

Integrating companies' impact and dependence on biodiversity and ecosystem services in investment decisions

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Abstract

This paper focuses on the market for information services on biodiversity and ecosystem services (BES) targeted at investors. The first part explains that the relationship between companies and BES is twofold: (i) corporate activity has an *impact* on BES; (ii) companies *depend* on BES, e.g. through a supply of raw materials, fish, and the provision of clean water. BES therefore is an important issue to be incorporated in investment decision-making processes. Our research revealed that the market for information services on companies' BES-performance currently is immature. Our research has identified nine characteristics, also referred to as 'barriers' and 'opportunities', which explain why the market is not functioning in its full potential. These characteristics are interrelated. We estimated that action of different stakeholders, i.e. ESG rating agencies, asset managers, NGOs, asset owners, governments and companies, is needed for a further development of the market. Collaborative action could effectively address existing barriers and stimulate the development of potentials. The second part of this paper specifically focuses on change processes within a multi-stakeholder setting. It reflects on a workshop organized by the research team, in which stakeholders from different groups jointly discussed the potential for development of the market, making use of action research and change management insights. Although it is increasingly acknowledged that multi-stakeholder partnerships are needed to effectively address sustainability challenges, initiating collaborative action is still difficult as actors tend to wait for other actors to make first steps.

Keywords

Transparency of corporate information, biodiversity and ecosystem services, ESG, sustainability, financial sector, ESG rating agencies, sustainability rating agencies, action research, change processes, multi-stakeholder collaboration

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Introduction

Pension funds and asset management companies increasingly seek to incorporate sustainability issues in their investment decisions.² The link between a company and biodiversity and ecosystem services (BES) is an important environmental issue to consider when taking investment decisions. Biodiversity is a good indicator for the health of the planet: it refers to the variability among living organisms and the entire ecological complexes of which they are part. Biodiversity is crucial for the functioning of ecosystems. Business depends on these ecosystems for the deliverance of ecosystem services. Four categories of services can be distinguished:

1. **provisioning services:** harvestable goods such as food, water, timber and fiber;
2. **regulating services:** such as the regulation of climate, floods, disease, wastes and water quality;
3. **cultural services:** such as recreation, aesthetic enjoyment and spiritual fulfillment; and
4. **supporting services:** such as soil formation, nutrient cycling, water cycling and photosynthesis.

There are two ways in which business relates to BES. *Firstly*, economic activities *affect* BES, e.g. through land conversion, overexploitation and pollution. This threatens the ease of use of BES in the long-term. *Secondly*, companies *depend* on BES, e.g. on the existence of healthy forests and seas for the provision of commodities like fish and timber, on bees for the pollination of flowers of fruit trees, and on sweet water sources for the provision of water.

Business risks & related investment risks

The rapid decline and loss of biodiversity has, and will in the future have, a great impact on the private sector and its profitability. The links between corporate activities and BES

² E.g. as demonstrated by research carried out by Nyenrode Business Universiteit and IUCN-NL in 2007. (Research project “Bedrijfsleven en biodiversiteit”, Lambooy & Hordijk (2007)). See also the ‘UN Principles for Responsible Investments’, endorsed by most of the world players (together representing US\$ 18,087 trillion assets under management in May 2009). See: Annual Report of the PRI Initiative 2009, available from <http://www.unpri.org/files/PRI%20Annual%20Report%202009.pdf>.

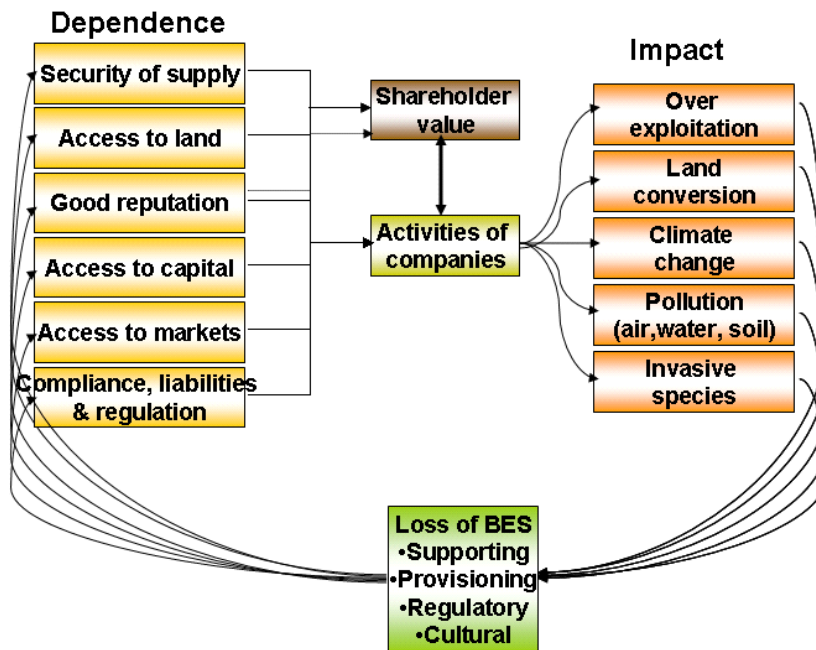


Figure 1 Overview of relationships between corporate activities and loss of BES³

loss are summarized in Figure 1, where we find dependency relationships on the left hand and impact relationships on the right hand. The different kinds of corporate *impact* on BES are: over-exploitation of natural resources, land conversion, contributions to climate change, pollution and the introduction of invasive species. Business *risks* connected with loss of BES include: a decreasing security of supply (e.g. of raw materials, agricultural products and clean water); access to land will become more problematic when the quality of land declines; it is expected that stricter laws on BES will be put in place regarding the use of water, land, forest and so on, which will burden companies with compliance and legal liabilities; access to capital can become more difficult when financiers demand companies to perform their activities in a way that is sustainable to BES; due to the anticipated increased societal attention for BES, companies will have to improve their methods and best practices in order to keep up a good reputation. Because of the corporate risks involved with BES loss, also investors run the risk of lower and less

³ This figure was developed by Ard Hordijk to serve as a communication tool within our research project.

secure investment returns in the longer term. Other risks to be taken into account by investors are an increased reputational risk and liabilities due to increased regulation.⁴

Problem statement: investors lack of information on links between companies and BES

In order to project a return-on-investment (ROI), an investor needs to assess business risks and opportunities of the ‘investment-target’. Investors require information concerning the individual company as well as predictions for the industry as a whole. As regards listed companies, financial performance information be purchased from credit rating agencies like Moody’s and Standard & Poor’s. Non-financial information, related to the environmental, social and governance (ESG) performance of a company can be obtained from sustainability rating agencies such as Innovest-Riskmetrics, EIRIS and Vigeo (hereinafter: ESG Agencies).

Research carried out by the Center for Sustainability of Nyenrode Business Universiteit (Nyenrode Cfs) and the international Union for the Conservation of Nature – Netherlands Committee (IUCN-NL) in 2007⁵ revealed that institutional investors saw room for improvement of the quality and quantity of information on BES provided by ESG Agencies. In particular, several pension funds indicated that they would be interested in such information. They also suggested that the services provided by ESG Agencies should include more detailed information on biodiversity. At the same time, initial talks with ESG Agencies indicated that these agencies were waiting for a clear demand from investors for such information. We considered this situation a typical example of market failure, since demand and supply were not matching. In the ‘real world’ many markets are imperfect. Factors such as a lack of perfect and full information for all actors, divergent regulation in the various jurisdictions where the actors are operating, or the fact that certain costs are not included in transactions and are passed on to society as a whole, obstruct the coming into existence of a perfect market.

⁴ Mulder (2007); UNEP FI (2008); see also the Nyenrode 2007 study in note 2.

⁵ Nyenrode 2007 study in note 2.

Research goals: identification of barriers and solutions to improve an imperfect market situation

An investigation whether the observed mismatch is the result of barriers that can be identified and remedied seemed useful. To achieve a market in which companies' links with BES would be fully transparent could serve the interests of companies, governments and ultimately biodiversity conservation.

When economic impacts - positive or negative - on BES are under-valuated, institutional and policy failures are also relevant. Governments could improve the regulatory framework in which companies and investors operate. However, we decided to concentrate our research project predominantly on the role of private actors, and to assess whether they can improve this mal-functioning market on BES-information. More specifically, we elected the financial sector as an entry-point. Our assumption was that including biodiversity concerns in investments decisions will drive companies to adopt better practices, which in turn will contribute to conservation and sustainable use of biodiversity. ESG Agencies play an important role, because they provide investors with information on company behavior which is needed for the inclusion of BES effects in investment decisions.

These considerations were starting point for a substantive research project conducted by Nyenrode CfS, in partnership with the nature conservation organizations IUCN-NL and Fauna and Flora International (FFI). The *aim of the research project* was to identify the opportunities and barriers to including information on impacts and dependence of companies on BES in the information services provided by ESG Agencies. The *ultimate goal* was to catalyze the market for information services in order to enable investors to include BES considerations into their investment decisions.

Research method

Traditional research methods, i.e. desk study and in-depth interviews, to assess the current state of the information market on BES, were combined with action research to gain insights in the dynamics between different stakeholder groups.

The goal of our research was not to merely identify the market barriers (i.e. the first goal), but also to initiate a change – together with the stakeholders (i.e. the second goal).

The research results were first and foremost meant to be useful for the actors involved in this market. Secondly, the acquired knowledge can be used for scientific purposes.

Outline of paper

This paper is divided in two parts, in line with the two goals of our research project. The first part will provide an overview of the current market for BES information services by ESG Agencies. The overview is the result of extensive desk-research and a set of 18 in depth interviews. Barriers and solutions will be identified in an integral approach that defines cause-and-effect relationships between private actors combined with their interests.

In the second part we will focus on the change which we tried to catalyze with our research project. The focal point is the workshop that we organized for the different stakeholders involved. The 'real life results' of the workshop will be discussed. Theories and insights from action research science will be used to shed light on the process that took place, and will help to formulate lessons learned to strengthen further interventions.

1. BES information services: current state of the market

1.1 Introduction

The first part of this paper will provide information on the current state of the market of BES-information services and the potential for growth.

Important questions guiding our research for a description of the current status of the market were: What information on biodiversity and related concepts is currently offered and used? Is there a mismatch between the information requested and offered? If so, what are the underlying causes? How is information on companies' dependencies and impacts on BES currently gathered and verified? And, how is the information assessed and used by the purchasing parties?

The potential for growth was assessed by asking questions like: What are the main themes and strategic priorities of ESG Agencies and institutional investors? What is the level of awareness of biodiversity and related concepts? Do any demands exist that are not met? Which initiatives concerning information on BES for investors are currently 'in progress'? What are the opportunities and obstacles in the realization of these initiatives? During the interviews we also enquired which requirements new tools and services should meet; what would be the best approach to realize the creation of BES information services; and which barriers are expected to obstruct the realization thereof.

Both the desk research and the 18 in-depth interviews addressed these type of questions. Paragraph 1.2 will explain the methodological considerations.

Based on preliminary findings from the desk research and a few consultation interviews with experts in the field, we decided to focus on three stakeholder groups. We considered them to have leveraging power in the field of information services on BES impacts and dependencies: (i) ESG Agencies; (ii) asset management companies; and (iii) NGOs. Figure 2 shows the value chain of financial market actors.

Asset management companies are the intermediary party in the value chain, connecting companies and asset owners. Asset managers assess company behavior, risks and opportunities, and engage with companies to stimulate improvement of corporate behavior. Asset managers rely on information purchased from credit rating agencies and ESG Agencies. The latter play a crucial role in the market for BES information services.

NGOs were included as a research object because they play a very important role in raising awareness and generating knowledge on the ‘new’ and complex issues relating BES. In [paragraph 1.3](#) the current activities in the field of BES will be discussed per stakeholder.

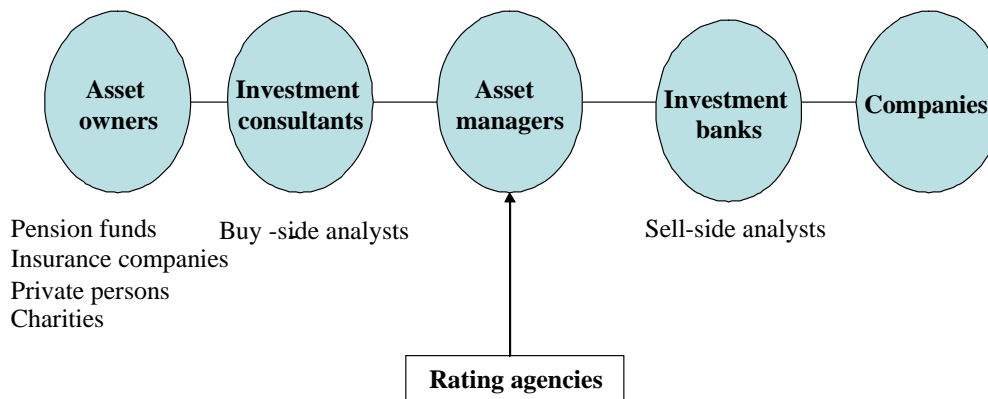


Figure 2 Value chain of financial market actors⁶

As [paragraph 1.3](#) will demonstrate, we noticed some movement in this field; it could be qualified as an immature market. In [paragraph 1.4](#), we will focus on barriers in the market. Nine different characteristics of the market will be discussed, each of which appears to slow down this developing market. These barriers are interrelated. An integral perspective on the developments will be presented in [paragraph 1.5](#), using a ‘systems diagram’. It will become apparent that characteristics presented as barriers, also comprise opportunities for new activities and services. The researchers believe that multi-stakeholder initiatives in this field generate the best chances of success. We will provide two examples of collaborative action in [paragraph 1.6](#). We will end the first part of this paper with some concluding remarks in [paragraph 1.7](#). The question of how to stimulate collaborative action will be the subject of part 2 of this paper.

