



## Private investments in forest and nature in the Netherlands





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## PREFACE

Underlying report shows the result of my master thesis which was carried out as a part of the study Forest and Nature Conservation at Wageningen University. The thesis work was carried out from January 2010 to August 2010 at the chair group Forest and Nature Conservation Policy.

In this period, research has been done on the finance of forest and nature by private parties. Firstly, this research involves a study of motives of private investors in forest and nature and the investment forms they use. Furthermore, it explores the future opportunities for the finance of forest and nature by private parties which attract both the current group of investors as potential new groups of investors.

I wish to take this opportunity to show my gratitude to my supervisor Marjanke Hoogstra for her support and advice in conducting this report. Marjanke, it was a pleasure working with you and especially your help in defining the research objective, setting the right course and thinking along with me about the study design were of great importance to me.

Furthermore I would like to thank all the interviewees for their kind corporation. The investors in forest and nature, which range from farmers and rural state owners to banks and insurance companies, welcomed me with open arms. Thank you for your trust in sharing your information with me. In addition, third parties are acknowledged that provided me with additional insights of investment forms and the possible future role of the government in stimulating the private finance of forest and nature. Special thanks to Eric Gerritsen, Ministry of Agriculture, Nature and Food Quality, Conny Groot, Natuurmonumenten, Willem Meijers, National Greenfund, Aad van Paassen, Landscape Management Netherlands, Albert Schimmelpenninck, Federation for Private Landownership and Hans Veurink, Corporation for Nature and Countryside Management, for having me over for an interview.

Wageningen, 10<sup>th</sup> August, 2010

Marlie Vinken



## ABSTRACT

Over the last few years the growth of the area of nature in the Netherlands is coming to a standstill. The future finance of forest and nature is uncertain as budgets are under pressure and the government is increasingly withdrawing from financing nature. The chance of meeting the goals of the Ecological Main Structure in time, for both the acquisition of land as the development of land into new nature, is less than five percent. For nature and landscape outside the Ecological Main Structure the future finance is even more uncertain because no protection regimes or budgets are allocated to it. Therefore, more private finance for nature and forest is needed and the future of nature in the Netherlands is dependent on new forms of organization, instruments and finance.

The problem with the finance of forest and nature by private parties is that these are common pool resources, which have the effect of creating a tension between the profit or advantage the actors derive from nature and their contribution to nature costs. The question in this research is, although nature and forest are “in essence” common-goods which give rise to the problem of free-riding, whether there may be new instruments and possibilities to finance nature and forest through the market.

The current instruments for the private finance of forest and nature are particularly oriented at traditional nature and landscape parties. The voluntary finance of forest and nature by private parties can get more successful by exploring the field of potential investors and by responding to their specific motives and situation. While there is less interest in nature conservation by private parties than was originally expected, this does not necessarily mean that private parties are not willing to invest in forest and nature. Maybe the right investment forms just do not exist yet. This can be a result of not having the insights in the motives of private parties to invest in forest and nature, while the information is just out there as already a wide range of parties do invest in forest and nature. This research shows that possibilities to attract new types of investors especially exist in the field of health care, recreation, living, energy and food production.





## TABLE OF CONTENTS

<b>Preface .....</b>	<b>3</b>
<b>Abstract .....</b>	<b>5</b>
<b>1. Pre-scientific understanding.....</b>	<b>11</b>
1.1 Background .....	11
1.2 Problem description .....	14
1.3 Research objective.....	17
<b>2. Theoretical framework.....</b>	<b>19</b>
2.1 Relation to other research .....	19
2.2 Tragedy of the commons .....	19
2.3 Defining investment.....	21
2.3.1 <i>Traditional meaning of investing</i> .....	21
2.3.2 <i>New meanings of investing</i> .....	24
2.3.3 <i>Fields of tension</i> .....	27
2.4 Investors and investment forms .....	28
2.4.1 <i>Investors</i> .....	28
2.4.2 <i>Investment forms</i> .....	28
2.5 Visualization of the study .....	29
2.6 The social basis for nature protection and development in the Netherlands .....	30
<b>3. Methodology.....</b>	<b>33</b>
3.1 Research approach .....	33
3.2 Data gathering .....	33
3.2.1 <i>Starting point</i> .....	33
3.2.2 <i>Approach to collect data</i> .....	34
3.3 Data analysis .....	36

<b>4. Investors in nature .....</b>	<b>37</b>
4.1 Investors and their motives .....	37
4.1.1 <i>Motives of private individuals</i> .....	37
4.1.2 <i>Motives of institutional organizations</i> .....	40
4.1.3 <i>Differences and similarities between private individuals and institutional organizations</i> .....	43
4.2 Investors and the investment forms they use .....	44
4.2.1 <i>Investment forms of private individuals</i> .....	44
4.2.2 <i>Determining characteristics and factors for private individuals</i> .....	46
4.2.3 <i>Investment forms of institutional organizations</i> .....	47
4.2.4 <i>Determining factors for institutional organizations</i> .....	52
4.2.5 <i>Differences and similarities between private individuals and institutional organizations</i> .....	54
<b>5. Barriers for potential investors.....</b>	<b>55</b>
5.1 Barriers for private individuals.....	55
5.2 Barriers for institutional organizations .....	58
<b>6. Development of new investment forms .....</b>	<b>61</b>
6.1 New investment forms that are recently brought into practice.....	61
6.2 Ideas about new investment forms .....	63
<b>7. Policy changes .....</b>	<b>67</b>
7.1 Investors and the type of nature invested in.....	67
7.2 Changes in the government's role .....	68
<b>8. Discussion .....</b>	<b>71</b>
<b>9. Conclusion.....</b>	<b>77</b>
<b>10. Reference list.....</b>	<b>79</b>
 <b>Appendix 1. Interview questions for investors</b>	
<b>Appendix 2. Interview questions for third parties</b>	
<b>Appendix 3. Interviewees</b>	

## LIST OF TABLES AND FIGURES

### Tables

Table 1. Definitions of investing.....	22
Table 2. Motives of private individuals to invest in forest and nature .....	37
Table 3. Motives of institutional organizations to invest in forest and nature.....	40
Table 4. Barriers for private individuals .....	55
Table 5. Barriers for institutional organizations.....	58

### Figures

Figure 1. Changes in land use, 1990-2004 (based on Beck, et al., 2009) .....	12
Figure 2. Nature in 2007 (based on Beck, et al., 2009) .....	13
Figure 3. Realisation Ecological Main Structure (based on Beck, et al., 2009).....	13
Figure 4. Nature conservation by private parties (based on Beck, et al., 2009) .....	14
Figure 5. Net costs for nature- and landscape management (based on CBS, 2007) .....	15
Figure 6. Typology of goods (based on Gibson, et al., 2000) .....	20
Figure 7. Values of forest and nature (based on Smit et al., 2005 & Landell-Mills & Porras, 2002 & Bade et al., 2008) .....	25
Figure 8. Connections between important concepts .....	29



# 1. PRE-SCIENTIFIC UNDERSTANDING

## 1.1 BACKGROUND

Before 1850 managing, protecting and developing nature in the Netherlands used to be the concern of private individuals. Landowners managed and protected their own property. Farmers took care of their pastures, forests and waters. Landlords gave orders to maintain their parks. These practices, which show the good care over the Dutch natural resources by individuals in the past, came to an end with the industrial revolution in the second half of the nineteenth century. Due to industrialization, in combination with population growth and modern agriculture, less space for nature remained. The typical Dutch landscape, associated with dunes, polders, rivers, oak woodlands and heath land, started to fade away. To preserve rural estates in the existing condition, the natural beauty act (“Natuurschoonwet”) was launched in 1928, which offered owners, usufructuaries and leaseholders of rural estates tax advantages. However, about 1950 the process of nature degradation was taking serious forms: the area of nature decreased just as the amount of plant and animal species in the Netherlands (Ministry of Agriculture, Nature and Food Quality, 2005).

At the end of the sixties the government acknowledged the urgency of preserving the nature areas that were still left. Biodiversity declined, other functions pushed the space for nature away and at the same time more and more people went to nature areas for recreation which increased the pressure on the few nature areas that remained. Therefore, the government decided to take a more active role in the protection, management and development of nature. In 1961 the Forest Law (“Boswet”) was launched to protect the Dutch forests. This law implies that when forest is being cut, it should be replanted within three years. Soon after the Forest Law, the Nature Protection Law (“Natuurbeschermingswet”) was launched in 1968. With this law it became possible to protect designated nature areas in which certain valuable habitats exist (Ministry of Agriculture, Nature and Food Quality, 2005). Besides, the Dutch government decided in 1969 to join the initiative of The World Conservation Union (IUCN) to establish National Parks. Twenty National Parks were designated, of which two National Parks (“de Hoge Veluwe” and “de Veluwezoom”) were developed on private initiative (Ministry of Agriculture, Nature and Food Quality, 2010<sup>1</sup>).

The Dutch National Parks are contiguous nature areas of at least 1.000 hectare. Compared to foreign countries, Dutch parks are limited in size. Also does “real” nature, untouched by human hands, rarely exist in the Netherlands. Nevertheless special valuable ecosystems exist in the Netherlands that are not or hardly found anywhere else in the world, like dune areas, peatswamps and heath lands (Ministry of Agriculture, Nature and Food Quality, 2010). Today, the National Parks in the Netherlands cover 120.000 hectare, which is about 3% of the surface area of the Netherlands (Ministry of Agriculture, Nature and Food Quality, 2010<sup>2</sup>).

At the end of the eighties another problem appeared. Although large nature areas were now protected in the Netherlands, this protection ended at the borders of the National Parks. Nature areas became fragmented. This resulted in isolated islands, which made it impossible for many plant- and animal species to migrate from one area to another. Connections between nature areas had to be made. However, the lack of connections between nature areas was not the only problem. The government realized that there was also not enough nature left in the Netherlands. Between the fifties and the nineties almost fifty percent of the nature in the Netherlands disappeared. The protection of nature areas in the Netherlands started at the time that the area of nature was already decreased to a large extent (Ministry of Agriculture, Nature and Food quality, 2005).

To solve the problems of fragmentation and the lack of large nature areas in the Netherlands the government introduced the concept of the Ecological Main Structure (“Ecologische Hoofdstructuur”) as part of the Nature Policy Plan (“Natuurbeleidsplan”) in 1990. Up to today, the Ecological Main Structure intends to enlarge nature areas and to connect them with each other so that plants and animals are free to disperse. The ambition is to finish the Ecological Main Structure in 2018 with a total area of 728.500 hectare of land (and 6.300.000 hectare of surface water). With this, about 17,5% of the total area of the Netherlands will be nature in 2018.

To accomplish this goal about 150.000 hectare of agricultural land should be converted to new nature. This new nature will give plants and animals the space that they have lost during the last century, it will reconnect nature areas and it will drive back the impact of recreation on nature as more nature will lead to less recreation pressure per square meter (Ministry of Agriculture, Nature and Food Quality, 2005). Next to this 150.000 hectare, the Dutch Lower House appointed another 27.500 hectare of agricultural land for the conversion into robust connection zones (“Robuuste Verbindingszones”). These robust connection zones improve the conditions for the migration of species between nature areas, which prevents diseases due to inbreeding and the extinction of species in certain areas (AgriHolland BV, 2010).

So far, protection regimes have had a focus on nature. The typical Dutch man-made landscapes each representing their specific cultural history were still under pressure of urbanization. With the approval of the Memorandum Space (“Nota Ruimte”) by the Dutch parliament in 2006 landscape and cultural history gained more attention by the designation of twenty National Landscapes. These are typical Dutch landscapes in which people work, live and recreate. Each landscape holds a unique combination of cultural-historical and natural elements and tell by that the narrative of the Dutch Landscape (Kooiman et al., 2005). National Landscapes cover an area of about 500.000 hectare (Smit et al., 2005).

As presented in figure 1, the area of nature in the Netherlands has shown a relatively fast growth from the year 1990 up to 2004 in comparison to the rest of Europe. Despite all, the area of nature in the Netherlands is still relatively small compared to the rest of Europe as presented in figure 2.

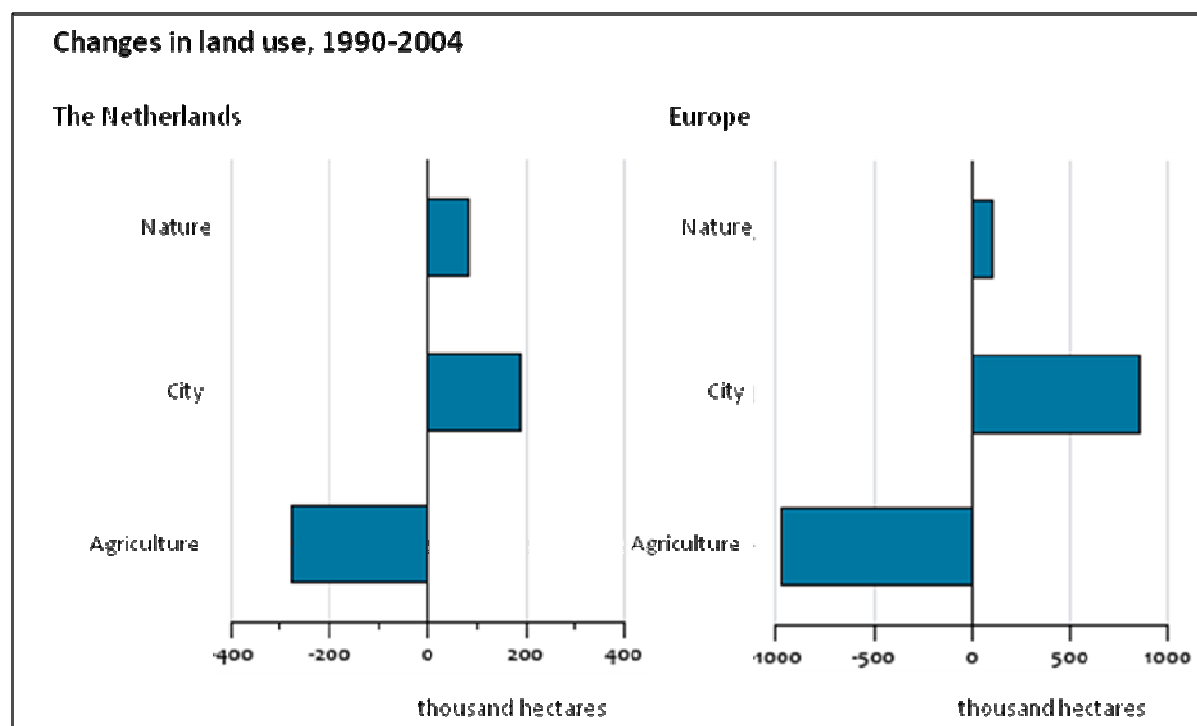


Figure 1. Changes in land use, 1990-2004

Source: Beck, et al., 2009

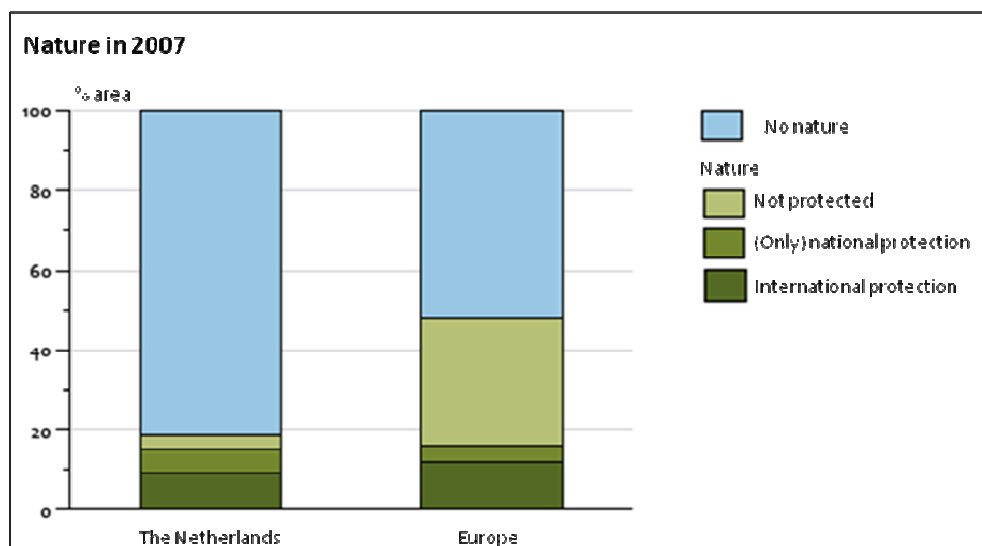


Figure 2. Nature in 2007

Source: Beck et al., 2009

Over the last few years the growth of the area of nature in the Netherlands is coming to a standstill. According to an estimation based on the historical trend of the acquisition and development of land, the Ecological Main Structure will be realized in 2018 for only 60 percent. As presented in figure 3, the chance of meeting the goals in time, for both the acquisition as the development of land to nature within the Ecological Main Structure, is less than five percent. However, when the original tempo of converting land into new nature can be resumed, it can still be possible to make the deadline of the year 2018 (Beck et al., 2009).

