors – while government policies enable this interaction

To realise mainstreaming of biodiversity issues in business and finance, companies with different motivations have to be mobilised and get involved. Different *incentives and triggers* are needed, provided not only by government but also by societal actors. This may be business leaders and employees within the companies concerned as well as external actors, such as consumers, civil society organisations, business networks, and financial institutions. The motivation of financial institutions (banks, investors and insurance companies) to provide triggers and incentives is mostly driven by risk management.

Cooperation between companies is necessary to build new capacities and co-create the institutions and networks that enable B&NC integration. Companies prefer to cooperate in multi-stakeholder initiatives rather than in purely private initiatives. Civil society groups and consumers also play an important role, here. The use of market standards and certification is now an often-chosen way to improve transboundary supply chain sustainability, also as a response to the demand of conscious consumers. As part of such interaction between societal actors, the government may apply certain instruments to enable and facilitate the stimulating role of private and societal actors. At a minimum, this includes instruments to stimulate transparent reporting and accounting on B&NC issues, related to company activities and activities in their supply chains.

Towards a broader intervention logic for governments

The variety of business strategies requires specific policies and instruments to engage them in the transformative change process. The effectiveness of various policies depends on the transition phase companies are in. This can differ from sector to sector. So, different roles can be adopted by governments to mobilise businesses to transform their strategies and performance – depending on the transition phase they are in. The same applies to the mobilisation of other actors, such as financial institutions, to play a relevant role in the transition process.

Four basic government roles exist: facilitating, endorsing, partnering and mandating. The more active and pro-active companies can be supported through appreciation for their innovations, by facilitating policies and financial rewards. Companies with an inactive strategy are relatively insensitive to 'soft' and less strict government policies (endorsement, partnership and facilitation), but will generally respond to regulative (mandating) approaches. An internal change in motivation and attitude can also be stimulated. Companies with a reactive strategy can be mobilised to become more active when they have access to knowledge and capacity for developing new business models.

Insights from Dutch policy experiences in the Netherlands

The Dutch Government, over the past decade, has stimulated companies to take B&NC issues into account through facilitating and endorsing roles. Dutch Government policies have a general tendency towards supporting bottom-up developments in society; for instance, by organising and supporting multi-stakeholder platforms and communities of practice. Innovative companies were provided opportunities for experimentation in so-called Green Deals. This type of 'soft' policy proved effective for raising awareness of biodiversity issues, for knowledge-sharing between front runners, and for piloting impact measurement methods, ecosystem accounting and reporting. But these policies, to date, have not yet created transformational change.

An evaluation of the policy approach for the innovation and early acceleration phases of the transformative change process provides several lessons learned. First, the government has to keep an eye on a wide variety of elements for innovation; from agenda-setting, partnership formation, piloting and experimentation to scale-ups. The government should provide opportunities for experimentation and stimulate cooperation between businesses and knowledge institutes. Appropriate measurement systems must be in place to show how experiments contribute to biodiversity. For a further scale-up of promising pilot projects, sector-wide instruments (e.g. covenants) can be used with concrete commitments and SMART targets. New ways of accounting and public reporting can be used to show societal and business values of B&NC integration. Lastly, new financial models must be made competitive and viable by providing the right financial signals.

Businesses and the CBD post-2020 Global Biodiversity Framework

Recently, UNEP has launched its Strategy for Private Sector Engagement. To achieve the ambition of this strategy, explicit government attention must be given to the possible contribution of businesses and financial institutions to the post-2020 Global Biodiversity Framework, as part of a whole-of-society approach. In the process towards CBD COP 15 in Kunming, already active and willing companies can provide inputs and set positive examples on what is needed from the new framework to support businesses to make commitments and contribute to a net-positive direction. But this requires that we are able to identify active and willing companies from less active and even unwilling companies. This research project has shown how this question can be related to the business models that companies embrace.

It is crucial for governments to create an inviting policy environment for businesses and finance to commit to biodiversity targets, and to implement measures needed to mobilise companies with different strategies on integrating B&NC issues (both enabling and regulatory). In the new Global Biodiversity Framework, a mechanism for accountability to track progress on commitments by businesses and contributions to the achievement of goals and targets needs to be installed. This can make use of the already available methods and indicators for measuring progress on managing biodiversity impacts and dependencies on natural capital – at the level of society, but also at the level of business models. Systems and guidelines are needed for monitoring, transparent reporting and verification (MRV) and the disclosure of this information to enable societal actors and financial institutions to provide the right incentives and triggers for businesses to step up.

For the coming years, the main challenge will be to mobilise and incentivise a broader group of reactive and passive companies that are also needed to bring solutions to scale, and contribute to transformative change in production and consumption patterns that is necessary to bend the curve of biodiversity loss. For this, the broad intervention logic suggested in this policy brief can be applied.

1 Introduction

Biodiversity loss is ongoing worldwide, transformative change needed

While there has been a considerable increase in the last decade of activities to conserve and restore biodiversity, nature and its vital contributions to people, are still deteriorating worldwide. Most of the Aichi biodiversity targets the world agreed upon in 2010 will not be achieved by 2020 (CBD, 2014; IPBES, 2019; Tittensor et al., 2014), nor will they in the future, if trends from the last decades continue (CBD, 2014; IPBES, 2019; Tittensor et al., 2014).

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, 2019) has made it clear that 'biodiversity goals may only be achieved through transformative changes across economic, social, political and technological factors, demanding fundamental changes in production and consumption systems'. This requires a whole-of-society approach where governments work in partnership with stakeholders, including those in business and finance, to achieve the goals for biodiversity in the post-2020 framework of the UN Convention on Biological Diversity (CBD).

The role of business and finance in achieving biodiversity targets

Economic activities are important drivers of global biodiversity decline and loss of natural capital, and at the same time several economic sectors depend on the services that ecosystems provide them. Therefore, companies in different economic sectors, as well as the financial sector that provides financial resources to businesses, are important for implementing solutions to reverse the decline, maintain the benefits that nature provides to them and work towards a net-positive results for biodiversity. Countries that signed the CBD are increasingly aware of the potential positive contribution of business and financial institutions to biodiversity targets, while also being conscious of the risks of a greater involvement of businesses because of fears of greenwashing. The challenge for governments is as part of a whole-of-society approach to provide the right incentives and create an enabling and regulatory environment for business and financial institutions to take timely action towards net-positive results for biodiversity.

Insights from business research to mobilise the private sector

This policy brief summarises research by PBL and partner institutes on nature-inclusive activities of Dutch businesses and financial institutions and draws insights for the international deliberations. It sheds light on the potential of business and financial institutions to contribute to halting biodiversity loss and to the sustainable use of natural capital (B&NC), by looking at how they contribute to B&NC targets, and the motives of various types of companies to act. It also identifies lessons from public-private cooperation and activation programmes for businesses and biodiversity in the Netherlands. Based on an analysis of motivational aspects of companies, an intervention logic for governments towards businesses and financial institutions is suggested. Insights may be to the benefit of countries that wish to engage

with businesses to the further development and deliberations about the post-2020 Global Biodiversity Framework of the CBD regarding the contribution of the private sector.

This policy brief is an extended summary of a more elaborate policy report published separately (Van Oorschot et al., 2020). It is part of a series of PBL policy briefs, published on the way to the 15th Conference of the Parties of the CBD in Kunming, China. The previous policy brief elaborated the opportunities of non-state and sub-national action (Kok et al., 2019), which is analysed further in this report, from the perspective of mobilising businesses to reduce loss of and net-positive outcomes for biodiversity.

Consequences of the corona crisis for the findings of this study

This analysis had already been completed when the corona crisis arose. The worldwide spread of coronavirus will undoubtedly have global economic consequences. This is likely to affect the financial stability of companies in various sectors, and will serve as a selection mechanism for the viability of certain business models. It may even affect the motivation and ambition to act on sustainability issues. The crisis can be understood as a consequence of the fragility of the global food and health systems, and is likely to reinforce efforts to make these systems more robust and resilient to sudden crises. In particular, companies with purpose-driven strategies may prove to be more resilient in surviving the crisis. However, when such business models go together with higher prices, the higher the likelihood of customers – who are facing serious income challenges – opting for 'cheaper' alternatives. So, the effects on companies will depend on the way government responds to the crisis, the kind of interventions chosen and whether they opt for targeted and conditional support to different sectors and types of companies.

