



UNIVERSITÀ DEGLI STUDI DI PADOVA
Dipartimento Territorio e Sistemi Agro-Forestrali

**Erasmus Mundus International Master on
“Sustainable Tropical Forestry” (SUTROFOR)**

***Ethical finance in the forest sector
– a review of international
experiences***

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**Academic year
2009/2010**

Abstract

Ethical finance is management of financial sources in a responsible way that maximise financial returns together with social and environmental goods; or at least does not create negative environmental and social impact. In recent years, there is a growing perception among investment professionals that environmental, social and governance issues can affect the performance of investment portfolios. As a part of CSR tools, ethical finance has gradually become a leading issue in business, thus many ethical finance initiatives were developed, as well as various ethical principles and criteria. Although the finance in forest sector has a direct social and especially environmental impact; the ethical finance in forest sector is still not well defined. This thesis is an exploratory study aimed to define ethical finance in forest sector by assessing the investment strategies of various public and private forest investors. The study applies both qualitative and quantitative methods. The findings outline current situation of ethical finance in the global forest sector, the profile of forest investors engaged in ethical finance, and the perceptions of various direct and indirect stakeholders involved in finance of forest sector.

Key words: ethical finance, socially responsible investment, forest sector, forest investment, timberland investment management organisation (TIMO), environmental, social and governance issues (ESG)

Acknowledgments

I would like to express my gratitude to all those who gave me support to complete this thesis. In the first line, to my supervisor, prof. Davide Pettenella, for his advice and guidance of the thesis; to prof. Bert Scholtens from University of Groningen who was a co supervisor of this thesis; and to Mauro Masiero from FSC Italy for thesis reviewing. All of the comments were highly appreciated!

I would also like to thank to organisations who were willing to dedicated time to participate in the thesis research: Banca Etica, Triodos Bank, Vigeo, Indufor, International Woodland Company, Dasos Capital, Hancock Timber Resource Group, Silva tree, Green Earth Africa Climate Investment Fund, Mondi PLC, First Climate, The Forest Company, Phanous Timber Group, Tree Hub, FIT The Growth Fund, Killombero Valley Teak Company, Eco Enterprises Fund, Abudant Biofuels Corporation, and many others.

Finally, I would like to like to thank to my family and friends for their love, understanding and support. Without you this research could not be done. Thank you all.

Table of Contents

Abstract.....	2
Acknowledgments.....	2
Abbreviations and acronyms	6
1. Introduction	7
1.1. Background	7
1.2. Research objectives	9
1.3. The structure of the thesis.....	9
2. Research methodology	10
2.1. Literature review.....	10
2.2. Questionnaire survey.....	10
2.3. Case studies	10
2.4. Semi structured interviews	11
3. Theoretical background	12
3.1. Definitions.....	12
3.2. The concept of ethical finance.....	14
3.2.1. Individual ethical finance	15
3.2.2. Institutional ethical finance	16
3.2.3. Ethical finance initiatives	18
3.3. The concept of finance in forest sector	21
3.3.1. Profit oriented forest finance	23

3.3.2. Multifunctional forest finance	30
3.4. Economic actors involved in ethical finance in the forest sector	31
4. Results and discussion.....	33
4.1. Profile forest investment organisations and their clients (investors)	33
4.2. Market demand for ethical finance in the forest sector.....	35
4.3. Ethical forest finance practises	35
4.3.1. Case study of International Woodland Company	35
4.3.2. Case study of the Lignum Investment Fund.....	36
4.4. Criteria for ethical forest finance vs. criteria for forest certification.....	37
4.5. Role of banks in ethical forest finance.....	38
4.6. Finance in forest products, packaging and paper industry.....	40
4.7. Finance of industries with indirect impact on forests – case of palm oil investment	41
5. Limitations.....	41
6. Conclusion.....	42
References	43
Annex 1 – Database of direct and indirect stakeholders	46
Annex 2 – Database of indirect stakeholders	53
Annex 3 – Questionnaire survey	57
Annex 4 – Guidelines for semi structured interview with indirect stakeholders	61

List of figures

Figure 1: Global SRI market.....	15
Figure 2: Consumers` ranking of ethical financial services by the number of purchases.....	16
Figure 3: Ethical forest finance – Logical framework.....	22
Figure 5: Consumption of forest products in the UNECE region, 2005-2009	25
Figure 6: Economic actors involved in ethical forest finance	32
Figure 7: Geographic origin of forest investment companies	33
Figure 8: Type of forest investments	34

List of tables

Table 1: The Dow Jones Sustainability Index Criteria	21
Table 2: Biological growth in volume.....	24
Table 3: Timber as an inflation hedge.....	26
Table 4: Timberland returns for NCREIF Timberland Index	27
Table 5: TIMOs: how they work	29
Table 6: Scores for policies on forestry.....	39

Abbreviations and acronyms

CDM – Clean Development Mechanism
CERES - Coalition for Environmentally Responsible Economies
CIS – Commonwealth of Independent States
CSR- Corporate Social Responsibility
DJSI – Dow Jones Sustainability Index
EP – Equator Principles
ESG – Environmental, Social and Governance issues
EUROSIF – European Sustainable Investment Forum
FSC – Forest Stewardship Council
FTSE - Financial Times and the London Stock Exchange
HSBC – Hong Kong and Shanghai Banking Corporation
IFC – International Finance Corporation
INC – (In) Corporation
ISIC - International Standard Industrial Classification
ISO – International Standards Organisation
IWC – International Woodland Company
JI – Joint Implementation
LLC – Limited Liability Company
LTD – Private Limited Company
NCREIF - National Council of Real Estate Investment Fiduciaries
NGO – Non Governmental Organisation
PEFC - Programme for the Endorsement of Forest Certification schemes
PES – Payment for Environmental Services
PLC – Public Limited Company
PWC – Price Water House Coopers
REDD – Reducing Emissions from Deforestation and Forest Degradation
REIT – Real Estate Investment Trust
S&P – Standard and Poor's
SFM – Sustainable Forest Management
SRI – Socially Responsible Investment
TIMO – Timber Investment Management Organisation
TREIT – Timberland Real Estate Investment Trust
UN PRI – United Nations Principles for Responsible Investment
UNECE – United Nations Economic Commission for Europe
VCS – Voluntary Carbon Standard
WWF – World Wide Fund for Nature

1. Introduction

1.1. Background

Increased awareness of sustainability issues, including, but not limited to climate change, has enhanced the attractiveness of forest as an investment. As the evidence of that, there is an increasing flow of institutional money into forestland and the growth in the number and range of forest investments. While this trend is broadly encouraging for the industry, some caution is needed whilst the pressures of economic development continue to threaten forest cover and forest health in a number of ways, from land conversion, to pollution and forest fragmentation in developing countries. Sustainable forest management can help offset these negative effects, together with ethical/responsible finance.

Forests offer a wide group of potential investments. Timber is the one of the assets that has been historically attractive to private (profit oriented) financiers. Since three decades ago, the first institutional portfolio investors from United States started investing in timber and the first Timberland Investment Management Organisations (TIMOs) were established (Binkley, Raper *et al.* 1996; IWC, 2009). In the recent years it has been demonstrated that timberland are not as profitable investment as they were three decades ago. This is due to the fact that besides the range of positive characteristics, the timber investment has as well negative characteristics that might lower its profitability. The timber as an asset is stable investment in long term; it has manageable risk; and it is followed with an additional financial asset – a land. But timber is in the same time a highly illiquid asset, with a low flexibility (Block, Sample 2001; Brooks, Sydor *et al.* 2007; Healey, Corriero *et al.*; 2005). Still, timberland investment remains important, especially among the United States (US) institutional investors and TIMOs who are the leaders in this field (Maidell 2008). TIMOs serve as intermediary between interested investors and potential investments. Recently, the market of timberland investments is moving from US to a global scale, with a growing focus in tropical and emerging markets region.

Apart from timber, forests can be an attractive investment thanks to their multi functionality and numerous environmental and social services, such as carbon sequestration; watershed protection and landscape beauty; poverty alleviation for local people; creation of job opportunities and economic development. As such, forests also attract financiers who do not have profit as the main aim, such as international and national development agencies, foundations and nongovernmental organisations. According to FAO (2005), through grants, loans, or equity fund, over six hundred public and private organisations invest in sustainable forest management.

If the general investment trends are observed in the global scale, it can be noticed that an increasing number of financiers are showing a significant interest in ethical, green, sustainable, and responsible investments due to the media and society pressure; or in some cases on a voluntary basis. Although the ethical finance has a long history, the high interest in recent years is probably a direct consequence of global concern in society for environmental and sustainability issues such as climate change. Because of the same reason, the finance in forest sector became more attractive as well. Ethical finance has a great potential to change investors' conventional way of thinking, in which the profit is the only criteria for

investing. An increasing number of investors are using other criterion apart from profit when they select their investments. Whether they are called triple bottom line, 3Ps (Planet, People, and Profit), or ESG (Environment, Society, and Governance), these additional criteria are based on two pillars of sustainable development: society, and environment. Thus, ethical finance can be considered as implementation of the sustainable development concept, because additional criteria ensure that economic development (profit) does not constrain social and environmental development.

The general situation is that an increasing number of different capital holders (potential financiers) are willing to invest in the forest sector if the investment is complying with criteria that will categorize it as ethical/responsible. Different ethical forest investors have different investment approaches. Some investors claim to comply with general social and environmental requirements by using International Financial Corporation Social and Environmental Sustainability Performance Standards. Some investors demonstrate their responsibility by signing documents such as United Nation Principles for Responsible Investing, Equatorial Principles or the Collevocchio declaration¹. Although social and environmental issues are well covered in these documents, their criteria are too general, and as such not fully applicable to forest investments. Other investors have recognized this problem, and have developed their own criteria for ethical forest investments; starting from the documents mentioned above (with an explained application for forest investment), or basis of FSC, PEFC and other third party forest certification standards². However, due to the diversity of criteria used, it is difficult to distinguish between ethical and non ethical investments. This might confuse and discourage potential investors, but more importantly, the confusion of criteria is creating a room for scams and greenwash, that usually target smaller individual forest investors, but are importantly affecting the image of forest investment in general.

Leaded by the hypothesis that there is a growing demand for ethical finance, this research investigates which ethical criteria are applied in forest finance (both profit and non profit oriented) and to which extend; and above all, to assess whateher can ethical criteria can contribute to profitability of forest investment, especially in the case of timber investment which is recently demonstrating lower returns.

¹ IFC Policy on Social and Environmental Sustainaibility, UN Principles for Responsible Investing, Equator Principles and Collevocchio declaration are described in the chapter 3.

² FSC, PEFC and other third party certification standards are described in the chapter 3

1.2. Research objectives

The thesis investigates **the current situation of ethical finance** in the forest sector through following three objectives:

- **Defining what is ethical forest finance** through analysing the general concept of ethical finance and its relation with the forest sector; its history development; methodology for application; environmental and social ethical issues; and main global ethical finance initiatives.
- **Examining the level of application of ethical criteria in private (profit oriented), and public (multifunctional) forest finance** through analysing the incentives to apply ethical criteria in forest finance; how and in which types of investment they are applied; the difficulties in practicing ethical finance in forest sector and perceptions towards ethical finance in the forest sector
- **Assessing whether the application of ethical criteria in the forest sector increase the financial return**, with the focus on timberland investments

1.3. The structure of the thesis

The structure of the thesis remainder is as follows: Section 4, theoretical background, defines the terminology that is used in the research, and afterwards provides a description of the concepts of ethical finance and finance in forest sector, and explains how these two concepts are interrelated in the logical framework. Finally, this section provides an overview of the direct and indirect stakeholders involved in the ethical finance in forest sector. In Section 5, the research methodology is presented. Section 6 analyse and discuss the data collected. Finally, Section 7 concludes and provides the recommendations for future research.

2. Research methodology

In order to examine the ethical finance in the forest sector, the following issues are investigated: the profile of forest investors, and investment managers; the profile and performance of forest investments; the strategies for forest investment, with a special focus on ethical finance strategies; market demand for ethical forest investment; and perception towards ethical finance. Therefore, both primary and secondary data are collected. The study employs literature review, survey questionnaire, case studies, and semi structured interviews.