1.2 Methodological considerations

The complete research project consisted of three stages: (i) desk research, (ii) in-depth interviews and (iii) a workshop, and was executed between December 2008 and February

⁶ Based on: World Economic Forum & AccountAbility (2005).

2010. The entire research project was executed in partnership with two NGOs with an expertise on BES, which solidly anchored this information in the project. In this methodological paragraph we will focus on the first two stages of the research, i.e. the desk research and the interviews.

The desk research phase lasted six months, from December 2008 – May 2009. A total of 27 ESG Agencies and 18 financial institutions have been assessed during the study. Other relevant documents and websites were also examined. The desk research served three aims: (i) to gain insight in the market; (ii) to select the interviewees⁷; and (iii) to develop formats for the interviews.

Between February 2009 and May 2009, a total of 18 semi-structured interviews were conducted with representatives of ESG Agencies (n=8), NGOs (n=3) and asset management companies (n=6). In addition, the Dutch organization for responsible investment was interviewed.⁸ Generally, the interviews commenced with questions on the ‘everyday reality’ and working procedures of the interviewee. The second part focused specifically on biodiversity related services and the possibilities to integrate these in the work flow. Ideas and suggestions communicated during interviews became part of the discussions in next interviews. Throughout the research project, we had regular project team meetings to discuss our findings and we often consulted with financial sector experts, conservation NGO representatives, ESG Agencies and with our financier the Dutch Ministry of Environmental Affairs. Subsequently, the ideas and suggestions were discussed during the workshop which was organized by the project team (see part 2 of this paper). The final research report was presented in February 2010.

⁷ Selection criteria for the ESG Agencies were: (1) impact (number of clients, or providing for indices) – focus on players with impact; (2) biodiversity – frontrunners concerning theme of biodiversity; and (3) background – diversification in geographic location and basic approach (ethical versus financial). Selection criteria for the financials were: (1) impact (size, global coverage and amount of assets under management) – focus on mainstream; (2) attitude towards sustainability issues at large – cooperative attitude; (3) biodiversity - awareness of biodiversity related issues; (4) type of organization – coverage of different parts of the field. Selection criteria for NGOs: working with private and financial sector partners to reach biodiversity enhancement goals (based on track records of cooperation projects, research capacity, participation in networks).

⁸ I.e. the VBDO (*Vereniging van Beleggers voor Duurzame Ontwikkeling*).

1.3 Current status of the market: the actors

In our study we had a strong focus on three major stakeholder groups which have leveraging power in the field of information services on BES impacts and dependencies: (i) ESG Agencies; (ii) asset management companies; and (iii) NGOs. In this paragraph, the activities in this field will be discussed per stakeholder.

ESG Agencies

One of the preliminary findings of the research was that the quantity and quality of information on the relation between corporate activities and BES collected by ESG Agencies is still very limited. A study of the *websites* of 27 ESG Agencies worldwide showed that eight mention that they consider ‘biodiversity’ as a separate indicator of their research. Four other agencies explicitly take biodiversity into consideration when producing position papers or sector briefs. We decided to interview eight of the 12 ESG Agencies that mention biodiversity on their websites, as an indicator that they take the issue into account in their ratings and/or in their position papers or sector briefs. Of the eight interviewees, five indicated that they indeed use one or more indicators on biodiversity in their company assessments. The ESG Agencies’ assessment of BES factors basically consists of the checking of policies and management control systems of a company, according to a ‘check-the-box’ approach. Information disclosed by companies is the main source of information. Some agencies also take independent news sources into account in order to evaluate (perceived) company behavior, or to assess whether companies comply with international conventions (e.g. the Convention on Biological Diversity - CBD). One agency takes an ‘issue management approach’, i.e. it focuses on a company’s ability to manage potential impacts, thereby and investigating and evaluating the company’s responses to breaches of the CBD. None of the ESG Agencies monitors any metrics or actual proof of performance of companies in relation to BES impacts. All interviewed agencies include information on issues that are closely related to, or can be considered part of, the BES-concept, such as the impact on sweet water resources and habitat destruction.

Another important conclusion of our study is that the interviewed ESG Agencies foremost focus on the *impact* of companies on biodiversity in general. Only one agency

currently takes into consideration the dependence of companies on BES, and the future risks involved with a destruction of ecosystems, but only in regard of the food and beverage sector. Two agencies have taken initial steps to include the dependency perspective in their services. In both cases, plans are still in a conceptual stage.

Furthermore, just one of the ESG Agencies indicated to have received a specific request for biodiversity information from their clients. Some of the interviewees do see some movement in the market, however. So far, the requests came from niche ‘sophisticated investors’.⁹ As yet, there is relatively little mainstream investor knowledge of BES.

Asset management companies

We chose to focus on the involvement of asset management companies rather than asset owners, because the latter commonly delegate the management of large parts of their assets to asset managers (see Figure 2). Asset managers have substantial amounts ‘under management’ which they invest in companies’ listed and unlisted stock, debt instruments, real estate and other types of assets. Asset managers follow the wishes of their clients, the asset owners. We understood from asset managers that they receive few instructions from their clients regarding ESG factors, often only addressing two or three exclusionary principles. Institutional investors are not yet very interested in the BES performance of the invested assets. However, as explained above, ignoring BES performance poses a risk to the continuity of the financial returns. Since risk estimation is the task of the asset managers, it was interesting to exchange views with them about dependency-relationships between BES performance and return-on-investments.

Most of the interviewed asset managers are familiar with the concept of biodiversity, but at the same time they indicated that they consider the concept to be very complex. Most of them have also heard of the concept of *ecosystem services*, but few have a perspective on how biodiversity loss can affect companies’ business.¹⁰ None of the interviewed asset managers specifically assesses biodiversity in their investment decision-making process. However, they do deliberate on possible controversies regarding companies and

⁹ An investor that has sufficient knowledge of, and experience with, BES-related issues that he is able to evaluate the merits of an investment.

¹⁰ Very few can cite examples of where biodiversity loss has had significant commercial and financial implications for a company.

biodiversity issues with high public visibility. Also, certain sub-themes, such as water¹¹ or habitat destruction have been pointed out as elements to consider in taking investment decisions. One of the interviewees is aware that biodiversity information is included in the ESG-data which they buy, but did not see any merit in immediate usage in the investment decision-making process. Furthermore, there is generally little awareness concerning current initiatives of NGOs or ESG Agencies which are developing tools in this area.

Interesting to note, is that a growing number of the signatories to the UN Principles for Responsible Investments (UN PRI)¹² are indicating that they (wish to) pay attention to biodiversity as an ESG issue.

NGOs

NGOs can contribute to developing a market for BES information services in several ways:

1. Raising awareness, either by developing and distributing knowledge on the concept of biodiversity, or by means of confrontation.
2. Contributing to the development and application of tools.
3. Providing information on biodiversity performance of companies.

The first role of NGOs is best established. Most interviewees (asset managers and ESG Agencies) indicated that they use NGO publications as part of their analyses.

As regards their second role, it is worth to notice that several NGOs have already prepared valuable tools. Other instruments are in the making. The tools can assist companies to analyze BES risks, and allow ESG Agencies and investors to make a systemic and meaningful analysis of corporate BES risks. However, the familiarity of the financial and corporate sector with this work is still limited. Since the effectiveness of

¹¹ E.g. Robeco has commissioned a specific research assignment on this subject to the World Resources Institute.

¹² The UN PRI is an investors initiative, in cooperation with UNEP FI and the UN Global Compact, and was initiated in 2005. The principles for investment provide a framework for investors to give appropriate consideration to ESG-issues. See: www.unpri.org.

tools mainly depends on the quality of cooperation with corporate partners at the time of their design, NGOs are increasingly seeking collaboration with financial institutions.¹³

The third role of NGOs - as providers of information on company performance - is the least acknowledged. Most ESG Agencies check publicly available information from NGOs for hints on controversies, either per company or per sector. However, this information is always considered as additional to the information obtained from the companies, or as a starting point for research. This approach by ESG Agencies will be discussed in further detail below.

1.4 Barriers in the market

Based on our research, we concluded that a market for BES related services is slowly starting to develop, but currently is still immature. Especially regarding the dependency aspect, awareness, tools and services are still in their infancy stages. Interviewees from all stakeholder groups indicated to recognize the importance of the issue and to see potential for the market to develop. The question emerges: What is stopping this market from functioning properly? This was a strong focus point in the interviews. The information collected during the desk research and the interviews, and the exchange of views with the various stakeholder groups, provided the foundation for our analysis on this specific market. We defined nine barriers or characteristics, which are interrelated and will be discussed in this paragraph. A system diagram will be presented in the next paragraph to also illustrate the cause and effect relationships in a figurative way.

1. Shift towards mid-term and long-term perspective

The short-term focus is still dominant within the financial world. This regards both the valuation of the investments as well as the sell and buy decisions. The short-termism was mentioned as a barrier to the inclusion of ESG criteria in investment decisions in all interviews. Institutional investors are assumed to invest money with a long-term horizon, thereby paying attention to people and planet aspects, but at the same time pension fund managers have to meet financial targets and publish financial results on a regular basis. They expect from their asset managers the highest possible financial returns. Asset

¹³ E.g. Fauna & Flora International (FFI) and the World Resources Institute (WRI)

management companies use quarterly benchmarks to evaluate fund managers' performance, often with consequences for their remuneration.

The current system does not cater for incentives to make investments with sustainable long-term profits - in terms of triple P performance. Even so are business leaders tempted to focus on short-term performance goals, at the expense of long-term sustainability and prosperity of their businesses.¹⁴ Biodiversity loss clearly has long-term implications. From an investment perspective there is, for example, no compelling reason not to invest in the soy and palm oil industry, even though it is well known that the Amazon and Indonesian natural forests are heavily damaged by the activities in this sector, and that the current business practices are not sustainable in the long term.

More specifically for biodiversity, this 'short-termism' results in a lack of demand for BES information, as was mentioned by several of the interviewees (coming from all three focus groups: financial institutions, ESG Agencies and NGOs). The few organizations that do purchase BES information are mainly ethically oriented investment groups. Mainstream demand is missing. With one exception,¹⁵ none of the asset managers received specific enquiries for biodiversity-friendly investments from institutional investors. One of the interviewed ESG Agencies excluded the biodiversity indicators from their database, because they were hardly ever used.¹⁶ Another ESG Agency explicitly stated that it needs market demand in order to develop new tools and services. The resources for pro-active development are limited.

In the current economic situation, the short-term versus long-term issue is receiving much attention. It will be interesting to see what changes the current economic situation will bring about in respect of the short-term focus of the financial world. There seems to be a growing momentum to incorporate longer term considerations into investment decisions. The development of biodiversity information services could simultaneously profit from and add to the developments in this field.

¹⁴ E.g. World Economic Forum & AccountAbility (2005); Centre for Financial Market Integrity & Business Roundtable Institute for Corporate Ethics (2006); Guyatt (2008); BSR (2008).

¹⁵ One of the French pension funds is considering investments in 'biodiversity friendly' products.

¹⁶ The interviewee more specifically mentioned that they were not able to provide a type of information on biodiversity that was useable for investors and asset managers.

2. Integrated legislation and private regulations

All interviewees seem to be in favor of more concerted governmental action vis-à-vis biodiversity. Both mandatory disclosure by companies and mandatory biodiversity policies were mentioned frequently.¹⁷ Not everybody seems to be in favor of mandatory disclosure, because it would take the focus away from the business case. The argument is that eventually the investors should be the ones to reward the leaders and punish the laggards.

Other types of legislation mentioned regard the protection of BES, effectively enforced through penalties for non-compliance and related damages, and enhanced by introducing biodiversity offset compensation-schemes or credit systems. Valuation of biodiversity would be required to create an offset market.¹⁸ The majority of the interviewees was in favor of international regulation on compensation and biodiversity-credits. Another idea came from one of the interviewed asset managers, suggesting that stock exchanges could require listed companies to provide more information on biodiversity impacts.¹⁹

3. Consolidation of services provided by ESG Agencies

It was noted by various interviewees that mergers of ESG Agencies with financial sector actors could stimulate the integration of ESG aspects in mainstream investment decision-making. For example, this could be achieved by mergers between ESG Agencies and credit rating agencies, or by establishing closer links between asset management

¹⁷ E.g. through the application of the GRI standards (including the biodiversity theme indicators) on a 'comply or explain' base. In the Netherlands this could be realized through art. 2:391 lid 1, by requiring the G3 as part of the annual report (also possible as reference to a separate report). Another option would be through art. 2:391 lid 5, designating the G3 as a code of conduct that has to be applied or explained. Danish and Swedish legislation can be consulted as a reference, as can be Norwegian and Canadian policy documents. The French NRE (*Nouvelles Régulations Economiques*) also includes mandatory disclosure on biodiversity impacts (section 116).