When the government expects companies to contribute to reducing biodiversity loss and to the targets of the post-2020 CBD framework, they will – even more so than before, the outbreak of the corona pandemic – have to reflect on the most appropriate government role and intervention logic to involve different types of companies. This especially holds for the long-term ambition of transformative change in food production and consumption patterns. For instance, front runners and active companies have to be rewarded for their capacity to innovate and to shape entrepreneurship for sustainable food systems. To steer more reactive and passive companies towards responsible and sustainable methods of production, stimulating financial and correcting fiscal instruments can be used. On the other hand, generic short-term policies or perverse incentives from specific subsidy policies may create negative unintended side-effects in favour of less active companies.

2 The Business case for biodiversity

This chapter addresses what companies are doing right now and why. Knowing what companies do and, especially, why they act on biodiversity and natural capital (B&NC) issues provides relevant insights, as their motivation provides entry points for intervention by both societal actors and government (Chapters 3 and 4). First, the impact on B&NC of various economic sectors is described. Subsequently, the so-called no-net-loss approach for reducing biodiversity loss is described, followed by an inventory of empirical material to illustrate the various nature-inclusive measures taken by Dutch companies. Different strategies and motivations for sustainable entrepreneurship are described, and empirical material is presented on the preference of Dutch companies for specific strategies, reflecting their business case.

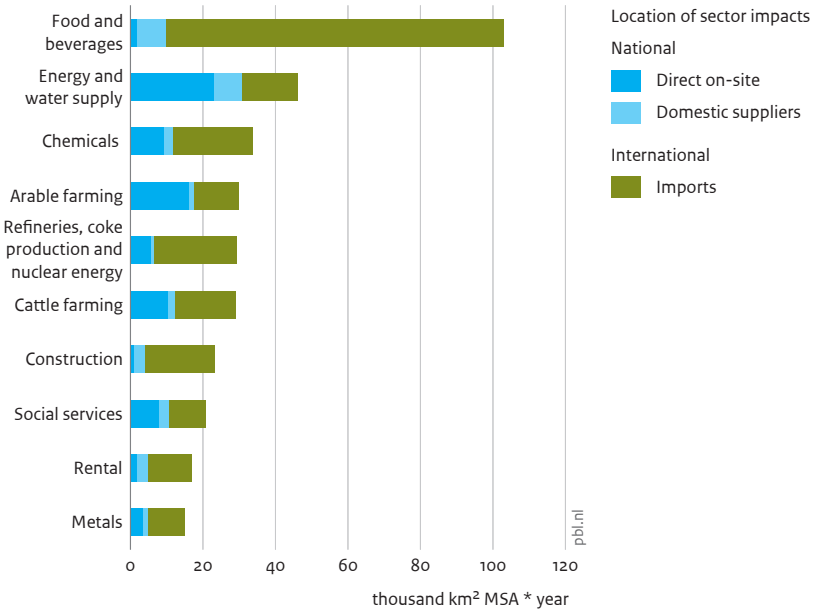
2.1 Impacts and dependencies

Global biodiversity loss is coupled to the economic activities of businesses. The main drivers of global biodiversity loss – land-use change, exploitation of ecosystems and climate change – can be directly coupled to activities of companies that are part of primary production sectors (Kok et al., 2014). Companies that operate further downstream along the value chain mainly contribute in an indirect way to the loss by purchasing natural resources from other parts of the world and use these to manufacture final products for consumers (Wilting and Van Oorschot, 2017). Taking supply-chain impacts into account, as illustrated in Figure 1, the highest impacts of Dutch economic sectors on global biodiversity are caused by the food and beverages sector, which imports a large volume of agricultural resources, and thus represents considerable land use outside national borders.

The type of measures companies can take to reduce their impacts on biodiversity loss and create positive contributions can be described with the general concept of the no-net-loss approach (Ten Kate et al., 2004), also referred to as the conservation hierarchy (Arlidge et al., 2018) These approaches contain different types of nature-inclusive activities, structured as a hierarchical set of measures. The first step is determining the impact of a company, which serves as the baseline situation for monitoring progress. Next, avoiding, mitigating and restoring measures can be implemented. Off-setting the residual impacts is the last step of this approach, leading to a biodiversity-neutral situation. After that, additional compensation measures can be taken to create positive impacts (BBOP, 2018; de Silva et al., 2019).

Figure 1

Biodiversity footprint of Dutch sectors, 2007



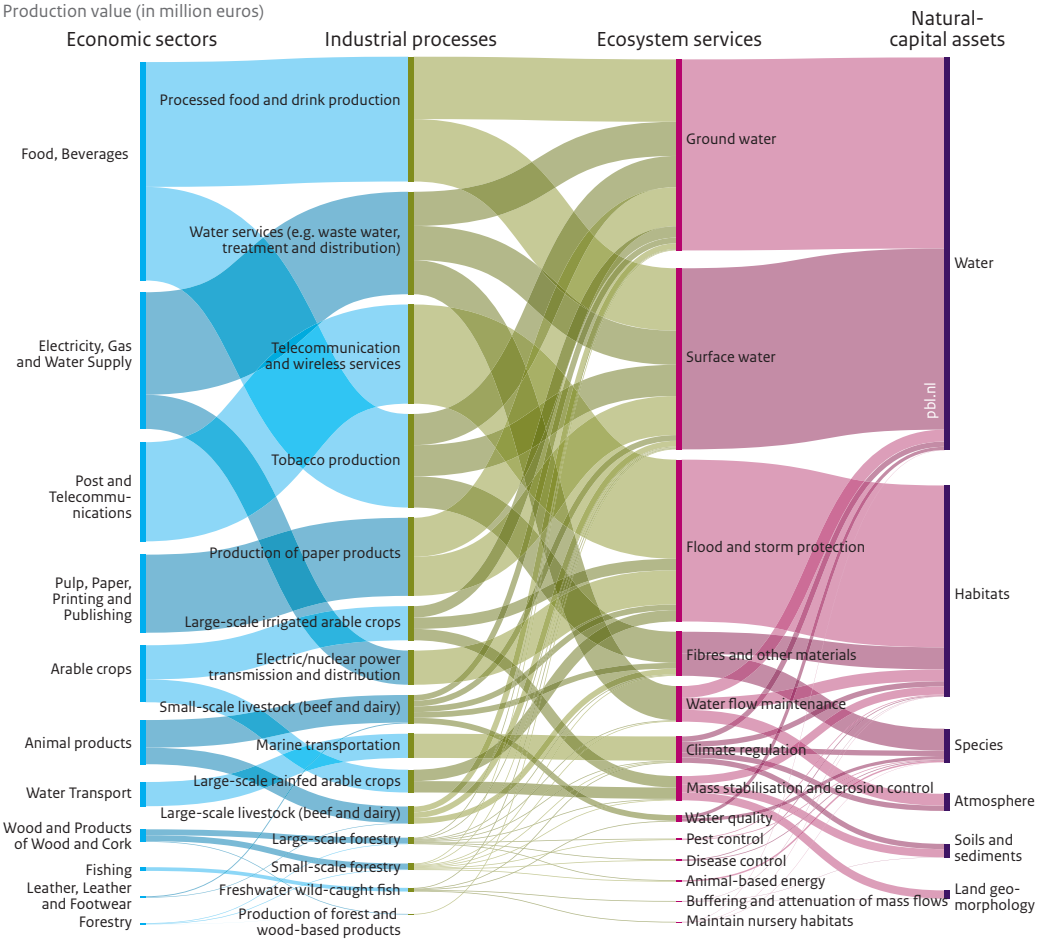
Source: PBL

Global biodiversity footprint of Dutch production sectors expressed with an indicator of species abundance (MSA). The highest impacts on biodiversity are caused by the food and beverages sector, when indirect effects due to land use for agricultural resources in international supply chains are taken into account (Wilting and Van Oorschot, 2017).