2.1. Literature review

Besides the academic literature considered in theoretical background, further literature review is focused on analysis of forest investment performance, with a special focus on performance of ethical forest investment. The following reports, criteria and policy papers related to ethical forest finance were assessed:

- IWC Socially Responsible Investment Guidelines (International Woodland Company 2006);
- PWC Sustainable Forest Finance Toolkit (Bank Track 2010);
- Closing the Gap, Benchmark Credit policies of International Banks (Forestry Sector Policy)(Bank Track 2010);
- HSBC Forest Land and Forest Products Sector Policy (WWF);
- CITI Sustainable Forestry Policy Sector (Citi Group Inc 2006);
- WWF Guidelines for Investments in Operations that Impact Forests (WWF);
- Forest Footprint Disclosure – Annual Review 2009 (Campbell, Crosbie *et al.* 2010).

2.2. Questionnaire survey

The questionnaire survey was conducted in order to examine how ethical finance is present among profit oriented forest financiers (pension funds, banks, insurance funds, TIMOs...). Therefore, the target group of the questionnaire survey were direct stakeholders: investors and investment managers. Firstly, the database of stakeholders was developed through literature and internet research (see Appendix 1). The stakeholders were selected purposively, so the sample covers as much as possible different types of financiers, from different geographical regions (United States, Europe, Australia, Latin America...). The questionnaire was sent to respondents by e-mail³, or they are contacted by phone. The responds from 28 direct stakeholders were collected. Data is analysed using the Microsoft Office Excel.

2.3. Case studies

Case study is an in-depth investigation of a single individual, group, or event, aimed to provide understanding of a complex issue or object or to extend experience or add strength to what is already known (Yin, 1997). In this study, case study method is used in order to explore and explain in detail how ethical forest finance functions in practice, and to describe examples of practices in implementing

³ Electronic mail, most commonly abbreviated email or e-mail, is a method of exchanging digital messages across the Internet (<http://en.wikipedia.org/wiki/E-mail>)

ethical finance principles and criteria. Two forest investment companies, advertised as ethical and responsible forest investor, were selected. Those are International Woodland Company and Lignum Investment Fund.

2.4. Semi structured interviews

Semi structured interview is a method of interviewing which has structure, but is still very open in its style. Some questions and topics are predetermined, but many questions are formulated during the interview. In the semi structured interview, the questions are mainly open, on contrary to questionnaire survey in which the questions are mainly closed, thus respondents have to choose one of already set-up answers (Gillham 2000, Mikkelsen 2005). For the purpose of this research, the semi structured interviews were used in order to gather the insight from key indirect stakeholders involved in ethical forest finance; as well to provide deeper understanding on important issues of ethical finance in relation to the forest sector. The respondents for semi structured interviews were selected from a database developed through literature and internet search (See Appendix 2). Five semi structured interviews were conducted in person or by phone. The guidelines for semi structured interviews are provided in Appendix 4.

3. Theoretical background

This chapter is divided in four sub chapters already described in the structure of the thesis.

3.1. Definitions

As the research is focused on forest finance, the terminology from the forest, financial and business sector is used. Moreover, the research apply the concepts that are connecting forest and finance sector with ethical responsibility. Ethical, sustainable, responsible, green and alternative investments are terms that are relatively new in the scientific literature, and terminology is still very much in the evolving phase. Different authors use different terms to describe the same type of finance (ethical finance). Therefore it is of importance to define the terminology that will be used, so potential misunderstanding can be avoided.

Initially, it is necessary to define the concept of **Corporate Social Responsibility (CSR)**, as the ethical finance is one of its tools. CSR is a concept whereby companies integrate social and environmental concerns in their business operations and in their interactions with their stakeholders on a voluntary basis (European Commission 2004).

In this research the term Ethical Finance is used and considered as a synonymous with terms Socially Responsible Investment and Sustainable investment; because their definitions are quite similar and overlapping:

Sustainable investment is an investment that combines investors' financial objectives with their concerns about Environmental, Social, and Governance (ESG) issue.

Ethical finance is the management of financial sources in order to sustain organisations working in the fields of environment, sustainable development, social assistance and services, culture and international cooperation (Schmidheiny, Zorraquin 1998).

Socially responsible investment (SRI) is an investment process that considers social and environmental factors, both positive and negative, within the context of securities and investment analysis.

The terminology describing this type of finance is developing, and still there is not a standard definition. Ethical finance will continue to evolve in various ways, and under various names. For example, the term **impact investment** has been recently coined by SRI researchers, in an attempt to define this growing market.

Moreover there is also the term **green investment** which stays for investment involved in operations aimed at improving the environment. This can range from companies that are developing alternative energy technology to companies that have the best environmental practices. Green investment is

narrower in its focus when compared to ethical finance, but generally there is not a big difference in these two terms.

When describing forest investment, a lot of authors group them as **alternative investment**. This financial term describes a finance used as a tool to reduce overall investment risk through diversification. It is investment in all asset classes other than traditional stocks, bond, cash or property: forest is exactly that class of asset.

Common types of alternative investment are **private equity funds** in which capital is invested directly into private companies that are not publicly traded in stock exchange; and **hedge funds** in which a group of financiers use advanced, aggressive investment strategies for a portfolio investment with the goal of generating high returns.

The term **forest sector** is used in this research in a broader sense⁴, covering both the actors involved and their activities. Often, the term forest sector is used to refer to the individuals in the sector who are involved in the business of timber production. In this research, bearing in mind the multifunctional nature of forests, the forest sector is defined as the combination of economic, social and environmental activities in forests that are carried out by communities, NGOs, businesses and governments, linked to the knowledge, conservation, management, use, harvesting and manufacture of the goods, services and values generated by forest ecosystems.

Sustainable forest management (SFM) is a method to ensure that a forest is managed in sustainable way, and therefore it can be an ethical investment. SFM is defined as a consistent process in managing a forest in order to achieve one or more clearly defined management objectives with regard to the production of a constant flow of desired forest products and services without unduly reducing its inherent values or future productivity and without causing any undesirable effect in the physical and social environment (ITTO, 2005).

An additional method to ensure that the forest is an ethical investment is **forest certification**. This is a voluntary process by which a third, independent, party issues a certificate guaranteeing that management of the forest is being carried out in compliance with a set of previously established criteria and standards. What differentiates it from other certificates is, basically, the set of agreed criteria on which it is based and the organizations that have promoted it.

Timberland investment is the main category of profit oriented finance in the forest sector. It involves purchasing both plantations and naturally occurring forests in order to harvest the wood on a sustainable basis. It can be invested in timber directly, through buying and managing forests and land for timber production. A more common approach of timberland investment is typical for US. These are Timberland **Investment Management Organizations (TIMOs)**, private organizations that hold and

⁴ According to the International Standard Industrial Classification (ISIC) the forest sector formally covers forestry, wood industry, and the pulp and paper industry

manage timber on behalf of institutional investors. Since ten years ago, besides TIMOs, it is possible to invest in timberland through **Real Estate Investment Trusts (REITs)**, organisations that own and manage income producing real estate such as buildings, warehouses, rental properties, and, since 1999, timberlands. To qualify as REIT, a company must distribute annually at least 90% of its taxable income in the form of dividends to its shareholders (Brooks, Sydor *et al.* 2007).

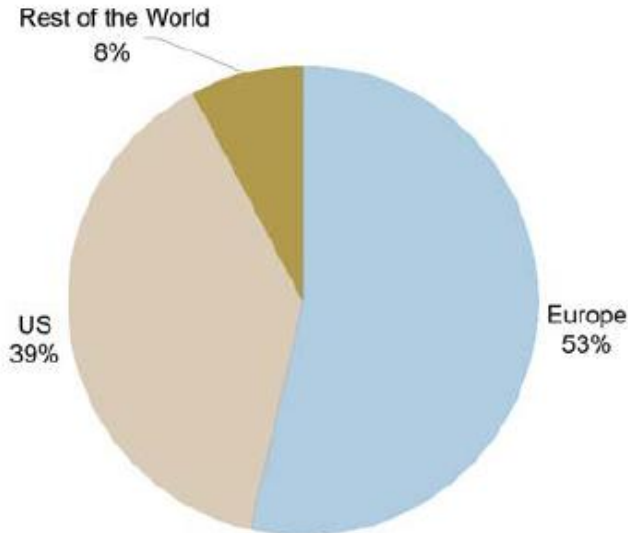
Finally, two new approaches of forest finance that need to be defined are mainly oriented towards multifunctional finance in forest sector. These are the concept of **Payment for Environmental Services (PES)** which is “*a voluntary transaction where a well-defined environmental service (or a land-use likely to secure that service) is being ‘bought’ by a (minimum one) buyer from a (minimum one) environmental service provider if and only if the environmental service provider secures environmental service provision (conditionality)*” (Wunder, 2005); and **Reducing Emission from Deforestation and forest Degradation (REDD/REDD+)** which are a set of steps designed to use market/financial incentives in order to reduce the emissions of green house gasses from deforestation and forest degradation. Their original objective is to reduce green house gases but they can deliver "co-benefits" such as biodiversity conservation and poverty alleviation (UN REDD Programme, 2010).

Additionally, forest finance can be included in **Clean Development Mechanism (CDM)** and **Joint Implementation (JI)**, mechanisms defined as a feature of the Kyoto protocol that serves to developed (Annex 1) countries to meet their carbon emissions reducing targets through financing carbon reduction projects in developing (Annex 2) countries in the case of CDM, or in other Annex 1 county in the case of JI. However, CDM and JI exclude forest conservation and avoided deforestation, which is one of the reasons why afterwards REDD was developed.

3.2. The concept of ethical finance

There are three levels of commitment in exercising CSR, from the lowest to the highest level of commitment, these are: problem oriented strategy, internal processes oriented strategy, and chain oriented strategy (Pettenella, 2009). This approach can be applied to ethical finance. Some investors, such as conventional banks, offer ethical financing sporadically, while the majority of investment portfolio remains without ethical criteria applied. Depending on the level of ethical criteria applied, this can be considered as *problem oriented*, or *internal processes oriented strategy*. Finally, there is a niche of investors who are fully committed to ethical finance. These are, ethical and green banks, or pension funds from Scandinavia and UK. The commitment to ethical finance can be regulated by the Law, as in the case of pension fund from Scandinavia, UK, and the Netherlands; or ethical criteria can be adopted on a voluntary basis, as in case of Banca Etica in Italy. Progressively, countries are adapting their laws in order to force various institutional investors to invest according to ethical criteria. The amount of capital that is responsibly invested is increasing. According to the European Social Investment Forum (EUROSIF), the total SRI assets have reached € 5 trillion by the end of 2007. In Europe, the total amount of SRI assets (€2,667) represents 17.5% of the total asset management industry in the continent (EUROSIF, 2009). This corresponds to a remarkable growth of 102% from the beginning of 2006 (See Figure 1).

Figure 1: Global SRI market



Source: Social Investment Forum, RIAA, SIO, Eurosif, SIF-Japan (EUROSIF, 2009)

CSR and ethical finance are based on the same concept: the business should generate wealth for society but within certain environmental and social framework. In other words, profit is important for ethical investors, as well. The investors expect market rate returns over the medium to long term time horizon, and ESG issues are increasingly important factors in determining long term investment performance.