¹⁸ Although biodiversity credits based on voluntary systems are growing in volume, they are generally not yet considered eligible by asset managers. The reasons for this are the perceived high risks of maintaining their value. Also, these systems are mainly local. For example, New Forests, a Sydney based firm, has established the 'Malua Wildlife Habitat Conservation Bank' in Malaysia as an attempt to raise funds for rainforest conservation. They market 'Biodiversity Conservation Certificates' to interested parties. Organizations can be interested in these certificates because investing in biodiversity offsets can help support their brand image, and at the same time provide a way to engage in an innovative rainforest conservation project. See: www.maluabiobank.com/ [last accessed 17-09-2009].

¹⁹ A parallel can be drawn with the US Securities and Exchange Commission (SEC) discussions that are currently ongoing about greater disclosures on carbon exposure.

companies and ESG Agencies.²⁰ Several asset managers stated that they would be interested in purchasing combined ratings on financial and ESG issues. Firstly, because it would be more practical and cheaper if they could purchase all required information from one source, and secondly, because the financial implications of ESG issues would become more clear.

One of the asset managers stated that he would be in favor of further consolidation between ESG Agencies, as happened earlier with credit rating agencies. Consolidation of ESG Agencies could contribute to the development of clearer and completer information about ESG issues as well as uniform standards. Clearer and more standardized measuring methods could result in more complete and consistent analyses, and would also reduce ‘the questionnaire burden’ on companies.²¹ Common standards would also allow asset managers to communicate a more uniform message in engagement activities with companies.

One of the interviewed ESG Agencies noted a tendency towards mergers and close partnerships between ESG Agencies.²² As maintaining and updating databases is expensive, it would make sense for ESG Agencies to share this burden. A number of the interviewed ESG Agencies expressed an interest in this. Some of the agencies already purchase information from their competitors to reduce costs.²³ Standardization of information is also welcomed because it could enhance the compatibility of the ratings.

On the other hand, there appears to be quite some competition between ESG Agencies. The approaches used by ESG Agencies vary widely and the comparability of information is limited. Most asset managers buy information from more than one ESG Agency to get a completer overview. Different approaches taken by ESG Agencies also serve different types of clients. Cooperation is not always sustainable, as became apparent from the discontinuation of the SiRi-network in the fall 2008.²⁴ Likewise, in regard of the merger

²⁰ E.g. Robeco owns the majority of the issued shares in SAM.

²¹ Many companies indicate that they have been overloaded with different kinds of questionnaires on their ESG-performance. Questionnaires are submitted by ESG Agencies and other external parties such as NGOs.

²² E.g. note the recent merger between Riskmetrics and Innovest.

²³ The ESG-information provider Asset4 seems to be an important provider of ‘raw data’ for ESG Agencies.

²⁴ The SiRi Group was started in 2000 as a not-for profit entity. The Group members founded SiRi Company as a profit entity in 2003. The group consisted of ten ESG Agencies. Quoted from their 2004 brochure: “SiRi Company Network Partners provide SRI research on corporations based in their respective

potential between ESG Agencies and credit rating agencies, an NGO noted that there is still a great ‘mental distance’ between the two.

Although the lack of standards and uniformity is confirmed by all of the interviewees, there are different perspectives on whether or not this barriers should be ‘tackled’ by consolidation of ESG Agencies.

4. Deconstructing the concept of biodiversity into sub-themes (‘the matrix’)

Biodiversity is a complex concept. Asset managers find it difficult to ‘translate’ BES-issues into business risk. For some sectors, the link with biodiversity is obvious, for example mining and forestry. These sectors have large impacts on nature. For most sectors however, the relationship between biodiversity loss and individual companies is less straightforward.²⁵ The type of impacts and relationships are highly variable between sectors. Possible overlap with other environmental themes, such as water and CO₂ emissions, are also considered confusing by some of the interviewees. In general, asset managers have very limited time for an assessment per company, and are thus in need of ‘quick answers’. Not only are these ‘quick answers’ currently unavailable, most mainstream asset managers do not know which questions to ask. ESG Agencies struggle with similar constraints in trying to develop biodiversity information services for asset managers on a company-specific level. There is a trade-off between efficiency of the process and the level of detail and specificity of the information. The right balance is yet to be discovered.

Some of the interviewees even argue that the best way forward would be to proceed on some of the most material and most readily applicable subthemes, like water, instead of pursuing on the general concept of BES. The BES concept might currently prove to be too big to handle by the financial community. Others suggest to link up to the climate change debate, because climate change is high on the agenda, and it obviously has large impacts on BES. However, one ESG Agency pointed out that the term biodiversity has a

home markets, in a harmonized format, and with strict quality standards set by SiRi Company. This gives clients the benefits of global coverage based on local knowledge”, (p. 2).

²⁵ One of the interviewees pointed to the chip producer Intel, which needs large amounts of clean water of very high quality for their production process.

valuable symbolic meaning and should thus not be deleted when deconstructing the concept.

Some work has been done to make corporate risks related to BES loss transparent per sector.²⁶ The existing matrices, however, are still quite abstract of nature, with limited use for data collection and decision-making at company level.

5. Establishing a causal relationship between BES loss and financial performance

Financial and economic models on the relationship between loss of biodiversity and the financial ROI in relation to an individual company is still scarce. For mainstream asset managers – i.e. managers other than those of specific ethical sustainability or ESG responsible funds – proof of materiality of biodiversity risks would be a motivation to assess corporate behavior towards this issue, as happened with climate change. Some interviewees ascertained that there is little proof showing that private equity funds perform better when applying ESG criteria, compared to funds with conventional investment strategies. In part, this is caused by the fact that the costs of poor ESG performance by companies are currently for a large part externalized. They are borne by society and not necessarily directly by the company causing the impact. Presently, around the world, researchers are assessing the correlations between a good ESG performance and financial performance of companies. In 2008, a review of 34 scientific studies showed that in 68% of the studies, a positive link exists between corporate social performance and corporate financial performance. Only 6% of the studies showed a negative link.²⁷ Another study illustrates that in the context of the financial crisis, companies which have sustainability considerations firmly anchored in their business model outperformed peers in 16 out of 18 sectors assessed.²⁸ More research would be needed though, to provide a solid evidence base to correlate company BES-performance with company financial performance, and ultimately with investment fund performance. A shifting focus from the *impact* companies may have on biodiversity towards the *dependence* of companies on BES could be an important step forward. This would

²⁶ Overviews are provided by F&C (2004), Mulder (2007), UNEP FI (2008) and oekom research/Eurosif (2009).

²⁷ Van Beurden & Gossling (2008).

²⁸ Mahler e.a. (2009).

enhance establishing tangible links between a company's core business and BES. E.g. resource constraints is a recognized issue which is quantifiable. More research is needed to provide evidence for causal relationships in specific sectors. ESG Agencies, institutional investors and scientific institutions could combine efforts in this respect.

6. Educational groundwork throughout the value chain of the financial market

Most asset managers have a sustainability department that fulfills several or all of the following tasks: in-house background research on ESG factors, advising other departments, raising awareness, company-wide policy development, engagement with business partners, and management of specific ESG funds. The sustainability departments generally also manage the asset manager's relationships with ESG Agencies. Within these departments, valuable expertise and knowledge is being built up. One of the interviewed ESG Agencies has noticed that clients ask more specific and thorough questions. Another agency has seen their numbers of clients rising in the course of the current financial crisis. At the same time, however, during the interviews, several ESG-specialists within asset management companies mentioned that they are facing an 'uphill struggle' within their companies to raise awareness on BES dimensions in company and sector assessments.

The actual mainstream investment decisions are the full responsibility of the fund managers, which are advised by their research analysts. As the analysts have little time available for a 'per-company assessment', this does not allow them to assess ESG matters extensively. More importantly, the career path within asset management organizations drives professionals to generalization, instead of specialization.²⁹ Good analysts are soon promoted to more general fund-management places and ultimately become business leaders. This way, little expertise is built up amongst the analysts and fund managers, which in turn makes it difficult to assess less straightforward ESG information.

NGOs could play an important role in raising general awareness and understanding within the financial world. To increase resonance with the receivers, several financial

²⁹ World Economic Forum & AccountAbility (2005).

sector interviewees mentioned the importance of using the vocabulary of the financial world, e.g. by using words like ‘risk management’ and ‘sustainability’.

A more direct way of increasing capacity within asset management companies to deal with the theme of BES would be to develop specialized courses that could contribute educational credits and professional credibility to asset managers.³⁰

7. Development of new tools

Good tools and assessment methodologies for the analysis of biodiversity impacts and dependency per company in a systemic and comparative way are not yet available.³¹ This holds true for both the tools ESG Agencies can use to include biodiversity information in their database and the tools for asset managers to include biodiversity impacts and dependence in their investment decision-making.³² Our research has revealed that the actors in this market make little capacity and time available for developing new tools. ESG Agencies have limited resources and indicate that they first need to have demand. Within asset management companies a sense of urgency is lacking regarding this issue, possibly related to a low level of awareness and knowledge on the subject. NGOs and knowledge institutions could play a role when commissioned to ‘translate’ the concepts into concrete tools. Some tools are ‘in progress’, as mentioned before.

8. A more continuous flow of relevant and compatible information

The availability of relevant and compatible information on corporate BES impacts and dependence is limited. ESG Agencies need information on a company-level in order to value actual risks for a specific company. Furthermore, they should be able to provide regular updates to their customers. Asset managers prefer to receive a continuous flow of information. That implies that the ESG Agencies in turn also need frequent and up-to-

³⁰ This could possibly be achieved by expansion of the syllabus of the Chartered Financial Analysts (CFA) Institute – the global, professional association that administers the CFA curriculum and examination program. Corporate governance has already been included into the syllabus. See: <http://www.cfainstitute.org/index.htm>.

³¹ A popular selection method for the inclusion of companies in a sustainability index such as the Dow Jones Sustainability Index, is the ‘best-in-class’ approach, which is based on a comparison of companies within a sector.

³² Most asset managers use their own ratings, based on specific valuation techniques. The information they buy from ESG Agencies is used as (one of the) inputs for these methodologies.

date information on companies. An annual sustainability report containing information on a company's activities in the previous fiscal year does not suffice. Fresh information can sometimes be found in the media and NGO publications, although this usually focuses on controversies.³³ It appears difficult to collect information on 'good' companies, and even more so on 'mediocre' companies. Also, BES-information regarding mid-caps³⁴ is hard to acquire, because NGOs tend to focus on 'the big players', and mid-cap companies are pressured less to disclose information. Furthermore, information on BES-impacts in less populated and less developed countries is extremely scarce, due to the facts that information is published in local languages and that such information has a limited access to the internet. And finally, information about BES impacts in the supply-chain is also scarcely available.

Disclosure on biodiversity impacts by companies themselves is limited, whilst the quality thereof is often questionable. The Global Reporting Initiative (GRI) indicators on biodiversity³⁵ are not commonly used by companies. The majority of the interviewees asserted that the biodiversity indicators do not provide investors with useful information which can be used in their investment decision-making process.³⁶

ESG Agencies circumvent this lack of information and apply 'a process-based approach'. They assess company policies and management systems, hence judging the ability of companies to manage possible impacts. This information is considered to be a proxy for the quality of the actual company performance. Other approaches used are providing sector-level instead of company-level reports, or assessing the reputation of companies, based on media coverage.

A number of the interviewees expressed that they would be in favor of a 'Biodiversity Disclosure Project', like the Carbon Disclosure Project. The Forest Footprint Disclosure

³³ E.g. Shell explorations in Sakhalin with a negative impact on the habitat of the endangered western gray whale, were heavily covered by media. Or Monsanto and the 'Roundup Ready Controversy', and other controversies regarding genetically modified crops.

³⁴ The term 'mid-caps' is generally used to refer to companies with a market capitalization within the range of US\$ 2 billion to US\$ 10 billion.

³⁵ Biodiversity is addressed in indicators EN11, EN12, EN14 and EN25. See: www.globalreporting.org

³⁶ The GRI has indicated ecosystem services to be one of the focus areas for the coming years. See: <http://www.globalreporting.org/NewsEventsPress/LatestNews/2009/NewsJuly09NewG3Projects.htm> [last accessed 17-09-2009]. They have recently started a project to review the biodiversity indicators and to investigate the possibilities to effectively incorporate ecosystem services within the reporting framework.

Project (FFD)³⁷ was also enthusiastically welcomed by several of them. Others, however, were afraid that the impact of ‘yet another disclosure project’ might be disappointing, and could even be counter-productive for the success of information-disclosure projects in general.