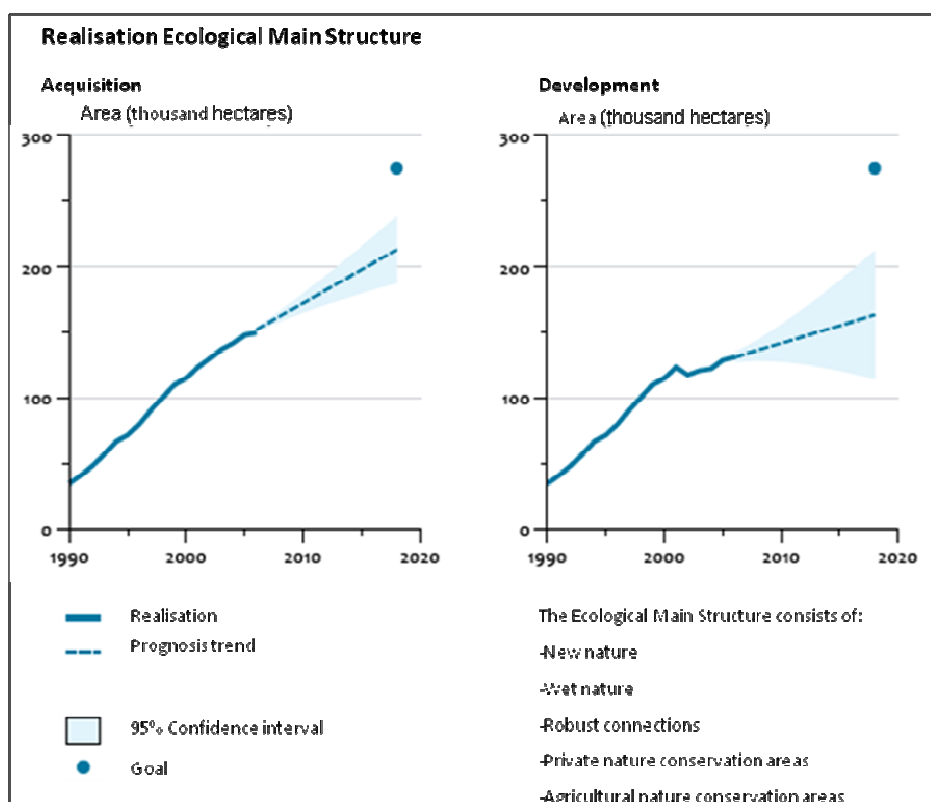


Figure 3. Realisation Ecological Main Structure

Source: Beck et al., 2009

Besides the fact that the surface area of nature in the Netherlands needs to increase, Dutch nature also does not have the desired quality yet. The least demanding nature areas are slightly recovering, but the quality of the agricultural land is still going backwards. The red list is becoming larger. Especially the most endangered

species are going backwards and some of them are on the edge of extinction in the Netherlands (Beck et al., 2008).

## 1.2 PROBLEM DESCRIPTION

This study has a focus on private investments in the Ecological Main Structure, rural estates, National Parks and National Landscapes. All National Parks, some rural estates and some parts of National Landscapes are part of the Ecological Main Structure. Therefore, first the problems with the finance and development of the Ecological Main Structure will be discussed below. After this, attention is given to areas that are situated outside the Ecological Main Structure.

Since the introduction of the Ecological Main Structure in 1990, a lot of agricultural lands are converted to new nature. But, to meet the deadline of 2018, this process needs to speed up. To achieve the goal of the Ecological Main Structure, which is to develop a network of nature areas of 728.500 hectares of land, still a lot of agricultural lands should be converted into new nature. Out of the 130.000 hectares of land that needed to get acquired by the government for the development of the Ecological Main structure by 1990, 70.000 hectares are acquired by now (Beck et al., 2009).

Not all the land in the Ecological Main Structure is or should be state property. Nature conservation by private parties provides opportunities. However, the estimated interest in nature conservation by private parties in many provinces is less than is needed to fulfill the task for 2018. Figure 4 presents the current amount of land under conservation by private parties, the estimated interest of private parties for nature conservation in the nearby future and the amount of land that finally should be under private conservation to meet the target of 2018.

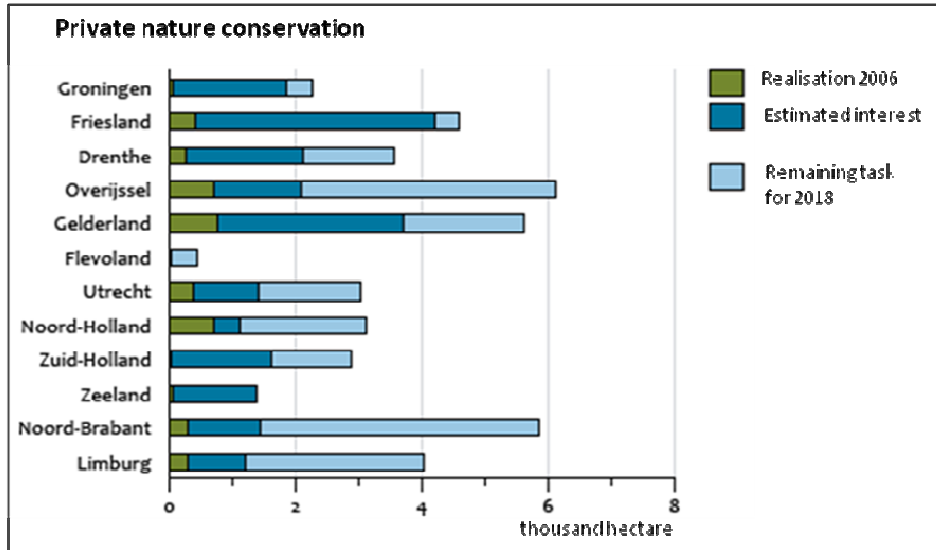


Figure 4. Nature conservation by private parties

Source: Beck et al., 2009

Besides nature conservation by private parties, agricultural nature conservation is also part of the goal setting of the Ecological Main Structure. The aim of agricultural nature conservation is to upgrade the nature quality of the rural area. The main function of the land remains agriculture. The goal is to have 120.000 hectares of land under agricultural nature conservation, of which 100.000 hectares is situated within the Ecological Main Structure. On the National level the area of agricultural nature conservation is increasing. At the moment, 66 percent of the goal is accomplished, as 66 percent of the allocated areas are under agricultural nature



conservation yet. While in some provinces the area of agricultural nature conservation is increasing very fast, in a lot of provinces the realization is coming to a standstill (Beck et al, 2009).

Also nature areas outside the Ecological Main Structure are part of this study. Today, a lot of developments take place in National Landscapes and new rural estates. The amount of initiators for the development of new rural estates is growing (B4o, 2010). The success of National Landscapes varies widely from landscape to landscape. In some National Landscapes (like “Het Groene Woud”) a lot of local projects are initiated, while in others (like “Zuidwest Zeeland”) very little local initiatives take place. Both the approach for new rural estates as for National Landscapes varies from province to province (Schroder et al., 2008).

At the moment, the Dutch government wants to stimulate private contributions to forest and nature. However, when costs are involved with the establishment or maintenance of nature, society will think of it as a task for the government at first (Padt, et al., 2002). The presence of nature is experienced as something that is self-evident. This does not only go up for the Netherlands. Worldwide, biodiversity conservation is financed primary with grants, donations and government budget allocations, the latter largely being determined by national priorities (World Wildlife Fund, 2009). The opinion of the federal government of the Netherlands is that at present a disproportionate part of the costs of nature and landscape is coming at the expense of the state. Figure 5 presents the distribution of the costs made by the state and private parties for nature conservation and landscape management from 1991 until 2005.

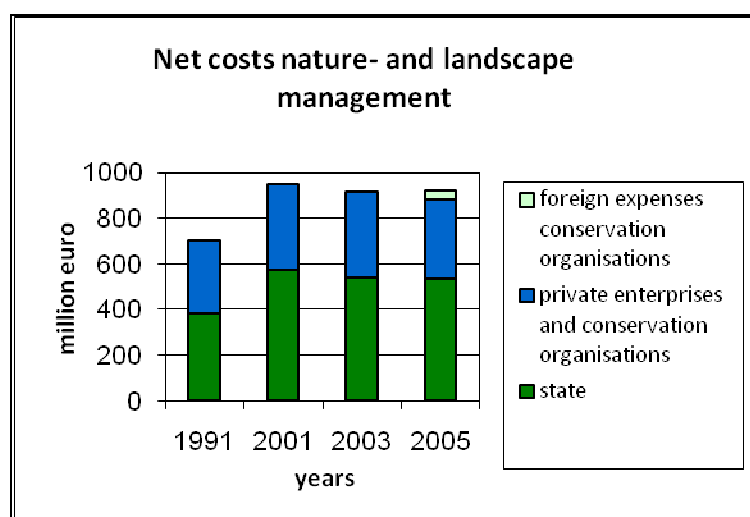


Figure 5. Net costs for nature- and landscape management

Source: CBS, 2007

As can be concluded from figure 5 the state’s contribution to nature conservation and landscape management is larger than that of private enterprises and private conservation organizations. This large contribution of the state in nature costs is connected with the common good character of nature, which has the effect of creating a tension between the profit or advantage that actors derive from nature and their contribution to nature costs (Wielen et al., 2004). It is difficult to prevent free riding, which means having the profits without paying for it.

Fact is that the state is increasingly withdrawing from financing nature over the last few years. For the realization of the Ecological Main Structure there is a financing scheme. However, the realization of the Ecological Main Structure is behind schedule and the government holds on to the need for a greater commitment of private landowners and less purchase of land by the government. For nature and landscape outside the Ecological Main Structure the future financing is even more uncertain. While the government steers on the importance of National Landscapes, no protection regimes or budgets are allocated to it. Therefore, the future of nature in the Netherlands, especially the nature in National Landscapes and other valuable nature areas outside the Ecological Main Structure, is dependent on new forms of organization,

instruments and finance. While current practice departs from government funds and subsidies, the future is lying in the finance of nature and forest through the market by private parties. Research into new forms of finance, that better fit the mixed public private character that the future financing of nature and landscape probably has, is therefore very important (Smit, et al., 2005).

The context in which these new forms of finance should be developed is essential for finding the most appropriate instruments to do so. The first important factor to deal with is the financial crisis of the world-wide economy. The first signs of an economic crisis became noticeable in December 2007 when the housing market in the United States of America collapsed. As a result of strong alliances between international financial markets this crisis had an impact on the Dutch economy soon after it hit America. This financial crisis is likely to influence potential investors in nature. Also, it does make private investments in nature extra important because the Dutch government lacks money to do so (Ministry of Finance, 2010).

Secondly, climate change will ultimately lead to higher conservation costs. In the Netherlands, more and more climate adaptation projects are being started. These projects try to mitigate the effects of the rising of temperature, the shortage of rainfall in the summer and the increase of rainfall in the winter. Water systems should also be adapted to more extreme precipitation. Measures to reorganize the water system, enhance nature values, fight diseases and pests and facilitate in the need for coolness for people that want to recreate are increasingly being taken (Werkgroep Klimaatadaptatie Het Groene Woud, 2009). Nowadays, climate adaption projects are financed to a large extent by subsidies. The exploration of possible future forms of financing for these projects by private investments is therefore very useful.

Thirdly, the Dutch political system is making a move from government to governance, which means a change from top-down steering by the central government to a bottom-up approach. This implicates a shift in balance between government and society, away from the public sector and more towards the private sector. The financing of nature by private parties and local initiatives fits very well in the scope of the growing popularity of the bottom-up approach. With the move to governance, the relationship between the state, provinces and municipalities is changing. Power and responsibilities are transferred from the state to local authorities like municipalities and provinces, who get a more extensive role in the allocation of money and capital (Kooiman, 1993).

The final important factor that has an influence on private investments in forest and nature is the growing pressure on the profitability of agriculture. Outside the Ecological Main Structure, the Netherlands consists of 2.000.000 hectares of rural area that is of high natural value. Up to today, agriculture used to be the holder of these natural values. Because the profitability of agriculture is under high pressure today, agriculture may not be self-evidently the holder of natural values in the future (Smit, et al., 2005).

### 1.3 RESEARCH OBJECTIVE

The research objective follows from the various facts mentioned in the problem description in section 1.2, that encompass the reasons for doing this research, which are summarized below:

- A lot of money and capital is needed for the development of new nature and the conservation of existing nature;
- The opinion of the state is that a disproportionate part of the costs of nature and landscape is coming at the expense of the state. Therefore, the state is increasingly withdrawing from the finance of nature over the last few years;
- The Dutch political system is making a move from government to governance;
- The Dutch economy is suffering from a financial crisis;
- Climate change leads to higher conservation costs;
- The profitability of agriculture is increasingly under pressure.

All these facts together lead to a great demand for new forms of sustainable financing for forest and nature, not by the state but by private parties. From here, the following research objective for this research arises: *“to clarify the opportunities for financing forest and nature in the Netherlands by investments of the private sector”*.

To achieve this, the following research questions will be answered:

- Which private parties are willing to invest in forest and nature in the Netherlands?
- What are the motives of these private parties?
- Which forms of investment do these private parties use?
- Which forms of investment are suitable for which types of nature?
- What can the Dutch government do to stimulate private investments in forest and nature, which attracts both the current group of investors as potential new groups of investors?
  - *What does the Dutch government already do to stimulate private investments?*
  - *What are future opportunities?*



## 2. THEORETICAL FRAMEWORK

### 2.1 RELATION TO OTHER RESEARCH

Over the last decade, several studies have been carried out exploring new opportunities and instruments for financing forest and nature conservation by private parties. Both in the Netherlands as in other countries that go through a shift from government to governance, there is a growing interest for new financial instruments that are able to bind private parties to contribute to nature conservation.

Most of these studies take the government as a starting point, which wants to stimulate private parties to contribute to nature conservation. As a result, this studies approach the subject from the need for finance, instead of the free will of private parties to invest in forest and nature. Instruments that are designed to involve private parties in the finance of nature and forest therefore depart from a governments point of view and are often not designed to involve private parties on a voluntary basis. What in the literature is referred to as private investments, are often forced contributions of private parties in forest and nature. These forced contributions will probably not lead to great public support for the finance of forest and nature.

This research takes the private investors as a starting point. It studies their motivations to invest and it explores the instruments that these private parties use to invest. Only one earlier research has been carried out in the Netherlands which took the investors point of view as a starting point for developing policies and financial instruments that appeal to private investors. That study has been carried out as part of the project “investing in ecology” and the campaign “Netherlands Beautiful” (Padt, et al., 2002). The campaign intended to inspire municipalities, companies and citizens to set up the local finance of forest, nature and landscape. The project, which was on the basis of the campaign, explores the motives of private parties and municipalities to invest in forest, nature and landscape and investigates which types of investment forms are suitable for which type of investor. As the project “investing in ecology” took place in 2002, new developments (like the economic crisis) may have influenced the motives of investors and new investment forms may have appeared. Also, this research is going a step further than the project “investing in ecology” by investigating which forms of investment are suitable for which types of nature. The results of the project “investing in ecology” will be used as background information and will also be discussed in the following paragraphs as part of the theoretical framework.

### 2.2 TRAGEDY OF THE COMMONS

The problem with financing nature and forests by private parties starts with the characteristics of this goods. In research economics, often four different groups of goods are being distinguished, based on the characteristics excludability and rivalry. This goods are named: private goods, club goods, common-pool goods and pure public goods. These types of goods are illustrated in figure 6.

The *private good* is characterized in figure 6 as excludable and rival. When for example a tree is cut for the production of timber, another person cannot use the tree anymore for other purposes. Also timber companies can exclude outsiders from harvesting the trees. The difference between private and *club goods* is that club goods are not rival. If one uses the good, it does not mean that someone else cannot use the same good anymore. An example of a club good is satellite television. When one person has satellite television it has no effect on the opportunity of others to have it, but if you are not paying you are excluded.

		Excludable?	
Rival?	Yes	Yes	No
	No	<b>Private goods</b> (trees, sheep, fish, chocolate cake)	<b>Common-pool goods/ Common goods</b> (forest, pasture, fishery, any environmental sink over time)
		<b>Club goods</b> (festive atmosphere at a party)	<b>Pure public goods</b> (defense, TV broadcasts, lighthouse beams, an environmental sink at a given instant, a given level of public health, a given level of inflation)

Figure 6. Typology of goods  
Source: Gibson, et al., 2000.

*Pure public goods* are not rival and not excludable. This means that everyone can use the good and that the use by the one has no effect on the use of the same good by the other. An example of a pure public good is defense. Pure public goods and common-pool goods are often mixed up. Many goods described once as pure public goods in economic textbooks (air, water, roads, bridges) are in fact no pure public goods at all. They are subject to crowding, wear and depletion (Gibson, et al., 2000). *Common-pool goods* are just like pure public goods not excludable, but they are rival. Think for example of forests and pastures. When recreation pressure on forest or grazing pressure on pastures reaches a certain limit, this will lead to degradation of the resource. The use of a common-pool good by the one, negatively affects the opportunity for the other to use the same good.