For the purpose of this research, two different types of ethical finance markets are distinguished:

- Individual (consumer) ethical finance
- Institutional (retail) ethical finance

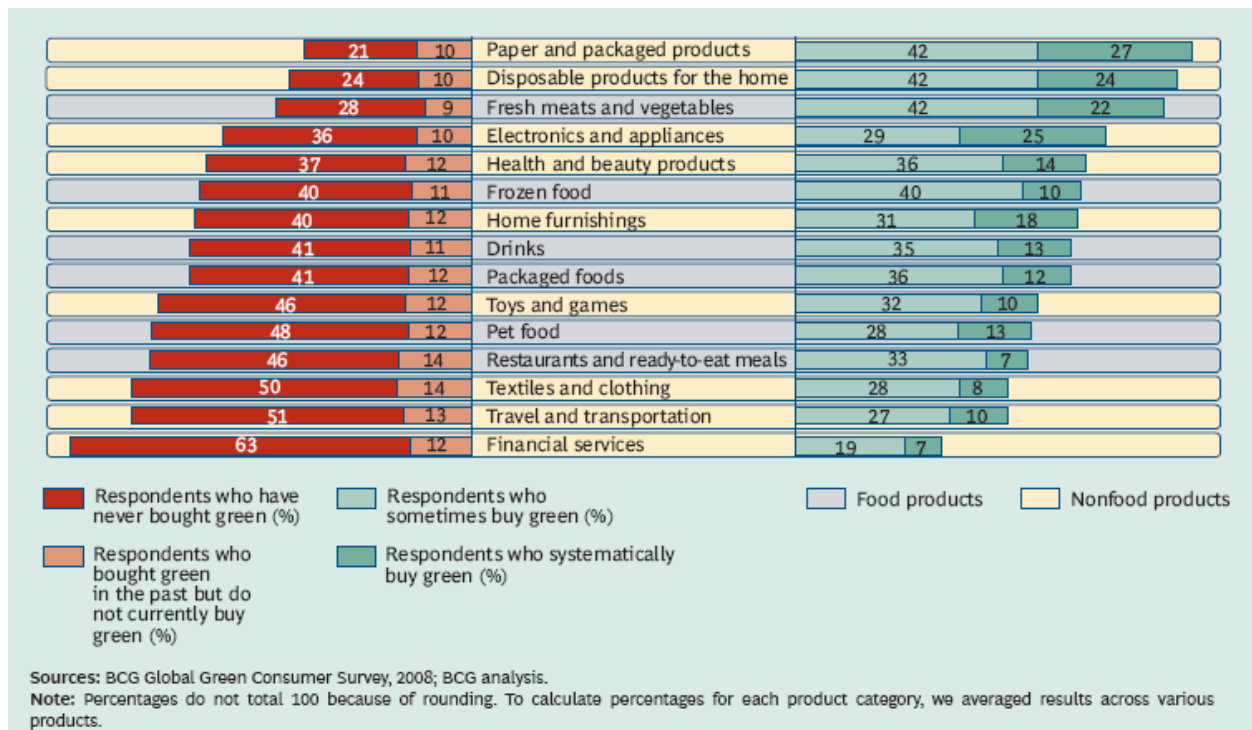
They will be presented and described in the next paragraphs.

3.2.1. Individual ethical finance

People have been always concern about where their money will go. It started with religion: excluding the assets that are in contradiction with religious beliefs (e.g. alcohol, gambling...), and finance the assets that are supporting the religious belief (e.g. loans for poor). In general, the beginning of ethical finance was based on religion that even today it has an important role, especially in the Islamic finance which is often studied in a relation to ethical finance (Hoepner, 2007, Ayub, 2007). In addition to religious causes, the other important driver of individual ethical finance is concern over global environmental issues, which have been already mentioned in the previous chapter. People buying green, environmental-friendly products are often the people who are concerned how the money they are holding in the banks is invested. Ethical banks such as Banca Etica and Triodos bank serve for individual ethical finance. They are a niche in the bank system, but still they are quite important in promoting ethical finance, especially microfinance.

In the research about green consumerism (Manger, Roche *et al.* 2009), the green financial services (ethical finance) are the one of the categories that consumers can purchase. The research demonstrates that 26% of surveyed people purchased green financial product at least once, from which 7% of people does it systematically. Comparing with the other categories, this demonstrates that the most popular green behaviors are the ones which are budget friendly. However, the number of people who purchase ethical finance products is still significant (see Figure 2).

Figure 2: Consumers` ranking of ethical financial services by the number of purchases



Source: Manger, Roche *et al.* 2009

3.2.2. Institutional ethical finance

Although the individual finance still remains, over the time, markets have become largely institutionalized: investors are large institutions like pension funds, mutual funds, hedge funds, exchange-traded funds, other investor groups; insurance companies, banks, brokers, and other financial institutions. The two main approaches for institutional investors to follow their social and environmental values are by **screening the companies** to invest in or through **shareholder activism**.

Screening

Screening is a process conducted in order to identify the characteristics of potential investment and assess their compliance with positive or negative criteria. The screening technique grew out of the negative screening process (excluding companies with certain types of products such as armament,

nuclear, pornography industries, etc.) As avoidance screens became more sophisticated, some investors began to realize they could actively seek out and include companies with desirable characteristics in their portfolios, rather than simply avoiding companies. Positive criteria are, for example, good social and environmental performance. Extensive evaluations of corporations' business practices are now commonly performed so that companies are often assessed to determine how sustainable they are as businesses and whether or not they are having a high and positive social and environmental impact. From positive screening, the best-in-class approach has been developed. This approach identifies leading companies with regards to ESG criteria from each individual sector or industry group to be included in the portfolio. The synonymous for screening in some ethical finance literature is *due diligence*.

The process of screening and rating requires extensive research and is usually performed by a specialized research group, SRI departments of banks, asset management companies and other financial institutions. Non-financial analysts carry out the research and evaluation of the ethical, social and environmental performances of companies using different criteria, methodologies and metrics. When investment decisions are made, social and environmental criteria are weighed together with financial performance.

Shareholders activism

This approach is also known as *shareholders advocacy* or *shareholders engagement*. It represents an attempt to use shareholders' power to facilitate change and decide how the company will invest. It includes the set of processes, customs, policies, laws, and institutions affecting the way a company is directed, administered or controlled, and as well how the company invests. This set ensures the rights of shareholders, defines the responsibilities of company management, and promotes integrity, ethical behaviour, disclosure and transparency. The most common type of shareholders activism is the use of voting rights attached to ordinary shares. Shareholders activism can also refer to a situation that occurs when a group of shareholders get together to raise public awareness of something that a company is doing (Sparks, 2002).

Ethical funds can use their role as shareholders to advocate social and environmental concerns and seek to influence a company's behaviour through dialogue with the company management. As the pressure comes directly from the companies' owners or shareholders, ethical finance represents a powerful way to prompt change in companies' behaviour, translating values into positive action and promoting social and environmental progress. The company's investing is also of interest to many other stakeholders: customers, suppliers, NGOs, and the community at the large. The activism that is not only limited to shareholders is known as **corporate governance**. Therefore, corporate governance is a quite similar, but a broader term. This is one of the most powerful tools of ethical finance that, if effectively utilised, leads to strengthen economy, and socio-economic development.

3.2.3. Ethical finance initiatives

The ethical finance initiatives are numerous. Hereby the most important initiatives, that are or that have a potential to be implemented in the forest sector, will be listed and briefly presented.

United Nation Principles for Responsible Investment

In 2005, twenty institutional investors, together with the group of seventy-person multi-stakeholder group of experts started negotiation on development of United Nation Principles for Responsible Investment (UN PRI). As a result, a year after, in April 2006, UN PRI was launched. By now, almost 800 asset owners, investment managers, and professional service partners signed UN PRI (UNEP Finance Initiative, 2010). Signatories are committed to comply with the six following principles (UNEP Finance Initiative, 2006):

- Incorporation of ESG issues into investment analysis and decision-making processes
- Incorporation of ESG issues into ownership policies and practices
- Demanding disclosure on ESG issues by the entities in which they invest
- Promoting acceptance and implementation of the Principles within the investment industry
- Collaborating to enhance effectiveness in implementing the Principles
- Reporting the activities and progress towards implementing the Principles

IFC Environmental and Social Performance Standards and Policy

The International Finance Corporation (IFC) is a member of the World Bank group that provides investment and advisory services for private sector in developing countries, especially focusing on small and medium enterprises. IFC could be considered as a positive example for responsible investing. IFC exclude projects that are illegal under national or international legislation; as well the projects involved in production or trade of weapons and radioactive materials, tobacco and alcohol; and investment in gambling, casinos and similar enterprises (IFC, 2010). Additionally, IFC is also committed to transparency and disclosure of all information regarding financed projects. In 2006, IFC has launched Environmental and Social (E&S) performance standards and its policy (IFC, 2006a). Their main aim was to manage environmental and social risks and impacts of financed projects. The IFC E&S performance standards are following:

- Social and Environmental Assessment and Management Systems;
- Labor and Working Condition;
- Pollution Prevention and Abatement;
- Community Health, Safety and Security;
- Land Acquisition and Involuntary Resettlement;
- Biodiversity Conservation and Sustainable Natural Resource Management;
- Indigenous Peoples;
- Cultural Heritage.

Based on a report IFC itself (2009), the implementation of standards was successful, and it did not affect IFC work negatively. Moreover, IFC's clients stated that improving their management in order to comply

with E&S standards helped them to get the competitive advantage in the time of financial crisis (such as cost-effective use of energy and water). In three years implementation, the main challenges of E&S Performance Standards were related to cross-sectoral, global issues such as climate change, indigenous people rights and ecosystem services. Currently, the IFC E&S standards are in the process of revision, in order to overcome these challenges.

Equator Principles

As a positive example for ethical finance, the IFC E&S standards and policy are used independently from IFC, by many other investment and finance institutions. The largest financial group that use IFC performance standards is represented by the Equator Principles Financial Institutions (EPFIs), signatories of Equator Principles. Equator principles were launched in 2003, and so far nearly seventy institutions signed up (Equator Principles, 2010). Equator Principles (EPs) serve to determine; asses and manage social and environmental risks in project financing, based on IFC Guidelines (Equator Principles, 2006). In practice, the Equator principles, serve for environmental and social due diligence of conventional projects such are gas and oil extraction, power plants, and similar. Although the Equator Principles represent a good intent of investors to move towards SRI, the EPs have certain weaknesses: firstly, EPs apply only to project finance which is around 5% or less of banking business (McCabe, 2010); secondly, EPs apply to project of \$10 million or more; and thirdly, EPs lack transparency in project reporting, such as list of financed projects. EPFIs usually argue that in this way, a confidentiality of clients will be endangered.

Collevecchio Declaration

Civil society is increasingly questioning financial investors' accountability and responsibility, especially towards the social and environmental issues; they organize themselves in networks and start initiatives aimed to ensure the ethical finance among institutional investors. Collevecchio declaration was developed as a response to Equatorial principles, which have been, as already mentioned, initiated by financial investors. Collevecchio declaration was developed by Bank Track, a global network of civil society organisations and individuals tracking the operations of the private financial sector (commercial banks, investors, insurance companies, pension funds) and its effect on people and the planet. It consists of the six following principles (Bank Track, 2009):

- Commitment to sustainability, through integration of ecological limits, social equity and economic justice into corporate strategies and core business areas;
- Commitment to 'do no harm' by preventing and minimizing the environmentally and/or socially detrimental impacts of their portfolios and their operations;
- Commitment to responsibility for the environmental and social impacts of their transactions;
- Commitment to accountability to their stakeholders, particularly those that are affected by the companies and activities they finance;
- Commitment to transparency to stakeholders;

- Commitment to sustainable markets and governance through active support of public policy, regulatory and/or market mechanisms which facilitate sustainability and that foster the full cost accounting of social and environmental externalities.

CERES Principles

The Coalitions for Environmentally Responsible Economies (CERES) principles are launched in 1989 by the United States Social Investment Forum. They consist of ten principles, and are considered as one of the best general statement of environmental good practices for the corporate sector. The principles are the following (CERES, 2010):

- Protection of the Biosphere;
- Sustainable Use of Natural Resources;
- Reduction and Disposal of Wastes;
- Energy Conservation;
- Risk Reduction;
- Safe Products and Services;
- Environmental Restoration;
- Informing the Public;
- Management Commitment;
- Audits and Reports.

FTSE4GOOD Index

This is an example of initiative based on the principle that the essence of ethical finance lies in combination of social objectives and reasonable financial returns. Formerly known as the Domini 400 Social Index, it is a mixture of screening, social evaluation and risk management procedures. FTSE Inclusion criteria cover following issues (FTSE The Index Company, 2010):

- Climate Change Mitigation and Adaptation;
- Environmental Management;
- Countering Bribery;
- Upholding Human and Labour Rights;
- Supply Chain Labour Standards.