9. More cooperation between NGOs and financial market actors

As mentioned earlier, NGOs can contribute to developing a market for BES information services in several ways. Their potential roles are not (completely) fulfilled and linkages between NGOs and ESG Agencies are limited. The interviewees from the asset management industry and the ESG Agencies are mostly interested in the contribution of NGOs to the development of knowledge, the development of frameworks and the development of tools. This has been outlined above (in paragraph 1.4, point 6). Another role of NGOs, identified in paragraph 1.3, i.e. as a source of information on company behavior, is less acknowledged. Several hesitations were mentioned:

- Most NGOs are ‘single issue’ entities with their own agenda.
- NGOs do not collect information in a structural and transparent way.
- They tend to focus on controversies instead of undertaking an overall screening, which makes the information anecdotic.
- The websites and search engines are often not considered ‘user friendly’ by the interviewed ESG Agencies; i.e. if NGOs would send weekly or monthly newsletters on companies and BES to ESG Agencies, it would be easier for the latter to use the information.

Currently, the information provided by NGOs is free of charge. Payments might be an incentive for NGOs to deliver more targeted and useable information. Most interviewees have indicated, however, that they are reluctant to enter into a contractual relationship with NGOs. Fear of association is their main argument, because this might be a potential threat to the objectivity that is essential for ESG Agencies. A few of the interviewed agencies contended that they are indeed willing to pay for information from NGOs,

³⁷ See: www.forestdisclosure.com.

subject to traceability of information. Two others would at least be willing to consider payments, although there is currently no necessity to do so.³⁸ In some rare occasions, research assignments on specific BES issues (e.g. water scarcity) are commissioned to independent consultants or well-reputed NGOs.

Regarding awareness raising, also a role ascribed to NGOs, it was mentioned that the lack of a critical NGO in the field of BES is one of the reasons why BES is not on the agenda of financial institutions.

The general picture as sketched by the interviewed NGOs, is that they are not very much focused on cooperation with specialized agencies in the financial sector as far as biodiversity is concerned.³⁹ Although the importance of the financial sector in the 'value chains' is very well understood, limited resources and human capacity are directed otherwise. NGO strategies to influence investment decisions in view of protecting environmental interests typically encompass organizing public awareness campaigns, direct engagement with company management, mobilizing support of local stakeholders, and research on impacts. Knowledge and data available within NGOs are mostly not targeted at, nor formatted for use by financial market actors.

1.5 An integral perspective⁴⁰

As outlined in the introduction, our research led us to believe that most of the barriers discussed in the previous paragraph are interrelated. For that reason, it is important to apply an integral research perspective on the market and the actors. Only then, the effects of interventions and developments can be anticipated and directed. In order to visualize the interdependency, we have developed a system diagram, explaining cause-and-effect relationships. Two kinds of effects are included: **S** stands for *same way*, i.e. more of one means more of the other. **O** stands for *other way*, i.e. more of one means less of the other. If a set of effects continues to reinforce each other, this is called a 'reinforcing loop', indicated with an **R**. The loop works in two directions and strengthens the effects, unless the effects are balanced by factors from outside of the loop. Figure 3 presents the full

³⁸ Because they can obtain ample NGO information from publicly available sources, or just because they use other sources of information.

³⁹ There are some exceptions. E.g. FFI and WRI are more connected to the financial sector.

⁴⁰ In addition to our own research, information from two specific publications were used to build the system diagram: World Economic Forum and AccountAbility (2005) & BSR (2008).

system diagram. Annex I contains a visualized overview of the intermediary steps that lead to the full picture.

The following summary of the research results presented in the previous paragraph will explain the information and arrows in the system diagram.

At the most basic level, it is important to understand that the concept of BES should be understood before the financial impact on investments and business organizations can be assessed. The clearer the understanding of the concept of BES is, the more transparent the financial impact of BES on companies can be made. And the more transparent the financial impacts are, the more investors will integrate BES factors in their consideration and valuation. Data are needed to assess the financial impacts. The more BES data are available, the easier it will be to uncover the financial impact of BES factors. More transparency on the level of financial impact will in turn contribute to the willingness of organizations to invest in the collection of BES data. This will result in more BES data being available, which results in an even more transparent financial impact.

The availability of BES data alone is not enough. The information also needs to be interpreted and understood by investment professionals. The level of transparency of the financial impact therefore depends on the expertise of investment professionals and the availability of adequate tools to use the BES information. However, there will only be such capacity if organizations allow their professionals to be trained in this field. The more transparent the financial impact of BES factors is, the more interest there will be in BES, and so more willingness to invest in capacity and tools. The willingness to invest in the development of expertise and tools also depends on the general orientation of the asset managers and asset owners concerning the relationship between business and sustainability. A profit-driven, short-term business case orientation will generally lead to skepticism towards the relevance of ESG aspects (with less interest in BES specifically), and this will decrease the willingness to invest in capacity and tools. A more integral orientation towards ESG by asset managers (and asset owners), in which a sustainable future for society and business success are seen as two sides of the same coin, will lead to a stronger interest in BES. A similar effect can be expected with regard to the willingness to invest in the collection of data.⁴¹

⁴¹ This effect is not included in the graph for presentation reasons.

In the current internal organization of asset management firms, there are two incentives that hinder the development of the expertise of professionals to understand the BES aspects of investments. First, generalization is required for career promotion and specialized knowledge is lost. Second, the performance criteria for asset managers are based on short-term benchmarks, which discourages them to shift towards a more long-term perspective and to take risks with ‘unfamiliar’ criteria. Judging these professionals on performance criteria with a stronger orientation towards long-term profits and ESG factors, would increase the willingness to invest in capacity development.

Last but not least, if only a few asset owners include BES criteria into their strategic investment plans, few BES-integrated investments are likely to be made. In turn, this will lead to a lack of willingness of asset managers to invest in building up expertise. However, if more asset owners would include BES criteria into their valuation models, the more asset managers would be interested in developing those capacities. Some experts argue that if pension holders would have more influence on the investment criteria of pension funds, they would urge pension funds to integrate ESG criteria (and BES criteria) in their strategic investment plan. This argumentation assumes that a substantial group of pension holders would be willing to accept the *risk* of receiving a smaller pension (which they can enjoy in a more sustainable world). The pensions could also be higher, if accepting the argument that taking ESG issues into account evidences sound management. Various pension fund managers argue though, that in the current state of the investment market, a voluntarily imposed limitation to invest in ESG integrated investments only would reduce their investment universe, which might result in higher risks on return.

It becomes clear from the diagram that addressing one of the issues could solve part of the problem, but could easily lead to running into another barrier. More interventions are needed to change the entire system. The diagram shows that two main routes towards integration of BES into investment decision-making could be taken: (i) by demonstrating the financial impact or materiality of BES (left part of the diagram); and (ii) by stimulating a more integral orientation towards ESG and by directly stimulating demand through institutional investors (right part). Pension holders could place demands

pertaining integrating BES criteria into investment decision-making. Although for many people the loss of biodiversity as such should arguably be sufficient to tap into an intrinsic motivation of all actors, a proof of materiality and an investment case would be needed for the mainstream investment community to integrate the information into decision-making. But an exclusive focus on the latter route might not enable to make an adequate and material shift from niche to mainstream. We anticipate that a combination of the two perspectives probably leads to the best results.

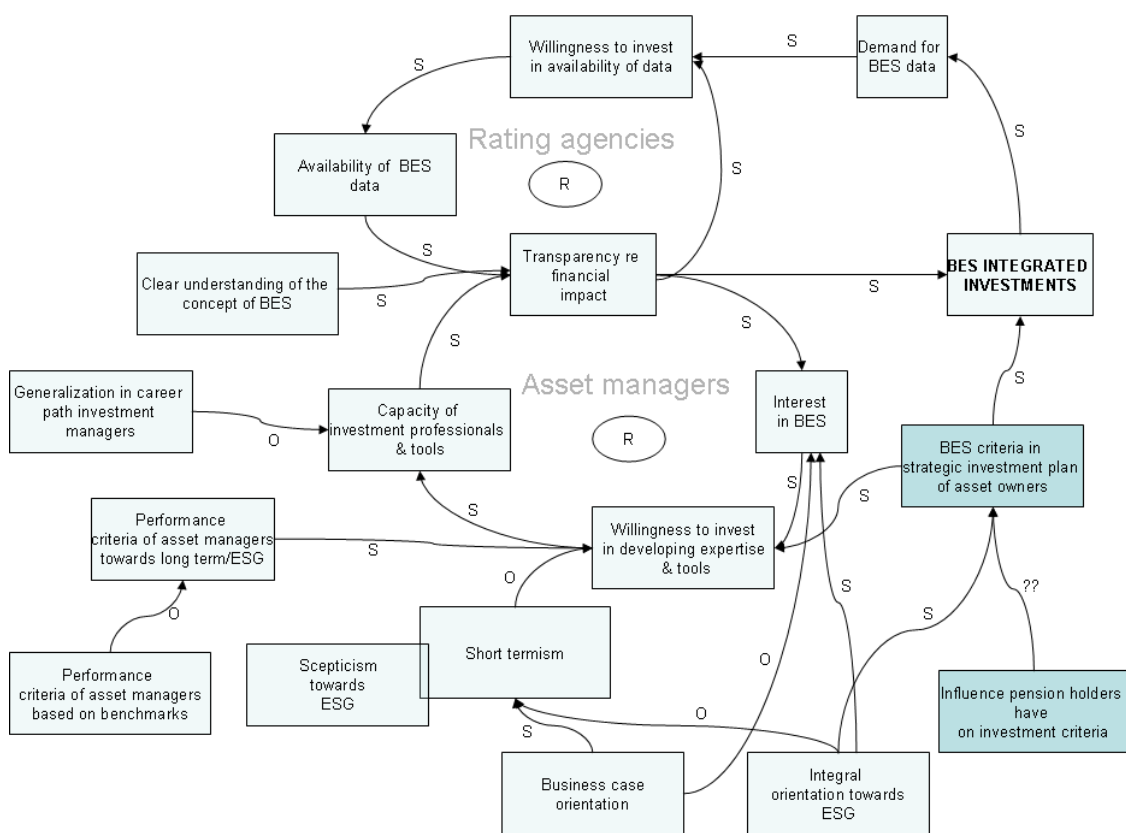


Figure 3 System diagram – cause-and-effect relationships

1.6 Examples of collaborative actions on how to proceed

The desk research and the interviews shed light on the current state of affairs in biodiversity information services, showing many opportunities and challenges. We also came across many ambitions and existing initiatives aiming at further development of the field. However, we observed that many of them act in isolation. Connecting initiatives

and instigating collaboration between the stakeholders in the field would probably be the best way to achieve a changed business attitude.

According to Chris Huxham, collaboration in its most general understanding implies “a positive form of working in association with others for some form of mutual benefit”.⁴² To explain why collaboration can be beneficial to organizations, Huxham has introduced the notion of *collaborative advantage*, meaning that a partnership can produce things that no organization could have produced on its own, and that *each* organization is able to achieve its own objectives better than it could have done alone. In some cases, it should also be possible to achieve some higher-level objectives for society as a whole.⁴³ In certain situations, a collaborative advantage can be stronger than a *competitive advantage*. Considering the complexity of the issue of BES and the many barriers to overcome in order to efficiently integrate BES considerations in investment decisions, we may assume that this situation calls for some form of collaborative action between the stakeholders involved. And last, but not least, the conservation of BES is of great importance to the entire world population.

Collaboration can take place in many different forms and can be the result of different motivations. It can range from two individuals of different organizations working together, to a complete synchronization of activities of such organizations. The intensity of collaboration can be somewhere between an exchange of information and concrete, binding agreements. In our view, the creation of a shared vision would be a good way to create alignment between initiatives and target the different initiatives, without losing autonomy or competitive edges. Multiple stakeholders should jointly formulate a long term strategy at overcoming the barriers mentioned, in order to realize the integration of information on corporate impacts on biodiversity and business dependence on BES into mainstream investment decision-making. A common long term strategy would allow the various initiatives to be mutually reinforcing and act as a catalyzing force for the integration of BES, of which all parties and the planet as a whole would benefit.

Although this may sound simple in theory, in reality this would be a complex undertaking. The actual process needed for starting-up the collaborative action is subject

⁴² Huxham (1996), p. 1.

⁴³ Huxham (1993), p. 603.

of the second part of this paper. In the remainder of this paragraph, as an illustration, two proposals for concerted action will be presented, each addressing one or more of the barriers.

1. Breaking down the BES-concept

Breaking down the concept of biodiversity into sub-themes is a first step in making it an applicable subject for business-performance rating. To apply a sector-specific approach, in which the most relevant impacts and risks per sector are identified, would be desirable. The research results evidenced that it is considered material to formulate the business case for asset managers in order to assist them in incorporating the constituent parts of biodiversity into their analysis. Linking other environmental issues to BES-related issues will also be helpful to increase understanding by asset managers. Both environmental NGOs and asset management companies have a role to play in this process. The outcome of the process could be a concise and useful guide that provides a sector-specific analysis of materiality, and flags key issues or ecosystem services which should be prioritized. However, having a clear understanding of the concept and an overview of the relevant themes per sector alone will not suffice. The translation from 'sector specific' to 'company level analysis' requires the involvement of ESG Agencies.