In essence, forest and nature are common-pool goods. These goods have the characteristics that make it expensive, but not impossible, to exclude potential beneficiaries from obtaining benefits from its use. Think for example of a forest, which can be fenced to exclude outsiders, while at the same time, this will be very costly. Also, common pool resources face problems of overuse, because they are subtractable (Gibson et al., 2000). This problem of overuse will be further explained by the tragedy of the commons.

The problem with common-pool resources, which is well known as the tragedy of the commons described by Hardin (1968), is that individuals put their own self-interest above others or the group, which eventually leads to resource depletion, even when it is clear that this is not in anyone's interest. In forest and nature conservation, this will eventually lead to degradation of the environment whenever many individuals use a scarce resource in common. Hardin (1968) illustrates his theory with an example of a "pasture" open to all. In explaining his theory, Hardin (1968) starts from the perspective of a rational herder. Each herder receives a direct benefit from his own animal that grazes on the common parcel of land. Also, each herder suffers delayed costs from the deterioration of the commons when his and other's cattle overgraze. The crucial element in this theory is that it is in each herder's interest to put the next cows onto the land, even if the carrying capacity of the commons is exceeded and damaged as a result. The reason for this is that the herder receives all of the benefits from an additional cow while he bears only a share of the costs resulting from overgrazing. The costs of overgrazing are shared by the entire group (Dionisio et al., 1990).

Closely linked to the assumption of the tragedy of the commons, which means that individuals put their own interest above others, is the problem that common-pool resources face free-riding. When individuals cannot be excluded from the benefits that others provide, no-one is motivated to contribute to the joint effort. Instead

they prefer to free-ride on the efforts of others. However, when all participants choose to free-ride, the collective benefit will not be produced (Dionisio et al., 1990).

Government control and privatization are by some studies seen as the solution for the tragedy of the commons and the free-rider problem (Ostrom, 1990). This changes its common-pool resource character. When a common-pool resource is owned by national, regional or local governments it takes over the characteristics of public goods. Common-pool resources may also be owned by private individuals or corporations as private goods or by communal groups as common property resources.

While state control and privatization of common-pool resources have been advocated, neither the state nor the market has been consistently successful in dealing with the problems that common-pool resources face. In 1990 critique on the tragedy of the commons emerged. After observing a number of common pool resources around the world, Ostrom (1990) noticed that in contrast to the propositions of the tragedy of the commons argument, common-pool problems sometimes are solved by voluntary organizations rather than by a coercive state. Her observations are also inconsistent with claims that common-pool resources should be privatized or else face destruction in the long run due to the overuse of the resource. According her observations the capability of individuals to free themselves from various types of dilemma situations varies from place to place and stable institutions of self-government can be constructed if certain problems of supply, credibility and monitoring are solved. (Ostrom, 1990).

Another contradiction with the tragedy of the commons, is the growing awareness of the importance of biodiversity conservation among the general public. According Bowles et al. (1998) *“business must address the link between economic and environmental issues, not only because governments may force them to do so, but also because consumers demand it directly”*. Therefore, ignoring environmental issues is no longer a rational economic choice for the private sector.

To conclude, the question in this research is although nature and forest are in essence common-pool goods which give rise to the problem of free-riding, whether there may be new instruments and possibilities to finance nature and forest through the market. The state is increasingly drawing back from the finance of forest and nature, so private investments in forest and nature are needed.

## 2.3 DEFINING INVESTMENT

In this research, private investing is considered to be synonymous to nongovernmental investing. Private parties can be both individuals and organizations. This section first elaborates on the meaning of “investing”. The traditional meaning of investing is described by the exploration of definitions of investing that already exist. After this, a new definition of investing is formulated that is used in this research. Finally, some fields of tension are discussed that relate to the definition of investing in this research.

### 2.3.1 TRADITIONAL MEANING OF INVESTING

A lot of different definitions of investing exist. To get a grips on the term investing, these different definitions are compared with each other in table 1. This table provides an insight in the components that are important for building up a definition of investing, by naming the most decisive components of every definition.

Definition of investing	Components of importance
to put money, effort, time etc. into something to make a profit or get an advantage (Cambridge University Press, 2008)	<ul style="list-style-type: none"> <li>• Sacrifice: money, effort, time etc.</li> <li>• Motive: make a profit/ get an advantage</li> </ul>
sacrifice goods of current date for goods of a later date (Hirshleifer et al., 1970)	<ul style="list-style-type: none"> <li>• Sacrifice: goods</li> <li>• Motive: more goods</li> <li>• Time: dependence on time</li> </ul>
any use of resources intended to increase future production output or income (Meyer, 2010)	<ul style="list-style-type: none"> <li>• Sacrifice: resources</li> <li>• Motive: to increase future production output or income</li> </ul>
the investment of money or capital in order to gain profitable returns, as interest, income, or appreciation value (O'Sullivan & Sheffrin, 2003).	<ul style="list-style-type: none"> <li>• Sacrifice: money, capital</li> <li>• Motive: gain profitable returns, as interest, income, or appreciation value</li> </ul>
to buy shares, property, or goods because you hope that the value will increase and you can make a profit (Longman, 2006)	<ul style="list-style-type: none"> <li>• Motive: to make a profit</li> <li>• Risk: "hope" indicates that the future value is unsure</li> </ul>
In a business context, investing is the process of committing capital to purchase assets in exchange for the anticipated return from income and/or appreciation of those assets (Investor Glossary, 2010).	<ul style="list-style-type: none"> <li>• Sacrifice: capital</li> <li>• Motive: the anticipated return from income and/ or appreciation of assets</li> <li>• Risk: "anticipated return" indicates that the return is unsure</li> </ul>
Trade off between risk and reward while aiming for incremental gain and preservation of the invested amount (principal) (WebFinance, Inc., 2010)	<ul style="list-style-type: none"> <li>• Motive: reward (incremental gain)</li> <li>• Risk: "risk" is part of the definition: the reward for investing is unsure</li> </ul>
An asset or item that is purchased with the hope that it will generate income or appreciate in the future (Investopedia ULC, 2010)	<ul style="list-style-type: none"> <li>• Sacrifice: asset or item</li> <li>• Motive: income or appreciate</li> <li>• Time: dependence on time</li> <li>• Risk: "hope" indicates that the return is unsure</li> </ul>

Table 1. Definitions of investing

From the definitions in table 1 it appears that different components are important in forming an definition for investing. These components are discussed below.

### Time

Investments are characterized as sacrifices which you make at a certain date , for which you will get the revenues at a later date. The time frame between an investment and the return of the revenues of the investment can vary widely. The longer the time frame between an investment and the anticipated return, the more revenues the investor will usually expect to return. The simplest example is a savings account. Banks usually provide a higher interest rate to people who put money away for a fixed and long period of time.

In some situations investors will get the revenues of their investment at one particular (agreed) moment in the future. Think for example of the interest one can get from the money that is put on a savings account. In other situations one will get the revenues of an investment spread out over time, unsure when the investment will exactly pay off. In forestry, in which long-term management is required, harvest incomes are spread over time but often at regular intervals (Klemperer, 1996).



## **Risk**

Half of the definitions of investing that are mentioned in table 1 contain some elements of risk. Uncertainty and risk are strongly related to the time aspect. By investing, a person or organization decides to become (to a certain extent) dependent on the future, knowing that the future involves all kinds of uncertainties. In forestry there is for example risk of fire, disease, changes of weather and price fluctuations of timber. Also, if forest or nature parks are set aside for recreation from which income is generated, the number of visitors over time will fluctuate depending on people's preferences, population trends, economy, weather and other recreation opportunities. Most investments include some form of risk, but the degree of risk can vary widely.

Most investors prefer a certain revenue above a risky one of the same expected value. However, there are also investors who like taking a risk. Even though the expected value is the same, they will take the risky alternative. For them, the displeasure from possibly receiving less-than-average returns is more than compensated by the chance of higher-than-average gains. The choice for a risk-free or a risky revenue depends a lot on the investors personal preference (Klemperer, 1996).

## **Sacrifice**

Investments are not something for nothing. When investors for example buy an asset, they make a sacrifice by giving up the chance to spend that money now on goods and services. According to the definitions of investing in table 1 these sacrifices can be money, goods, effort and time. Assets that are invested in can be durable goods (equipment, machinery etc.), financial assets (saving accounts, stocks etc.) and land and natural resources (timber, energy etc.) (Klemperer, 1996).

Investors expect to eventually get more revenues from the investment they make, than they give up for it. This is nicely illustrated by the definition of the Business Dictionary (2010) of investing: "Investing is the tradeoff between risk and reward while aiming for incremental gain and preservation of the invested amount". But aiming for incremental gain and preservation of the invested amount are not the only criteria. By investing in forestry, one cannot invest that same amount of money, time or effort in something else. So the chosen investment should return at least as much as the best alternative over the same period at a similar risk. When investing, you give up or "sacrifice" the opportunity for earnings elsewhere on that same capital. These sacrifices that investors make are called opportunity costs (Klemperer, 1996).

## **Motive**

The definitions of investing, presented in table 1, differ among each other in their perspectives about motives to invest. Most definitions are primarily about making a profit (in the form of income, future production output or goods). However, some definitions take investing in a much broader perspective by including getting an advantage or appreciation value as motives to invest. An example of the latter can be illustrated by the following definition of investing: "the investment of money or capital in order to gain profitable returns, as interest, income, or appreciation value" (O'Sullivan & Sheffrin, 2003). Also Klemperer (1996) talks about the possibility of gaining "nondollar" returns out of investments. Making a profit, getting an advantage or gaining appreciation value is the reward an investor receives for postponing expenditure. Klemperer (1996) states that "even for nondollar returns from assets like art or scenic areas, you can imagine many cases where the satisfaction gained over time exceeds the satisfaction lost in creating or setting aside the asset".

## **Choice**

In the definitions of investing presented in table 1, nothing is included about the voluntary basis of investing. This research is based on the idea that making an investment is always based on a free choice. Money, time or effort that is spend with an investment could also be allocated to other assets. This depends on the choice of the investor.

### 2.3.2 NEW MEANINGS OF INVESTING

The meaning of investing explained above, with the different components that should be integrated in the definition of investing, is very classical. Particularly with regard to motives of investors, there are increasingly other insights that do not only include making a profit, but also getting other forms of advantages or appreciation value. Only some of the definitions in table 1 name these kind of motives. For the development and management of nature and forest these alternative motives for investing are very interesting. Following the logic of the characteristics of common-pool goods, nature and forest development and management cannot be regulated by the market solely. This is why nature and forest are highly dependent on government interference today. However, in case that making a profit is not the only reason for people to invest in forest and nature, there might be other instruments that attract possible future investors.

To find out about alternative reasons for investing in forest and nature, it is interesting which values nature and forest represent to people. This might form the basis of the (alternative) motives people have to invest in nature or forest. The definition of investing that will be used in this research, which is based on a literature search on investing and motives of people to invest in forest and nature, is described in the end of this section.

#### Values of nature and forest

Research that have been carried out on the valuation of nature and forest primarily intend to investigate the possibilities of adding a monetary value to environmental goods. When environmental goods can be expressed in a monetary value, this supposedly leads to incentives for people to invest (Landell-Mills & Porras, 2002). According to Smit et al. (2005) investing only takes place when there is a clear imaginable prospect of increasing value, which can be received. While there have been a lot of attempts to determine the value of nature, landscape and forest, a lot of these attempts remained theoretical and have found only little practical application. It turns out to be difficult to make these values liquid.

Different studies have been carried out to determine the values that forest and nature have for people. To understand which values forest and nature represents, three different studies are used and brought together in figure 7, which gives an insight in all different values forest and nature can represent to people. Roughly, four types of values can be distinguished: direct use values (like clean drinking water and recreation), indirect use values (like movies of forests), option values (like being the owner of a nature area because it might be of use in the future) and finally non-use values (for example the value attached to the knowledge that future generations can still use the environmental good). An important remark about nonuse values is that they can also find expression in the market. Think for example of the membership of a nature conservation organization. Members are also paying for nature areas they do not use or where access is even restricted.

Some of the values of forest and nature presented in figure 7 are unsatisfactory worked out yet. Think for example of the recreation function of forest and nature for the urban society. For a lot of the other values, there is the problem that they are not made liquid yet, like the drinking water production function of nature and forest. Also the right organizational forms to reinvest the returns from activities related to the existence of nature and forest back into the pillars of those nature and forest values are missing (Smit et al., 2005).

An example which succeeded in making forest values liquid is the introduction of the CO<sub>2</sub> certificate. Since the introduction of CO<sub>2</sub> certificates payments are allocated to the capture and storage of carbon. Short after the introduction the price of forest land increased with more than 50%. Another example is the "treetoppath" which is property of the State Forest Service in the Netherlands and attracts yearly more than 200.000 visitors. The value of this forest is been made liquid because entrance money is charged (Smit et al., 2005).

## Values of forest and nature

### Direct use value

- **Recreation:** walking, cycling, horse riding. A lot of increase in value takes place at the surroundings of nature areas. These places provide especially good opportunities for recreation enterprises.
- **Nature experience:** think of a nice view, a nice working or living environment, the quality of the house in the neighborhood and the certainty that no undesired developments will take place.
- **Contribution to human health:** think of implications in human health care
- **Information function:** people can learn from nature
- **Carrier of human activities and waste products:** living, working, the absorption of emissions in the air or water
- **Production function:** nature as a producer of water, biomass, oxygen, nature products, energy (wind/ sun)
- **Natural regulation function:** clean drinking water, carbon sequestration

### Indirect use values

When the use of a good becomes possible as a result of a change that is not directly aiming for that kind of use. Think for example of photos and movies of nature and forest.

### Option values

The value that is allocated to an environmental resource by someone who does not want to use the good today, but does want to save the opportunity for future use. This can as well be use- or financial values as nonuse or nonfinancial values.

### Nonuse values

- **Existence value:** when individuals allocate a value to environmental goods just because they know that they exist. Think for example of nature areas and endangered animal species.
- **Bequest value:** the valuation of the possibility that future generations still can use an environmental good
- **Vicarious value:** the value people allocate to the knowledge that other people enjoy the use of a good

Figure 7. Values of forest and nature

Sources: Smit et al., 2005 & Landell-Mills & Porras, 2002 & Bade et al., 2008

## Motives to invest in nature and forest

The values that nature and forest represent to people described above, lead to their motives to invest in it. Only few studies have been carried out that investigate motives of private parties to invest in forest and nature. In these studies, different types of investors are distinguished: municipalities, citizens, companies and business partners. Only the last three are relevant for this research, because municipalities are not private. The difference in these types of investors has been made because they differ considerably in their motives to invest. Below, the motives of these private investors are described, which appeared from a literature study.

### Citizens

Citizens can as well have economic as ideological motives to invest in forest and nature. Economic motives are:

- To get certain privileges, like access and having a say in the development of a nature area (Padt et al., 2002);
- Having an attractive living/ working environment (which also has a monetary value). From a research into private investments in four areas that serve as an example for National Landscapes turned out that the landscape is an important motive for the majority of the citizens to live in that municipality (Overbeek et al., 2009);
- To obtain benefits, as well fiscally as from the use of nature products (Padt et al., 2002).

Ideological motives of citizens are diverse and are especially held by volunteers and contributors of nature conservation organizations. Motives have to do with commitment, idealism and giving meaning to nature conservation because of the pleasure people receive from working with others in nature (Padt et al., 2002). Of the people that are member or contributor of nature conservation organizations, the majority does this primarily to contribute to the protection of plants and animal species (Overbeek et al., 2009).

### Businesses

Companies can have different economical motives to invest in forest and nature:

- It offers an attractive business climate and a healthy working environment. However, from a study into private investments in four areas that serve as an example for National Landscapes, it turned out that the environment is not an important factor for companies to establish themselves in a certain area (Overbeek et al., 2009). Of course this conclusion does not hold for the recreation and tourism sector. The success of organizations in the recreation and tourism sector highly depends on the natural environment;
- The possibility of getting a market advantage by attracting new target group segments (Padt et al., 2002);
- Financial advantages from subsidies or tax reductions or eliminations (Overbeek et al., 2009).
- To build on a business relationship. Sometimes landscaping companies sponsor nature conservation organization to build on a business relationship (Padt et al., 2002) ;
- It provides “image”. In the research of Overbeek et al. (2009), only 3% of the interviewed companies has the idea that the environment of their company contributes to their image. However, 30% of the interviewed entrepreneurs and managers think there may be opportunities to influence their image by investing in green in the direct surroundings of their organization. However, they are not sure about it and they do not have the insights in how the location of their company (with regard to the environment) reflects on their image;
- Houses in a green environment are more profitable for property developers (Padt et al., 2002).
- Leasing land from nature conservation organizations provides advantages for farmers. The farmers interest for leasing land follows (among other things) from the Dutch manure legislation. Additional land means that a farmer is allowed to produce more manure, which means having more animals. Other reasons for farmers to lease land follow from the demand for roughage and grazing land for their cattle (Sanders et al., 2003).