Dow Jones Sustainability Index

This is a group of indexes established in 1999. The Dow Jones Sustainability Index (DJSI) is a link between companies implementing sustainability principles and investors wishing to profit from their superior performance and favourable risk/return profiles. DJSI were established to track the performance of companies that lead the field in terms of corporate sustainability. DJSI covers top 10% of the 2500 largest companies in the world. The criteria assessed in DJSI and their weighting in the total assessment are presented in the Table 1.

Table 1: The Dow Jones Sustainability Index Criteria

Dimension	Criteria	Weighting (%)
Economic	Codes of Conduct / Compliance / Corruption&Bribery	6.0
	Corporate Governance	6.0
	Risk & Crisis Management	6.0
	Industry Specific Criteria	Depends on Industry
Environment	Environmental Reporting*	3.0
	Industry Specific Criteria	Depends on Industry
Social	Corporate Citizenship/ Philanthropy	3.0
	Labor Practice Indicators	5.0
	Human Capital Development	5.5
	Social Reporting*	3.0
	Talent Attraction & Retention	5.5
	Industry Specific Criteria	Depends on Industry

*Criteria assessed based on publicly available information only

Source: http://www.sustainability-index.com/07_html/assessment/criteria.html

3.3. The concept of finance in forest sector

For the purpose of this research, the finance in forest sector is distinguished in two groups, according to the type of investment. These are:

- Profit oriented finance in forest sector;
- Multifunctional finance in forest sector.

They will be presented in sub-chapters 4.3.1 and 4.3.2 respectively.

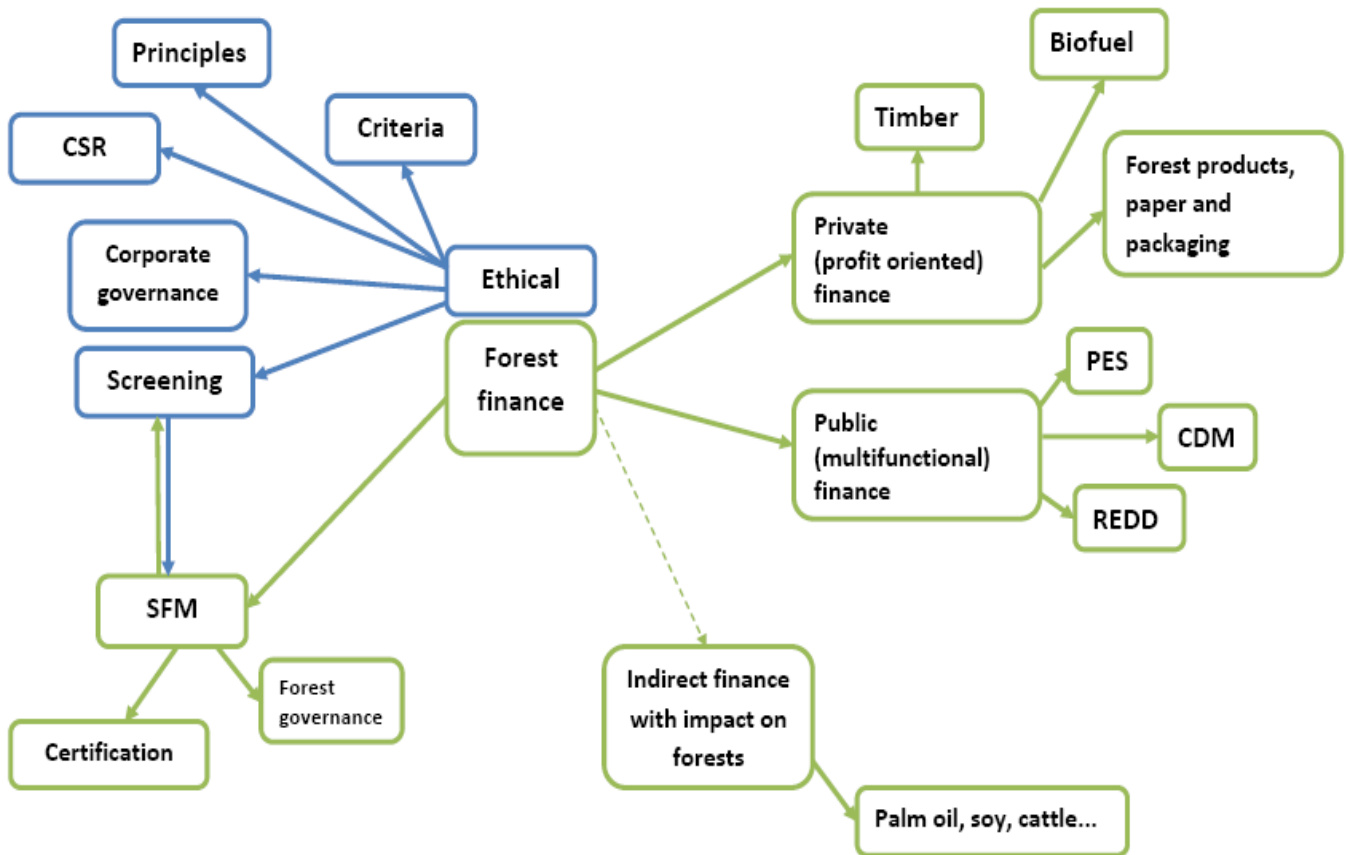
Private, institutional investors (pension funds, endowments...) are oriented towards profit finance. Public investors (governments, international bodies...) are mainly oriented towards multifunctional finance in the forest sector. The border between these two types of investments is not strict. For example, at the moment, REDD projects are financed by governments of developed countries. Six developed countries, leading by Norway and USA, invested \$ 3.5 billion dollars for REDD projects, in developing countries (Kouchakji, 2010). However, this will change in the future; as REDD projects become eligible for carbon credits, they will be of interest to profit oriented investors involved in international carbon trading.

Besides these two types of investment, the chapter discusses the problem of finance not directly involved in forest sector, but with a significant impact on forests. This includes investments in paper and

packaging⁵, palm oil, soy, and numerous other industries. An increasing number of investors in these sectors are committing to minimise the negative impact on forest, and at the same time they are disclosing the current negative impact -forest footprint (Campbell, Crosbie *et al.* 2010). Thus, this is considered as a positive example of ethical finance.

Before describing direct finance in forest sector, it is of importance to understand how they are related with the ethical finance. Therefore, the logical framework describing the relation between two concepts will be presented first (see Figure 3). As the focus of the thesis is on application of ethical criteria in direct, profit oriented forest finance, the presented concept is different from the formally defined forest finance, in which the forest sector is assessed through three sub sectors: employment in forest sector, value-added (processing) and trade (Lebedys 2008).

Figure 3: Ethical forest finance – Logical framework



⁵ Forest products, paper and packaging industry are certainly forest sector industries. However, the investment in these sectors is not direct investment in forests, as most of these companies do not own the forests, so this represents a minor percent of their business activities.

3.3.1. Profit oriented forest finance

Profit oriented forest finance almost exclusively refers to timberland investments. Timber is very characteristic investment asset, with a lot of attributes that should be studied in detail prior to investing. These attributes can be grouped in the following four groups (Healey, Corriero *et al.* 2005):

- basic characteristics of timber;
- performance of timber investment;
- the impact of including timber in a diversified portfolio;
- risks associate with timber investment.

It is important to stress that this chapter is focused on the experiences in timberland investment in US. This is due to the fact that this is the oldest and most developed market for timberland investment. Still, it is referred to few important studies that reflect experiences from Europe, and developing, tropical countries.

The basic characteristics of timber

The two basic characteristics of timber as an investment asset are the **biological growth** and **timber market prices**. Biological growth of the trees refers to the growth in volume and value. As a tree grows, there will be more wood to harvest; thus its value will increase. In addition, the wood from larger trees is typically used for more valuable products. The Figure 4 below illustrates the various stages in the life of a tree, while table 2 describes the corresponding investment attributes. Hereby, it is demonstrated as well the investments in the forest sector are **long term investments**, with an investment horizon of 10 years and more. The pattern of timber growth should be studied in order to develop a sound forest management plan able to maximise the returns.

Table 2: Biological growth in volume

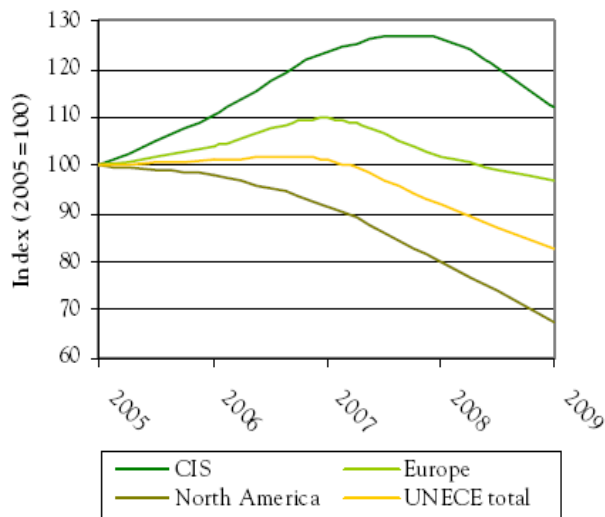
	Emerging	Established	Mature
Time horizon	Up to 10 years	More marketable: "chip & saw" timber - 2x4s, 2x6s, paper and plywood	Older than 20 years
End product	Limited use: primary end use is pulpwood for making paper	6%-12% per year	Highest-value use: saw timber; chief by-product is lumber used in housing
Growth rate	10%-15% per year	Moderate	3%-5%
Volatility (in price of timber)	Low	Moderate	High
Liquidity (ease of timber sale)	Low	Moderate	High

Source: RMK Timberland Group

Market prices of timber are driven by the supply and demand factors. Hereby these factors will be discussed in a global, macroeconomic scale. However the microeconomic factors (such as government regulation, alternatives to wood, etc.) should be, depending on a geographical location of the investment, studied in the local scale, as well. On a global scale, the drivers of demand for timber include the growth of the world's population and the rise of real per capita income, as both factors tend to have impact on increasing timber consumption. However in the last two years, as a consequence of the economic and financial crisis, the consumption of wood and paper products is declining, by 12% in

2009, for the UNECE region⁶ as shown in figure 5 (UNECE/FAO, 2010). This might have an impact on timber investment in the future.

Figure 4: Consumption of forest products in the UNECE region, 2005-2009



Source: (UNECE/FAO, 2010)

Besides biological growth, timber market prices; two other principle drivers of timber returns are **land appreciation**, and **inflation**.

The land under the trees covers 6% of the timberland returns (Healey, Corriero *et al.* 2005). Land prices, although influenced by timber prices, are typically far less volatile, meaning that they have more stable trends of price changing. The conditions that determine the land prices are related to conditions such as attractiveness of location (e.g. reasonable driving distance from the city), as well as the ecological characteristics of location (e.g. close to lake or river, presence of endangered species...) that might increase environmental and conservational value of the land, thus attracting some other type of investments whose main aim is not a profit from timber. These investments are described in the paragraph 4.2.3.

Timber can provide an effective protection from the inflation. Historically, it is demonstrated that the timberland returns were high when the inflation was high (see Table 3).

⁶ UNECE region covers more than 47 million square kilometres, in 56 countries of Europe, North America (Canada and United States), Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) and Western Asia (Israel)

Table 3: Timber as an inflation hedge

Inflationary environment	Time Period	Timber return (percent)
High	1973-1981	17,1
Moderate	1982-1996	8,4
Low	1956-11965	4,4

Based on NCREIF timberland index, adapted from (Healey, Corriero *et al.* 2005) and (Binkley, Washburn *et al.* 2005)

Performance of timber investment

Timberland assets are very long term investments with at least 10 years and more often a 20 years time horizon. Research studies on performance of timber investment are usually based on the National Council of Real Estate Investment Fiduciaries (**NCREIF Timberland Index**). The Index was established in 1987, and it measures the performance of timberland properties acquired for investment purposes (owned by institutional investors) in US South, Northeast and Pacific Northwest regions. It is measured in quarterly time series (Bikley, Washburn *et al.* 2003). Both income value from the harvested timber, and the capital (future income value) are measured.