Scenario analyses show that combining all the different and possible measures is needed to assure that net positive impacts are reached (Kok et al., 2014; Mace et al., 2018). Therefore, it is crucial that companies follow the stepwise approach of the no-net-loss concept (BBOP, 2018; Arlidge et al., 2018), and not go for compensation mechanisms while leaving impacts unchanged. This can be done either as a single company or as a cooperative effort with other companies operating in the same sector or value chain that possess complementary capabilities and other spheres of influence.
Besides causing impacts on biodiversity, companies can be dependent on the services that nature provides. In this functional way of looking at nature, biodiversity is an essential element of business capital, hence the term natural capital. A report released by The World Economic Forum (WEF, 2020) shows that over half of the world's GDP is generated by companies that are moderately or highly dependent on nature. The largest industries with a high dependence on nature are construction, agriculture and food and beverages. They rely, for instance, on natural resources such as wood and food that are extracted from ecosystems or on the provision of services, such as healthy soils, clean water, pollination, pest control and a stable climate. As for the impacts on biodiversity, the dependence on nature varies from direct relationships in primary sectors, to indirect relationships through resource supply chains.
Dependence on ecosystem services for Dutch economic sectors, can be analysed by mapping production values (taken from Wilting and Van Oorschot (2017)) on the ecosystem services considered highly relevant for the sector (according to the ENCORE database; NCFA and WCMC, 2018), and then further to the natural capital assets underlying these services. The visualisation of

Figure 2

Dependence of Dutch economic sectors on natural capital and ecosystem services, 2007



Source: ENCORE, 2018; PBL, 2017

Dependence mapping of the economic production value of Dutch sectors (left) to natural capital assets (right). Mapping is done by linking sectoral industrial activities to the underlying ecosystem services provided by natural capital, that are considered as highly relevant. The width of the flows presents total sector production in 2007 euros, similar to Figure 1 on impacts. (Source: PBL, adapted from ENCORE database, NCFA-WCMC).

this mapping in the alluvial diagram (Figure 2) shows that for the Dutch sectors with a very high dependence on specific ecosystem services, most of their combined production value can be related to water services (groundwater and surface water). This holds especially for the food and beverage industry, and for the electricity and water supply sector. Water and habitats provide by far the most relevant services to sectors. Almost 60% of the very high relevance relationships is mapped on water services, and about another 30% on habitats. About 16% of the total Dutch economic value can be related to very high relevance ecosystem services and natural capital assets. This share rises to almost half of the Dutch total production, if also highly relevant relationships would be added. Of this larger share, about 25% of the economic value is mapped on other types of natural capital assets, such as species, atmosphere, soil and land.

2.2 Stocktaking and understanding nature-inclusive activities of Dutch companies

What companies do or can do depends on their physical relationship with nature (in terms of impacts and dependencies), which is mostly determined by their position in supply chains that link primary resources to final products. This can be understood by considering the economic sectors they belong to, i.e. the primary, secondary or tertiary sector. Resource producing companies in primary sectors (e.g. agriculture, silviculture, fisheries and mining) are directly in contact with nature and ecosystems, due to the soil- or water-bound nature of their activities. Manufacturing companies in secondary sectors (e.g. food, wood and paper producers) cause mostly indirect impacts, through the resources delivered to them by their supply chain, while the impacts on factory level are relatively low. Companies in the tertiary sector (e.g. the financial sector), deliver services to other companies. They are indirectly related to the impacts of the companies they invest in.

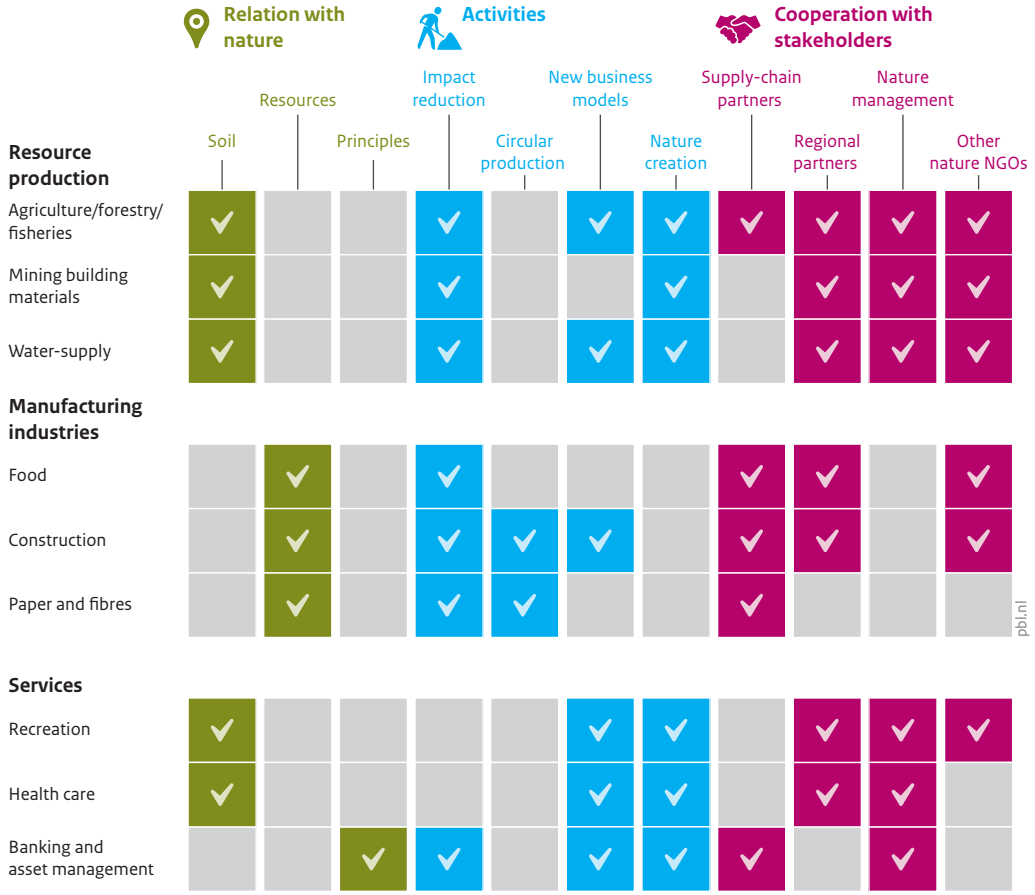
Examples of Dutch companies that employ nature-inclusive activities and address issues of biodiversity loss and sustainable management of natural capital can be found in all kinds of sectors. An inventory of activities of Dutch companies and their contribution to conservation and sustainable use of biodiversity and natural capital (B&NC) shows that companies are working on all kinds of concrete measures: reducing environmental pressures, sustainable production methods, the circular use of resources, and/or use of compensation schemes (Table 1).

Soil- and water-bound companies are present in agricultural, silvicultural (forestry) and mining sectors that produce basic resources. They can contribute in a direct way to conserving nature in and around their operational sites and are dependent on the local environment and ecosystems that provide them with natural resources. Conservation of ecosystems and their services is not always explicitly stated as a sectoral target.
The agricultural sector is especially dependent on biological soil fertility, and this makes sustainable soil management a matter of self-interest for agriculture. In organic farming, services such as natural pest control are explicitly used and valued. Several examples of Dutch farmers are known that employ good practices and reduce their environmental impacts (Farjon et al., 2018). Some are also actively contributing to nature management, and cooperate with nature conservation organisations. They are looking for ways to run a viable business with sustainable production. It turns out to be difficult for individual farmers to market positive results for biodiversity and communicate biodiversity benefits to consumers. A broad survey amongst individual farmers in the Netherlands shows that many of them show willingness to employ more nature friendly measures, and almost 60% is already active with some form of nature-inclusive measures. But a large share needs more financial support to take further nature-inclusive measures (Bouma et al., 2020).

Resource-bound companies, can be found in various manufacturing sectors, such as food and beverages production, paper production and construction. These companies may switch to a more circular use of resources, and employ sustainable procurement policies for their resources. Companies in the food manufacturing industry are very dependent on agro-resources,

Table 1

Inventory of Dutch nature-inclusive company initiatives, 2018



Source: Aalbers et al., 2018; Bosman et al., 2013; Bouma and Van Leenders, 2013; Breman et al., 2014; Schuerhoff and Ruijs, 2015; Van der Heide and Overbeek, 2018 and Stuiver, 2013; adapted by PBL

Inventory of Dutch company initiatives that contribute directly or indirectly to reducing biodiversity loss and sustainable ecosystem management. Companies engage in different types of activities, such as mitigation of environmental pressures, circular resource use and nature development. Companies are also setting up new business models with nature in a central position, for instance in nature-inclusive agriculture. To access required knowledge, companies cooperate in networks of different types of actors. Source: Inventory taken from (Bredenoord et al., 2020), based on several case studies and reviews.

and it is in their own interest to secure the future resource supply. At the same time, providing their customers with sustainably produced goods is a way to avoid reputational damage. In the Netherlands, several larger food manufacturing companies in the dairy and beer industry stimulate farmers to adopt more sustainable and nature-inclusive behaviour and reward these farmers financially. To access the right knowledge, food companies partner with nature conservation organisations in specific projects (Henkens et al., 2017).

Service-oriented companies are found in the banking, investment and insurance sectors. They are mostly indirectly related to biodiversity via the companies in their investment portfolios. Several financial institutions make use of principles and criteria for responsible investment, originating from the UN Global Compact network or the UN-PRI (Principles for Responsible Investment) (Schramade, 2016). The motivation of banks and investors to act in this way are diverse. Some stimulate impact reduction out of a risk-avoiding strategy, while others are trying to create positive effects (impact investment). Some Dutch financial institutions have formulated non-financial targets for what they try to achieve with the different funds they have created, for instance a zero-carbon emission portfolio.