In the study of Padt et al. (2002) also a few ideological motives of companies are mentioned to invest in forest and nature. These motives are: having a positive appearance, being socially responsible and providing in a healthy working environment. While these motives are mentioned here as ideological motives, these motives can also be of an economical character. It is hard to draw a sharp line between those two.

### Business partners

Banks and their investors, nature conservation organizations and social clubs like Rotary, Lions and ANWB fall under this category. Economic motives of these parties to invest in forest and nature are:

- Image, think for example of investors in banks;
- Fiscal advantages, especially for investors in green stocks and shares that banks provide;
- Extra income for and through nature and landscape, especially for nature conservation organizations and social clubs (Padt et al., 2002).

These actors also have ideological motives to invest in forest and nature. They invest out of idealism, to learn for the future or because there is public support for nature projects (Padt et al., 2002).

### **New definition of investing**

Based on the theory about investing and motives to invest in forest and nature, the following definition of investing is formulated for this research:

*“Investing is the choice to sacrifice goods, money, time or effort of a current date, out of economical or ideological motives, in the hope to gain a pleasing return in the form of a better feeling, monetary- or appreciation value, in the future”.*

Where economical motives lead to monetary returns or appreciation value, ideological motives manifest themselves in getting a better feeling. An example of the latter is the satisfaction that one will get by making a contribution to the survival of endangered plant or animal species.

*This research has a focus on economical motives leading to monetary or appreciation value. Within the set time frame, it is not possible to include charity. This would require for a lot more interviews with different actors. Social clubs and volunteers of nature conservation organizations are excluded from this research because they are likely to have primarily ideological motives. This is the reason why charity is excluded from this research, while it is included in the above definition of investing.*

### **2.3.3 FIELDS OF TENSION**

There are some fields of tension related to the definition of investing and the focus of this research on economical motives. These fields of tension can be interpreted as some notes that are important to consider when applying the new definition of investing to this research. These notes are especially important for the consideration which investment forms fit within the scope of this research. Fields of tension are:

- A voluntary investment by one, becomes obligatory for the other. Think for example of the “coffeepenny” (Padt, et al., 2002). In some areas agricultural and non agricultural recreation and tourism organizations enter into an agreement to transfer a part of their revenues to forest, nature and landscape. They choose to invest. However, recreants who like to have a drink when they are visiting the area, are forced to pay a contribution for nature and forest because it is included in the price of the drinks. In this example, the target group which is forced to pay, is not seen as an investor. An investment is, according the definition of investing in paragraph 2.3.2 in this research, always a choice of the investor and therefore made on a voluntary basis.
- It is complicated to draw a sharp line between investments out of charity or out of economical motives. In some cases, the same investment form can as well be appropriate for investors with ideological motives as for investors with primarily economical motives. Think for example of business sponsoring. A company director can have pure ideological motives to sponsor nature conservation activities. However, it is also very well possible that the business sponsoring flows from the hope of getting a better image, which is an economical motive.
- Some investments are voluntary so far as it goes. Think for example of red for green projects. Future residents do not have a choice in paying more for a house that is part of a red for green project. However, they have the freedom to buy another house. If they still choose for the house that is part of the red for green project, they are willing to pay a higher price for a house in a greener environment. Also property developers choose to invest in a red for green project. However it is doubtful if they could also build houses in the specific area without taking part of a red for green project.
- Nature conservation organizations like Natuurmonumenten and social clubs like Rotary are private organizations but are not market-driven. However there are some exceptions (like landscaping companies that sponsor nature conservation organizations to build on a business relationship) investors in nature conservation organizations are not doing this out of economic motives (Smit et al., 2005).

## 2.4 INVESTORS AND INVESTMENT FORMS

Already, some knowledge exists about investors in forest and nature and investment forms that are commonly used. This paragraph will give a summary of the existing knowledge about this subject from sources that are relatively easy to access and have a scientific underpinning. Policy documents on this subject that are harder to get access to will be studied as part of this research itself.

### 2.4.1 INVESTORS

From literature about private investments in forest and nature, it appears that investors in forest and nature are primarily banks, owners of camping sites, farmers and landowners of rural estates. In some studies also lotteries, businesses in the tourism and recreation sector, health insurance companies, landscaping companies and energy companies are mentioned as private organizations that occasionally invest in forest and nature.

Traditional governmental policies are especially aimed at private individuals like rural estate owners, farmers and owners of camping sites. How to attract also large institutional organizations to invest in forest and nature is a relatively unexplored field. There are however examples of these organizations that already invest in forest and nature, like health care institutions and banks.

### 2.4.2 INVESTMENT FORMS

From the literature about private investments in forest and nature in the Netherlands, it appears that often no difference is been made between voluntary or non voluntary investments. Voluntary contributions to forest and nature are for example made by property developers which are investing in red for green projects. They choose to invest in nature because houses in a green environment can generate more money. Examples of instruments that lead to non voluntary contributions to forest and nature are the impose of a tax on products that harm the environment or the charge of entrance money to gain access to nature areas. This research makes a big difference between those two; non voluntary contributions to forest and nature are not even called investments.

Also, most studies do not distinguish between ideological or economical motives to invest. When talking about private investments in forest and nature, the volunteering for nature conservation organizations is named in the same breath as investments in red for green projects by property developers. This research will focus on investment forms that are at least partly applied out of economical motives.

The traditional investment forms that are used by private investors that are named in the literature on private investments in forest and nature in the Netherlands, which suit the criteria above, are mainly the conversion of agricultural lands into nature, agricultural nature conservation and the development of rural estates which often takes the form of red for green projects. Investment forms that are more suitable for large companies and fit to the criteria of this research, are for example business sponsoring, partnerships and the creation of green company grounds. Recently also banks are investing in forest and nature, by providing cheap loans to parties that invest in forest and nature. However, this banks can also be seen as mediators, because the people that are buying green stocks and shares are also getting a lower rent.

The instruments named above mainly relate to subsidies, tax advantages, the “image” nature investments can add to enterprises, the formation of business relationships and the extra market value that nature can add to houses. While this is a start, it is still looking for investment forms that really lead to a better relationship between the providers of environmental services and the ones having the profit from it.

## 2.5 VISUALIZATION OF THE STUDY

By now, a lot of different terms are named that will be under study: investors and their motives, projects, forms of investment and types of nature. The question is how these themes, which are really the framework of this study, relate to each other. Figure 8 presents a simplified model of the situation. Different investment forms are suitable to develop or manage different types of nature. The types of nature that can be invested in and will be under study are National Landscapes, rural estates, National Parks, the Ecological Main Structure and other types of nature that cannot be classified in this main categories.

When investment forms are locally implemented, they often take the form of projects. Because some investment forms are implemented just on a national scale, the line around “project” in figure 8 is dashed. The investors are central to the situation: they are the ones putting their money, time, capital or effort in the projects or investment forms. The investors each have their own motives to invest, which are probably linked to the type of investors. On the basis of these motives, some investment forms are more suitable for a particular type of investor than others.

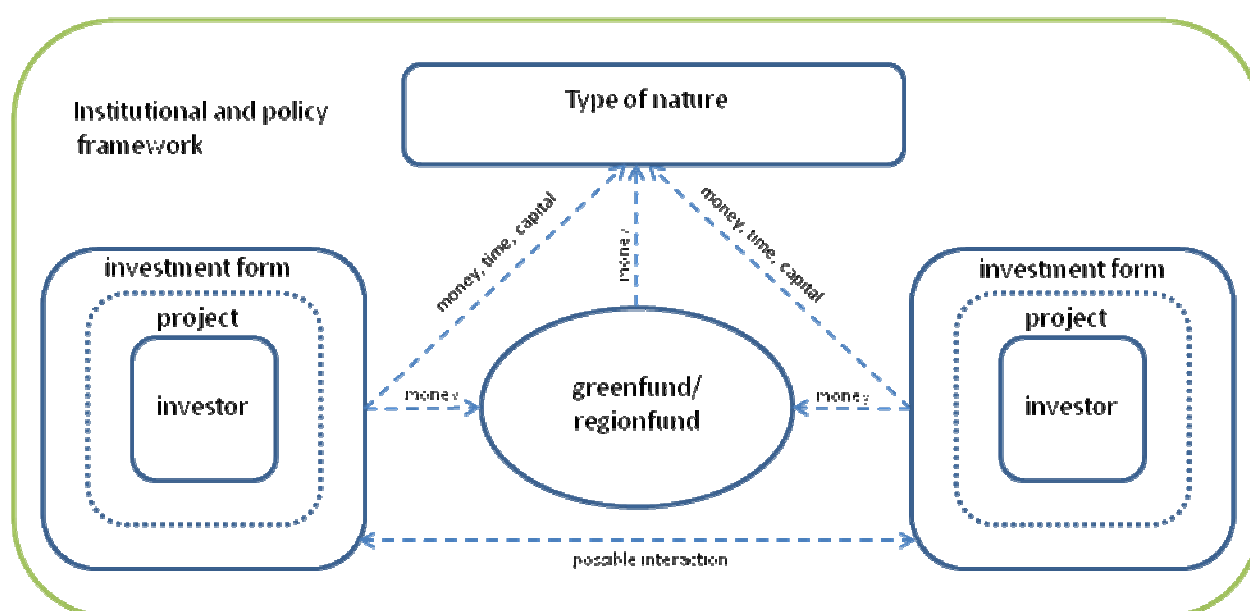


Figure 8. Connections between important concepts

As illustrated in figure 8, the different forms of investments can interact with each other, so that the implementation of both generates more revenues than the sum of the two. This explains the dashed line in the model that is placed between the investment forms.

Sometimes, the revenues from local investments are collected in a green fund (also named region fund, landscape fund or hamlet), which is illustrated in the centre of the model. This green fund<sup>1</sup> is meant for the development or management of the landscape in the same region as the investments were made. The committee of the fund is represented by diverse parties, like farmers, nature conservation organizations, recreation enterprises and municipalities (CLM & Landschapsbeheer Nederland, 2010).

<sup>1</sup> An initiative of several local and regional organizations to raise assets for nature and landscape management. Such a fund is preferably filled with contributions from local governments, citizens and businesses (Kloen et al., 2004).

The green line around the figure represents the influence of the policy and institutional framework on the whole system. Part of this study is to explore how the government can stimulate private investments in forest and nature attracting both the current group of investors as potential new groups of investors. This may lead to recommendations regarding possible changes in the policy and institutional framework that need to be taken into consideration.

A last important note about figure 8 is that it means to show the framework in which investments in forest and nature can be made. It does not include how the revenues of the investments will find their way back to the ones that are investing. Flows of money can for example flow back from a greenfund to investors in forest and nature through subsidies. It is also possible that the revenues that a company receives from an investment in forest and nature find its expression in other ways, like a positive image. While this study also addresses the question in which ways revenues flow back to the ones actually investing, it is not what this figure intends to illustrate. In fact it is also impossible to illustrate how revenues flow back to the investors in the theoretical framework of this research, as it is part of this study to explore what the revenues can be. However, the revenues are assumedly linked to the motives of the investors.

## 2.6 THE SOCIAL BASIS FOR NATURE PROTECTION AND DEVELOPMENT IN THE NETHERLANDS

This section explores the social framework the research fits in. Since the government wants to stimulate the private financing of nature and forest, the question how society feels about nature protection and development in general is very interesting.

From a research into the public support for nature conservation it appeared that especially on the level of values and objectives the public support for nature protection and development in the Netherlands is high (Buijs and Volker, 1997). However, the real public support becomes clear when it comes to choices or sacrifices. The majority is willing to limit recreation for the benefit of nature, for example by the enclosure of some nature areas. Also the willingness to pay for nature is relatively high, for which can be thought of higher prices for environmentally friendly products (Hansman et al., 1999).

Looking at the functions nature fulfills for people, it appears that Dutch people put the highest value on immaterial functions. Think of the importance of nature for human health, the preservation of nature for future generations and the intrinsic value of nature. The majority (three-quarter of the Dutch people) has a clear preference for a natural environment, without too much interference by human hands. Of secondary importance are the esthetic and recreation functions. People visit forests for to experience the natural beauty, the peace and silence, to relax or to peacefully walk or cycle through the woods. Only few people attach a high importance on the material function of nature, where the economical value is most important (Hansman et al., 1999).

Because few people attach economical value to nature, the privatization of nature cannot count on much public support as yet. Also, the ones putting the highest value on the material function of nature, are in general the ones that are less unfavorably disposed towards human interference in nature. This are especially farmers, people with little knowledge about nature, VVD- and CDA-voters and elderly people (Hansman, et al., 1999).

In a research of Hekhuis and De Baaij (1997), the question in what way recreants are willing to pay for nature and forest is being raised. It appeared that recreants are really negatively about charging entrance money for nature areas. Also, for a lot of facilities, like walking and cycling routes and playing fields, fees are unacceptable. However, it appears that people are willing to pay for facilities from which they derive an utility, for example excursions or the residence on a day camping site.



It is also important how business feels about investments in forest and nature. For farmers, the revenues from the maintenance of nature and landscape are, in relation to their income, just a marginal factor. A farmer wants to farm, on which can be anticipated by providing a farmer more space for production in exchange for the maintenance of landscape elements. The involvement of entrepreneurs in forest and nature is still in an early phase. Especially for National Landscapes it appears to be difficult to make the advantages for investors clear, except from the rewards from a nice living environment. For entrepreneurs in the tourism and recreation sector the advantages of an attractive landscape are relatively the most easy to come up with, this group is also the easiest to activate for investments in forest and nature. To convince other businesses of the advantages of investing in forest and nature another approach is needed (McCarthy et al., 2009).



## 3. METHODOLOGY

### 3.1 RESEARCH APPROACH

Underlying study can be classified as an exploratory research. This type of research is often used when a study is undertaken with the objective to explore an area where little is known. In this case, there are several reasons for doing an exploratory research:

- The context in which forms of investments are investigated in other studies significantly differs from this research because different meanings are given to investing. This research takes the viewpoint of the investor, while most studies focus on the need for private sector contributions to forest and nature, no matter if these contributions are voluntary or not. Also, this research makes a difference between ideological and economical motives to invest while most studies do not;
- There are a lot of local initiatives in the formation and use of certain investment forms. It is impossible to make an inventory of all these local initiatives. An exploratory research is the best achievable alternative to obtain insight in the forms of investment that exist;
- The selection of the most suitable investment forms for forest and nature in studies that did start from the investors viewpoint, have a poor scientific underpinning. Therefore, this research cannot rely on the outcomes of these former studies;
- The goal of this research is to document private investments in forest and nature as completely as possible, not restricting the research to the instruments that have been documented in earlier studies;
- In some fields no or very little research have been done yet. There is little theory about which motives private parties have to invest in forest and nature and there is nothing known about which forms of investments are suitable for which types of nature. Since there are no theories about the latter yet, there are also no theories to be tested and an exploratory research is the best option.

Also, this research is a qualitative research. The analysis is done to establish the variation in the situation, without quantifying it. Therefore, the results of this research can give indications to “why”, “how” and “when” investments occur, but it does not say anything about “how often” or “how many”.

### 3.2 DATA GATHERING

#### 3.2.1 STARTING POINT

To gather information, this research can depart from four starting points:

- the type of nature;
- the investment form that is used;
- the projects invested in;
- the type of investor.

Section 2.5 already described how these themes relate to each other. Now, the question arises how these themes can be studied. This research started from three different starting points: the investor, the investment form and if applied locally the project that is invested in. Taking the investors as a starting point has the advantage that it provides the opportunity to obtain insight in the motives of a lot of different types of investors. Taking the investment forms as a starting point is helpful to discover different ways of how private parties can contribute to the finance of forest and nature. This is especially useful for investment forms that are implemented nationally. When investment forms are implemented locally, it is more constructive to take some local projects as examples of how these investment forms can be applied. With this approach, it is possible to

discover new types of investors, which would not have appeared when only the investors were taken as a starting point.

The disadvantage of the approach presented above is that it is possible that investments in certain types of nature are underrepresented. Therefore, it is possible, that at the end of this research insights of promising investment forms for a certain type of nature are missing. Considering the time available for this research, taking the type of nature as a fourth starting point is impossible.

### **3.2.2 APPROACH TO COLLECT DATA**

Research into which private parties invest in forest and nature and how and why they do this was carried out from the three starting points mentioned in the above paragraph: the investor, the investment form and the project invested in. Research into these three different perspectives ran parallel to each other.

Next to the study of current investors in forest and nature the field of potential investors in forest and nature was explored. Furthermore, it was studied how the Dutch government could stimulate private investments in forest and nature, which would attract both the current group of investors as potential new groups of investors.