NCREIF Timberland Index confirms that timber real estate has generated significant returns (see table 4), with only year 2001, and 2009 with the negative returns. However, this is only valid for timberland investments in US, since timberland investments outside US are not measured within NCREIF Timberland Index. Moreover, the historical returns are not a guarantee of future returns. In some cases the unrealistically high returns have been used to advertise the profitability of timberland investment (Maidell 2008).

Table 4: Timberland returns for NCREIF Timberland Index

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2000	1,64	0,7	2,47	-0,45	4,36
2001	0,49	0,05	0,84	-6,54	-5,16
2002	0,54	0,13	0,5	0,7	1,87
2003	0,61	1,67	1,45	3,75	7,48
2004	2,04	0,86	1,97	5,95	10,82
2005	1,81	3,7	0,95	11,98	18,44
2006	2,31	3,49	0,85	6,46	13,11
2007	1,86	2,3	3,9	9,38	17,44
2008	4,5	1,01	0,99	2,74	9,24
2009	0,73	-1,2	0,26	-4,55	-4,76
2010	-0,25	0,99			0,74

Source: <http://www.ncreif.org/timberland-returns.aspx>

Still, the NCREIF Timberland Index is an important step forward in our efforts to better understand the financial characteristics of timberland. Its importance will increase as more properties are added to the Index database and the performance record lengthens.

Another index used to measure the performance of timberland investment is the S&P Global Timber & Forestry Index. This index measures the performance of 25 of the largest publicly traded companies based in 10 countries worldwide, and engaged in the ownership, management or the upstream supply chain of forests and timberlands (S&P, 2010). This index is not only oriented to timberland investment performance (as it is a case with NCREIF Timberland Index), but also in the production and market of forest products and paper. Therefore, it has not been used for the research studies on timberland performance.

Judging by the performance of the NCREIF Timberland index, timberland assets have been one of the best performing investments over the last two years; the index delivered a 9.24% return in 2008 following a strong return of 17.44% in 2007 (Timotijevic, Rieser 2009).

The impact of including timber in a diversified portfolio

One of the key benefits of including timber in the portfolio is the low-to-negative correlation to other asset classes such as stocks and bonds. This is because the majority of returns come from biological growth, which is not correlated with any economic factor, and is always positive. Trees grow regardless of the economic and capital market conditions. Therefore, the institutional investors tend to diversify their investment portfolio by adding the timberland investment. Adding timberland investment to a non-timber portfolio increases return, and lowers risks. In addition, the portfolio within timber

investment can be diversified as well, by adding the timberland investments with different tree species, age classes, and with different geographic location.

Risks associated with timber investment

Timberland investment risk can be environmental, social, management and financial.

Environmental risks are forest fires, erosion, pest diseases, etc. Historic losses as a result of these risks have been low (Healey, Corriero *et al.* 2005). Social risks refer to land tenure, conflicts with stakeholders (employees, local population, NGOs, public sector), governance, and illegal logging. Management risks are related to operational efficiency, management capacity, existing infrastructure, etc. Active management has important role in minimising social and environmental risks.

Financial risks associated with timberland investing are market price, demand and supply, and illiquidity risk. Demand fluctuations cause volatility in timber product prices, resulting in the greatest risk to timberland investments. When Gross Domestic Product (GDP) growth is slow, demand for timber used in paper mills, housing construction and furniture manufacturing also falls and timber prices come down. Demand can also be affected by the development of synthetic materials as substitutes for timber. However, the effects of short-term price fluctuations can be managed as timberland investors can successfully time markets for timber prices. As timber continues to grow regardless of the underlying economic conditions, harvests can be delayed until more favourable pricing returns. Risk is also mitigated in a diversified portfolio of timberland as it is unlikely that suitable substitutes will be developed that will replace wood across its variety of uses.

Government regulations, such as those concerning environmental protection, may place restrictions on land usage, impeding timber production efforts. Whilst this could be a concern, at the same time it presents opportunities as increased scarcity will add to the value of timber.

There is an additional risk for investment in emerging markets; especially in tropical areas risks are still unexplored. Investors know very little about country risks, opportunities for forestry investments and the essential background knowledge to make an assesment of social and enviromental impact of projects. This is often a reason of bakrupt of tropical timber funds, as in the case of the Dutch timber funds in the begginging of 2000's (Scholtens, Spierdijk 2007).

To conclude, the long-term nature of timberland investment and its reasonably stable income stream are attractive characteristics for an investor looking to approximately match liabilities without locking into current bond yields. Additionally, timberland offers significant opportunities for good active managers to enhance returns. For instance, active managers can increase returns through market timing, careful merchandising, silvicultural techniques, and releasing parts of the land for higher and better use. The potential for trading in carbon credits is an area that may lead to additional returns from timberland investing that will be assessed as multifunctional forest finance.

How to invest in timber?

There are two main options for investing in timberland:

1. Direct ownership and management of timberland property;
2. Indirect ownership through TIMOs, TREIT, timber funds, timber investment agencies, etc.

Direct ownership of timberland refers to small non industrial owners and to large forest products and paper companies. Traditionally, they owned the majority of timberland. For the majority of investors, the second option will typically be the most appropriate as it will give investors a means to cost-effectively access timberland with a specialist firm dedicated to the day-to-day management. Over the last few decades, however, as many forest product companies were no longer regarding owning the land, pension funds and other institutions with vast amounts of capital and a legal mandate to diversify their investment were thus logical buyers of this surplus of timberland (Binkley, Raper *et al.* 1996). Third-party intermediaries between sellers and buyers were needed. Firstly they were insurance companies and banks. Afterwards **TIMOs** took the leading role. TIMOs buy, manage and sell timberland on behalf of institutional investors (see Table 5).

Table 5: TIMOs: how they work

Actors	Responsibilities
Investment managers:	Capital raising Financial analysis, due diligence Timberland investment administration Financial reporting
Asset managers:	Forest analysis, due diligence Inventory design and planning Timber sale negotiation, management Operations planning and oversight Forest operations reporting
Property managers:	Inventory execution and monitoring Harvest set-up and monitoring On-site operations monitoring
Field contractors:	Operations execution: Site preparation Planting Other silviculture treatments Roadwork Inventories Surveying and mapping

Source (Maidell 2008)

Similarly, **TREIT** as well focus on ownership and management of timberlands to produce financial returns. The main difference is that TREIT are not taxed on corporate level, thus they are avoiding “double taxation” effect. TREITs pay out most taxable income to shareholders (minimum 90% on yearly basis), therefore owe no corporate tax. TREIT pay taxes only on their earnings and only their shareholders pay additional taxes on the dividends (Block, Sample 2001)(Block, Sample 2001). This is acknowledged by forest product companies in possession of forest land, such as Plum Creek Timber Company, Rayonier, Potlach, and Weyerhaeuser who managed their forest land as TREITs.

Because of characteristics of timber mentioned above, the long-term institutional investors are the ones investing in timber. Those are pension funds, endowments, foundations, insurance companies, etc. Percentages committed to timberland vary from 1 to 2% for pension funds and up to 10% in the case of some US endowments. Still, this represents a huge amount of capital. For example, TIAA-CREF is a pension plan form US with 300 billion dollars, thus allocation 1% would represent 3 billion dollars.

3.3.2. Multifunctional forest finance

Multifunctional forest finance refers to investment in projects that are not only profit oriented, but as well serve to provide additional environmental and social services (see Figure 3). Investors are mainly from the public sector: governments, especially agencies for development and foreign aid; international bodies such as World Bank and UN. Furthermore, no profit and nongovernmental organisations dedicated to environment and social welfare are also important actors in multifunctional forest finance. There are examples of multifunctional forest investment financed by private sector through microfinance mechanisms. Other examples of multifunctional forest finance are tools like those of Payments for Environmental Services (PES), Reducing emissions from deforestation and forest degradation (REDD), and other forest carbon projects used in CDM for offsetting carbon emission⁷. While profit oriented finance such as investment in timber, has developed financial mechanism reflected through global trade, this is often not the case with multifunctional finance because environmental goods and services were traditionally perceived to be free of charge. Development of PES, and especially REDD financial mechanisms is still in the initial phase. However, the investors in this field are generally more committed in applying criteria of ethical finance comparing to timber oriented investors. They are as well more involved in ethical finance initiatives.

⁷ These terms are defined in the part: 4.1 Definitions

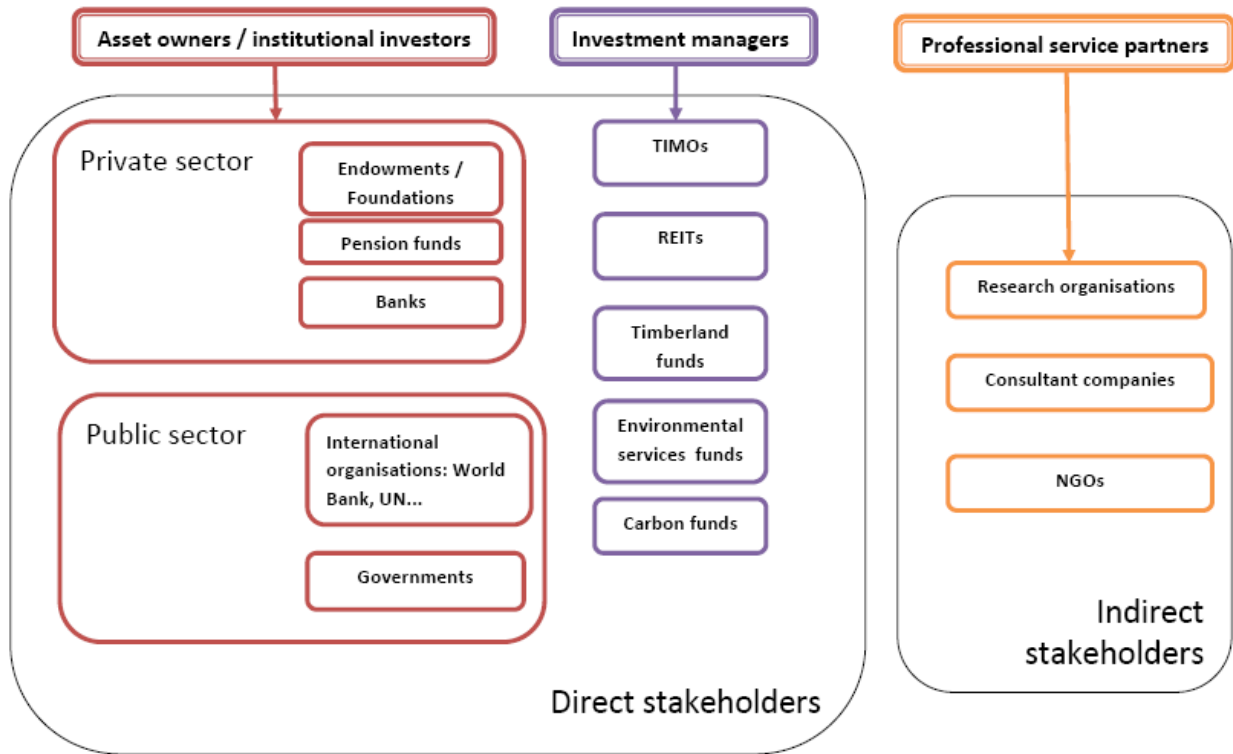
3.4. Economic actors involved in ethical finance in the forest sector

Representing an increasingly significant share of the financial market, the ethical forest finance has attracted the attention of mainstream players that range from large public and private investors, policy makers, multinational companies and the greater public. For the purpose of the research, the stakeholders were grouped into the three following groups:

- **Asset owners:** Organizations that represent end-asset owners who hold long-term retirement savings, insurance and other assets. There are pension funds, government reserve funds, foundations, endowments, banks, insurance and reinsurance companies and depository organizations.
- **Investment managers:** Investment management companies that serve an institutional and/or retail market and manage assets as a third-party provider. These are TIMOs, TREITs, and various timber funds, environmental funds, and carbon funds who manage forest assets.
- **Professional service partners:** These are professional service partners that are not stewards or managers of assets, but who have a considerable influence over ethical finance in forest sector, such as research and consultant companies, various NGOs with focus on environmental, social, and sustainability issues.