Understanding the variety in business activities for B&NC

This analysis shows a wide variety in nature-inclusive company activities. The variation in what companies are doing can be explained by several factors:

- The **position** of companies in supply chains determines whether they have a direct or indirect relationship with biodiversity and ecosystem services, and this position determines what types of measures can be implemented.
- The **specific measures** that companies take are the logical consequence of this position, so that choices are made between measures, such as reducing production-process impacts, sustainable exploitation of ecosystems, restoration measures, compensating for negative or creating positive impacts. Together, the measures taken by different companies shape the so-called no-net-loss approach for biodiversity.
- The **capacity for networking, partnering and cooperation** that companies possess provides them with awareness of the consequences of biodiversity loss, access to knowledge on solutions, and practical experience on implementation. Cooperation with other actors is crucial, as knowledge on these aspects is usually not found within companies.
- The **ambition and motivation** for taking action depends on the basic **attitude** of companies towards responsible entrepreneurship and on their **responsiveness** to societal concerns, such as biodiversity loss and unsustainable ecosystem use. These motivational aspects determine the chosen company strategy for integrating biodiversity and natural capital into the business model, and the speed with which companies take such a transition.
- The types and timing **of incentives and triggers** provided by external societal actors, such as consumers, civil society organisations, financial institutes and governments that stimulate companies to move to more advanced ambition levels of nature-inclusive strategies.

The combination of these explanatory factors determines the strategy that companies choose, and shapes the practical realisation of their ambition by implementing measures following the no-net-loss approach.

2.3 Company motivation for CSR: attitude and responsiveness

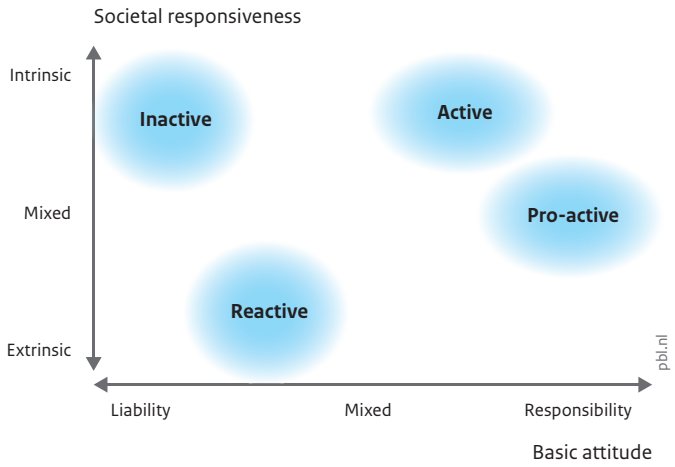
Companies show different ways of including B&NC in their business model

Each company differs in its drive and aspiration for sustainable entrepreneurship, and this determines how and with what intention and ambition they operate with respect to B&NC. This can be different for reducing impacts, managing ecosystem service dependencies or developing new market opportunities around biodiversity. To understand why companies are doing what they do, we distinguish four general types of integration strategies (Table 2; Figure 3). This typology is based on a framework for organisational change management, and indicates the status of integrating sustainability issues into the business model of companies. Four archetypical strategies and their related business case for sustainability are identified – each with its own rationale and narrative for corporate social responsibility (CSR) (Van Tulder et al., 2014; Van Tulder, 2018):

- Companies with a relatively **inactive or passive** strategy see sustainability mainly as a task for the government. Their focus is on continuation of the company and safeguarding their own interests. They incorporate sustainability when it delivers concrete, quantifiable financial benefits. This can be achieved, for instance, by saving energy to lower costs. Another benefit is that a licence to operate is obtained through compliance with existing environmental regulation, which is achieved by implementing technical measures. This strategy defines the **classic business case** for sustainability.
- **Reactive** companies are more responsive to societal issues than inactive ones and manage risks with a defensive strategy. They do not alter their business models, but incorporate sustainability as a way to avoid financial loss and to protect reputations in response to external triggers and events. It is also used to avoid stricter legislation. This **defensive business case** is a tactical way to manage risks.
- **Active** companies look at management of environmental risks, both impacts and dependencies, in a strategic way, and are looking for market opportunities as driver for innovation. In this **strategic business case**, sustainability is an integral part of the long-term survival strategy of active companies. This can be achieved by reducing the dependence on non-renewable resources, and by actively steering product innovation towards societal challenges. The 'first mover advantage' is a clear market benefit of this strategy.
- **Pro-active** company strategies are intertwined with sustainability challenges. Business models are developed that explicitly include societal values. In their systemic or **societal business case**, sustainability is the basis for innovative, shared value creation, instilling a positive attitude towards learning and adaptation, partnering and innovation. This quest will help to find and introduce new revenue models that help advancing systemic transitions, and, vice versa, inspire new public policies on the enabling conditions for sustainable business models.

Figure 3

Company strategies for Corporate Social Responsibility and underlying motives



Source: Van Tulder Erasmus RSM

Companies use different strategies for integrating sustainability into their business models, depicted here as archetypes. The existence of these different archetypical strategies can be understood by considering two motivational dimensions; firstly, the basic attitude of companies towards risk and responsibility (horizontal), and secondly, the responsiveness of companies to societal sustainability challenges (vertical).

The four CSR strategies can be seen as phases in corporate transitions, in which companies gradually move from traditional, closed and profit-driven business models – with environmental risk management based on self-interest, focusing on cost-reduction and compliance with regulation – towards more integral and inclusive strategies, in which stakeholder interests are taken into account and where sustainability is at the core of the business model. This transition is an iterative process of innovation, testing and alignment. Companies can also stagnate into a particular phase or attitude. Mapping strategies, transition phases and change processes are key to understanding company dynamics that underlie transformative change, and a cue to developing an appropriate policy interface to move business.

Motivations underlying the different CSR strategies

The existence of the four different archetypical business strategies can be understood by the interplay of motivations that underlie and shape company strategies for CSR. The first motivational factor is the company's basic attitude towards sustainability (horizontal dimension, Figure 3), and the second factor is the responsiveness to societal concerns (vertical dimension). The basic attitude is determined by how companies respond to risks and responsibilities related to impacts and dependencies – either in a tactical or in a strategic way – and how they perceive accountability. For some, this is based on liability (law-based norms) with a limited scope on accountability.

Table 2

Company archetypes of corporate social responsibility

Company characteristics	**Inactive**	**Reactive**	**Active**	**Pro-active**
Attitude towards CSR	Risk-driven liability	Risk-driven liability	Company responsibility	Sector responsibility
Responsiveness and orientation	Intrinsic – tactical	Extrinsic – tactical	Intrinsic – strategic	Intrinsic and extrinsic – strategic
Main driver for CSR	Opportunities for profit maximisation	Avoiding reputational risks	Moral justification (do the right thing)	Solving societal issues
Business case for CSR	Efficiency through cost reduction	Managing (costs of) reputational risks	Strategic competitive advantage	Opportunities for a new economy
Position on externalities	Externalities are responsibility of governments	Reduce negative externalities	Internalise negative externalities, maximise positive externalities	Optimise and internalise positive externalities
Source of legitimacy	Legal licence – licence to exist	Licence to operate	Licence to scale	Licence to innovate and experiment
Position on accountability and fiduciary duties	Narrow scope: shareholders only	Limited scope: main stakeholders	Broader scope: main stakeholders	Broad: society as stakeholder
Response to regulation	Lobby for self-regulation	Lobby for minimum regulation	Apply high corporate codes; lobby for level playing field	Co-create the new normal together with governments
Transparency and reporting	Financial reporting only	Financial and limited CSR reporting	Financial and extended CSR reporting (GRI standard)	Integrated reporting on value creation; developing new standards
Partnerships	No partnering	Sectoral partnerships; single issue	Strategic partnerships with stakeholders	Tripartite partnerships for transformation
Examples of concrete actions	Sponsoring and philanthropy	Volunteer work / single issues	CSR at local level / starting sector initiatives	Lobbying for the common good (novel arrangements)

Generic company characteristics that shape and determine the different types of CSR strategies. These characteristics are used to identify more specific indicators on integrating environmental issues into business models, such as climate change and biodiversity loss (adapted from Van Tulder and Hendriks (2019)).

Others act strategically, out of responsibility, and see accountability in the light of stakeholder interests (beyond shareholders only). The other dimension is responsiveness to societal issues, with on the one hand companies that act mainly out of self-interest (intrinsic motivation), and on the other hand companies that take the interests of societal stakeholders into account (extrinsic motivation). They look for new market opportunities and contribute to sustainability challenges and systemic economic change with their business models.