The required data was gathered by the use of three different resources:

- interviews with investors;
- interviews with third parties;
- additional study of literature.

#### **Interviews with investors**

In this research, two groups of investors in forest and nature were under study: private individuals (like farmers and owners of rural estates) and large institutional organizations (like insurance companies and banks). Representatives of both groups were approached for a semi-structured interview.

The investors were asked why and how they invest in nature. To obtain insight in what the government can do to stimulate private investments in forest and nature, these investors were also asked if they experienced any barriers while investing in forest and nature. If this barriers can be removed, more potential investors might become attracted to invest in forest and nature. Furthermore it was explored if investors have specific reasons or preferences for investing in a certain type of nature.

For the selection of interviewees, non-random sampling designs were used. Below, a first selection of investors that were approached for an interview (based on the type of investor) is presented.

#### Private individuals:

- farmers;
- owners of rural estates (except Natuurmonumenten, Brabants Landschap and the State Forest Service, because these organizations are not market driven);
- owners of camping sites.

#### Large institutional organizations:

- energy companies;
- health insurance companies;
- banks;
- property developers.

Most of these investors were not approached at random. First it was explored which companies or individuals invest in forest and nature. From the literature it appeared that a lot of banks and energy companies invest in

forest and nature. These types of investors, just like owners of rural estates, were approached at random. For other types of investors, like farmers and owners of camping sites, there was a need to find out first which of them were investing in forest and nature.

To find out which specific companies and individuals invest in forest and nature, a literature search was carried out on investment forms and local projects (which represents the second and third starting point of this study). From here also new types of investors appeared. When it was clear which projects were applied to invest in forest and nature, it was possible to find out who the investors were behind these projects by using contact information provided on internet websites and by contacting project managers.

For investment forms that did not take the form of local projects (and which concern a particular group of potential investors of which only a minor part actually invests in forest and nature), the sampling of investors that could be interviewed was most difficult. Dependent on the form of investment different parties were approached which were likely to be able to provide more information about those investors.

The sampling design used in this research is judgemental sampling as only the people who were likely to have the required information were interviewed. Using snowball-sampling, the list of investors that were approached for an interview was enlarged. In every interview the investor was asked if he or she knew either more investors or investment forms or projects that could be meaningful for this research. Additional types of investors that came up using snow-ball sampling were for example a coffee-roasting company, a car-lease company and a waste processing company.

The interview questions used to interview the investors are attached in appendix 1. All interviews were recorded, written out and sent to the interviewees for a final check. The research started with two “test-interviews”, after which the question list was slightly adapted. Some questions were changed and also some questions were added. Answers to the questions from the first two interviews, of which the questions remained the same after the two interviews, were still integrated in the analysis. Answers to questions that were changed were neglected.

### **Interviews with third parties**

To obtain insight in what the government does to stimulate private investments in forest and nature and to come up with future opportunities in depth interviews with representatives of the ministry of agriculture, nature and food quality took place. In these interviews also questions about which investment forms are suitable for which types of nature were brought forward. From these interviews also opportunities emerged to attract new target groups of investors.

Also other parties, which are not the investors themselves but do have a lot of knowledge about the subject because they are in a way related to it, were approached for an interview. Think for example of sector organizations and nature conservation organizations that have a lot of business sponsors. Because these parties are in a way linked to the investors (or are dependent on them), they were expected to have insights in the motives of current investors and have their own view on potential investors in forest and nature. Furthermore, they were asked if they had recommendations for the government’s role in stimulating private investments in forest and nature. The interview questions for these third parties are attached in appendix 2.

Because there are a lot of third parties dealing with the finance of nature and the time frame for the interviews in this research was limited, not all of them were visited for an interview. Therefore, representatives of provinces, the corporation Green and Blue services (Stichting Groen Blauwe Diensten) and Leaders for Nature which is powered by IUCN, were approached by phone for a short conversation about the way their organization encourages private investments in forest and nature. A list of the people that were approached for an interview or a conversation by phone is attached in appendix 3.

### **Study of additional literature**

It was assumed that there would be more literature on stimulating private investments in forest and nature than could be included in the theoretical framework of this study because some literature might not have been come up in search results. Therefore, additional literature was explored by asking interviewees for interesting studies that relate to this research. They were especially asked for policy documents with ideas to create new investment forms or to attract specific target groups to invest in forest and nature. Furthermore, studies were collected about the government's role in stimulating private investments in forest and nature.

## **3.3 DATA ANALYSIS**

All interviews that were held went through a process of content analysis, which can be used for both qualitative and quantitative data and in an inductive or deductive way.

This research deals with qualitative data which is analyzed by a combination of inductive and deductive content analysis. A deductive approach is often used if the aim of the research is to test an earlier theory in a different situation or to compare categories at different time periods (Elo & Kyngäs, 2008). As earlier research has been done on motives of people and companies to invest in forest and nature, these theories could be tested. Already some categories of motives to invest in forest and nature were formed on the basis of this literature. However, too little research was carried out so far in the fields of this study, to start from a deductive analysis solely.

Therefore, this study combined a deductive and inductive content analysis. In a deductive content analysis prior formulated, theoretical derived aspects of analysis are brought in connection with the interviews that are written out. When the selection criterion relates to the existing literature, for example motives of people and companies to invest, a deductive approach is useful because already categories can be formed. Inductive content analysis is often used when there are no previous studies dealing with the phenomenon or when knowledge is fragmented. For particular parts of the study, this is the case. There are some theories about motives of investors and possible investment forms, but most of these studies are not complete so that knowledge is fragmented. Also nothing is known about how motives relate to the type of nature that is invested in. For this reason, besides a deductive also an inductive content analysis has been carried out for those categories that otherwise would be overlooked (Mayring, 2000).

For the reliability of this research, important choices that have been made during the conduction of this research were explained before reporting the results. Also, the reliability is enhanced by the use of different resources as information was gathered from literature, interviews with investors and interviews with third parties.

A final remark that should be placed on the description of the results of the interviews is about the sensitivity of information. While this does not go up for every interviewed party, some investors asked to be careful with bringing out their motives to invest. To prevent bringing out sensitive information, motives of private individuals and institutional organizations to invest in forest and nature cannot be traced back to the actual investors. In the description of the investment forms company names were mentioned as the investment forms used by private parties were not considered as sensitive information. However, in all cases, citations are not provided with the names of the actual interviewed persons.

## 4. INVESTORS IN NATURE

This chapter is about motives of investors in forest and nature and the investment forms they use. It bundles the information obtained from interviews with investors and from interviews with third parties. Information from written sources (like policy documents) that provide additional insights is also included.

### 4.1 INVESTORS AND THEIR MOTIVES

The results on the motives of private investors are solely based on the interviews as the written sources do not provide any additional insight in this topic. In the description of the results a difference is been made between motives of private individuals and motives of institutional organizations that invest in forest and nature. Because of differences in size and organizational structure these groups differ in their motives to invest.

#### 4.1.1 MOTIVES OF PRIVATE INDIVIDUALS

Motives from private individuals to invest in forest and nature vary widely. Table 2 shows an overview of both economical motives as ideological motives (and a mix of them) obtained from the interviews with investors (in green) and the interviews with third parties (in purple).

Motives of private individuals to invest in forest and nature	
Economical motives	
As it delivers direct financial advantages	Investors
As a strategy to survive	Investors
To minimize possible future threats for the company's business and new commercial developments	Investors
As a precondition to get permission for a desirable development	Investors
To distinguish oneself with environmentally friendly certificates	Investors
To have different pillars of income in the company	Third parties
To activate hidden reserves which can be reinvested in the company	Third parties
Ideological motives	
To fulfill in the needs of future generations	Investors
To fulfill in the needs of others	Investors
To do as good as possible with regard to the environment	Investors
To make a positive contribution to the region	Investors
From the wish to keep a specific nature area in a good state	Investors
Grey area between ideological and economical motives	
For the "challenge" to realize nature which can support itself	Investors
From the own emotional band with the land and its natural values	Investors
For the own nature experience	Investors
For the social acceptance of the individual in the neighborhood	Investors
As a way of being busy outside	Third parties

**Legend**

**Sources:**

Investors

Third parties

Table 2. Motives of private individuals to invest in forest and nature

Most of the motives named in table 2 will speak for themselves. However some of them may need further explanation or can be split into "subcategories".

The motive that investing in forest and nature delivers direct financial advantages came up from the interviews with farmers, owners of camping sites and also rural estate owners. For the majority this was not the most important motive, but it does clearly play a role. For some entrepreneurs it is more like a precondition: they are enthusiastic about investing in forest and nature but without a financial compensation it is not a feasible and durable investment. For others it is really an economic consideration, for example because nature attracts more visitors to the camping site. It can also be a provision for old age. This goes up for farmers that are quitting, convert their land into nature and get conversion subsidy. In general, financial advantages involve

subsidies, tax elimination, additional income from wood production and bio-energy and the attraction of tourists, recreants or home buyers. Finally an investment in forest and nature can be of positive use for business purposes. With the latter one can think of the integration of nature in the operational management of a farm: nature as grazing land for cattle, as a producer of grass and as land for the disposal of manure.

Three out of seven interviewed private individuals think of investing in forest and nature as a strategy to survive. This motive can be divided into two subcategories. In the first category, nature development is the best alternative for agricultural land and it prevents that the land has to be sold. For example when the land is of poor quality for agricultural use or when the farm cannot compete with the scaling-up of agriculture. Converting the land into new nature is a way to remain having the ownership of the land. The second category refers to the investment in nature as an adaptation to the changing expectations of the social environment that demands for environmentally friendly produced products. This motive is being underlined by the following quote of one of the interviewed investors that holds this perception:

*“In nature it is regulated the same way: if your biotope changes and you are not able to adapt, you die. Therefore we try to adapt to the changing environment and to integrate this changes in the operational management of our company. This also makes you as an entrepreneur feel happier about the situation”.*

A lot of private individuals invest in forest and nature to minimize future threats for the company's business and new commercial developments. From the interviewed private individuals, four out of seven investors feel this way. For most of them it is not the most important motive to invest in forest and nature, but it does certainly count. This motive can be divided into three subcategories: (1) to show goodwill which makes it easier to get permits for new developments at a later date, (2) for the acceptance of the company in the neighborhood to minimize protest from neighboring citizens and (3) to be in control over the surroundings of the company to prevent undesirable developments carried out by other parties. The first and the second category have the same character: they are both about gaining support from other parties, either the government or neighboring citizens, which will eventually lead to more social basis for future developments of the company. The third subcategory is totally different as it is about excluding the influence of other parties. An example are the farmers of “Liederbroek B.V.”. In this example it was for sure that the agricultural land next or nearby some agricultural companies would be converted into new nature. The first (governmental) plan was to keep the land in the hands of semi-governmental organizations and turn it into a forest. However, people in the region did not like this idea because they preferred to live in an open landscape, as it is a polder. Because the adjacent farmers preferred to keep control over the own polder they bought the land and converted it into nature themselves. Most of the land was then converted into nature for meadow birds.

While the first two subcategories of the former motive involve an aspect of “showing goodwill” from which the entrepreneur can only hope that this leads to support from third parties and the easement of rules, the link between nature development and commercial developments can be far more direct. The investment in nature can be held as a precondition to get permission for desirable commercial developments. For example, one of the interviewees just opened a new camping site. The precondition of the municipality to grant the required permits was to develop a new nature area as an integral part of the plan. This was one of the motives of the particular investor to invest in nature.

The last economical motive that requires further explanation came up from the interviews with third parties. One can invest in forest and nature to activate hidden reserves which can be reinvested in the company. This are people that already own the land, convert it into nature and reinvest the conversion subsidies into another part of the company.

The ideological motives named in table 2 will speak for themselves and cannot be divided into subcategories. The motive to fulfill in the needs of future generations is often hold by rural estate owners. It is seen as a task



of current owners of rural estates to pass the land in a good condition on to the next generation. Also, one of the interviewed rural estate owners mentioned that selling the land is out of question, because of the personal band with the nature area and the uncertainty about the competences of other parties to manage the nature area properly. Farmers mention different ideological motives, like to fulfill in the needs of others (because the people that are passing by like it), to do as good as possible with regard to the environment and to make a positive contribution to the region. The latter originates from a strong commitment to the region.

Then, there are motives that are nor purely ideological nor economical. These are motives that involve some form of self-interest, but do not include a direct financial advantage. Motives like this are about challenge, the own nature experience and the own emotional band with the land and its natural values, for example because it is already in the family for a long time. Motives with regard to the own nature experience involve having an attractive living environment or bringing back nostalgic feelings. Investing in nature can also be just a way of being busy outside. There are people that just love to work outside, for example farmers that ended their company. Furthermore, the social aspect of investing in nature should not be overlooked. There are private individuals that invest in forest and nature for the social acceptance the neighborhood. Not only for the social acceptance of the company, but also for the social acceptance of the individual. A citation from one of the interviewed private individuals illustrates this:

*"You do not want to be known as that farmer that does not care about the environment".*

As already mentioned before investors usually do not have one motive but a combination of different motives. The following citation of one of the interviewed third parties puts the relation between economical and ideological motives into an interesting perspective:

*"Investing in forest and nature originates almost always from a combination of ideological and economical motives. People that only have eyes for capital growth will not easily decide to invest in nature. On the other hand, when people only invest out of enthusiasm and lose sight of commercial aspects, one will probably get problems with the finance".*

Notable is that especially rural estate owners have a lot of ideological motives and therefore accept relatively low returns. However, they find it important that the rural estate is self-supportive because otherwise it has no future. Therefore a rural estate needs different flows of income, for example out of land lease, house lease, excursions and events. Some rural estate owners are very creative in the generation of new income flows. An example is rural estate Welna (where no interview took place but an excursion on the estate was attended). This rural estate combines wood production, the generation of bio-energy and the employment of people with disabilities. What distinguishes them from other wood and energy producers is that they do the whole production chain: from trees to wooden houses and from biomass to bio-energy. They find it important to minimize the distance between product and consumer and therefore focus themselves on the local market by creating a local brand.

### 4.1.2 MOTIVES OF INSTITUTIONAL ORGANIZATIONS

Motives from institutional organizations to invest in forest and nature vary widely. Table 3 shows an overview of both economical motives as ideological motives (and a mix of them) obtained from the interviews with investors (in green) and the interviews with third parties (in purple).

Motives of institutional organizations to invest in forest and nature	
Economical motives	
For the exposure of the organization	Investors
As it provides image	Investors
To make a difference within the group of suppliers or/ and to meet the (changing) demands of society	Investors
To profit from networks	Investors
As it is profitable and delivers direct financial advantages	Investors
To straighten a business relationship	Investors
To show good-will which creates social basis and makes it easier to get permits	Investors
To let it work as a show-piece (to give an impression of the projects the organization can do)	Investors
To go outside with business partners which is good for the business relations	Third parties
As a green working environment leads to a higher productivity of employees	Third parties
To keep and to attract highly qualified employees by creating a nice working climate	Third parties
As nature proved to be stable in value and increases just as much as the inflation or even a bit more	Third parties
Ideological motives	
To prevent that future generations have any inconvenience of today's business practices	Investors
For the internal awareness of the importance of environmental responsible behavior	Investors
Grey area between ideological and economical motives	
To be Corporate Social Responsible	Investors
As traditionally the organization and nature or themes related to nature are a good match	Investors
As it fits in the organization's mission to be sustainable	Investors

Table 3. Motives of institutional organizations to invest in forest and nature

Also with the motives of institutional organizations, subcategories exist from the motives that are listed in table 3. This subcategories, together with an further explanation of the motives will be discussed below.

The exposure of the organization that is investing in forest and nature is, especially for organizations with a lot of “small” customers instead of a few large customers, a motive on which a high value is attached. Four out of nine institutional organizations name this as one of their motives. For these kind of organizations, nature is a way to reach customers as it provides the chance to be clearly and from close by visible in society.

Also, investing in forest and nature provides image. Eight out of nine organizations name this as a motive to invest in forest and nature. However, the one attaches a higher value to this motive than the other. Organizations that name image as one of their motives to invest in forest and nature want to be known as an organization that takes its responsibility. Also, they find it important that clients have a good feeling about the organization they connect themselves to. Besides, some organizations like to be associated with things that relate to nature. Health insurance companies for example want to be associated with an active living style. An active living style relates to nature as people can recreate or sport in nature areas.