Additionally, the actors can be categorized in accordance to their impact on ethical forest finance. The stakeholders with direct impact are the investors and investment managers. However, the issue of ethical forest finance is also a concern of wide groups of indirect stakeholders such as governments, academics and experts, ethical finance forums and working groups, various nongovernmental and research organisations. A detail categorisation of economic actors is presented in Figure 6.

Figure 5: Economic actors involved in ethical forest finance

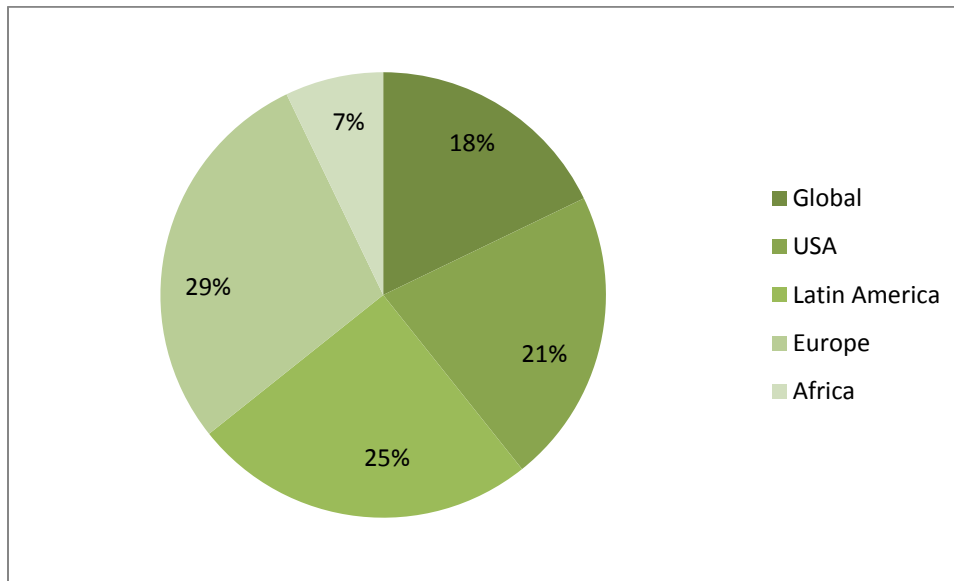


4. Results and discussion

4.1. Profile forest investment organisations and their clients (investors)

The respondents in questionnaire survey were various forest investment organisations: from different countries, with different investment strategies, both specialized in forestry and diversified who have forest investment as one of the assets in diversified portfolio. Organisations oriented towards institutional investment represent almost 90% of the respondents. The rest are investment organisations oriented towards individual investors, who are described as ordinary people. Figure 7 illustrates the geographical origin of surveyed organisations. Those with geographic origin stated as “global” are big, multinational companies who have offices in several countries.

Figure 6: Geographic origin of forest investment companies

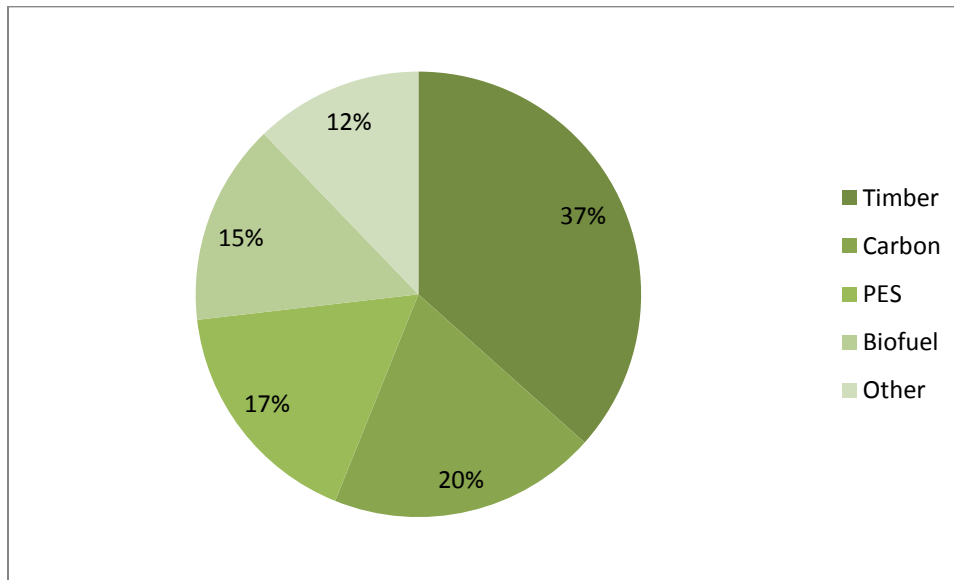


Most of organisations are specialized in forest investment (78%). Domestic forest investment is characteristic for organisations from North America. However most of organisations are oriented towards foreign forest investments, especially in Latin America which 40% of investors characterised as the most important location, following by Australia (21%), Europe and Russia (14%), Asia and Africa (14%). Investment located in North America represents 20%.

It is important to mention that a significant number of investment organisations is characterised by a diversified forest investment portfolio (eg. timberland, carbon and PES together). Therefore, survey participants were asked to select the most important type of investment. The majority of investors have

chosen timberland investment as the most important, followed by carbon investment, PES, and biofuel (see Figure 8). Other investment fields mentioned as important by investors are community development and sustainable livelihoods, as well as timber industry related investments in sawmills, pellet plant, and nurseries.

Figure 7: Type of forest investments



The key issue of the survey was to explore who are the clients of forest investment organisations; to answer who invest in forests through these organisations? As already stated, these are mainly institutional investors. As the respondents considered confidential to state the name of their clients, only the geographical origin of clients was assessed. This revealed very interesting issue: the investors are almost exclusively from Europe (84%) and US (15%).

Additionally, the survey assessed the perceptions of investment organisations towards ethical finance, in general. Almost one third of respondents stated full and long time support towards ethical investments in their organisational culture, followed by 20% who expressed a mix of support and scepticism, and 13,3% who stated that their organisation considers ethical finance as a recent buy-in.

4.2. Market demand for ethical finance in the forest sector

According to 81% of survey respondents, in the last three years, there has been an increasing interest for ethical investment in forest. From this group, two thirds believe that this growth is mainly driven by market demand, and one third thinks that demand is driven by suppliers push. Additionally, surveyed investment organisations have perception on the future role of ethical finance in the forest sector: 62.5% of them believe that the role of ethical forest investment in the market will increase slowly, and 25% think that it will increase sharply. Only 12.5% think that the interest for ethical forest investments will decrease, and none think that this interest will decrease.

In 60% of cases, positive perception towards ethical finance is consequence of global financial crisis. Additionally, more than a half of survey respondents stated that their ethical investments performed better in the light of financial crisis.

4.3. Ethical forest finance practises

It could be said that surveyed organisations demonstrated high commitment towards ethical forest finance, because 83% of respondents quantified more than a half of their current investment assets as ethical (socially responsible/sustainable) investments. More importantly, 94% claimed the appliance of ethical criteria in investing. Ethical investment strategies that investors are using are various. The respondents counted both negative screening and positive (best-in-class) screening (88%). As an addition, a majority described other ethical investment strategies that they are applying, mainly related to FSC, and PEFC forest certification standards, as well as VCS and CCB carbon certification standards. Some organisations developed their own policies and standards used in screening of potential investments (such as Dasos capital, and International Woodland Company) which are based on ethical initiatives described in chapter 4.2.3.

4.3.1. Case study of International Woodland Company

In order to explain how ethical finance works, the case study of International Woodland Company (IWC) was assessed. IWC is a forest investment company from Denmark engaged in advising/consulting clients interested for investing in forests. The total market value of its investments is \$ 2.5 billion. The majority (90%) of our investments is managed through different TIMOs from US, remaining is based in emerging markets region: Russia, Asia, Sub Saharan Africa and the tropical part of Latin America. Almost all investments in emerging markets region are plantations. IWC clients are institutional investors such as pension funds, or banks, and mainly from Scandinavian countries.

How IWC select forest investments?

The process of selection could be described as three stages process:

1. Initially, the potential investment has **to fit in existing portfolio** of investments of clients. Portfolio consists on forests with different tree species, different age of trees, targeting different markets with different end products.
2. Afterwards, the potential investment is assessed through due **diligence process**, following SRI Guidelines, certification policy and Code of Conduct. This is especially important for the investments in the emerging markets region.
3. Finally, IWC assess if the potential investment can **obtain forest certification**. If forest cannot be certified within 5 years, IWC usually do not invest. Additionally, this company cooperates with other stakeholders such as Tropical Forest Trust and WWF in order to obtain forest certification, and as well to assess forest certification schemes in the region or country of potential investment. FSC is preferred forest certification scheme. More than 60% of certified investments are FSC certified, and the rest is PEFC certified.

IWC does not consider that forest certification as complete in covering ethical finance issues, thus potential investment has to comply with SRI guidelines, as well. These guidelines are based on IFC Environmental and Social Performance Standards (International Woodland Company 2006).

4.3.2. Case study of the Lignum Investment Fund

The Fondo de Inversión Forestal Lignum (Lignum Investment Fund) was launched in 2006 and is a \$39 million investment fund. It is the first Latin American forestry investment fund. This private equity fund was established to help enabling small and medium landowners to significantly increase their current income and to monetise and optimise the value of their landholdings. Part of the Lignum Fund's strategy is to have an important environmental impact through sustainable forestry management practices and the afforestation of dry, eroded land that currently has marginal alternative agricultural use. In its first three years, the fund plans to acquire approximately 12,000 hectares (29,650 acres) of immature pine and eucalyptus forests, and plant approximately 15,000 hectares (37,070 acres) of land with pine and eucalyptus under long-term land-use rights agreements (contracts) with small and medium landowners. Although these are innovative, commercially harvestable species, the concept is to reforest highly degraded, eroded lands and provide longer-term social benefits as well. On the basis of these contracts, the fund intends to issue a securitized financial instrument supported entirely by net cash flows generated from the harvest and commercialization of its forestry assets. Following this securitization, fund investors will receive cash (IFC 2006b).

4.4. Criteria for ethical forest finance vs. criteria for forest certification

Criteria for ethical finance are the principal tools by which forest investors identify, quantify and address the risks associated with financing potentially unsustainable activities. The application of criteria for ethical forest finance varies widely. Criteria complement a growing range of revenue generating and enhancing opportunities that sustainable forest management can offer, from higher value certified timber to carbon credits and payments for ecosystem services.

Criteria for ethical forest finance represent an addition, and not a replacement, to forest certification criteria. To a certain extent they are similar. However, ethical finance criteria are besides environmental and social issues; include as well the financial, business, and corporate governance issues.

Ethical finance criteria are mainly developed, and assessed by the investment organizations themselves. They are a part of due diligence analysis of potential investment. They can be directly associated with forest certification standards. This is the case of WWF Sustainable Forest Finance Criteria consisting on six principles that should be considered in investments that impact the forest. These principles are:

- **legality**, a basic requirement is legal compliance with local and national laws and international regulations, conventions and agreements;
- **forest management**;
- **labour** : insure worker's rights and welfare;
- **community**: recognise rights of local and indigenous peoples;
- **governance**: reporting for transparency and accountability;
- **environmental, social and resource management**: assessing the impacts with adequate stakeholder consultations.

Recently, issue of criteria for ethical forest finance begins developing beyond criteria of forest certification. An example of that is provided by the PricewaterhouseCoopers (PWC) Forest Finance Toolkit, an interactive approach to explain investors the criteria and principles of ethical forest finance. It covers four aspects:

- **New application**: explains the process of new application for finance received from a relevant organisation. It guides the investment organizations through a short process to identify the initial risk level of the prospective client, than outlines the lower/higher risk approaches;
- **Portfolio managements**: facilitate the review of the bank's portfolio of legacy clients. The starting point is to review client performance against contractual obligations to meet the bank's forestry policy. It may be necessary to assess the client at either Forest Management Unit (FMU) level or for a specific processing operation. If a client is non-compliant with bank policy as required in its contracts, initiate a process to address the breach, including the creation of an action plan;

- **Policy development:** supports the development of the bank’s forestry policy, its implementation, ongoing revision and progress reporting. The starting point is the high level policy development model, which sets out key questions for management to tackle around Development, Governance, Implementation and Monitoring;
- **Procurement:** support the bank’s internal procurement function to purchase sustainable forest products.