In order to create a solid effect on investment practices, all actors need to be involved in the process of 'breaking down the issue', preferably starting in the early stages. In this way, knowledge-based institutions, i.e. certain NGOs as well as scientific institutions, can benefit from the experience and capacity of asset managers and ESG Agencies, and vice versa. The process stays as close to practice as possible. Asset managers will be educated (which could possibly be awarded with learning credits) and have access to new markets. ESG Agencies can develop new products, and find an already informed group of asset managers that might be willing to purchase their new information services. Furthermore, this type of collaboration could provide a framework which will ease the communication between the different stakeholders on BES performance. Figure 4 shows the potential for interaction between knowledge-based institutes, asset managers and ESG Agencies.

Additionally, it will be vital for the progress to make use of, and to integrate, relevant, existing initiatives.⁴⁴

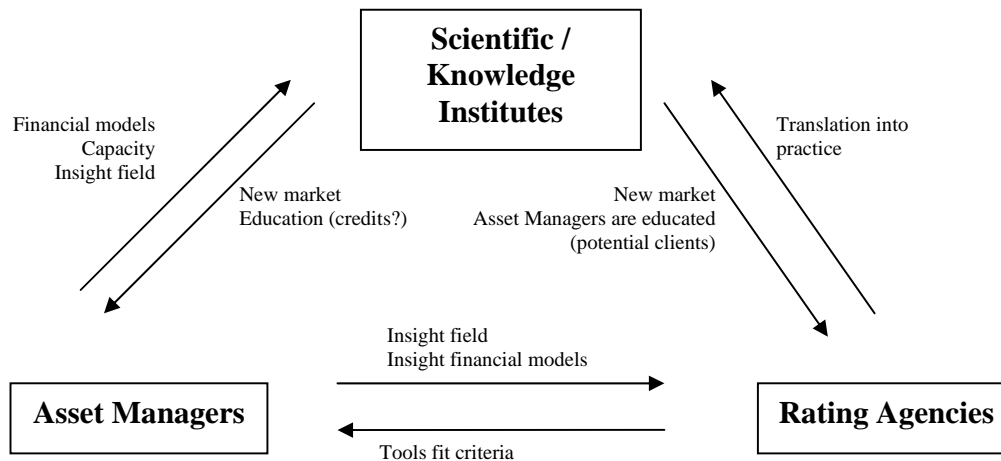


Figure 4 Breaking down the issue

2. A clearinghouse for information on biodiversity

Parallel to the all-inclusive approach of raising awareness and educating the financial market actors, a clearinghouse could be set up in which these parties can exchange relevant information regarding biodiversity and concrete information on companies' impacts on BES. We agree with the view of several interviewees that such a clearinghouse could be built making use of existing platforms, such as UN PRI, UNEP FI or the London Accord clearing houses.⁴⁵ NGOs and scientific institutions can contribute

⁴⁴ E.g. WRI recently started a project in which they address a number of BES issues; these issues are divided into physical, regulatory and reputational components for a number of sub-themes, thereby targeting financial models of asset management companies, to increase transparency of financial impacts. Another example is a project of ESG Agency GES, which has developed a concept for a research project, aimed at operationalization of the concept of ecosystems for the financial world. The proposal has been developed jointly with WRI and Umea Business School. The proposal is searching funds in order to commence. Other initiatives worth mentioning are the Natural Value Initiative (www.naturalvalueinitiative.org), the Forest Footprint Disclosure project (www.forestdisclosure.com), the Water Footprint (www.waterfootprint.org) and a study done by F&C in 2004.

⁴⁵ The London Accord allows access to a compendium of reports, written by a range of financial services firms, providing insight into issues ranging from renewable energy to the price of carbon. "The London Accord allows access to this research free of charge - offering policy makers an insight which they may not otherwise access and giving the financial services industry a way of engaging with society on long-term issues." See: www.london-accord.co.uk/.

sector and company specific information the clearinghouse. The information then can serve as input for the company assessment by ESG Agencies as well as for their sector analyses. Asset managers and individual investors can use the information in their investment decision-making. Given the limited resources of most NGOs, commercially exploiting their knowledge may even expand their abilities to conduct more research, and at the same time to enhance their nature conservation activities. Due to the multiplicity of the involved actors, the risk of association or bias is eliminated.

The information that is currently being used by ESG Agencies concerns the impact of companies on biodiversity. A clearinghouse could firstly ‘channel’ this kind of NGO information, by bundling it and making it accessible for ESG Agencies and research analysts. In a later stage, the results from a study as proposed above could be used to further develop and implement the BES dependence and risks information services. As with the previous proposal, it will be important to consider linking existing initiatives in the development of such a clearinghouse.⁴⁶

1.7 Concluding remarks

A starting point for the research project was the observation of a *market failure* in the market for information services on corporate behavior regarding BES, where supply and demand do not match. There are different angles to study this topic. One type of market failure is the lack of a market. Based on our research we can conclude that there is a market, but that it is (still) in an immature stage. Information is being traded, but the market is limited to niche investors with an ethical orientation. Generally, the information that is purchased focuses on the *impact* of corporate behavior on BES. Information on the *dependence* relationship is close to non-existent. In the first part of this paper we have provided an overview of the state of the market for BES-information services and discussed barriers and opportunities for further development.

A well-functioning market of BES-information services can also help to correct failures in other types of markets. A common form of market failure is the problem of externalization, i.e. when not all impacts (positive and negative) are incorporated in

⁴⁶ An interesting initiative to investigate in this respect is the ‘one-stop-service’ of IBAT Business. See: www.ibatforbusiness.org.

transaction prices, hence causing circulation of false information in the market. A negative impact of corporate activities on BES is a typical example of cost which are borne by society, instead of by the company causing the impact. Ultimately, in a perfect market, such costs would have to be borne by the consumers buying the products produced by such company. The inclusion of information on BES-performance could be the starting point of the correction of this market failure, which presently is the case in many markets of commodities and services. 'Perfect markets' need perfect information for all actors, hence including BES-related information. Currently, this information is not available and not integrated in ultimate prices.

Apart from the identification of various barriers in place, a more important conclusion derived from our research is that there is potential for growth in the BES information market. ESG Agencies and investors have indicated that especially the dependency relationship between companies and BES is considered necessary to strengthen the business case and the investment case, which – in their view - is needed for the integration of BES information in investment decision-making. Asset managers and institutional investors would be interested in purchasing more information from ESG Agencies. There are already various initiatives (in progress or being developed) with the intention to fill existing gaps. Linking these initiatives and bundling efforts is important to create a catalyzing effect for the development of the market. Furthermore, an increased involvement of the market parties is essential, to get the basic mechanism of demand and supply going. Collaborative action will be the subject of the second part of this paper.

Finally, we wish to emphasize that the development of a strong business case for understanding and minimizing dependence on ecosystem services would have to go hand in hand with strengthening legislation that protects biodiversity (e.g. by raising legal penalties or requiring offsets), helps to establish a (monetary) value of BES, and stimulates corporate disclosure on BES.⁴⁷

⁴⁷ It is our understanding that the ongoing review of 'The Economics of Ecosystems and Biodiversity' (TEEB)⁴⁷ will make policy recommendations that may go some way to addressing the existing regulatory gap. The final results of the TEEB study will be presented during the CBD Conference Of the Parties in 2010 (CBD COP-10). The TEEB study was initiated by the European Commission and the German Federal Ministry for the Environment in 2007. The study is evaluating the costs of the loss of biodiversity and the associated decline in ecosystem services worldwide, and comparing them with the costs of effective conservation and sustainable use. It is intended that it will sharpen awareness of the value of biodiversity

2. Catalyzing change in the market – an action research approach

2.1 Introduction

The ultimate goal of this research project was to create movement in the field of BES information services, in order to allow investors to incorporate BES considerations into their investment decision-making process. In the first part of this paper we have illustrated that there are several market characteristics which keep it from functioning in its full potential. We have also proposed two promising variants of collaborative action. However, a set of researchers making a plan is not sufficient to ignite change. In the second part of this paper we will focus on the question *how* such collaborative action could be induced. Subsequent to our desk study and interviews, we have organized a workshop which brought together representatives of different stakeholder groups. The workshop created an opportunity to collectively investigate the possibilities for collaborative action and to discover the role each of the participants could take on in this process.

A discussion on *methodological considerations* will be presented in paragraph 2.2. We will make explicit use of insights of action science and theories of change management. An impression of the workshop is recorded in paragraph 2.3. In paragraph 2.4 we will consider the concrete output of the workshop as an intervention in the market of BES-information services. We address the questions whether the workshop can be considered successful and which lessons can be learned for future interventions. Paragraph 2.5 contains an evaluation and some concluding remarks.

2.2 Methodological considerations

Action science

The researchers believe that a well-functioning market of BES information services would encourage the inclusion of BES performance of companies into investment decision-making processes of (institutional) investors. We assumed that ultimately, sustainable investments will reduce any negative impacts of corporate behavior on BES,

and ecosystem services and facilitate the development of cost-effective policy responses. see: <http://ec.europa.eu/environment/nature/biodiversity/economics/> [last accessed 17-09-2009].

and generate better long-term financial results. This assumption was an important predisposition for the current research undertaking. More traditional, positivistic scientific research methods strongly merit 'value-free research'. However, in our opinion value-free traditional research is (often) not appropriate for the type of research we undertake at the Center for Sustainability of Nyenrode Business Universiteit. Our research intends to assist companies as well as governments and NGOs to find out how changes in markets and corporate behavior can lead to a more sustainable world to the benefit of all (including companies!). Our projects aim at value creation in three dimensions: Planet, People and Profit, i.e. the fusion of interests. In order to learn about *how changes occur*, and *which effects take place*, we need to initiate these changes. Furthermore, a change can only be effected if the relevant actors participate in the processes. We consider our role as researchers as *facilitating agents* of change processes. In order to do this effectively, we are interested in the creation of (scientific) knowledge which eases these processes. Our aim is that the theory and best practices that result from our research are meaningful and relevant to the stakeholders involved. These two notions also underpin the practice of action research methods.

Action research comprises a broad array of different methods, used in various settings and with different aims. In this paper we strongly rely on insights of *action science* used in the field of *organizational learning* and *change processes*. In many instances action research methods are employed to generate knowledge for a specific company. However, our aim is to make the research conclusions available to more actors, and applicable for other situations. In action research, an important way to validate conclusions is by sharing and discussing them with the participants involved in the process, preferably through an iterative process. When publishing results, it is important for a researcher to be clear and transparent on the research design and the processes that took place. This allows others to form an opinion about the validity of the researchers' conclusions. In this respect, action research is not different from 'traditional' scientific research. In this paragraph we will therefore reflect on the following aspects: (i) the participants (and the methods of selection), (ii) the design of the workshop, and (iii) the role of the researchers. Firstly, we will briefly discuss some specific theoretical considerations on which we based to a large extent our research project.

Theoretical considerations that influenced the workshop design

Stimulating the market for BES information services was the overall goal of the workshop. In the opinion of the researchers, (more) collaborative action between stakeholders could bring about a fundamental change. As change processes are difficult and interventions need to be carefully designed, we prepared the workshop in a careful way, keeping a close eye on these two starting points. The status quo of the market will not change if all actors continue doing what they do. Behavioral change therefore is necessary. One of the major challenges towards the development of a more sustainable society is the point of ‘perceived responsibilities’. When it comes to the state of the environment, we all are responsible, which, unfortunately, often seems to come down to the fact that nobody is responsible. In a traditional way of doing business, negative impacts on the environment are externalized, i.e. the costs do not reflect in financial returns. Moreover, in a traditional view, only financial returns count. If we want to preserve the planet’s biodiversity and ecosystems through the creation of a sustainable economy, it is necessary that every actor, including businesses and financial institutions, stretches his perceived responsibilities. Even though this concept is often enthusiastically accepted in theory, in reality many expect others to act first. By bringing different stakeholders together to consider the issue as a system in which they all take part, pointing fingers to others without taking action yourself becomes more difficult.

Bringing the stakeholders together is a necessary but not a sufficient intervention, as the outcome of a multi-stakeholder meeting depends on the process which takes place in interaction. As integral theories on sustainable development⁴⁸ demonstrate, changes on a system level can only be effected subject to simultaneous changes on a personal level, i.e. an individual is the real change agent. Behavioral changes result from internal changes owing to new perspectives or priorities. How this can be attained will be illuminated below.

As human beings are complex creatures, change on a personal level cannot mechanically be induced. Studies that research what causes change on an individual level have to cope with the dilemma that people do not always ‘practice what they preach’. In this context,

⁴⁸ Brown (2005). Integral theory offers a holistic framework, which brings together knowledge from different research disciplines. It is strongly inspired by the philosopher Ken Wilber. The theory is applied to numerous domains, amongst which sustainable development.