Besides “image”, making a difference within the group of suppliers or/ and to meet the changing demands of society, is one of the most frequently named motives to invest in forest and nature. Six out of nine organizations find this important. The investments in forest and nature are being communicated to the society in different ways and with different goals. Three subcategories exist within this motive: (1) to make the last difference when two suppliers are equal to each other, (2) to tell potential clients that the company is environmentally friendly and invests in nature if they ask for it and (3) to keep existing clients that like to do something with the environment and to attract new clients because of the growing awareness of (potential) clients for sustainability and environmental issues. The first subcategory often plays a role when nature is not the most important thing for a company to distinguish itself with but becomes more important when another

supplier is equal to them on the most important points. A good Corporate Sustainable Responsibility policy can then be the decisive factor. The second category refers to organizations that do not want to make a show of their investments in forest and nature. Therefore, it is different than actively trying to attract a specific market segment by investing in nature. It is more like meeting the demands of customers with regard to the environment so it is possible to tell this when customers ask for it. Especially governmental organizations are often more interested in suppliers that have partnerships with nature conservation organizations or that incorporated forest and nature in their CSR policy. The third category is more about attracting a specific market segment. By investing in forestry it is possible to state that a company or a product is CO<sub>2</sub> neutral, which attracts specific customers. By some companies investing in forest and nature is even seen as a strategy to survive, because the market segment that cares about the environment is growing larger and larger. Take the example of property developers. The Dutch Government Building Department already says that in the future, they will only rent sustainable offices. Other parties may follow so property developers have to pay attention to sustainability. A citation of a property developer that supports this way of thinking is:

*“When you do not listen to the demands of society, you are out of business”*

Furthermore, investing in forest and nature can be attractive as some investment forms offer the opportunity to profit from networks. By specially designed constructions and agreements between a sponsoring organization and the sponsored organization, investors can profit from the networks of nature conservation organizations or region organizations.

Besides, also for institutional organizations investing in forest and nature can deliver direct financial advantages. Four out of nine investing institutional organizations have direct financial advantages from forest and nature. At specific locations the development of nature can be profitable, especially in combination with red functions, subsidies, tax advantages and sometimes recreation functions like golf courses. This can be interesting for property developers. Furthermore, it is a profitable banking business. The bank profits for example also from tax advantages that clients get if they invest in green stocks and shares. Because clients have tax advantages the bank has to pay less interest. However, the bank is not the only one profiting from this tax advantages, as the bank for its part also gives a discount on the loans of green investments. Furthermore, investments in forest and nature are by some organizations seen as a tool to create work with work which also delivers direct financial advantages. This is illustrated by the following citation of a waste processing company:

*“Investing in nature offers us the opportunity to bring movement in the soil, mud and garbage flows that we work and deal with. It keeps our small business economy going. If we dry mud on one location and we need a covering layer for another location, we can move with ground. On the one location a rural estate can be created, while on the other location space becomes available for new material”.*

Investments in nature are also been done to straighten business relationships, for example with nature conservation organizations. Organizations like Natuurmonumenten have suppliers (for example for their fleet of cars) that like building up a strong business relationship and therefore also sponsor Natuurmonumenten. The stronger the mutual dependency, the stronger the business relationship. Of the nine interviewed organizations, only one example came up that named this as one of their motives.

The last economical motive named by investors included in table 3, is about investing in nature projects that can work as a showpiece. This can be of help for the acquisition of work. The only example where this motive plays a role came up from an interview with a waste processing company:

*“Other waste processing companies ask us to finish their dumping grounds, to monitor it and to come up with a final destination of the land. Our own “green” projects work as a showpiece. We demonstrate that you can do more with dumping grounds than putting a fence around it”.*

Third parties came up with four additional economical motives, already included in table 3. Three of these motives relate to organizations that invest in greener company grounds or landscape elements close to the location of the organization. This creates a nice working climate which attracts highly qualified employees, it leads to a higher productivity of employees and it makes it possible to go outside with business partners. Another motive named by third parties to invest in nature is that nature proved to be stable in value which increases just as much as the inflation or maybe even a bit more.

The most important ideological motive that appeared from the interviews with institutional organizations is to prevent that future generations have any inconvenience of today's business practices. Furthermore, from one interview an additional ideological motive came up, namely to increase the internal awareness of the importance of environmental responsible behavior. The organization that brought this motive up finds it important that employees are aware of the impact of the company's core business on the environment.

Finally institutional organizations also have motives that are difficult to label as "ideological" or economical". A lot of organizations invest in forest and nature "to be Corporate Social Responsible", for example because they want to take responsibility for environmental damage or because nature is a sustainable investment. Some organizations even invest in forest and nature to have existence right, which is illustrated by the following citation:

*"A company that is not Corporately Social Responsible has no right to exist. Think for example of insurance companies with usury insurance policies or banks that caused the financial credit crisis. They were socially irresponsible"*

The will to be Cooperate Social Responsible can originate from as well ideological as economical motives or a combination of both. It can be used as a marketing tool, which suggests that economical motives play a role. Ideological motives to invest in forest and nature relate for example to the will to take responsibility over the natural environment.

Besides the former example, two other motives were named that are "seemingly ideological" but can in fact originate from both ideological as economical reasoning. These motives to invest in nature are because (1) traditionally the organization and nature or themes related to nature are a good match or (2) it fits the organization's mission to be sustainable. More than half of the interviewed investors named one of these two motives which can be purely ideological but may as well be used as a marketing tool. The question is if this two motives are the real reasons to invest in forest and nature. Because, why is the organization's mission the way it is? And why is it a tradition to invest in nature? It is possible to change missions and also traditions can come to an end.

An interview with Natuurmonumenten provided additional insights in the motives of organizations to invest in forest and nature and how a sponsored organization can profit from this. Companies often start a partnership with Natuurmonumenten to make their CSR policy concrete and visible for employees. Natuurmonumenten offers a communication concept which can help employees of a company to comply with the CSR policy by making the results visible. Think for example of the ING bank which integrated paperless office. The ING bank invests the money that is saved by using less paper in planting new trees, which is part of the tree for tree fund of Natuurmonumenten. Natuurmonumenten organizes special Tree Planting Days where employees can actually plant these trees. These days are used as a communication tool which makes working on the environment very tangible and visible for employees.

From the interview with Natuurmonumenten it also appeared that a lot of companies want to do something back for the society. How this is translated in concrete actions has to do with the intrinsic values of the organization: one organization sponsors a football club while another chooses to sponsor Natuurmonumenten. Why companies choose to invest in nature has a lot to do with the personal preferences of top managers.

When top managers have a good feeling about investing in forest and nature this is often visible in the policy of the company. A remarkable fact that came up from this interview is that:

*"All the people at the sponsoring organizations that work together with Natuurmonumenten do have a passion with nature. Apparently, these kind of people tend to work at the same organizations".*

#### **4.1.3 DIFFERENCES AND SIMILARITIES BETWEEN PRIVATE INDIVIDUALS AND INSTITUTIONAL ORGANIZATIONS**

The motives of private individuals and institutional organizations to invest in forest and nature show differences and similarities. With regard to economical motives it appears that both study groups find it important to meet the changing demands of consumers and society. Also, private individuals and institutional organizations that have landownership invest because it delivers direct financial advantages. Think of the exploitation of rural estates, subsidies and tax advantages. Another similarity between private individuals and institutional organizations is that investors usually hope that by showing goodwill through the investment in forest or nature, it will get easier to get permits for other developments that are more profitable. Institutional organizations that do not have landownership (except from their own company grounds) usually have other motives which lead to indirect financial benefits, like image, exposure, making use of networks and straighten a business relationship. When it comes to company grounds, the productivity of employees and the attractiveness of the working climate for highly qualified employees (that do have more demands) play a role. These are motives that do not occur with private individuals. The other way around, private individuals also have motives to invest in forest and nature that usually do not play a role for institutional organizations, for example to activate hidden reserves which can be reinvested in the company by converting cultivated land into nature .

An important ideological motive to invest in forest and nature, for both institutional organizations as private individuals, is taking care of future generations. With private individuals it concerns often the future generation within the same family while institutional organizations aim at future generations in general. An ideological motive which did came up more often in the interviews with private individuals than in the interviews with institutional organizations, is the commitment to the region. Some private individuals have a strong commitment to the region they live in and are therefore willing to make a positive contribution to the spatial quality of the region by investing in forest and nature. Furthermore, a lot of rural estate owners really want the best for the nature area they are managing. They usually do not purely handle out of self interest, but from the wish to keep the nature area in a good state. Also the uncertainty about the competences of other parties when they would choose to sell the land instead of managing it by themselves, plays a role. A motive that came up from the interviews with institutional organizations and not from the interviews with private individuals, is to increase the internal awareness of the importance of environmentally responsible behavior. Private individuals that invest in forest and nature do this because they are already environmentally aware.

Furthermore, motives that are nor purely ideological nor economical are diverse. For private individuals one can think of the will to keep a certain piece of land into the family, the social acceptance of an entrepreneur in its neighborhood, the "challenge" to develop nature in combination with functions that can make it self-supportive or just because someone likes it to work outside. Also the own nature experience usually plays a role. Investing in nature can create a nice living environment and can even bring back nostalgic feelings. This are motives that include some form of self-interest but are not economical. While for private individuals it is clear that a third category of motives exist, namely motives which involve some form of (non economical) self-interest, it is not clear if a third category also exists for institutional organizations. Institutional organizations do have motives that are not ideological and do not lead to a direct financial benefit, but to what extent businesses can have indirect financial benefits (from for example a good image) is difficult to say. When the indirect financial benefit is the motive to invest, it is still an economical choice. It is also difficult to label some motives as ideological or economical, not because there is a third category, but because they can be both.

Seemingly ideological deeds can be used as a marketing tool. A lot of institutional organizations invest in forest and nature as part of their CSR-policy. This CSR-policy can be based on ideological thoughts, but very often it is also used as a marketing tool.

## 4.2 INVESTORS AND THE INVESTMENT FORMS THEY USE

### 4.2.1 INVESTMENT FORMS OF PRIVATE INDIVIDUALS

For the interviews with private investors in forest and nature only landowners are approached. There are examples of private individuals that invest in forest and nature without having landownership. However, these examples are rare or ideological motives play the first fiddle. From the investors and the third parties that have been interviewed and an additional literature study, three types of investment forms can be distinguished:

#### **Conversion of agricultural land into new nature and the management of existing nature**

Various examples of this investment form came up during the interviews. From these examples, roughly four categories of investors can be distinguished that use this investment form: (1) farmers that are quitting and convert their land into a nature area or a rural estate, (2) farmers that develop nature on field corners, (3) rural estate owners that enlarge the area of nature and (4) owners of camping sites that see investing in nature as a quality improvement of their camping site.

The first category of investors, farmers that are quitting and convert their land into a nature area or a rural estate, especially do this when there are no successors, the company is too small to survive or the condition of the land is not good enough for agricultural production. The second category refers to farmers that have field corners that are difficult to get to with a machine or that yield poorly. They often choose for small scale nature development.

Increasingly, rural estate owners are enlarging the area of nature on their estate, which is represented by the third category. Owners of rural estates need economical pillars to pay for the unprofitable parts of the rural estate. Recently, in some rural estates the economical pillar agriculture (from leasing out lands) is exchanged for recreation. By converting the agricultural lands on the rural estate into new nature money becomes available (from conversion subsidies) to invest in recreation functions. The nature that is developed also attracts visitors.

Finally, various examples came up from owners of camping sites that see investing in nature as a quality improvement. One owner that has been interviewed restored a stream valley to its original state and has the idea that it really attracts visitors as a lot of nature lovers visit the place.

#### **Conversion of new bought agricultural land into new nature**

During the interviews with investors two examples came up of private individuals that bought land to convert it (or to convert a part of it) into new nature. The first example refers to someone that bought agricultural land in a green environment as an investment. When considering the options what to do with the land, the idea of a camping site came up. Precondition of the municipality in granting the permits was that part of the land would be converted into nature. Therefore, the landowner created new nature on a part of its land which functions as a buffer between an already existing nature area and the camping site.

The second example is a dairy farmer who is a participant in a corporation between nine farmers to manage 50 hectares of nature together. The land lying next to their farms was in the hands of governmental organizations which would convert the area into new nature. The farmers preferred to do the management of the nature themselves “to keep in control over the own polder” so they bought the land together. As these farmers developed the land as nature for meadow birds they were able to integrate nature management in the

operational management of their farm. They organized themselves in a Limited (Ltd) and each farmer leases the land of the Ltd (B.V. in Dutch). The farmers that lease the land are also the shareholders. The advantage of this construction is that the shareholders will check if every participant manages its land properly. Because when one farmer revokes, the Ltd cannot meet the conditions under which the subsidies are given (because then there will not be enough nests) and the government will cut back the subsidy. So when one farmer is not managing the land properly, he will be excluded from the Ltd by the other shareholders.

Notable in this last example is that the interviewed farmer would not have converted a piece of his own land (which was already his property before the additional land was bought) into nature. Actually the area of nature that is managed by the nine farmers is just a part of the Robust Connection Zone that was planned. Another part overlaps the land that the farmers already owned. The farmer that has been interviewed is not willing to convert a piece of its own land into new nature because this would make his company smaller. While buying new agricultural land for the conversion into new nature is seen as an expansion of the company, the conversion of already owned agricultural land into new nature is seen as an action which makes the company smaller. This is economically not an attractive choice for a lot of farmers.

From the interviews with third parties, a third example of private individuals that bought land to convert it into new nature came up. This example is not about farmers, rural estate owners or owners of camping sites, but just about people who like it to be busy outside and work on a green environment. In 2009 province Noord Brabant sold 64 parcels of agricultural land, situated in the Ecological Main Structure, to private individuals where they had the opportunity to develop nature with the use of subsidies. With 81 reactions of private individuals, the project can be called a real success. The people that reacted sometimes had a neighboring interest but there are also people that reacted on lands kilometers away from the place they live. Some people even reacted on all parcels in the province Noord Brabant. The province did not do research into the investors and their motives, but assumedly the most people that reacted find it nice to work outside and like it as a hobby (de Regt, personal communication, May 25, 2010).

### **Development and management of landscape elements**

Especially farmers use the investment form of developing and managing landscape elements. It is however very dependent on the type of company how profitable this is. The central question is: does a landscape element generate more income than using that specific piece of land for agricultural purposes? With corn and grass this is often the case but for example with strawberries this may be different. However, as it appeared from the interviews also social acceptance in the neighborhood, showing good will which makes it easier to get certain permits and ideological motives may play a role here.

From the literature two additional examples came up where people invest together in landscape elements. Sometimes the investment in landscape elements takes place on the own land, sometimes through a fund (when people do not have landownership).

The first example is from National Landscape Het Groene Woud. Entrepreneurs in this region that invest in landscape are certificated with a local brand. All the companies that are Groene Woud certificated are members of the corporative association Het Groene Woud. Entrepreneurs that devote themselves to the management of the landscape in this area are being qualified for certification (McCarthy et al., 2009). At the moment fifty companies are Groene Woud certificated. Landowning companies or farmers usually invest in landscape elements on their land in order to become certificated. There are also companies that do not have that much space (for example companies with only offices) but do want to contribute to the spatial quality of the region. Examples are a bakery, a brewery and an accountancy- and communication business. They pay 250 euro's of enrolment fee a year which is allocated to a fund from which landscape elements are financed or they do something else for the members of the corporation, think for example of the professionalizing of the internet website. However, when a company does have land available and has to develop landscape elements

in the scope of certification it is not possible to buy this commitment off with 250 euro's. This is only meant for individuals and companies that do not have landownership. When companies are certificated they are allowed to use the logo of Het Groene Woud and they can profit from marketing activities (van Beerendonk, personal communication, March 10, 2010).

The second investment form that is occasionally used is landscape arrangements. This investment form is about different parties working together in arrangements by gearing activities to one another to generate money from tourism. A part of the income is then applied for the management of the landscape (under which natural elements, like wooded banks and windbreaks). Every entrepreneur pays an amount of money which relates to the extent he or she profits from the existence of the landscape. Landscape arrangements can take various forms. Tourists camp at a farmer, drink coffee at some restaurant and have an excursion at the most beautiful parts of the landscape, where landowners have opened footpaths for public use (Loenen, et al., 2001).

#### **4.2.2 DETERMINING CHARACTERISTICS AND FACTORS FOR PRIVATE INDIVIDUALS**

Motives to invest in forest and nature originate from the situation people are in. This determines also which investment forms they will use. The answers to the questions mentioned below determine for a large part if private individuals invest in nature and how they do this. The questions include important factors and characteristics that influence private individuals. Of course there are exemptions, where the answers to the questions do not lead to the expected form of investment, especially when ideological motives are leading.

Important questions for all private individual investors are:

- *Does the enterprise has successors?*  
Rural estate owners usually strive for passing the estate in a good condition on to the next generation. Also a lot of farmers think this way. When there are no successors this may influence their choices with respect to the exploitation of the land. When there are no successors for further (agricultural) exploitation of the land and the current owners prefer to remain having the landownership, a logical step is to convert the agricultural land into nature, from which they will get conversion subsidies.
- *How is the land designated in governmental plans?*  
To get subsidies for nature development or management it is important that the piece of land is designated as nature in governmental plans. Without subsidies only few people will still be motivated to convert agricultural land into new nature. However, there are exemptions. For example when it is a precondition of the municipality to develop nature to grant permits for other developments, people may convert agricultural land into new nature without getting subsidies. A good example is camping site "de Graspolder" in Brabant. The owner of the camping site converted agricultural land into new nature, from which he derived conversion subsidies for only a minor part of the land.
- *What are the plans with the direct surroundings of the enterprise?*  
When a piece of land is surrounded by nature areas there is no space for new (agricultural) developments and there are often a lot of restrictions. Therefore, it is a logic choice to convert these kind of lands into new nature. Think for example of rural estate "De Hoeven" which used to have 120 hectares of cultivated land and was surrounded by nature areas of nature conservation organizations. Because they expected the income from the lease of land to decrease, they looked for new sources of income. Therefore they chose to convert 90 hectares of agricultural land into new nature and started to focus on recreation.