Measuring the integration of B&NC into business models

The four typical CSR strategies have been found valid for a number of societal issues and SDG subjects, such as poverty, child labour, water and sanitation (Van Tulder, 2018). For this study, the typology was applied to the integration of biodiversity and natural capital into business models (Van Tulder and Hendriks, 2019). The starting point is a list of general characteristics and motivational aspects (Table 2).

More concrete indicators for uptake and integration of B&NC into business model components have been derived from these characteristics. Specific indicators for B&NC integration include the framing of reporting and accounting, employee training on biodiversity issues, coverage of impacts and dependencies in supply chains, assessing financial materiality of nature-related issues, and partnering on sustainable supply chain initiatives. The criteria were used to assign typology scores for each indicator per company, based on information disclosed in their public sustainability reports and other accessible sources (for more information on methods and criteria, see Van Tulder and Hendriks (2019) and Van Oorschot et al. (2019).

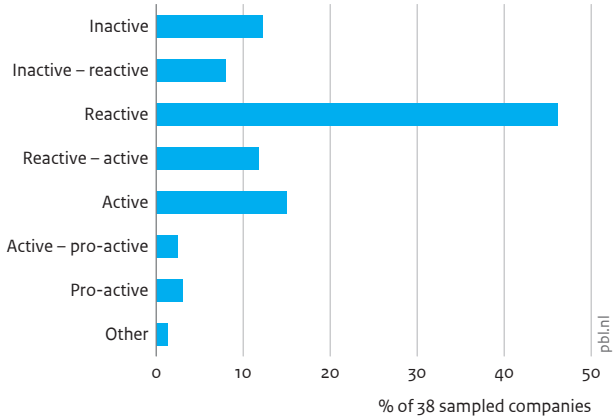
Mostly reactive strategies on B&NC integration found, front runners emerging

With the specific indicators for B&NC integration, an analysis was performed on the preferences of Dutch companies for the different CSR strategies. A total number of 38 companies were selected from sectors with a high impact on biodiversity that disclose sufficient information for a meaningful analysis (Van Tulder and Hendriks, 2019). Most of the sampled companies are from the food industry (meat, dairy, beer and other food & beverages – 20 in total), and some from the construction, chemical, financial and energy sectors. The selection includes 'lead companies' within their sector and this allows exploring how strategic challenges are taken up by companies that are motivated and willing to integrate B&NC policies into their business models.

The results show that, at most of the sampled companies, B&NC issues are treated in a reactive way, as a defensive response to external triggers and incentives coming from certain actors, such as civic society organisations, consumers and financial institutions (Figure 4). Such a defensive strategy is aimed at dealing with reputational risks, reducing costs, and preventing further regulation. Companies with more active business strategies that put B&NC at the core are also visible in the sample, but less often. A few front runners were found with pro-active strategies that work on innovations that contribute to transformative change. Some of the front runners are experimenting with new methods for accounting and reporting, to analyse and show the materiality of integrating B&NC into their business model. They conduct pilot projects on monetising and compare the societal costs and benefits (externalities) of their

Figure 4

Preference for Corporate Social Responsibility strategies on biodiversity and natural-capital integration, 2017



Source: Van Tulder Erasmus RSM

The sampled companies show a clear preference for a reactive strategy on integration of B&NC issues (an average of 46% of the companies shows this strategy). Far fewer companies were found with an inactive (average 12%) or active (average 15%) strategy. Only a very small part of the sampled companies showed a pro-active strategy (average 3%). Average preferences were derived from scores over 30 variables from 38 companies.

business. Companies that score high on these practices are also found to perform better on other aspects of their business. Thus, using new ways of accounting is an enabling factor for a successful transition to more advanced B&NC strategies.

Results of integration of B&NC into business models in the Netherlands in line with international research

The number of sampled companies in this analysis was limited, but the found preference for a reactive strategy is consistent with the patterns found in similar studies on other societal issues (e.g. poverty, water sanitation). The results on B&NC integration and strategies of the sampled Dutch companies are in line with a study on the Fortune 100 of globally operating international companies (Addison et al., 2019). These companies are from Western, Chinese and Japanese origin, and were analysed with information from obligatory sustainability reports and other disclosed information on non-financial issues and biodiversity accounting.

Almost half of the companies in the Fortune 100 mention biodiversity in their public reports, and about a third make clear biodiversity commitments. A third disclose information on their partnering activities with NGOs and government bodies. Only five companies report specific, measurable, and time-bound targets. A large variety of biodiversity-related activities are mentioned (e.g. managing impacts, restoring biodiversity, and investing in biodiversity),

but only a tenth of the companies use quantitative indicators in their reports (e.g. the area of restored habitat).

None of the companies has provided quantitative information on outcomes, making it difficult to determine whether they were able to address impacts and create positive results for nature. The analysis mentions a lack of standardised quantitative performance indicators, which gives a challenge for comparing performances between companies and tracking through time. This clearly shows the need for further standardisation of monitoring and reporting. Conservation science can help businesses to make science-based biodiversity commitments, develop meaningful indicators, and select more targeted activities to address business impacts (Arlidge et al., 2018).

Companies are integrating B&NC into their business models, but there are no signs yet of mainstreaming

In this study and in others, therefore, companies mostly work with reactive strategies. We found that, at present, integration of B&NC issues into business models is not yet mainstream in the Netherlands. The integration of B&NC is clearly in the early phase of development. This is due to difficulties in developing and operationalising viable business models. Creating a competitive financial model is an often mentioned barrier for moving to more advanced strategies. Companies struggle with identifying the relevance of B&NC for the company, and translating that into a business value.

Monitoring inactive companies

The number of companies analysed in this study and others on companies, worldwide, is too small to provide a representative picture of strategies employed by companies, internationally. Public reporting is a vital tool for companies to communicate with stakeholders on their efforts to go beyond compliance with legislation. Research on company CSR strategies is mostly based on such public sustainability reports. This entails that such research methods inevitably result in underrepresentation of inactive companies that – by definition – do not disclose sustainability information. The same holds for smaller companies (SMEs) that are not obliged to publish sustainability reports.

This is not just a scientific and methodological problem, but also relevant for monitoring of nation-wide progress with contributions of business and financial institutions to biodiversity targets, and to show where we are with respect to transformative change. Extending the reporting obligation to a larger group of companies than just the stock listed ones can help to obtain more information (Sewell et al., 2018), and make this information relevant for instance by applying stricter reporting guidelines in sectors with high biodiversity impacts, high dependencies, and exposure to sustainability issues in their supply chains. To fill the information gap for larger companies, regulations, such as the EU Directive on non-financial reporting by companies, can be further developed. To reach SMEs, leverage effects can be used, such as obliging large companies to report on their suppliers.

3 The way forward: triggering change

Next to showing what companies are doing and why, this policy brief also aims to provide a view on the way forward by identifying interventions and policy instruments to stimulate companies to better integrate B&NC into their business models. They can do so by increasing their efforts on reducing impacts, managing dependencies and taking opportunities for positive impacts. In the previous chapter, a characterisation of companies and their motivations and capacities for change is presented. The different strategies will be now related to the necessary and overarching transformative change process.

To create momentum for change, incentives, triggers and support coming from a wide range of actors is vital. This includes societal organisations, other companies operating in the same sector or supply chain, financiers, consumers and governments. We focus here on financial institutions, on companies in supply chains and on international cooperative initiatives with business involvement. Based on this, the next chapter reflects on government incentives and develops directions for a broad intervention logic for governments. The role of consumers and NGOs is also relevant, of course, but this falls outside the scope of this policy brief on business and finance.