Argyris and Schön⁴⁹ discern two kind of theories as a basis for human action: (i) *espoused theories*, i.e. based on people's own report explaining the foundations for their action, and (ii) *theories-in-use*, i.e. inferred from visible behavior. Many behavioral studies seem to detect discrepancies between these two types of theories. Consequently, people may assert that a certain theory influences their behavior, but studies reveal that *in reality* their behavior is to be ascribed to another theory. If people are not aware which assumptions drive their behavior, they are unlikely to change these assumptions. Either inconsistencies in behavior are blamed on external factors, or the behavior is superficially changed to satisfy others. In neither case this results in structurally new behavior. Argyris stresses that for a fundamental change in behavior, it is necessary to create a space where people feel free to question their own behavior, e.g. where there is "no major maldistribution of power weight, influence, competence, information, or analytical resources" and with "time for adequate debate and exchange of ideas."⁵⁰ At the same time, studies show that people more easily detect the inconsistencies in practice and preach in the behavior of *others* than in their *own* behavior.

Another interesting theory which inspired our research project/workshop design, is the theory of the U-Process, which describes a change process from old, to fundamentally new thinking within existing systems. This theory was developed by Scharmer, Jaworski and Senge,⁵¹ and is represented in Figure 5. It explains that a common reaction to problems is to 'download' traditional patterns to find solutions. More complex issues, though, require innovative thinking. The U-process describes four different levels of dealing with a concrete problem. The first is that of reacting and creating 'quick fixes'. The actors involved are focused on a quick solution and avoid a fundamental discussion. The type of conversations on this level can be referred to as 'talking nice'. For a more fundamental change, a 'free mind' is needed to consider the issue at hand more carefully. The actors involved engage in a serious debate. To achieve an even deeper change, an open heart is required to include in the considerations the positions of other actors in the system and their views on the problem. It is essential that the participants identify with

⁴⁹ Argyris & Schön (1974).

⁵⁰ Argyris (1976), p. 372.

⁵¹ Scharmer (2008). Hordijk (2008) discussed this theory in the specific context of changes towards a more sustainable situation.

the system, instead of putting themselves outside (as observers). This necessitates an intense dialogue between people and allows for the development of (common) new values and beliefs. To accomplish a change at the most fundamental level, the actors ought to reach a stage of ‘presencing’⁵², i.e. from where deeper inner forces are directed, in order to release new sources of energy, inspiration and will to make the change happen.

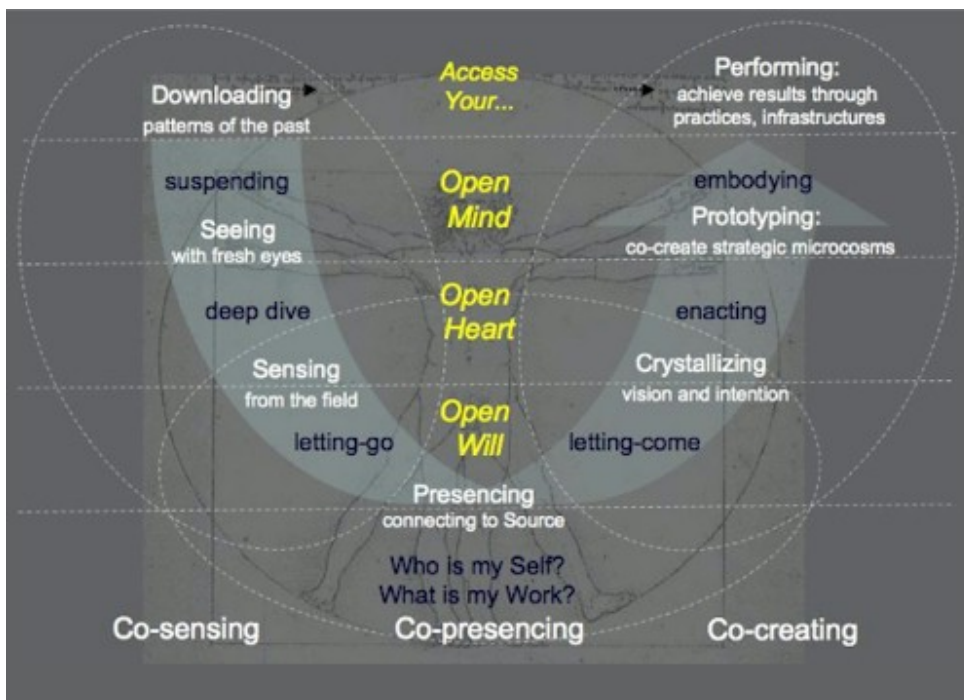


Figure 5 The U-process

Source: Scharmer⁵³

For a complete U-process to take place, a group of people goes down the U on the left side, at each level getting a deeper understanding of the issue at hand, at the bottom point they sense the entire system from their inner sources. From there they go up the U on the right side, developing solutions which become more and more concrete. It is important to notice, however, that the U-theory describes a change process which *could* take place but

⁵² ‘Presencing’ is a conjunction of the words ‘presence’ and ‘sensing’ and refers to higher state of awareness, in which allows individuals and groups to connect to the ‘hidden source’ from which future developments will unfold.

⁵³ See: www.presencing.com/.

is not the ultimate recipe or tool to enforce change. Furthermore, not all change processes require or allow all phases to be experienced. As with initiation of fundamental changes as discussed by Argyris and Schön, the U-theory can assist in designing a change process, e.g. in formulating the right questions posed to the actors. The theory points out that these actors need be addressed as individuals, rather than as representatives of an organization. Each of them will then be challenged to reconsider his thinking, and from there his acting.

Both the U-theory and Argyris' studies stress the importance of creating a space where the participants feel free to explore their views, and are allowed to make mistakes without others judging them. It also asks for careful facilitation of the process, with the facilitator deciding on the right timing to proceed to a next step.

Participants

The interviews with the various market actors provided important input for the selection of participants for the workshop. We acquired knowledge about how they see their position in the field. We also assessed their willingness to contribute to further development of the market and their interest to participate in the workshop. The interviews were in fact the first step in the intervention process: we addressed the issues, tested the findings of our desk research, and shared ideas developed in our analysis and gathered in previous interviews.

For the final selection of workshop participants, we applied the following criteria:

- the group has to reflect the reality, i.e. the most pertinent stakeholder groups will be represented. In line with our desk study and interviews, we invited asset managers/commercial banks, ESG Agencies, and NGOs. The Dutch government, international organizations and network organizations were also encouraged to participate as they are relevant stakeholders too;
- the group should share a basic level of understanding of the issues at hand, allowing to engage in discussion and exploration; and
- a certain level of willingness to engage in a change process, based on an understanding of the urgency of the issue and a basic recognition of the possible

role an individual or organization can play within the system. We chose to select frontrunners.

The interviews revealed a good level of competition, especially between ESG Agencies. Even though we see a large potential for collaborative advantage in this field, we did take these mutual relations into account in the selection of ESG Agencies.

Although the study and the interviews had an international focus, we accepted that – for practical reasons – the actors who accepted our invitation were mostly based in the Netherlands (financial institutions, network organizations and NGOs) or in Europe (ESG Agencies and international institutions).

Unfortunately, some ESG Agencies' representatives could not come due to financial restraints imposed by their organization on research and development of new products. Furthermore, we were challenged with some last minute changes in the original composition of the group, due to planning issues. We arranged phone calls before and during the workshop with those persons. Others submitted a written contribution to the workshop discussion. This resulted in a situation where, apart from the project team, only six of the participants had been involved in the first phase of our research. Two of the new participants replaced the colleague who was one of the interviewees. For the majority of the participants, the workshop would be the first intervention. In order to prepare for the workshop, all participants had received our preliminary research report on the status quo of the market, our analysis of the nine characteristics and a number of suggestions for further development of the market.

Due to said cancellations, our first selection criterion was not fully met. The ESG Agencies were somewhat underrepresented. During the workshop, it became apparent that also the second criteria was not completely satisfied, because some of the new participants had just recently started ambitions in this field. This resulted in a slight imbalance in knowledge levels and experience. The third criterion, showing a cooperative attitude towards development of this field was satisfied.

The final group existed of 19 participants, including the members of the research group. Table 1 shows the number of representatives per stakeholder group. The group was

international, with an overrepresentation of Dutch and English participants. Other nationalities were: Swedish, Swiss and French.

<i>Representing</i>	<i>Number of participants</i>
Dutch government	1
Asset management/commercial banks	5
Sector organizations with a focus on sustainability (investment & corporate)	2
ESG Agencies	3
Nature conservation organizations/international organizations	4
Business university	4
Total	19

Table 1 Representation of different organizations in workshop

Design of the workshop

The workshop design had the following characteristics:

1. the workshop environment had to be an ‘open space’, where participants (i) would feel free to assess their own blueprint patterns of thinking, (ii) could discover their own place in the system, (iii) could detect their relation to the position of others, and (iv) would not be hampered by the presence of competitors. We addressed each participant as an individual and as a representative of a stakeholder group rather than as a representatives of his or her organization. We discussed the issue mainly on a system-level and did not ask for strong personal commitments;
2. the themes of the workshop concentrated on initiatives in a multi-stakeholder setting. The brainstorm sessions considered ways in which the efforts of the individual parties could be mutually reinforcing for the development of the field in general; and
3. the workshop was also set up as a network event. Although the workshop was primarily intended to provide new perspectives and to identify joint courses of action, it could also pave the ground for concrete action after the workshop.

We were constrained to a one day workshop. Ideally, the workshop would have covered a longer period, but that did not seem realistic. The main challenge was to direct the participants to investigate their own ideas and views, to see the system as a whole and to brainstorm about concrete follow-up activities, inspired by U-theory. In view of the limited time available and since the participants did not know each other, nor were they related apart from 'being part of the same system', it would have been impossible to go through the deepest stage of 'presencing'. Indeed, our ambition was not to cover the whole U-process described above. However, we were determined to avoid instant responses from the participants on the issues at hand. Therefore, the first part of the workshop focused on explaining the integral system, and challenged the participants to define which developments they expect to happen in this field in the future. The second part was organized in a way that the participants could reflect on possible steps to take. Firstly, what steps should be taken in general. Secondly, what could be done by each stakeholder. By asking the participants to define possible steps for other stakeholders, we made use of the fact that people more easily detect 'real' patterns in behavior of others than in their own behavior, as depicted by Argyris and Schön.⁵⁴ The last part of the workshop was used to reflect on what steps the participants could take within their own organization. Annex II contains an overview of the workshop program.

Role of the researchers

At the workshop, four people of our academic research team, including the authors, were present to guide the process. We had to fulfill two roles: (1) to facilitate the process (both plenary and in sub-groups); and (2) to give input at certain moments in the process, based on the insights gained in the desk research phase. Furthermore, we consider ourselves as a relevant party in the field, because as a research institute we are in a position to oversee the market and to identify opportunities. Moreover, we can be of assistance to market actors in respect of developing tools necessary for further market development, or we can further align actors in multi-stakeholder processes.

The multiple hats of our team deserved some specific considerations beforehand. Typically, a facilitator is neutral and solely focused on the process. In this case however,

⁵⁴ See Eden (1996; p. 53) for a similar consideration in action research workshop design.

we also had developed a perspective on the field, and had generated knowledge on the system which we felt necessary to share with the participants. We handled this dilemma by appointing one researcher as the facilitator. One of the authors presented our research results and shared our views and ideas with the participants. Finally, the two other researchers, including the other author, participated in the process like the other participants. Apart from this practical solution, throughout the process we have been open and explicit about our interest and part in this research project.

2.3 Impression of the workshop

This paragraph presents observations of the process during the workshop. The atmosphere during the workshop was good, the participants showed interest and actively cooperated. There was a clear interest in an exchange of views and experience, and the participants engaged in dialogue, both during the official program and during the breaks. After two introductory presentations, respectively to present our research results and current developments in the field, the participants responded immediately. They nuanced our findings, and suggestions were made for solutions and steps to be taken. However, keeping the U-theory in mind, these first remarks were ‘parked’. The facilitator introduced the next part of the program which was aimed at discussing ‘the system as a whole’ with the expectation to come to more fundamental insights and steps afterwards. In three break-out groups foreseeable developments regarding the role of BES in three sectors of industry were discussed. The outcome was interesting and the participants were actively exchanging views. When we subsequently challenged the participants to look at BES information services for the financial sector from the perspective of other stakeholders than their own organization, it became apparent that this was more difficult than we had expected. The response on this assignment was limited.

The next part of the program concerned a brainstorm session on possible forms of collaborative action. The various ideas for collaborative action as proposed by the researchers in the preliminary report and in the morning presentation were presented as examples. Although the participants actively reflected on these proposals, at this point only few new suggestions were formulated. Even though the participants recognized the potential collaborative advantage, they mainly expressed an interest in using and, where

readily achievable, contributing to efforts of others. There was no real sense of ownership of the issue.

According to the participants, one of the key opportunities for collaborative action would be to create a shared understanding of the concept of BES. Particularly the representatives of the asset management/commercial bank group embraced the proposal to develop a ‘materiality matrix’, which gives an overview of different sub-issues, e.g. water and land conversion, and specific risks/opportunities per sector. Such a framework could link subthemes already being addressed and relevant themes not yet receiving the amount of attention needed. A matrix could serve as a structure and source of systematical information for all stakeholders engaged in this field. Preparing such a framework would be too big an assignment to be taken up by one single organization. Collaborative action would be required. Most participants saw a way in which their respective organizations could contribute a piece of this puzzle. However, none of the participants seemed to be willing to take the lead. As one of the participants mentioned: “If a collective standard is prepared, we would be willing to work according to this standard and try to contribute. However, if this is not happening, we will continue with the development of our own concepts.” The question was raised if governmental and international organizations should elaborate on this idea or fund a strategic project to establish an all encompassing matrix.