Important additional questions for farmers or quitting farmers are:

- *What is the current agricultural use of the land?*

It depends on the type of company how profitable nature development is in comparison to the agricultural use of the land. Strawberries and asparagus yield more per square meter than corn or grass. It is also important if the area of nature can be integrated in the operational management of the farm. Grassland for meadow birds can for example still be used for cattle grazing.

- *What is the quality of the land for agricultural purposes?*

When the quality of the land for agricultural purposes is poor, one will easier decide to stop the agricultural business and to convert the land into new nature. During the interviews there was one landowner that used to have an agricultural business, converted his land into new nature and started a new rural estate. One of the reasons was that the land was under water for two times because of heavy rainfall, which brought the land in such a bad condition that agriculture was not a profitable business any more.

#### **4.2.3 INVESTMENT FORMS OF INSTITUTIONAL ORGANIZATIONS**

This paragraph is about investment forms used by both landowning organizations as organizations that invest in forest and nature without having landownership. From the information obtained by interviews and a literature study, four types of investment forms can be distinguished that are used by institutional organizations. Within these three types of investment forms also subcategories exist.

##### **Development and management of nature and forest by oneself**

Four subcategories exist within this type of investment form. Three of these categories came up from the interviews with investors: (1) forest development, management or protection for CO<sub>2</sub> compensation, (2) nature development and management as an integral part of area development and (3) voluntary nature development as compensation for red functions. The fourth category, investing in green company grounds, came up from the interviews with third parties.

Of the interviewed organizations, the only one that is compensating CO<sub>2</sub> on its own (which refers to the first subcategory) is Greenchoice, which is an energy company that wants to be green for 100%. To realize this they provide green electricity and gas which is compensated by forest growth (because gas is by definition environmentally unfriendly). Up to today, Greenchoice bought about 120.000 hectares of forest in Brazil. Every year the additional CO<sub>2</sub> admission by the growth of the trees is measured. One of the reasons for this energy company to compensate the CO<sub>2</sub> emissions on its own, instead of leaving this to intermediates, is because the rake-off is considerable when leaving this to other parties. However, Greenchoice does work with intermediates in other countries. The energy company also owns a forest in the Netherlands, but this one is relatively small and is used to organize forest management days for its customers. By being a 100% green energy company Greenchoice can make a difference in the energy market which attracts a specific market segment. This is a growing market segment, as people get more and more attention for the environment (Algra, personal communication, April 21, 2010).

The second category within this investment form, nature development and management by oneself as an integral part of area development, is applied by two of the interviewed institutional organizations: a real estate company (ASR Vastgoed) and a waste processing company (Afvalzorg). These kind of investors often work together with nature conservation organizations and governmental organizations to draw up a plan. Parties like the Government Service for Land and Water Management (Dienst Landelijk Gebied), the Association for Environmental Education (IVN Vereniging voor Natuur en Milieueducatie) and the State Forest Service (Staatsbosbeheer) provide knowledge, but the land remains the property of the investor. Popular are integral plans in which nature can be combined with red functions and recreation (like golf courses). The development

of nature leads to a spatial quality improvement which reflects on to the value of houses and the recreational value of the area. The aim of investors is that this results in a balanced relation between profitable and non-profitable components which usually takes the form of new rural estates or estate-like structures. The difference between the two organizations that use this investment form is that ASR also manages the nature areas themselves and wants to be known as a good nature manager while Afvalzorg usually develops the nature area and then passes the management on to a nature conservation organization (together with a box of money to do so).

The third category, voluntary nature development as compensation for red functions, is purely used for compensation and is not about combining nature development with red functions as an integral plan, like the former subcategory. This means that the place where nature is being developed can be far away from the place where red functions are being build. As a result the development of nature, which is the actual compensation, cannot be linked to a direct benefit for the people working or living in the area where the red functions have been developed. An example of this is the land-for-land regulation of the property developer of ASR Vastgoed. As part of their CSR-policy they compensate one square meter of nature for every square meter of houses, shops or offices that are being build. The reason for compensating at another locations is that the land on large-scale house building locations is too expensive. While ASR Vastgoed Vermogensbeheer (which manages the shares of the real estate portfolio of ASR Nederland, the umbrella organization) manages the nature on their rural estates themselves, ASR Vastgoed Ontwikkeling (which is the property developer of ASR) passes the management on to Natuurmonumenten (Somsen, personal communication, March 17, 2010).

The last category came up from interviews with third parties and is about companies that are making their company grounds greener. Landscape Management Netherlands did a project about making company grounds greener, because a green working environment would lead to a higher productivity of employees (van Paassen, personal communication, April 27, 2010). Especially capital-intensive companies attach a high value to green company grounds. Think for example of the High Tech Campus in Eindhoven where they work with highly qualified employees. To attract these people and to keep them working at the High Tech Campus a positive working climate was created, both inside and outside the buildings (Visser, personal communication, May 27, 2010). Investing in green company grounds is an investment form that is especially often used by organizations that sign the Countdown 2010 initiative. The Province Noord Brabant was the first region in Europe that side with the objective of the Countdown 2010 initiative to stop the loss of biodiversity before the year 2010. Today, a lot of municipalities, institutions and companies within the province Noord Brabant followed this example. When an organizations signs Countdown 2010 it should indicate how it is going to make a contribution to biodiversity. In most cases, companies choose to develop nature close to the company grounds or on the company grounds.

#### **Financing forest and nature development and management that other parties carry out**

Four categories can be distinguished within this investment form: (1) CO<sub>2</sub> compensation, (2) corporation (or partnership) with nature conservation organizations, (3) compensation for nature or landscape disturbing commercial developments and (4) taking part of landscape auctions. The first three types of this investment forms were used by investors that were interviewed, the last type was additional information named by third parties.

Five of the interviewed organizations are using the first type of this investment form and are compensating their CO<sub>2</sub> emissions in collaboration with the Climate Neutral Group through forestry projects in combination with sustainable energy projects. Next to the Climate Neutral Group, also Trees for Travel and Face are partners in CO<sub>2</sub> compensation for some of these organizations. The organizations that are compensating their CO<sub>2</sub> emissions are banks, an energy company, a car-lease company and a coffee roasting company. The latter used to compensate its CO<sub>2</sub>-emission in the Netherlands in collaboration with the National Green Fund. However, today all of these organizations are compensating in foreign countries. There is not enough space in

the Netherlands for CO<sub>2</sub> compensation, it is more expensive, the CO<sub>2</sub> admission per tree in tropical countries is much higher than in the Netherlands and the Climate Neutral Group (an organization for CO<sub>2</sub> compensation with whom a lot of companies work with) makes it impossible to compensate on a voluntary basis in the Netherlands. The reasoning behind the latter is that:

*“the climate contribution of sustainable energy projects and forestry projects in the Netherlands counts towards the attainment of the Dutch climate target under the Kyoto Protocol. There would be a double count if the same projects were also used as part of voluntary offsetting for consumers’ and organizations’ emissions. Until a watertight method exists for avoiding double counting, it will only be possible to undertake voluntary carbon reduction projects in countries without a Kyoto target” (Climate Neutral Group, 2010).*

The second category, the corporation (or partnership) with nature conservation organizations or the sponsoring of “friends of” foundations, is also popular under institutional organizations. Four of the interviewed organizations sponsor nature conservation organizations. This sponsoring takes different forms dependent on the type of organization, but in all cases the sponsor also has advantages from the sponsoring. In some occasions, the sponsoring goes in the direction of corporations or even partnerships. A clear example is the corporation of Natuurmonumenten with a health insurance company (Menzis). Natuurmonumenten and Menzis formulated a corporate objective:

*“Green is healthy. Therefore we put in joint effort to let as many people enjoy nature as often as possible”*

Menzis sponsors Natuurmonumenten by means of an annual sum of money and donates an extra 25 euro to Natuurmonumenten for every “nature active insurance policy” that is concluded. In the nearby future, Menzis will also organize walking tours from which the revenues will go to Natuurmonumenten. The advantage of this sponsoring for Menzis is that they can profit from the network of Natuurmonumenten as they can provide the members of Natuurmonumenten with a special offer. If you are a member of Natuurmonumenten you can get a discount on your insurance. Menzis also does have a say about the projects in which the money is invested in. They prefer to sponsor projects in their core working space, where a lot of their insureds live. In this manner, the results of the corporation are shown to the insureds that chose for a nature active insurance policy (Ansems, personal communication, March 22, 2010).

An important aspect with this business corporations with nature conservation organizations is that they should be “custom-made”. Companies that work business-to-consumer can profit from the network of nature conservation organizations by advertisements in magazines or briefings, while companies that work business-to-business need other incentives like the possibility to straighten a business relationship.

The third category, the investment in nature as a compensation for nature or landscape disturbing commercial developments, can happen on a voluntary basis but often has a more obligatory character. This kind of compensation is often not carried out on one’s own but usually happens through a donation of money to a regional fund which is meant for nature purposes. An example of an organization that invests in nature as a compensation on a voluntary basis is the Transmission System Operator TenneT. In provincial plans of Drenthe and Overijssel it was stated that the power transmission line from Zwolle to Hoogeveen that crosses valuable landscapes like “het Reestdal” and “het Oude Diep” would be removed in 2010. At the beginning of the nineties it was believed that the capacity of this power transmission line would not be needed any more in 2010. However, later insights did show that removing the line would lead to a large capacity problem and to prevent the destruction of capital, the line had to be maintained. To compensate for the promise they could not fulfill, TenneT donated ten million euro to the provinces Overijssel and Drenthe that invested the money in improving the quality of nature and landscape (Sanders, personal communication, July 8, 2010).

Another example of the voluntary development of nature as a compensation for commercial developments came up from the literature. This example is about an energy company that invested in landscape as a compensation for the realization of a wind park elsewhere. In fact, this is another example of investing in nature as a compensation for the destruction of the landscape elsewhere (Wing, 2009). The energy company did not carry out this compensation on its own land but donated a sum of money with the aim of contributing to the drawing up and the realization of a landscape management plan by the municipality (Wing, 2009).

Third parties also name investment forms that relate closely to the compensation for nature or landscape disturbing commercial developments. However, these examples have a more obligatory character: if a certain development does take place it should be compensated by the development of nature. To a certain extent, this is a voluntary investment as companies can choose not to invest in nature if they also give up their wish for area development at another place. However, they cannot develop only the “profitable parts” of a plan and let the government pay for the rest. Following this line, the recovery and settlement of costs in integrated area developments is a hot item in the Netherlands. It stimulates that the ones profiting from profitable parts (like houses) of an integrated area development invest a part of the returns in uneconomic parts (like nature), in order to realize a nice spatial quality which can finance itself. When the profitable parts and the uneconomic parts are integrated in one plan, it is possible to obligate property developers to contribute to the uneconomical parts as well. This investment form has a lot in common with the “development tax”, which obligates property developers to transfer a part of the yield to nature and landscape development. It is yet not possible to obligate property developers to compensate on different places, which are not part of the same plan. However, some property developers already do this on a voluntary basis and possibilities are being studied to make changes in regulations which can make this obligatory.

The last subcategory, taking part of landscape auctions, came up from interviews with third parties. Landscape auctions are meant to involve companies in the finance of landscape elements. A company can profit from these landscape elements by going outside with business partners which is good for the own business relations. Taking part of landscape auctions can provide image or/ and it can be used as a compensation. Furthermore, an investment in nature by taking part of landscape auctions can provide tax advantages for companies. The disadvantage of landscape auctions for the finance of the landscape is that it requires a lot of energy to attract companies in relation to the sum of money it generates. An example of Ooipolder is named where it brought in tree hundred thousand euro (van Paassen, personal communication, April 27, 2010).

#### **By helping the government with land transactions**

Organizations that own a lot of land, like property developers, can indirectly help with the realization of the Ecological Main Structure by making land transactions possible. The property developer of ASR Vastgoed is an example of this. The following citation underlines this:

*“We transfer every year hundreds of hectares of cultivated land to the Government Service for Land and Water Management for the realization of the Ecological Main Structure(Dienst Landelijk Gebied) in exchange for other lands. It also happens that we help to relocate farmers which are situated inside the Ecological Main Structure. In those cases we offer another location for that farmer in exchange for other lands. In this way, we do not only directly but also indirectly help to realize nature in the Netherlands. Over the past ten years, we made it possible to add thousands of hectares of new nature to the Ecological Main Structure, just by cooperating. We are very proud of that”.*

#### **By acting as a stimulator for private investments in forest and nature**

The interviewed investors used this investment form in four different manners: (1) by the development of instruments that work as a generator of money for a region, (2) by providing cheap loans for investors in forest and nature, (3) by offering clients the opportunity to choose for an environmentally friendly product and (4) by offering clients the opportunity to buy a piece of forest (independent from the product that is bought).

The first subcategory, the development of instruments that work as a generator of money for a region, is for example applied by the Rabobank. With the introduction of the region account, the bank actually helps in the formation of a region fund by the development of an instrument which can work as a generator of money for a specific region. The region account is meant for small and medium enterprises and governmental institutions like municipalities, provinces, region organization and the district water board. Parties that put money on the region account get a market-conform interest rate. Besides this market-conform interest rate which goes to the account-holder, the bank contributes an extra 5% of the interest rate to the region fund. The bank offers the account-holder the opportunity to donate also a part of the interest to the region fund. Organizations that choose to keep all the interest are still indirectly supporting the region fund by putting their money on the region account as the bank still contributes an extra 5% of the interest rate to the region fund. However also a lot of organizations choose to donate 5% of their interest and some organizations even donate 100% (Habracken, personal communication, March 15, 2010).

The second investment form, providing cheap loans for investors in forest and nature, is applied by green banks and green funds. While green funds issue shares, green banks issue bonds. Because investors in green shares and bonds profit from tax advantages banks can pay them less interest which makes it an interesting banking business. The bank for its part gives a discount on the loans of green investments. At least 70% of the money that green banks and green funds generate from investors in green bonds and shares should be invested in projects that fall under the “green regulation” (groenregeling). Otherwise, one cannot call itself a green fund or –bank and a fine has to be paid. The green fund of the Triodos bank even strives to invest the money for 100% in green and sustainable projects (Wals, personal communication, April 15, 2010).

The third manner in which this investment form is applied, is by offering clients the opportunity to choose for an environmentally friendly product. Some organizations have a very ideological basis and do only produce environmentally friendly products. This is also what distinguishes them from other parties. There are also organizations that find the natural environment important and provide facilities for their customers to invest in nature if they want to. This is for example be done by health insurance companies, where you can choose to conclude an insurance policy that sponsors nature conservation organizations. Another example is from a car-lease company which donates a sum of money to a nature conservation organization for every car they lease out that runs on an alternative fuel. In these examples, the customers of the companies are for a large part responsible for the actual investment in nature.

The last category under this investment form that came up from the interviews, offering clients the opportunity to buy a piece of forest (independent from the product that is bought), is about the forest saving schedule (bosspaarplan) of Greenchoice, an energy company. The actual compensation does not take place in the Netherlands but in Brazil. Greenchoice offers clients the opportunity to save forest for five euro per month. This forest is then brought under a foundation. Greenchoice provides this opportunity for people that want to contribute an extra mite and get a “good feeling” for doing this. Because Greenchoice also compensates the use of gas of its customers by forest management the organization and its customers compensate more CO<sub>2</sub> than they actually bring into the environment by CO<sub>2</sub> emissions.

#### 4.2.4 DETERMINING FACTORS FOR INSTITUTIONAL ORGANIZATIONS

Motives to invest in forest and nature are very dependent on the type of organization and its characteristics. These motives again influence the investment forms that organizations use. The questions below include various factors that determine for a large part if and how institutional organizations invest in forest and nature.

- *Does the organization has shareholders? If yes, who are these shareholders?*

Organizations that do not have shareholders, like corporations and mutual insurance companies, do usually not aim at making extreme profits. This may influence the willingness of an organization to invest in forest and nature, as for many organizations an investment in nature does not seem like a highly profitable investment. While there are also organizations with shareholders that invest in nature, the organizations that do not have shareholders mention the type of organization in the interviews as one of the characteristics of their organization which makes them willing to invest in forest and nature. They find it important to share the profit with the society. One manner of doing this is by investing in nature. Menzis is an example of a mutual insurance company that invests in nature and names the type of organization as an important characteristic. All the profit they make is being reinvested in health care. They do not have to remain on good terms with shareholders as there are no. This is important because usually shareholders want to receive as much revenues from an investment as possible (Ansems, personal communication, March 22, 2010). A corporation that has been interviewed is the Rabobank. In this interview again the importance of the type of organization is being emphasized:

*“A corporation means that you make people participant in a collective development and therefore, a part of the revenues should flow back into the society. Because our bank has no shareholders, it does not pay dividend. Instead, a part of the profit is been given back to the society and the members of Rabobank, which we call cooperative dividend”.*

When an organization does have shareholders, it is important who these shareholders are. Governmental organizations may have other preferences than other shareholders. An example is Afvalzorg, a waste processing company, which sees processing waste as a social task. They want to make old dumping grounds useful for society, for example by developing new nature on it. The shareholders of Afvalzorg are two provinces.