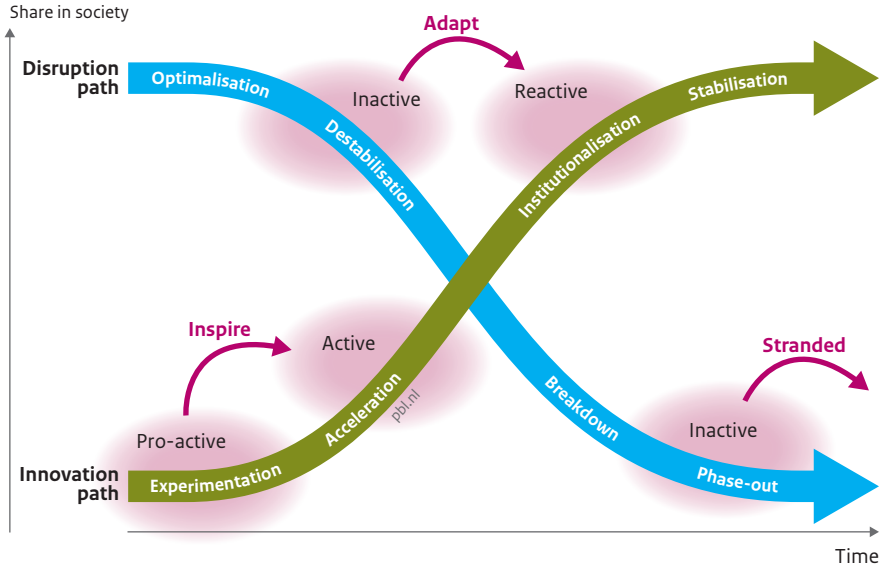
To attain transformative change towards a biodiversity-inclusive economy, companies with different strategies must be addressed

Transformative change to bend the curve of biodiversity loss requires a reinvention of the ways in which we produce, consume, live and value well-being (IPBES, 2019). According to the IPBES, this holds a fundamental societal change, shifting from prioritising economic growth to a way of living in balance with nature and within the planetary boundaries. Transition processes can be considered as consisting of several developments happening in parallel, with on the one hand an innovation path that leads to new modes of operation, and a simultaneous disruption path for breaking down routines that are no longer desired (Loorbach and Oxenaar, 2018) (Figure 5). In the bottom-up innovation path, experimentation, acceleration, institutionalisation and stabilisation phases can be distinguished; while in the top-down disruption path, optimisation, destabilisation, breakdown and phase-out are distinguished.

In these different phases, companies with different strategies are involved. Pro-active companies are crucial to shape the early phases of development and create new business models, and they can inspire active companies that are needed in the acceleration phase. Once new ways of operating are developed and broadly accepted, mainstreaming can be promoted by mobilising reactive and inactive companies to adapt their operations to new institutionalised standards. Alternatively, inactive companies may stagnate into their

Figure 5

The role of different company strategies in transformative change



Source: DRIFT Erasmus 2018; Van Tulder Erasmus RSM; Adapted by PBL

Companies with alternative strategies for CSR are involved in different phases of the transformative change process. Measures to engage and incentivise pro-active companies in early phases of development are different from measures needed to transform inactive companies later on. So, specific triggers and incentives coming from both private and public actors must be used for companies with different strategies and capacities for change.

traditional ways of operating and become stranded (Figure 5). Companies are also not static in their CSR strategies. Inactive and reactive companies may develop to more advanced and active strategies. Inactive companies may change in response to external critique and increased regulation; reactive companies can develop to a more active position by building the required capacities and through internal reorientation; and active companies can become pro-active by building on collaborative processes (Van Tulder, 2018).

Incentives to stimulate change come from different societal actors

To realise mainstreaming of biodiversity issues in business and finance, and to move to more advanced CSR strategies, triggers and incentives to change are needed, coming from different actors. There is a large variety in company motivations to act sustainably and contribute to transformative change, each requiring a different approach. Triggers and incentives for change may come from both internal actors, primarily business leaders and concerned employees within companies, as well as from external actors, such as consumers, societal groups, other businesses in the supply chain, financial institutions and the government (Van Tulder, 2018). We focus on pressures coming from external actors.

Conditions for the financial sector to act as an agent of change

The financial sector, in particular, has a large potential to stimulate change among the companies in their portfolios (Van Tilburg and Achterberg, 2016). The motivation of financial institutions (banks, investors and insurance companies) to provide triggers and incentives is mostly driven by risk and reputation management. For instance, on the issue of climate change, investment decisions and engagement with investee companies are based on the exposure of companies to climate change risks and on their capacity to manage these risks. Engagement of financial institutions in the loss of biodiversity and natural capital is in an initial phase, compared to climate change (Sewell et al., 2018).

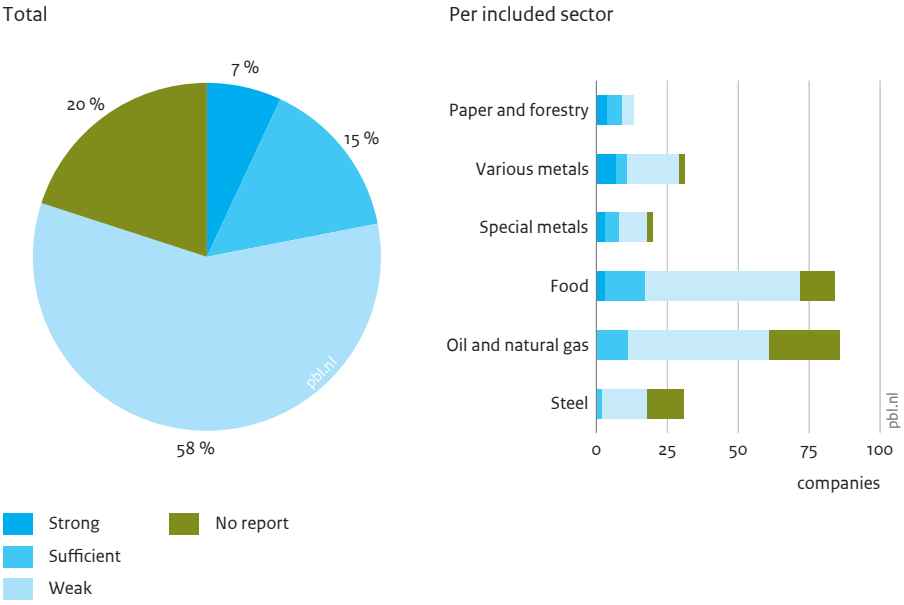
An explorative analysis was conducted for Dutch financial institutions, with respect to the financial consequences of various types of risks related to biodiversity loss (DNB and PBL, 2020). A considerable number of loans and investments could be linked to biodiversity losses, and one of the recommendations by the Dutch National Bank is that financial institutions should further investigate these risks for the companies in their portfolios. More public information is especially required on supply chains, to include the indirect effects of individual companies on worldwide biodiversity loss.

Specialised companies assess the quality of corporate risk management, and they supply compiled information on large numbers of companies to financial institutions where the information is used for decision-making on investments (Van der Esch and Steurer, 2014). This sort of information is much more immature for biodiversity than for managing the risks of carbon emissions and climate change effects. About 250 companies were assessed on their reporting and management of biodiversity-related risks by one of such an rating agency (Sustainalytics, 2015; Figure 6). Most were found to have a weak management system in place. For a quarter of the assessed companies, most from the oil and gas sector, no information was available at all. Risk management is relatively well developed in the paper and forestry sector.

For the financial sector to play a role as an agent of change for B&NC requires an appropriate enabling and supporting policy environment. This consists of certain elements, such as providing awareness and knowledge of financial risks of biodiversity loss, uniform and standardised reporting methods on B&NC, and the requirement of independent verification of reported company information (Lambooy et al., 2018). Such enabling conditions can be set and enhanced by stricter and standardised reporting guidelines. Most importantly, engagement by financial organisations must be made legitimate and supported by national and international policies with a clear vision and targets.

Figure 6

Assessment of company management on biodiversity and natural-capital risks, 2015



Source: Sustainalytics 2015

By using publicly available company reports, data providers assess the quality of company risk management. A number of 250 companies were assessed on their reporting and management of biodiversity-related risks in 2015. Most have a weak management system in place. For a quarter of the companies, most from the oil and natural gas sector, no information was available at all. Risk management is relatively well developed in the paper and forestry sector.

Incentives from multi-stakeholder initiatives in sustainable supply chains

As supply chains are increasingly organised on a global level, at which government regulation is largely absent (Hajer, 2003; Van Oorschot et al., 2014), the governance of sustainable international trade is handled by companies and societal actors, that cooperate in multi-stakeholder initiatives (MSI). Companies increasingly deliver sustainably produced goods (especially food), as a response to the demand of conscious consumers (Van Oorschot et al., 2014). As a consequence, companies in supply chains also influence each other by demanding and supplying sustainably produced goods and resources. But they are not the only ones that drive supply chain sustainability – societal stakeholder groups provide triggers by exposing shortcomings (naming and shaming; Van Tulder and Van der Zwart, 2003) and by fuelling public debate on responsible and acceptable practices (Muilwijk et al., 2018). Together with companies, they define and co-create voluntary market standards for sustainable production and trade, and promote market adoption of these standards.
A multi-stakeholder setting of these initiatives provides the standards more legitimacy and this enhances broad acceptance – all to the advantage of companies using them (Ingram et al., 2018). Therefore, the use of certification and production standards is a way of tackling

supply chain risks, and information on the use of standards is taken into account in financial decisions. Governments can stimulate these MSIs, by financially supporting them and by endorsing the developed standards in public procurement policies.