Certain other proposals also were welcomed such as creating a biodiversity ranking or index regarding companies. Some participants of the asset management/commercial bank group and the ESG Agency group indicated that they would further consider this idea. The responses to the idea to start an information clearinghouse on companies and BES were: ‘easier said than done’. The participants consented that the development of the BES information market would be tremendously helped by stricter disclosure obligations for companies, and verification procedures of the published information. Ideally, this needs to be established by public regulation, but companies can start by using the GRI G3 key performance indicators on biodiversity as a best practice, and help to develop these so that they will also include dependence links between companies and ecosystem services. Finally, standardization of information was also considered helpful. Some participants, mostly of the nature conservation organizations and scientific institutes concurred to

contact GRI to intensify the communication on the development of BES disclosure standards.

2.4 Workshop output

It is impossible to establish ‘objectively’ what the actual output of the workshop was, because of the subtlety of the changes and the complexity of the issue. Also, our workshop was just one in a range of activities addressing the issue of business and biodiversity. Although the atmosphere was good and the participants expressed satisfaction about the day, concrete suggestions for follow-up were not yet confirmed. At that time, we were uncertain whether we had succeeded in establishing a ‘system-level perspective’ which could serve as a base for collaborative action in this field. However, realistically, fundamental changes need time to take effect. We again contacted the participants five months later. We spoke with 90% of the workshop participants and the persons who had contributed to the workshop with written comments or were contacted by telephone on the workshop day. Asking for a reflection on the workshop, we inquired on any follow-up activities in the field of BES, and on any contacts with other participants of the workshop. We analyzed the results communicated in the phone calls, thereby using a four quadrants model as developed within integral theory.⁵⁵ We made a distinction between output on an *individual* level (i.e. the participant, and his organization), and output on a *collective* level. Changes on the *interior* (new views, perspectives, priorities) were compared with those on the *exterior* (change in behavior). This division results in four quadrants which are visualized in Table 2. As explained in paragraph 2.2, these fields are all interconnected and each plays a crucial role in achieving sustainable development.

The most ideal output of our workshop falls in the Lower Right quadrant: concrete collaborative actions. Any developments in the Lower Left quadrant, i.e. a shared understanding of the issue, and relationships between stakeholders, would be necessary to allow for successful collaborative action. However, in the design of our workshop, the importance of new perspectives at the individual level was also recognized, like

⁵⁵ This model is referred to as AQAL, an acronym for All Quadrants, All Levels, and forms the core of the work of Ken Wilber. Brown (2005).

identification with the system and recognizing the role of the individual in the system, i.e. the Upper Left and Upper Right quadrant. Each quadrant will be discussed below.

	<i>Interior</i> (<i>Perspective on issue</i>)	<i>Exterior</i> (<i>Behavior on issue</i>)
<i>Individual</i> (<i>participant + organization</i>)	Upper Left - increased importance of issue - new knowledge re. issue - new perspective on issue - ‘seeing the system’	Upper Right - internal follow-up steps
<i>Collective</i> (<i>between participants/ organizations</i>)	Lower Left - increased mutual understanding between stakeholders of their respective roles and positions - new relationships with others - a shared understanding of the issues at hand - a shared future perspective	Lower Right - collaborative actions

Table 2 Potential outcomes of workshop

Upper Left: internal change on individual level

Most of the participants expressed to have gained new knowledge on the links between BES and business during the workshop. Especially the representatives from the asset managerst/commercial banks, the newest actors in this field, mentioned that their understanding of the issue had increased. NGO representatives, the BES experts, obviously, did not gain much new insights.

The participants from the NGOs and ESG Agencies mentioned that the most valuable output of the workshop was that they gained more insights in the perspective of the investment sector on the issue. According to them, only on rare occasions one can hear first hand the investor perspective. As regards ESG Agencies, which on a daily base sell information to investors, it was explained that the customer contacts are always handled by the sales/customer care department rather than by the analysts.

Upper Right: internal steps taken by the participants

Of the four participants representing the asset managers/commercial banks, two took concrete internal steps. They are actively looking for ways to incorporate BES-considerations into their daily practices, either through pre-screening of the investment universe on BES-performance, or through specific engagement activities. One of them has designated BES as one of three key ESG-issues of attention and has produced internal guidelines on how BES has to be treated by the organization's investors. The other uses currently available information on BES on a more structural base, is looking for additional information and intends to commission a specific research assignment to further investigate how BES-considerations can be incorporated in the investment processes. The two other participants still would like to do more regarding this issue, and plan to do so in the near future, but as yet do not have any concrete plans. The sector organization for sustainable investments has introduced BES on the organization's internal agenda. It is anticipated that this will result in new activities, e.g. addressing the theme during investors' seminars.

One of the ESG Agencies' representatives indicated to have communicated within the agency that there is a clear interest in the issue of financial institutions, therewith stressing the need to invest in effective and adequate indicators and possibly to invest in the development of new tools addressing the dependency relationship between companies and BES. Initial steps have been taken in this respect.

The NGOs communicated that they will continue their attention on the issue. The participants from this sector mentioned that they had benefited from the insights gained concerning the investors' perspective and that they will apply these to further enhancing their communication strategies.

Lower Left: change in the collective understanding of the issue

As mentioned above, many participants informed us that they had elaborated their knowledge of the financial sector's perspective, and that it was very valuable to them to exchange views with other stakeholders and engage in discussion. NGOs underlined that their role had become more clear, i.e. further engagement with asset managers and ESG Agencies in order to sophisticate the understanding of the BES concept. Other

participants confirmed that it was worthwhile to get a common broader perspective on the field. Identification with the system as well as ownership of the issue though remains a challenge.

The workshop has accomplished establishing links between different actors. Several of the participants, who did not know each other before, have been in contact after the workshop. Contacts had been set-up, e.g. in order to exchange views or to review writings. More concretely, a newly developed tool to analyze a company's BES-performance, targeted at the financial sector, was presented by one of the participating NGOs.⁵⁶ After the workshop several participants have shown interest in this tool, resulting in additional presentations or informative meetings. The workshop appeared to have assisted in establishing international links. In each case, the contacts involved two participants/organizations.

Lower Right: collective steps taken by the participants/organizations

Collective actions taken after the workshop have been limited. Two organizations that already had a business relationship before the workshop, i.e. as buyer and seller of information, had proceeded on BES information services. Subsequent to the workshop, the asset manager had requested more extensive information on BES performance regarding specific companies with the purpose to include such knowledge in their engagement processes. Three other participating organizations⁵⁷ are investigating the possibilities to jointly initiate the development of a 'materiality matrix'.

In general, all the participants gave positive feedback on the workshop. The analysis shows that the workshop delivered results, especially in the Upper Left quadrant. Some results have been booked in the Lower Left quadrant. Even though the workshop did not result in a clear shared understanding of the issue and an identification with the system, some progress has still been achieved. The results on the Upper and Lower Right side, i.e. concrete steps, still appear to be limited in number. Obviously these processes take time. Funding was often cited as a barrier for the implementation of new initiatives.

⁵⁶ The Natural Value Initiative developed the Ecosystem Services Benchmark. For more information, see: www.naturalvalueinitiative.org.

⁵⁷ An NGO, a sector organization and our university.

How successful was the workshop?

In general, the participants were positive about the workshop and saw added value in attending it. Following-up with the participants after several months revealed some positive results. Referring to the aims set out in paragraph 2.2, it can be concluded that the first aim, i.e. creating an open space, was well accomplished. The second goal, extending the participants' view on the system and defining a shared strategy for taking collaborative action, was only partly realized. Finally, the workshop was successful as a network event, which was the third aim.

The ambition to create a shared understanding as a base for concrete collective action in just a one-day workshop can – with hindsight - be considered too high. An explanation is that although in the initial set-up we had selected the frontrunners of all stakeholder groups, due to some last minute cancellations, the profile of the group was changed. The ambitions should have been adjusted. A key significance of action research is that the process should be fitted to the needs of the actual group. The facilitator has the responsibility to create the right conditions and to facilitate the process which unfolds. However, even with the 'right conditions', outcomes can differ from the researchers' expectations. In this case, the workshop was considered valuable by the participants, because it suited their needs at this point, even though it did not meet all ambitions of the researchers.

2.5 Evaluation and concluding remarks

Process-wise, for action researchers, two valuable lessons are: (i) the need to carefully select the participants to meet the ambitions, but at the same time to adjust program and ambitions to the people actually participating in the workshop; and (ii) to communicate realistic expectations, and to realize that the participants participate in the actual outcomes of the workshop. Conditions can be created to allow change processes to take place, but the changes cannot be enforced. The participants did gain new insights and perspectives through the workshop, which some of them have already translated into their daily practices. Furthermore, several relationships have been established between participants. Solid changes on the system-level did not take place, however. These kind of change processes involve multiple stakeholders and concern complex sustainability

issues, and are therefore difficult settings. This has been noticed by other academics, e.g. Brydon-Miller et al indicate that action research settings are generally very successful in local settings, but that scaling up to large scale societal-level changes proves to be difficult. Broader social change strategies and commitments would be needed.⁵⁸ It is important to realize that change processes need to *grow*.⁵⁹ In that respect, the workshop can be evaluated as one step in a range of events. In view of the fact that 2010 is the *International Year of Biodiversity*, our research project has contributed to the visibility of BES.

Huxham offered an explanation why collaboration between organizations appears difficult to achieve, even when there is an obvious collaborative advantage. He asserted the following reasons:

1. differences in aims, language, procedures, culture and perceived power;
2. the tension between autonomy and accountability;
3. a lack of an authoritative structure; and/or
4. shortage of time needed to manage the logistics.⁶⁰

All these complicating factors can be considered applicable in the case at hand. The mutual understanding between the stakeholders needs to be improved. The workshop participants agreed that the BES information market could greatly benefit from a common framework which can be used to understand the link between BES and business, in particular when it would be detailed on a sector or industry level and on various BES themes. The development of such a so-called ‘materiality matrix’ could increase mutual understanding and improve communication. We noticed that there is no authority which can presently induce change or collaborative action, e.g. as could be achieved within a single organization. In bringing together the participants for our workshop, we relied on persuasion based on the importance of the issue.⁶¹ Since ESG Agencies generally play a

⁵⁸ Brydon-Miller (2005), p. 25. Also see Bradbury e.a. (2008).

⁵⁹ Also within the field of developmental aid, the question how to grow change is getting more attention.

⁶⁰ Huxham (1996).

⁶¹ Eden (1996) gives an overview of different types of influence which conveners of collaborative action may exert. Persuasion is characterized by informal authority and own initiative of the convener.

modest role in a competitive market, the short-term competitive advantages of developing and using one's own tools seem to outweigh potential future advantages resulting from developing a common tool in collaborative action. Asset management companies have a different perspective. They are more willing to collaborate on BES issues, e.g. by aligning their engagement activities with other investors. Initiatives like the UN PRI already offer a joint investor platform. To connect all actors in the field, some sense of identification with the entire field of BES-information would be needed. As one of the participants mentioned: "the stakeholders involved should be forced together in a room to develop a joint strategy, and only let them out if they all agree".

This also touches upon the third complicating factor: the time needed for the logistics. The stakeholders are spread around the globe and do not encounter each other on a regular base. Cooperation – in whatever form – needs to be facilitated. A common structure would need to be established, but each individual stakeholder is caught up in everyday activities. Apart from time constraints, financial resources seems to be another constraint. Many of the participants have good ideas for follow-up, but report a lack of funding to realize them.