4.5. Role of banks in ethical forest finance

It could be assumed that ethical/sustainable/green banks have a leading role in ethical forest finance because of their commitment towards ethical finance. Even though ethical banks have very small investment capital compared to conventional banks, their role is more important in promoting ethical finance. For example, Banca Etica is Italian bank highly committed towards ethical finance. They have undersigned the Forest Footprint Disclosure Project within the Principles of Responsible Investment, as well. Additionally, they use EIRIS as one of our major source of research and EIRIS ‘sustainable timber criteria’ is one of the ESG criteria used in the selection of our investment for SRI funds (Fondi Valori Responsabili).

On the other side, according to a study conducted by Bank Track, conventional banks are not similarly committed towards ethical finance in the forest sector. With an overall number of 48 banks with forest investments, only 16 have developed a forest investment policy (see Table 6).

Table 6: Scores for policies on forestry

HSBC	4	National Australia Bank	0	Deka Bank	0
ANZ	2	Westpac	0	Intesa Sanpaolo	0
WestLB	2	KBC	0	UniCredit	0
Rabobank	2	Dexia	0	Bank of Tokyo	0
ING	2	Banco Bradesco	0	SMBC	0
Standard Chartered Bank	2	Banco do Brasil	0	Standard Bank	0
Citi	2	Itaú Unibanco	0	Nedbank	0
Bank of America	2	Scotiabank	0	BBVA	0
Goldman Sachs	2	Bank of China	0	Nordea	0
JPMorgan Chase	2	China Construction Bank	0	Credit Suisse	0
Morgan Stanley	2	ICBC	0	UBS	0
RBC	1	Industrial Bank	0	Bangkok Bank	0
Santander	1	BNP Paribas	0	Kasikornbank	0
Fortis	1	Natixis	0	RBS	0
ABN Amro	1	Crédit Agricole	0	Mizuho	X
Bardays	1	Société Générale	0		
Commonwealth Bank	0	Deutsche Bank	0		

Source Bank Track 2010

Explanation of scoring: 0 – bank is active in this sector but has no investment policy for this sector; 1-Bank has only adopted or signed onto a voluntary standard or initiative or developed its own policy, but it is vaguely worded without clear commitments; 2- bank has developed its own policy, that includes at least half of the essential elements; 3 – Bank has developed its own policy and this includes essential elements; 4 – bank has developed its own policy and this includes the essential elements in its lending and investment banking as well as its asset management, or it includes both essential and additional elements.

Forest policy of HSBC bank is best ranked. This policy consist of negative criteria (exclusion of illegal logging, operations in Ramsar and Unesco heritage sites, and exclusion of plantation converted from natural forests), and commitment to third party forest certification (HSBC).

4.6. Finance in forest products, packaging and paper industry

This sector is assessed through study on forest products, packaging and paper industry by Vigeo. This is a leading corporate social responsibility rating agency in Europe, with 13 years of experience and with one of the largest ESG analyst teams. Vigeo analyses, evaluates and rates the companies' CSR performance. The methodology of CSR and ESG analysis is based on internationally recognized public standards promoted by international public bodies such as ILO, UN, OECD.; and covers six following domains:

- Human rights;
- Human resources;
- Business Behaviour (Customers and suppliers);
- Corporate Governance;
- Community Involvement;
- Environment.

In addition, Vigeo produces reports on CSR and ESG performances for 32 business sectors. One of these sectors is Forest products and Paper, which is assessed regularly from 2004. The study assessed the six forest product and paper companies from Europe and 3 from US. Most of the companies assessed in the study are forest owners, and some of them own forests in developing countries, mainly in tropical regions. The methodology used for the study analysis is based on six ESG domains mentioned above with adaptation (customization) for forest products and paper sector. Therefore, the forest standards like SFI, FSC, and PEFC are taken into consideration. The main challenges for forest sector companies to comply with ESG criteria that were assessed by Vigeo are related, but not limited, to activities in developing countries (community involvement, corruption and illegal logging, management of plantations).

4.7. Finance of industries with indirect impact on forests – case of palm oil investment

Many industries with indirect impact on forests have become increasingly interested to their impact on forests. The reason for companies to investigate the operational and supply chain impacts of their organisation on tropical forests is because of reputation risk. Companies have become aware of the damaging impact of poor practices, as a result of disclosure by NGO campaigns and media exposés. Consumers boycott brands exposed as poor operators, and increasingly favour trusted brands.

For example, industries that use palm oil such as food, cosmetic and household care are exposed to reputation risks because of the fact that demand for palm oil is causing deforestation, as the most of the remaining suitable areas for plantations are forests. One of the companies that faced this risk in May 2010 was Nestle. Nestle was accused by Greenpeace for purchasing palm oil from high risk plantations or farms linked to deforestation. As a result of the campaign, Nestle developed new policy committing itself to identify and exclude risky companies from its supply chain. (Bank Track 2010).

Besides numerous similar campaigns, the responsibility of industries towards forests is assessed yearly in Forest Footprint Disclosure (Campbell, Crosbie *et al.* 2010).

5. Limitations

Ethical finance in the forest sector is a relatively new issue, thus this thesis is among the first initiatives to provide a global overview in this field. As a consequence, main problems and limitations related to the lack of clear and exhaustive data and information, and the difficulties in collecting information from investment organisations. At present it is not known the exact number of pension funds, foundations and endowments investing in timber, as well as the amount of invested capital, the type and the location of the investment. The thesis was an attempt to provide a global overview of investment organisations and investors. However it has been challenging to get the information on investors from investment management organisation, as it was considered as confidential. Balancing clients' confidentiality with transparency is also a problem that rose as well during semi structured interviews.

6. Conclusion

Considering the assessed data, it could be concluded that there is an increase demand for responsible/ethical investment in the forest sector among institutional investors. The investors and investment organizations acknowledged that potential risks of forest investment to environment and people could be managed if ethical finance criteria are applied. However, ethical performance is not a major factor in lending or investment. Country risk, weak management, illegality, lack of suitable collateral, weak business planning and skills, lack of (local) demand (for sustainable products and services) combine to overwhelm the case for responsible forest finance; and thus effect forest finance. Many financial institutions have made, or are under pressure to make, commitments to the sustainable, ethical forestry finance. The challenge to the financial sector is in developing consistent and effective policies and criteria for ethical financing in forest sector.

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Annex 1 – Database of direct and indirect stakeholders

Company type	Company name	Web site	Contact	Country	Note
Bank	CITI	-		global	forest policy reviewed
Bank	HSBC	-		global	Policy reviews
Bank	Sarasin	www.sarasin.ch		Switzerland	contact form on the webpioneer in SRI
Bank	Triodos Bank	www.triodos.com	Salome.Herce@triodos.es	UK	1st sustainable bank by financial times
Bank	Banca Etica	www.bancaetica.com		Italy	
Biofuel investment	Abundant Biofuels Corporation	www.abundantbiofuels.com	Charls Fishel cfishel@abundantbiofuels.com		
Carbon and biomass	Generation Investment Managment	www.generationim.com	1 212 584 3650	US	
Carbon fund	Equator LLC	-	info@equatorllc.com	US	
Carbon Fund	Bloomberg New Energy Finance	http://bnef.com/	sales@newenergyfinance.com		
Carbon Fund	F&C Global Climate Opportunities Fund	www.fandc.com	info@fandc.com		
Carbon Fund	Carbon Markets & Investors Association	www.cmia.net	miles.austin@cmia.net		
Carbon Fund	South Pole Asset Management	www.southpolecarbon.com	info@southpolecarbon.com		
Carbon Fund	EcoSecurities JP Morgan	www.ecosecurities.com	ireland@ecosecurities.com		
Carbon fund	Earth Capital Partners	www.earthcp.com	info@earthcp.com		

Carbon Fund	First Climate	www.firstclimate.com	luxembourg@firstclimate.com	Luxembourg	
Environmental fund	EcoEnterprise Fund	http://ecoenterprisesfund.com	Tammy Newmark: tnewmark@ecoenterprisesfund.com		funded by The Nature Conservancy
Environmental fund	Environmental Defense Fund	www.edf.org	members@edf.org	US	
Environmental Fund	Quadris environmental fund	www.quadrisfunds.com	invest@quadris.co.uk		
Environmental Fund	Green Effects	www.greeneffects.de	info@greeneffects.de		
Environmental Fund	Environmental Bank Ltd	www.environmentbank.com	dhill@environmentbank.com		
Environmental Fund	Environmental Market Association	www.environmentalmarkets.org/	info@environmentalmarkets.org	US	
Environmental fund	Green Earth Africa	www.greenearthafrika.com	nick@greenearthafrika.com	UK	timber investments (institutional and individual)
Environmental fund	Living Planet Fund	www.livingplanetfund.com	cchong@livingplanetfund.com	Luxembourg	set up by WWF
Environmental fund	Green Diamond Resource Company	www.greendiamond.com/	Maureen Frisch mfrisch@greendiamond.com	SFI standard	
former TIMO, now diversified	Forest Systems	www.forestsystems.com	on website	US	
former TIMO, now diversified	Prudential Mortgage Capital Company	http://www3.prudential.com/businesscenter/realestate/pmcc/whoweare/agricultural.html	pru_mortgage_capital@prudential.com	US	
Fund for investments against climate change	Climate Investment Fund (World Bank Group)	www.climateinvestmentfund.org	cifadminunit@worldbank.org	US	Forest Investment Program for financing REDD

Investment fund	Forest Capital Partners, LLC	www.forestcap.com	Scot R. Jones sjones@forestcap.com	US	use Sustainable Forestry Initiative guidelines
Investment fund	Fund for Tropical forests	no	Roberto Persivale rpersivale@gmail.com	Peru	not funded yet, for forest related SME
Investment fund	GEF Global Environment Fund	www.globalenvironmentfund.com	gmcpherson@gefdc.com	US	green-oriented ethical fund, sustainable investor of the year 2009 by Financial Times
Investment fund	Brookfield Asset Management Inc	http://www.brookfield.com/	Leigh Tang ltang@brookfield.com		
Investment fund and insurance	NorthWest Farm Credit Services	http://www.farmcredit.com/Default.aspx?pageid=2	markdvarishkis@farmcredit.com		microfinance
Investments	Calvert Group	http://www.calvert.com/			
Pension fund	GPFG Government Pension Fund Global	http://www.regjeringen.no/en/dep/fin/Selected-topics/the-government-pension-fund.html?id=1441	postmottak@fin.dep.no	Norway	one of largest pension fund in world
Pension fund	PFZW (PGGM) Stichting Pensioenfonds Zorg en Welzijn	www.pggm.nl	(030) 277 33 11	Netherlands	
Pension fund	APG Investment	www.apg.nl	concern.communicatie@apg.nl	Netherlands	

Pension fund	KAPAN Pensioner	http://www.fso.se/Site/root/start	kapan@spv.se	Sweden	
Pension fund	ATP Pension Fund	www.atp.dk	0045 7010 1611	Denmark	
Timberland fund	Brazil Timber	www.braziltimber.com	contact@braziltimber.com	Brazil	
Timberland fund	Phaunos Timber Fund Limited	www.phaunistimber.com/	jlutz@forestresearchgroup.com	USA	
Timberland fund	Ethical Forestry	http://www.ethicalforestry.com/	enquiries@ethicalforestry.com	UK	
Timberland and carbon fund	Forestry for life	http://www.forestryforlife.com/en/	info@forestryforlife.com	UK	Carbon Investment
Timberland and Renewable energy Investments	FIM Services Limited	www.fimltd.co.uk	fim@fimltd.co.uk	UK	investments from 500.000 pounds and upwards
Timberland company	EB Flora	http://www.ebflora.com.br/	André Buosi andre.buosi@ebflora.com.br	Brazil	
Timberland fund	Plantation Capital (Forestry Investing)	www.forestry-investing.co.uk www.plantationcapital.com		UK	Timber Investments
Timberland fund, research and consultant	Canopy Capital	http://canopycapital.co.uk/	info@canopycapital.co.uk	UK	
Timberland Fund	Fondo de Inversión Forestal Lignum (the Lignum Investment Fund)	http://www.assetchile.com/es/descripcion-de-transacciones/el-fondo-de-inversion-forestal-lignum/	contacto@assetchile.com	Chile	Timberl investments