Standards and certification have a certain potential to contribute to biodiversity challenges, especially at the local farm and concession level (Potts et al., 2016). The influence of sustainable production standards on B&NC issues (e.g. deforestation) is much debated, as it is out of reach of individual farmers. Sustainable supply chain initiatives are now being extended to the spatial level of production landscapes, in which active and pro-active companies take part in regional multi-stakeholder governance settings (taking local stakeholder interests into account), where local governments also take part.

Cooperation between companies a critical success factor

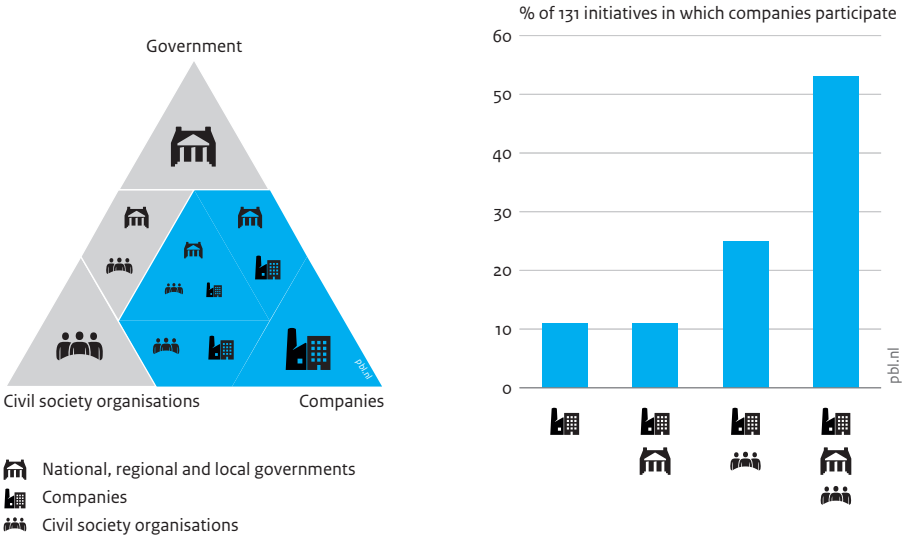
Capacity for cooperation on biodiversity is a critical success factor for companies to move to more advanced B&NC strategies (Van Tulder et al., 2014). Companies that are willing to act on biodiversity issues, mostly active and pro-active companies, do so in cooperation with other actors. The inventory of Dutch companies (Table 1) shows that they do not act of their own accord but build partnerships with other companies and/or with societal interest groups, such as NGOs that operate closer to nature. Partnering is used, for example, for accessing new knowledge, gaining influence, and increasing legitimacy for their activities (Long et al., 2018). Furthermore, to cover all aspects and measures of the no-net-loss approach – a necessary condition to bend the curve of biodiversity loss – requires a broad cooperation between companies, each of them working on solutions and measures that most suit their motivation and supply chain position. Cooperation is also crucial in integrated production landscapes that link consumers served by internationally operating companies to primary producers operating in the vicinity of natural ecosystems that support biodiversity.

Emergence of multi-stakeholder networks for biodiversity

Cooperation is clearly necessary to build new capacities and co-create the institutions and networks that enable going forward to new business models. International data shows that companies prefer to cooperate in multi-stakeholder initiatives, rather than in purely private initiatives (Figure 7). The current cooperative initiatives in which businesses take part fulfil various purposes related to various challenges that companies face in transforming their CSR strategy. At present, international cooperative initiatives for biodiversity are mostly set up for networking and knowledge sharing (Figure 8). Most companies find it difficult to understand their relationship with B&NC. This is due to the complexity of the multi-faceted concept of biodiversity, a lack of knowledge on the subject, the international organisation of supply chains, and a general lack of awareness of the value of B&NC. Cooperation on implementing concrete measures, use of standards and on financing is less abundant.

Figure 7

International cooperative initiatives with participation of companies

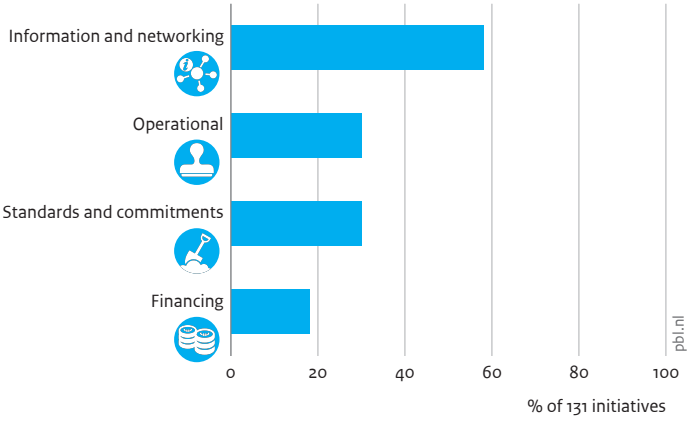


Source: IVM; adapted by PBL

Composition of international biodiversity governance initiatives in which companies participate. Companies mostly join initiatives to team up with civic and government actors, and much less with only private actors. The data on these international cooperative initiatives comes from a global database of international initiatives for biodiversity, in which government, societal organisations and businesses partner up in various configurations (n=131 out of a total of 331 initiatives; data from IVM).

Figure 8

Functions of international cooperative initiatives in which companies participate, 2018



Source: IVM

The international cooperative initiatives in which companies participate currently mostly focus on networking and information sharing (adapted from (Kok et al., 2019); n=131 out of a total of 331 initiatives; data from IVM).

4 Towards a broad intervention logic

This chapter identifies the different roles that government may take on to mobilise companies to act on B&NC issues, and to promote more advanced company strategies. It draws lessons from the approach of the Dutch Government to provide companies with triggers and incentives to change. This facilitating approach fits with the early stages of transition. To decide on future approaches, the potential of alternative government roles and accompanying policy instruments in reaching companies with alternative strategies is sketched. It builds on insights from the previous chapters on motivational aspects and provides a broader view on the intervention logic for governments.

Governments can choose from different roles to stimulate more ambitious company strategies and contributions

Four general types of policy roles and strategies can be distinguished: endorsing, partnering, facilitating and regulating or mandating (IOB, 2013). Each of these roles has clear benefits and drawbacks and provides different incentives and triggers for companies that face different challenges in the process of transformative change.

Endorsing policies refer to a relatively light form of intervention, where political support, publicity and praise are given to preferred CSR efforts. This includes endorsement of market standards in procurement and public appraisal of 'best practices'.
Partnering policies include measures in which public and private resources are combined in informal or formal cooperation. This can take shape in the form of multi-stakeholder dialogues, platforms for knowledge dissemination, and public–private partnerships.
Facilitating policies are meant to make it easier for companies to take action. It includes setting enabling conditions, removing regulation barriers and helping companies that invest in innovations that do not yet present viable business models.
Mandating policies cover 'command and control' type of legislation, using regulation, inspection and enforcement. The measures include legal and fiscal penalties on violation of regulative instruments (IOB, 2013).

Lessons from a facilitating government approach

The approach of the Dutch Government in the past decade for stimulating companies to take B&NC issues into account, can be characterised as a mostly facilitating and endorsing one. This type of 'soft' policy has been effective for raising awareness of biodiversity issues, for knowledge-sharing between front runners, and for disseminating and piloting methods for measuring impacts and reporting (Bouma and Van Leenders, 2013; Platform BEE, 2015; Van Leenders and Bor, 2016). This approach is typical for a responsive and inviting attitude of governments towards bottom-up developments in society (Van der Steen and Scherpenisse,

2015). This has for instance been done by organising and supporting green tables, multi-stakeholder platforms and communities of practice. Several of these government initiatives were shaped in the form of so-called 'Green Deals'. Next to establishing communities of practice, Green Deals provide opportunities for experiments and pilot projects to groups of companies (Henkens et al., 2017). Several sectors took part in these Green Deals: agriculture, fisheries, sand and gravel mining, sea ports, building, construction and finance. By the end of 2012, a total of 180 companies had been involved in one or more of the 41 Green Deals for biodiversity, next to a group of other institutions, such as NGOs and knowledge institutes (Sanders et al., 2018).

An evaluation was done on the Dutch policy programme for business and biodiversity, by considering the following six factors for successful transitions (NewForesight, 2018): clear organisational structures for innovation and cooperation; presence of a shared vision; design of action-oriented strategy; clear roles and responsibilities of various stakeholders; monitoring and evaluation system; and enabling a viable business case.