Participation of stakeholders depends on the ability to present credible arguments that participation will be worthwhile. (p.65)

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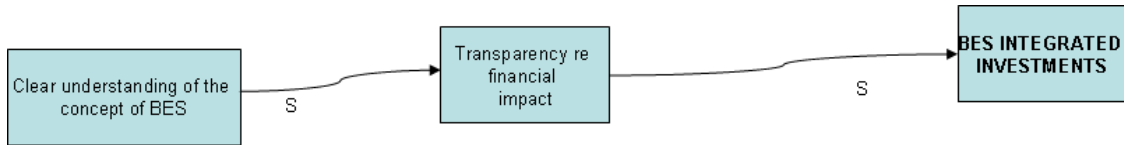
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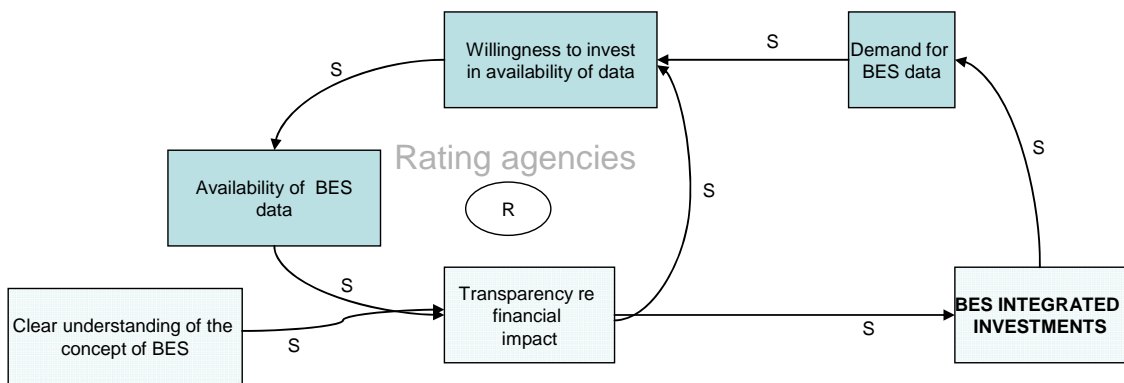
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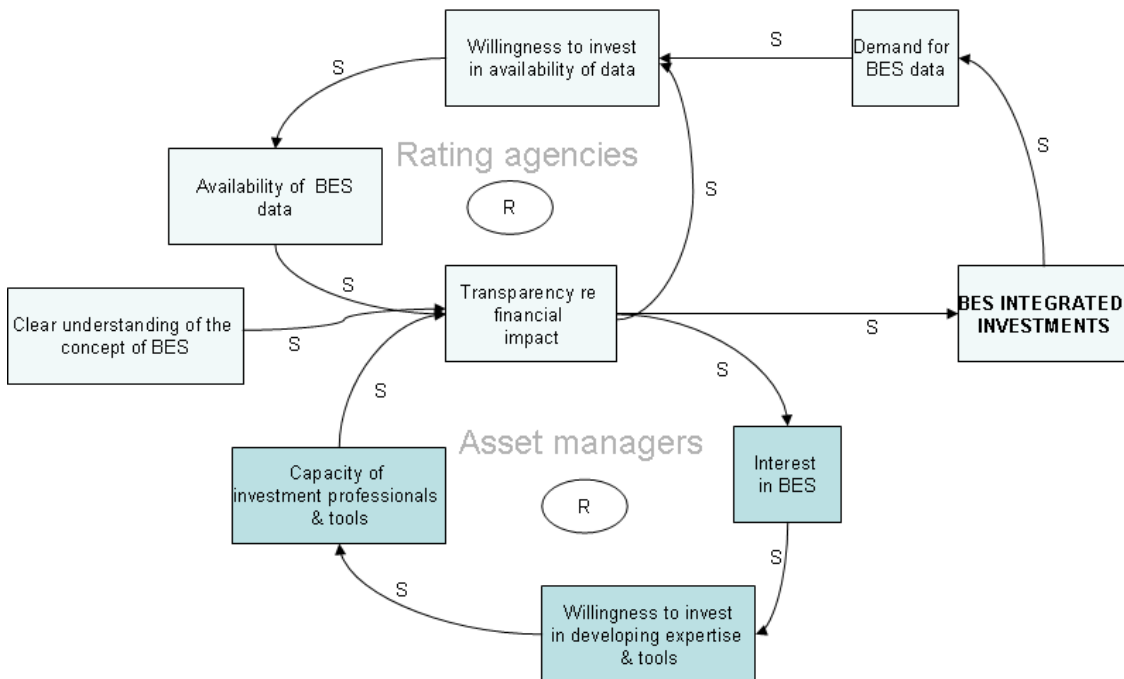
Annex I – Building blocks Systems diagram
 (illustration of the argument in paragraph 1.5)



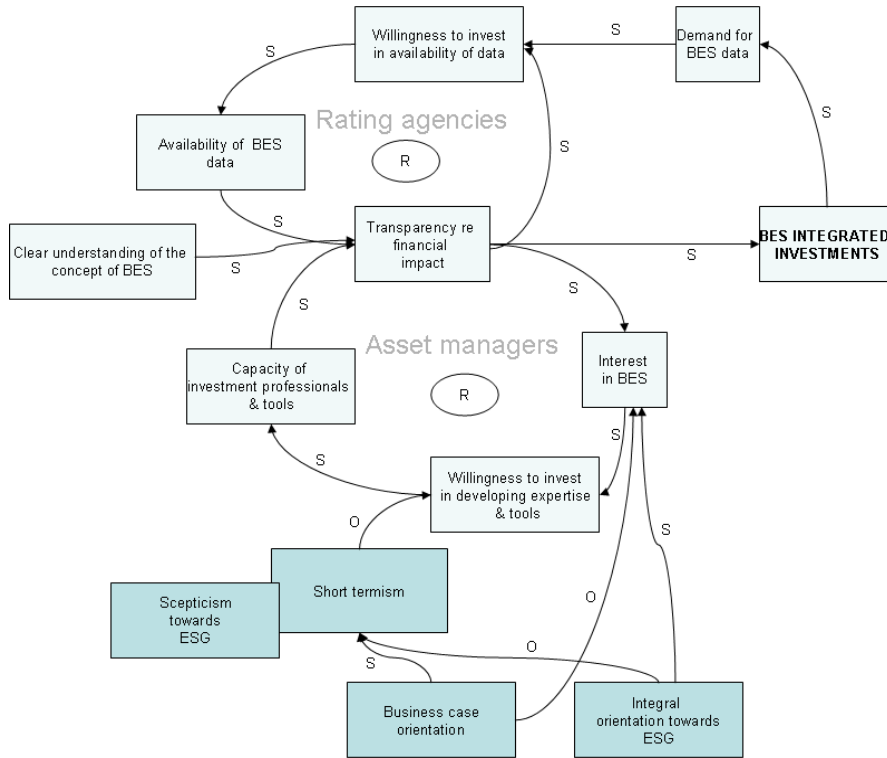
System overview – cause-and-effect relationships (1)



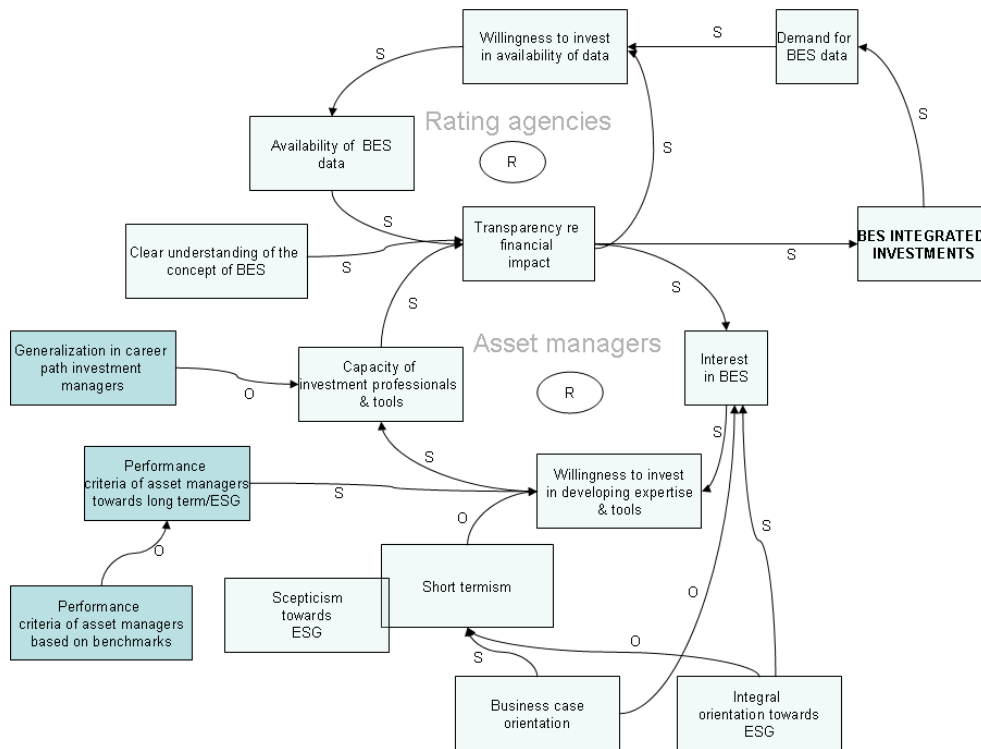
System overview – cause-and-effect relationships (2)



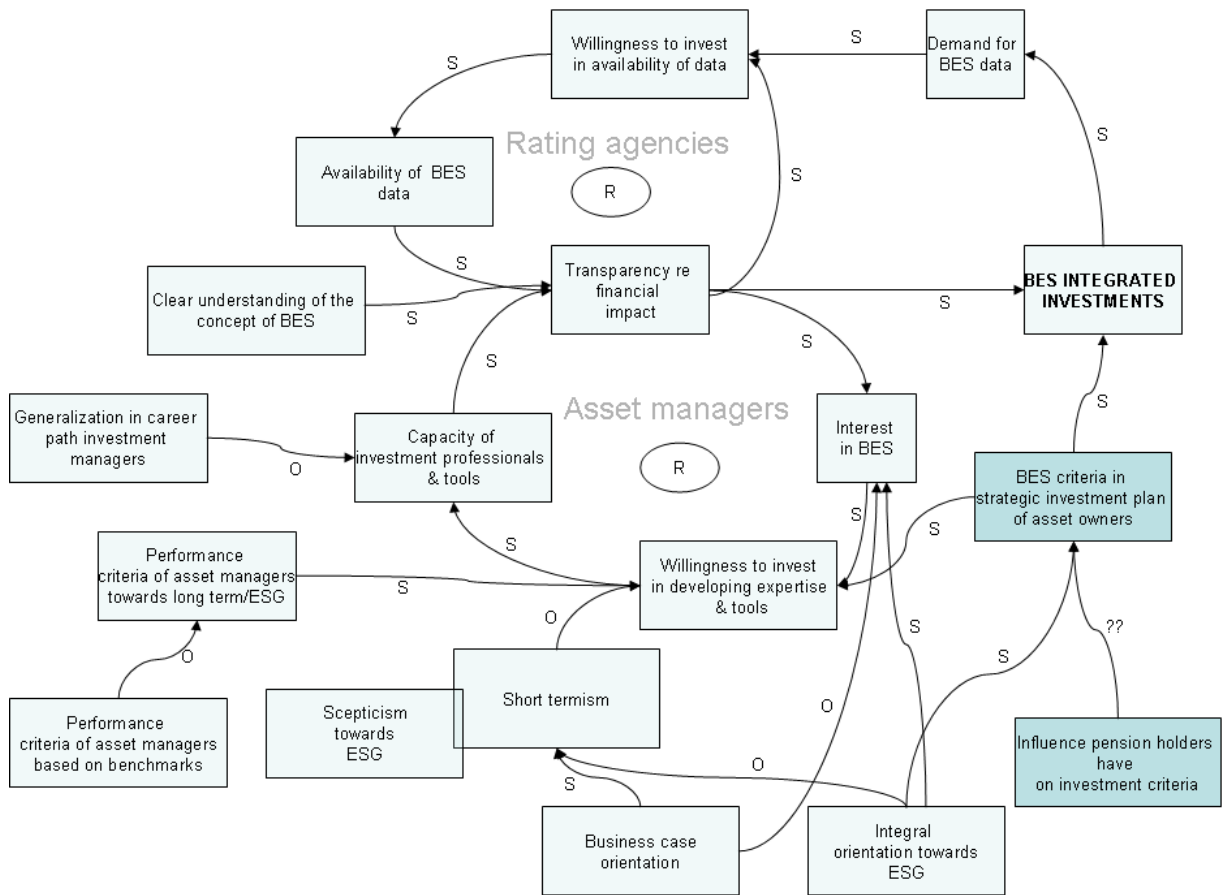
System overview – cause-and-effect relationships (3)



System overview – cause-and-effect relationships (4)



System overview – cause-and-effect relationships (5)



System overview – cause-and-effect relationships (6)

Annex II Design of the workshop, inspired by the U-process

Seeing the system

In the first part of the workshop, we challenged the participants to see the full of the system and their respective roles in it, by means of:

- > presentation of the main findings of the research, to create an overview of the field;
- > presentation of concrete initiatives and current developments ;
- > plenary discussion on main findings.

Sensing the system

To get a perspective of where developments could be going:

- > In subgroups, in which the stakeholders were mixed, the following question was discussed: “What trends and incidents will happen in the coming five years in the environment of companies and asset managers which will make BES a permanent strategic issue?”
- > The discussion results of the breakout sessions were reported to the plenary and followed by a plenary discussion.

Enacting change

Moving up the U-curve in small steps, trying to develop new practices:

- > In subgroups ideas for further development of the field were discussed. The groups were divided based on their place within the system of information services (i.e. representing demand, supply and supporting roles). The proposals for collaborative action as specified in our research report were submitted as themes for the discussion.
- > The next step entailed a discussion on further specification of the opportunities for their own organization. The questions were specified per stakeholder group. The asset managers were asked for instance: “What opportunities do you see for your organizations, and asset managers in general, to include BES in investment decision-making?”
- > To keep track of the connectedness in the system as a whole, a second question was posed: “What would your organization, and asset managers in general, then need from ESG Agencies and other organizations?”
- > The outcome of the discussion in the breakout sessions were reported to and discussed in the plenary.
- > As a last step, all participants were asked individually about concrete steps which they could – hypothetically – take the next day within their own organization. The question asked, was: “What is the next step you will take to stimulate the BES-information market?”