Timberland fund	Dasos Capital Oy	www.dasos.fi	info@dasos.fi	Finland	wood, bioenergy, HBU; includes SRI/ESG issues, Received EUR 30 Millions from European Investment Bank for forest investments, projects in Europe, Latin America
Timberland fund	Greenwood Management	www.greenwood-management.com	info@greenwood-management.com	Denmark	Timber investments in Brazil, Canada, Uruguay, Spain, Mexico
Timberland fund	International Wood Company	www.iwc.dk	Peter Vind Larsen, pvl@iwc.dk Mogens Pedersen, mp@iwc.dk	Denmark	
Timberland fund	Lyme Timber Company	www.lymetimber.com	fpushee@lymetimber.com	US	
Timberland fund	Silva Tree	www.silvatree.com	office@silvatree.com	UK, Panama	Timber, carbon, biofuel plantations
Timberland fund	The Timber Group, LLC	www.thetimbergroup.com	info@thetimbergroup.com	Brazil	-
Timberland fund	FIT Timber Growth Fund LTD	http://www.fit-tgf.com/	no contact?		signed UN PRI
Timberland fund	Greenwood Resources	http://www.greenwoodresources.com/	info@gwrglobal.com		
Timberland fund	MetLife Timberland Finance Group	http://www.metlife.com/business/investors/agriculture-investments/timber-loans/index.html?WT.mc_id=vu1190	Leon Moreno lmoreno@metlife.com		

Timberland fund	The Forest Company	http://www.theforestcompany.se	Sally-Anne Baron sab@timbercapital.net forestcompany@heritage.co.gg		
Timberland Fund	New Forest	http://newforests.com.au/	info@newforests.com.au	Australia	
Timberland fund and consulting	EccoWood	www.eccowood.com	klausbiskup@eccowood.com	Spain	
TIMO	Forest Investment Associates	www.forestinvest.com	info@forestinvest.com	US	
TIMO	Global Forest Partners LP	http://www.gfplp.com/index.shtml	Info@gfplp.com		largest TIMO, USD2.7billions
TIMO	HTRG Hancock Timber Resorce Group	www.htrg.com	info@hnrp	US	Timber Investments for institutional investors
TIMO	RMK Timberland Group	www.rmktimberland.com	jim.mcbride@regions.com jim.webb@regions.com	US	
TIMO	The Campbell Group	https://www.campbellgroup.com/		US	
TIMO	Timberland Investment Resources	www.tirllc.com	info@tirllc.com	US	
TIMO	Cascade Hardwood LLC	http://www.cascadehardwood.com/mainfrm.htm	Info@CHGsales.com		
TIMO	Forest Land group	http://www.forestlandgroup.com/intro.html	only phone	US	

TIMO	Global Forest Lands	http://www.globalforestlands.com/index.html	info@globalforestlands.com James Bertzer Linkedin	US	
TIMO	GMO LLC	http://www.gmo.com/America/	EuropeRegistration@gmo.com	US	
TIMO	Molpus Woodland Group	http://www.molpus.com/	mwg@molpus.com Michael R. Cooper	US	
TIMO	Resource Management Service LLC	http://www.resourcemgt.com/	Janet Hess jhess@resourcemgt.com , info@resourcemgt.com		
TIMO	Starker Forests Inc	http://www.starkeforests.com/	webmaster@starkerforests.com		
TIMO	The Forestland Group LLC	http://www.forestlandgroup.com/intro.html	(617) 489-0663		
tREIT	Plum Creek Timber Company	http://www.plumcreek.com/	IR@plumcreek.com , info@plumcreek.com		
tREIT	Rayonier Inc.	http://www.rayonier.com	timberlands@rayonier.com	USA	
tREIT	Potlatch	http://www.potlatchcorp.com/		USA	
REIT	CBRE CB Richard Ellis	http://www.cbre.com/EN/Pages/default.aspx	James Bertzer LinkedIn		
REIT	Realty Marketing NorthWest	http://www.rmnw-auctions.com/	on website		

Annex 2 – Database of indirect stakeholders

Type of company	Company name	Web site	Contact	Country	Note
University research	Center for responsible Investments	http://responsiblebusiness.haas.berkeley.edu/	respbus@haas.berkeley.edu	US	
NGO	Bank Track	www.banktrack.org	coord@banktrack.org	Netherlands	Track banks investments worldwide
Research and consultant company	EIRIS		stephen.hine@eiris.org zita.moran@eiris.org		
SRI database	Eureka Hedge				
umbrella organisation	EUROSIF, European Social Investment Forum			UK	
Italian EUROSIF umbrella organisation	Forum per la Finanza Sostenibile	finanzasostenibile.it	info@finanzasostenibile.it	Italy	education, research, advocacy, promotion
G, A, S member of EUROSIF and founder of SD-K	German, Austrian and Swiss Sustainable Investment Forum FNG	www.forum-ng.org	tober@forum-ng.de	Germany	education, research, advocacy, promotion
forest consultant and research company	Indufor Oy	www.indufor.it	indufor@indufor.fi	Finland	climate change, policy and governance, environmental management, industry and markets, social and environmental responsibility
Forest consultant company	International Forestry Investments Advisor, LLC	http://www.ifiallc.com/index.html	cbinkley@ifiallc.com		

global investment consultant	Mercer	www.mercer.com	dragana.timotijevic@mercer.com	global	some timberland investments
global investment consultant	Pricewaterhouse Coopers (PWC)	http://www.pwc.com/gx/en/forest-paper-packaging/			
research	SD-M Sustainable Development Management	www.sd-m.de	hesse@sd-m.de	Germany	developing SD-KPIs
SRI consulting and research	Social Investment Forum	www.socialinvest.org	kristinlang@socialinvest.org	US	
SRI consulting and research	Social Investment Forum Japan	contact@sfijapan.org	www.sfijapan.org	Japan	promoting SRI because it is not that well developed comparing to US and Eu
SRI consulting and research	UN PRI			global	Developing and implementing PRI criteria
NGO	WWF GFTN				
NGO/research	VCS Voluntary Carbon Standard	secretariat@v-c-s.org			
NGO	SFI Sustainable Forestry Initiative		http://www.sfi-program.org/		
forest consultant and research company	ATICA Affiliated Timber Investment Conversion Advisers, Inc	http://www.atica.us/index.htm	ProjectDirectors@Atica.us	US	
insurance	Fidelity National Title Insurance Company	https://www.fntic.com	webmaster@fnf.com		
Forest consultant	Forest2Market	http://www.forest2market.com/f2m/us/f2m1/	Lina Jenkins lina.jenkins@forest2market.com		

forest finance consultant and research company	Forestweb Inc	www.forestweb.com	salestimberlands@industryintel.com		
forest finance consultant and research company	FORSight Resources LLC	http://www.forsightresources.com/index.html	on website		
forest finance consultant and research company	International Forestry Consultants Inc	http://www.infoforestry.com/	info@INFOrestry.com		
forest finance consultant and research company	Jeffrey M. Siegrist & Company	http://www.siegristandcompany.com/index.htm	jeff@siegristandcompany.com		
forest finance consultant and research company	Lanworth Inc	http://www.lanworth.com/industry-intelligence/forestry/	solutions@lanworth.com , Tom Lassiter tlassiter@lanworth.com		
forest finance consultant and research company	Terra Source Valuation LLC	http://tsvalue.com/index.html	Jeffrey Wikle jwikle@tsvalue.com , Philip Bailey pbailey@tsvalue.com		
forest news and research	Timber Mart-South, University of Georgia	http://www.timbermart-south.com/	Tom Harris, Harris@warnell.uga.edu		

forest finance consultant and research company	TimberLink	http://www.timberlink.net/index.php	Gerry Myers gmyers@timberlink.net, Tracy Buran Evens tevens@timberlink.net		
UK Government-Supported Initiative	Global Canopy Foundation, Forest Footprint Disclosure	www.forestdisclosure.com	info@forestdisclosure.com c.harwood@forestdisclosure.com	UK	
Consultant	R & A Investment Forestry	http://investmentforestry.com/index.htm	info@investmentforestry.com	USA	
Consultant for SRI	Barchester Green Investment	www.barchestergreen.co.uk	info@barchester.co.uk	UK	
Forest consulting	Consufor	http://www.consufor.com/index.php	Marcio Funchal, contacted via LinkedIn	Brazil	

Annex 3 – Questionnaire survey

Ethical Forest Investment

1. General information

1. What is the name of your organization (if you prefer to stay anonymous you may skip this question)

* 2. What is the country location of your organisation?

* 3. What amount of your current assets under management do you quantify as ethical (socially responsible/sustainable) investments?

Less than 5%

Between 5% and 20%

Between 21% and 50%

More than 50%

* 4. What amount of your current assets under management do you quantify as forest investments?

Less than 5%

Between 5% and 20%

Between 21% and 50%

More than 50%

2. (Ethical) forest investment

* 1. Please rank according to importance your forest investments (1 is the most important, and 5 the least important).
 Put N/A for the investments that you do not have.

	1	2	3	4	5	N/A
Timber	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biofuel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon offset (CDM, REDD...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Payment for environmental services (landscape beauty and recreation, watershed protection, biodiversity protection...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(please specify)

Ethical Forest Investment

* 2. Do you apply ethical investments criteria to your forest investments?

- Yes
 No

3. If yes, what share of your total forest investment do you quantify as ethical investment?

- Less than 5%
 Between 5% and 20%
 Between 21% and 50%
 More than 50%

* 4. What ethical investment strategies do you use for forest investment? (multiple strategies may apply)

- Negative screening/ethical exclusions
 Positive screening (Best-in-Class)
 Other strategies

(please specify)

5. Please rank the locations of your forest investment according to importance (1 is the most important, and 5 the least important).

Put N/A for the locations where you do not have any forest investment.

	1	2	3	4	5	6	N/A
Domestic (country of origin of the fund manager)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Europe and Russia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
North America	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Latin America	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Australia and New Zealand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 6. Please provide examples of ethical forest investments that you offer.

3. Clients

* 1. Who are your clients interested in ethical forest investments?

- Institutional investor (pension fund, endowments, foundations, insurance funds...)
 Individual investor (ordinary people)

Ethical Forest Investment

* 2. From which country does these clients originate (country name by order of importance)?

4. Market demand

* 1. Has there been an increase in interest for ethical forest investments in the last three years?

- Yes
 No

If so, please give us a growth estimate for the last year

2. If there has been a growth, is it:

- driven by market demand
 driven by suppliers push

* 3. Do you think that in the next three years this interest will:

- Decrease
 Remain the same
 Increase slowly
 Increase sharply

5. General Comments and Lessons Learned

* 1. What is your organisational culture towards ethical investments?

- Full & long time support
 Recent buy-in
 Mix of support / scepticism depending on individuals
 Scepticism

2. How has the financial crisis affected your perception of ethical investments?

- Positively
 Negatively

3. If relevant, how do you perceive the overall performance of your ethical investments in light of the financial crisis?

- Better
 Worse

Ethical Forest Investment

4. Do you have comments to add? What lessons have you learned in relation to sustainable investments?

Annex 4 – Guidelines for semi structured interview with indirect stakeholders

Present yourself and thesis project, and state time needed for the interview

List of questions for semi structured interviews with indirect stakeholders

1. Can you describe your company and what is its field of work?
2. What is your personal position in the organisation?
3. How are you (and your organisation) involved in SRI?
4. Could you describe your vision of SRI?
5. Does your clients/partners/members invest in forest sector?
6. If yes, which type of forest sector investment?
 - Profit oriented (Timberland, Carbon offset, biofuel)
 - Multifunctional (Ecotourism and payment for environmental services, community investing/rural development, improving sustainable forest management, certification...)
7. Who are these clients/partners/members?
8. Do you know if they include SRI in forest investment?
9. If yes, which SRI strategies they use?
 - Negative screening
 - Positive screening
 - Other strategies?
10. Do you have comments to add? What lessons have you learned in relation to SRI in forest sector?

Thank for time and participation. Propose to send results if the interviewee is interested.