With these success factors in mind, several lessons can be drawn from the Dutch Government's approach:

- Keep an eye on the different stages of innovation – from agenda-setting, partnership formation, piloting and experimentation, to scale-ups and mainstreaming;
- Providing opportunities for experimentation by active companies is a crucial step in the first phase of the transition process (agenda-setting), for instance by using Green Deals;
- Stimulate cooperation between active and pro-active businesses in combination with knowledge institutes to enable that concrete biodiversity objectives can be met;
- Use specific tools and biodiversity indicators to measure results of pilot projects and experiments, instead of using only indicators for process tracking;
- Stimulate accounting and public reporting by furthering transparency regulation; for instance, with more sector guidance and a wider reach by targeting both list and non-listed companies, also incentivising inactive companies;
- Instruments, such as sector-wide covenants, can be used for scale ups and mainstreaming. Commitments should be made concrete by including SMART targets;
- Providing the right financial incentives is crucial for scaling up. The lack of a viable and competitive revenue model is an often mentioned barrier for reactive companies to change to more active strategies.

Towards a broader intervention logic for government approaches and instruments

The incentives provided in the last decade in the Netherlands have resulted in the involvement of mostly intrinsically motivated companies (coalition of the willing). Regulative policies are not much used, except for the obligation for large companies to report on sustainability. This is an important enabling factor for financial institutions to be a driver of change. It is a significant challenge to mobilise companies that are still inactive, but including this, probably large, group of companies is necessary for scaling up and mainstreaming B&NC integration into business models, and to bend the curve of biodiversity loss.

Recently, the Dutch Government has indicated that it will focus more on broadening

Table 3

Potential effects of instruments and measures to mobilise companies with different CSR strategies

Government roles	Inactive		Reactive		Active		Pro-active	
Regulating	++	Environmental regulation and standards	+	New environmental regulation and standards	o/-	Antitrust regulation is a hindrance	o/-	Antitrust regulation is a hindrance
Faciltating	+	Pricing negative impacts (tax on resource use) / Mandatory B&NC reporting	++	Financial rewards for good performance / Mandatory B&NC reporting	++	Financial rewards for good performance and societal value creation	++	Financial rewards for societal value creation
Partnering	+/o	Convenants with voluntary sector commitment	+/o	Convenants with voluntary sector commitment / Knowledge networks	+	Knowledge network for NC accounting / Funding of public-private partnerships	+	Network for innovation / Societal dialogues
Endorsing	o	Acknowledge market standards for procurement /	+/o	Acknowledge market standards for procurement /	+	Appraisal for best practices	++	Naming and faming the front runners / Stimulate innovation in public procurement.

Potential of different government instruments and incentives, belonging to alternative government roles, to stimulate companies to develop and advance their strategies on integrating B&NC into their business models. The symbols + and ++ stand for a (very) positive effects on a specific company type to changing to more advanced strategies; o for a low effect; while a – stands for a negative effect (source: Van Tulder and Hendriks, 2019).

policies and connecting actors (LNV, 2019), although they realise that the required transformative change is still in an initial phase. Business platforms, such as Business4Nature, also state that a more diverse intervention repertoire is needed: 'The transformation of the current economic and financial systems needs to be stimulated by adopting coherent incentive mechanisms and regulations to promote decisions that reward the conservation, restoration and sustainable use of nature'.

Therefore, to stimulate companies beyond the committed and visible front runners, more diverse government roles are required, using different types of instruments. As instruments have a different suitability for each phase, a broad view on the different roles and instruments for government policies is needed. In Table 3, the potential effects of different government instruments and incentives is described for the four company types, and the distinguished government roles. Companies with an inactive strategy are relatively insensitive to 'soft' and less strict government policies (endorsement, creating partnerships, facilitating cooperation), but will generally respond to regulative approaches. Companies with a reactive strategy can be mobilised when they see new market opportunities, and when they have access to knowledge and capacity for developing new business models. The more active and pro-active ones must be supported by increasing company value of their innovations, for which financial rewards and facilitating policies are crucial.

5 Business in the post-2020 Global Biodiversity Framework

Parties to the CBD 'encourage all relevant stakeholders, including the private sector, to consider developing biodiversity commitments that may contribute to an effective post-2020 global biodiversity framework', prior to the 15th meeting of the Conference of the Parties in Kunming (CBD COP 14 decision). It is crucial to get non-state actors, including the business community on board in shaping and implementing the post-2020 global biodiversity framework. Private-sector initiatives can help to engage more diverse business actors from relevant economic sectors to address direct and indirect drivers with concrete actions to halt biodiversity loss, to mainstream biodiversity into their business models, and foster innovative and experimental partnerships and initiatives for breaking gridlocks, such as those around biodiversity, agriculture and the food sector (Pattberg et al., 2019).

The question is how the post-2020 framework as part of a whole-of-society approach can enhance the meaningful involvement of the business community and the financial sector in the realisation of positive biodiversity outcomes, both national and international. Attention of governments must be given to both the process towards COP 15 in Kunming, mobilising the already active and willing companies to make new commitments, endorsing positive examples of what businesses and financial institutions can contribute, and stimulating a broader group of reactive and passive companies that are needed to bring solutions to scale after 2020, and contribute to transformative change.

To mobilise businesses in the context of the CBD, the Action Agenda for Nature and People provides a mechanism to showcase private-sector initiatives and commitments (Kok et al., 2019). This mechanism needs to be developed further. In the meantime, international business initiatives for nature, such as the Business4Nature network and the One Planet Business for Biodiversity coalition, are emerging that help build a positive momentum towards COP 15 and, in turn, may help to build confidence for governments to adopt a new and ambitious biodiversity framework. Action agendas with business involvement have also emerged in certain policy domains, such as climate change, oceans and SDGs. These agendas are also relevant for biodiversity. One of the challenges for the CBD will be to connect the Action Agenda for Nature and People to these Action Agendas and benefit from them in the post-2020 process.

Recently, UNEP has launched their Strategy for Private Sector Engagement to accelerate the private sector's embracement of sustainable business models (UNEP, 2019). The strategy is intended to encourage the business community to make concrete and ambitious commitments for biodiversity that can be tracked and reported on for the successful achievement of the 2050 Vision for biodiversity. It is built on four general pillars:

- Creating positive, measurable and quantifiable impacts on environment and society;
- Enabling transformation and facilitating changes towards a sustainable society;
- Sharing knowledge and scaling up innovation of solutions for sustainability;
- Mobilising resources to accelerate momentum towards a sustainable future.

To bring these objectives further, the Secretariat of the CBD is active with establishing collaborative partnerships with relevant business organisations and initiatives, and promoting a Global Partnership for Business and Biodiversity.

In the implementation of the post-2020 framework, the involvement of a larger group of businesses is inevitable to achieve the new targets. The broad intervention logic for domestic policies presented in the previous chapter can be applied for this. Governments have to implement measures, both enabling and regulatory, to mobilise a broad range of companies in integrating B&NC issues. This would, for example, include extending reporting obligations to a larger group of companies than just the stock listed ones, and applying stricter reporting guidelines in sectors with high biodiversity impacts and dependencies, to deliver information that will be relevant for an improved accountability framework for the post-2020 biodiversity framework.

For the development of the post-2020 Global Biodiversity Framework, it is now crucial to create an inviting international policy environment for the private sector and for business and financial institutions to show how they will contribute to the realisation of biodiversity targets. Such voluntary commitments could include collective sector commitments and executing projects on the ground with the involvement of all business actors around supply chains and in production landscapes. Business communities also provide input for increased government interventions. For instance, the Business4Nature platform and network states that more regulatory and incentivising government strategies seem necessary. The Natural Capital Coalition that is part of this network provides a narrative for governments on why and how to stimulate B&NC integration. Seven key levers for change were identified, with some levers focusing on information and planning, others on levelling the playing fields and getting action on the ground (Lok et al., 2018).

To achieve the participation of a larger group of companies with enhanced ambition levels and actual implementation programmes, a clear vision with long-term objectives towards halting and restoring nature in the post-2020 framework is required. A framework that also includes specific targets pertinent to businesses and financial institutions, for example through science-based targets[1]. Such a vision, including related targets, provides the basis

[1] http://sciencebasedtargetsnetwork.org/earth-systems/biodiversity.html

for creating an enabling environment to stimulate businesses to commit and work towards net positive biodiversity results. Intermediate steps (Mission 2030) and specific targets are especially needed with respect to the direct and indirect (i.e. underlying) drivers of biodiversity loss that are material to different sectors.

Also, a mechanism for accountability and tracking progress on goals and targets is required, making use of already available methods and indicators for measuring progress on managing impacts and dependencies. Systems and guidelines are needed for monitoring, transparent reporting and verification (MRV) of business commitments, as well as disclosure of this information, to enable societal actors to provide the right triggers and incentives for businesses to step up. Such necessary elements of the CBD framework will have to be installed to track progress in business action as part of the realisation of post-2020 framework.

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