- *How is the core business of the organization related to nature/ the environment?*

More than half of the interviewed organizations mention that a link to the core business is very important for every investment they make. An investment in nature can relate to the core business in two different ways:

- The core business can have a positive link with nature:  
Themes that are positively related to nature are for example health, the quality of living in a green environment and recreation. Therefore it can be attractive for health insurance companies, property developers and recreation businesses to invest in forest and nature.
- The core business can damage the environment:  
When the core business of the company damages the environment some companies choose to compensate this by investments in forest and nature. Think for example of CO<sub>2</sub> compensation by the protection, management and development of forest.

- *Are top managers passionate about nature?*

From the interviews it appeared that a “green organization” can just start with a passionate director. A clear example is coffee roasting company Peeze. In 1998 this coffee roasting company started as one

of the first companies with CO<sub>2</sub> compensation. This was because the director of that time had a philosophy:

*“the people in the neighborhood should not have inconvenience from the coffee roasting company and the generations after us should be able to live like us, in the same nature, in the same environment and with the same resources.”*

In 2007 two other managers took over the company. They decided to continue this line of sustainable thinking and to implement it in the whole production chain. Today, these sustainable investments are also used as a marketing tool (Neutelinks, personal communication, April 8, 2010).

- *Does the organization has landownership or not?*

Landownership determines the possibilities for an organization to invest in forest and nature. Organizations that do have landownership usually invest in nature by combining it with economic pillars like houses, recreational facilities and land lease. This often takes the form of rural estates. Investment forms that are used by organizations that do not have landownership are sponsoring, partnerships with nature conservation organizations and CO<sub>2</sub> compensation (by using mediators). Besides, seven out of nine interviewed organizations are stimulating other private parties and private individuals to invest in forest and nature by offering environmentally friendly products (for example by sponsoring nature conservation organizations for every new customer of a certain product), by providing opportunities to sponsor a region fund or by offering the possibility to invest in green bonds and shares so that investors in forest and nature can get relatively cheap loans.

- *Is the organization capital intensive or capital extensive?*

Especially capital intensive companies are willing to invest in green company grounds. To attract high qualified people and to keep them working for the company a positive working climate should be created, which includes a green environment.

- *What kind of customers does the organization focuses on?*

For investments in forest and nature, it is important what kind of customers an organization is dealing with. A difference can be made between organizations that have a business-to-business, business-to-consumer and business-to-government relationship.

An organization with a business-to-consumer relationship (think for example of health insurance companies) has to attract a lot of customers and it is important for these type of organizations to be visible in society. Therefore, when these organizations invest in forest and nature, they often choose for a corporation with nature conservation organizations so they can also make use of the network of these organizations. Three out of six interviewed organizations that have a business-to-consumer relationship work together with nature conservation organizations. Another investment form that is often used by these type of organizations is CO<sub>2</sub> compensation which makes it possible to distinguish oneself among other providers by stating to consumers that products are CO<sub>2</sub> neutral.

Organizations with a business-to-business relation generally use the investment forms in another way and with other purposes. It is not so important for them to be known as an environmentally friendly company among all Dutch people. Members of nature conservation organizations are not an interesting target group, but other partners of nature conservation organizations might be. While for organizations with a business-to-consumer relationship advertisements in brochures of nature conservation organizations can be very interesting, the corporation of nature conservation organizations with companies with a business-to-business relationship should take other forms and should offer other advantages.

Finally, there are also companies with a focus on governmental organizations (business-to-government). Governmental organizations invite tenders so that every supplier gets the opportunity to do an offer. A very important part in the selection of the best supplier is the way a company works on a CSR policy. Investments in forest and nature can therefore help in becoming a supplier for governmental organizations.

The above explanation may give the impression that every organization is easily to be categorized according to the type of customers the organization focuses on. However, different types of customers may also fit to one organization. Some companies focus for example on both business and governmental agencies.

#### **4.2.5 DIFFERENCES AND SIMILARITIES BETWEEN PRIVATE INDIVIDUALS AND INSTITUTIONAL ORGANIZATIONS**

The investment forms used by private individuals vary widely from those applied by institutional organizations. This can be explained by the fact that these two study groups are being influenced by totally different factors and therefore also have different motives. While institutional organizations often deal with shareholders which are focused on making profit, the vision of top managers and employees that should be kept satisfied, private individuals think about the successors of their company.

What these two study groups have in common is that they both think about the alternatives for investing in forest and nature. Institutional organizations ask themselves what fits within their CSR-policy. Here, nature and forest have competition from other social goals that can be sponsored. Private individuals consider if agriculture or other functions are not more profitable or desirable than investing in forest and nature. Of course, also ideological motives may play a role here.

However, from time to time private individuals and institutional organizations end up using the same kind of investment forms. Like private individuals, also institutional organizations sometimes choose to develop nature on their own and occasionally they even buy land for this. Institutional organizations usually do this for CO<sub>2</sub> compensation, as an integral part of area development, as a compensation for red functions or to make company grounds greener. However, the conversion of land into new nature by oneself, more often takes place by private individuals like quitting farmers or owners of camping sites that see it as a quality impulse. Institutional organizations often leave the actual development and management of the nature area to third parties, and provide them with a sum of money to do so. This can go through a partnership with nature conservation organizations, which can provide additional advantages for the sponsoring organization. Furthermore, some institutional organizations act as a stimulator of private investments in forest and nature. This role is picked up by institutional organizations like green banks and green funds, rather than by private individuals.



## 5. BARRIERS FOR POTENTIAL INVESTORS

To understand why private individuals and institutional organizations invest in forest and nature while others do not an insight in the motives of the investors is not enough. Barriers for potential investors are just as important. Therefore, this chapter explores barriers to invest in forest and nature for both private individuals as institutional organizations.

### 5.1 BARRIERS FOR PRIVATE INDIVIDUALS

The table below shows the barriers for private individuals to invest in forest and nature. These barriers came up from the interviews with investors, the interviews with third parties and an additional study of literature.

Barriers for private individuals to invest in forest and nature
Barriers for private individuals that are willing to invest, but are not able to
A big pre-investment is needed
The objections from the social environment
The problems with getting permits
A lot of know-how is required
Barriers for private investors that are willing to invest under better conditions
The height of the payment is too low
The type of nature should be suitable for the investor
The revenues of the investment often do not “land” with the actual investor
More space for entrepreneurship is required
Barriers for private individuals that are willing to invest when it would be less risky
The uncertainty about the future exploitation of the land
The uncertainty about subsidies
The distrust in the government: State and Provincial policies are counteracted by local authorities

Table 4. Barriers for private individuals

According table 4, three types of barriers exist: (1) barriers for private individuals that are willing to invest, but are not able to, (2) barriers for private investors that are willing to invest under better conditions and (3) barriers for private individuals that are willing to invest when it would be less risky.

#### Barriers for private individuals that are willing to invest, but are not able to

This type of barriers can make it (in some situations) impossible for private individuals to invest in forest and nature. First of all, the pre-investment that is needed is sometimes too large for private investors, especially with new rural estates that want to develop new red functions. The National Greenfund can help in the prefinance when people buy new land and convert it into nature before the value compensation of 80% (sometimes 85%) is given. However, people can also have financial problems when they already own the land and want to develop a new rural estate. For private parties it is more difficult to provide a bank guarantee than it is for big companies and organizations which can make use of a security fund (Verwer, personal communication, April 22, 2010).

Secondly, there can be objections from the social environment. With new rural estates it happens a lot that objections are lodged. Often, this has a lot to do with local politics. For example because houses on a rural estate would attract wealthy people.

Thirdly, private investors experience problems in getting permits. This can take years and often private individuals are not able to bring up this patience. When people have a large sum of money, they will look on the market how to invest it at that particular moment and once it gets too complicated (or it does take years) people will usually come to the decision to invest their money in something else (Schimmelpenninck, personal communication, April 7, 2010).

Finally, a lot of know-how is required for the development of nature as permits should be requested and expertise is needed for the development of nature. Private individuals often do not have this know how. Particularly people who like to start something but do not have any experience are looking up to it (Schimmelpenninck, personal communication, April 7, 2010). Some people see it as a challenge, while others see it as an insurmountable barrier.

### **Barriers for private investors that are willing to invest under better conditions**

This barriers all refer to the profitability and the suitability of investments in forest and nature for the investor. The height of the payment is the first barrier that is named under this type of barriers. Nature conservation just does not pay enough (Gerritsen, personal communication, April 16, 2010). The majority of the interviewed private individuals holds the opinion that the payments for nature management cover the cost but do not more than that. In general it is not possible to get a profit out of it. For potential investors this can be a barrier.

Secondly, the type(s) of nature indicated in governmental plans is a very deterrent factor for the willingness of private individuals to invest in nature. Flowery grassland can very well be integrated in the operational management of a farm: it can be used as grazing land for cattle, as a producer of grass and as land for the disposal of manure. Other forms of nature, like forest, are not of any use for a farmer. In general, wet types of nature are harder to integrate in the operational management of a farm than dry types. In practice it is hard to find private individuals willing to invest in these types of nature which are difficult to integrate in the farm management. Especially for provinces that have relatively little areas with nature target types that are possible to integrate in the operational management of farms, it is difficult to find social basis for nature management by private individuals (Gielis, personal communication, May 20, 2010). Besides the height of the payments, the attractiveness of managing landscape elements is for a large part determined by the manageability and the presence of field corners that are difficult to get to with a machine or that yield poorly (Dijkman, W. & Vliet, J., van, 2009).

The motivated farmer starts easier with nature conservation when it fits the company type and only small adaptations are needed. Next to the factors that were just mentioned, three questions are important for the possibilities and willingness to incorporate nature management in the company:

- Are the nature products of positive use for the farm?
- Is it possible to manage the nature with the available means of production on the farm, like cows and machinery?
- Does the nature management fits in the available time throughout the year? (Dijkman, W. & Vliet, J., van, 2009)

The third barrier, is that the one's investing are not always the one's profiting from the investment. The catering industry is often profiting from a nice landscape while other private investors put the money and the effort in it. Only seldom catering industry entrepreneurs make a contribution to the landscape. The knowledge that other parties profit more from the revenues of the investment than the actual investors, can easily demotivate potential investors in forest and nature.

Finally, owners of rural estates often express the wish for more freedom of entrepreneurship. To what extent this forms a crucial barrier for these people to keep managing their rural estate is unknown, but it does

certainly form a hindrance. A rural estate that cannot economically support itself has no existence right, therefore creative and innovative entrepreneurship is needed and should be stimulated.

### **Barriers for private individuals that are willing to invest when it would be less risky**

Uncertainty is an important barrier for private individuals to invest in nature. There is often uncertainty about the possibilities for the exploitation of the land in combination with red or recreation functions (so that profitable parts can compensate for money-losing parts) and the nature policies and subsidies of the future.

The first uncertainty, which especially goes up for quitting farmers that convert their cultivated land into new nature and start a new rural estate, is about the future exploitation of the land. Often the nature is combined with houses, but the housing market collapsed due to the financial crisis. This makes the exploitation by building houses very uncertain, while for quitting farmers this is the form of exploitation that is most attractive: after building the houses it needs no looking after. Farmers that quite and reach a certain age often do not feel like running a camping site (or another capital intensive form of exploitation) to the end of years.

Furthermore, subsidy systems change often and people who are not familiar with subsidies cannot see the wood from the trees and find them complicated. At the time of writing this report, just a new subsidy system was introduced, "Subsidy system Nature and Landscapemanagement" (Subsidiestelsel Natuur- & Landschapsbeheer), which involves some improvements with regard to the former subsidy system, Program Management (Programma Beheer), which was called stiff, complex, expensive and strict (the 12 Provinces, 2010). While this is supposed to be an improvement, it is a change and it is taking some time to get used to it again. If it is really an improvement remains to be seen as the subsidy system is introduced very recently, in January 2010.

Another uncertainty is around the progress of the declaration of Linschoten (verklaring van Linschoten). A construction is being worked out to see if private individuals can receive a 100% value-declining-subsidy when converting cultivated land into nature when they work together in a corporation, instead of the 80% (sometimes 85%) private individuals already get. With this, private individuals that act as a group and are working together would be given equal rights as land managing organizations like Natuurmonumenten, Provincial Landscapes and State Forest Service, which already get this 100% value compensation. It already takes a very long time for the government to give clarity about this which makes it difficult to attract private parties for nature conservation at this moment, in the sense that a lot of people just wait with investing until clarity is given. People first like to know how the declaration of Linschoten would turn out for them (Veurink, personal communication, March 29, 2010).

Also, a lot of private individuals are not satisfied with the duration time of the contracts for agricultural nature management. They are valid for a period of six years which is too short for farmers that like to make long-term decisions. There is always an uncertainty for the farmer that the contract will not be extended after six years.

The last barrier that falls under this category of barriers and came up from the interviews with investors involves a critique on the current role of the government. State and Provincial policies are sometimes counteracted by local authorities, which causes confusion for investors in forest and nature. This is one of the reasons why the policy for new rural estates is not very successful yet. An example is the rural estate Westcreecke in the municipality Steenberg. For the development of a new rural estate the landowners had to pay a large sum of money (50.000 euro's) for the nature fund money box (natuurfondspot) of the municipality while they developed eighteen hectares of nature. The obligatory contribution to the nature fund money box of the municipality is a compensation for the two hectares of housing that was created on the rural estate.

In fact, national and local policies force the entrepreneur in question to compensate twice for the same development. This is experienced as unfair. The entrepreneur should meet the conditions of the regulation for

new rural estates, which includes a compensation of red functions by the development of nature. Actually this is a red for green construction. In addition to this, the municipality obligates the entrepreneur to compensate again for the development of the same red functions in the form of a monetary compensation.

To make it even more unreasonable for the rural estate developers in Steenberg, the municipality requires a contribution to the nature fund money box for the building lots as a whole, while according to the zoning plan only on a part of the lots can be build (Verwer, personal communication, April 22, 2010).

## 5.2 BARRIERS FOR INSTITUTIONAL ORGANIZATIONS

If organizations do or do not invest in nature depends for a large part on the intrinsic values of the organization.

*“There are companies that go to the theatre as an outing, they have something with culture ad theatre. But there are also companies that visit a rural estate and call Natuurmonumenten to ask for a guided tour by a forester”.*

Whatever a company chooses has often a lot to do with preferences of top managers. Companies that do invest in nature usually attach a high value on tangibility. Therefore it is for nature conservation organizations like Natuurmonumenten a lot easier to get money for concrete and complete “A to B projects” than for nature management (Groot, personal communication, June 4, 2010).

Barriers for institutional organizations are explored by the interviews with investors and the interviews with third parties. Table 5 indicates the barriers (or discouraging facts) institutional organizations deal with in relation to investments in forest and nature.

Barriers for institutional organizations to invest in forest and nature
<b>Barriers for institutional organizations that do not invest in forest and nature out of principles</b>
Preventing environmental damage seems better than compensating for it
<b>Barriers for institutional organizations that would be willing to invest under other circumstances</b>
Red for green does not work now the housing market collapsed
The Netherlands is not suitable for CO <sub>2</sub> compensation
<b>Barriers for institutional organizations that want to see more financial benefits</b>
Nature delivers no direct financial profit for a lot of companies
At large house-building locations the houses do not increase that much in value to compensate for the costs of nature

Table 5. Barriers for institutional organizations

According table 5, three types of barriers exist for institutional organizations to invest in forest and nature: (1) barriers for institutional organizations that do not invest in forest and nature out of principles, (2) barriers for institutional organizations that would be willing to invest under other circumstances and (3) barriers for institutional organizations that want to see more financial benefits.

### Barriers for institutional organizations that do not invest in forest and nature out of principles

Polluting companies see investing in nature as a compensation measure. Often they prefer investing in sustainable production processes above investing in nature. They prefer to prevent environmental damage above compensating it. Some companies are doing both but often only a part is compensated and this is done abroad.

Umbrella initiatives like “De Groene Zaak” and “Leaders for nature” also have a focus on integrating ecosystem thinking in production processes, the reduction of waste, the use of sustainable energy and sustainable business models. They do not really aim for more private investments in forest and nature.

#### **Barriers for institutional organizations that would be willing to invest under other circumstances**

There are companies that are not principally against investing in forest and nature in the Netherlands and most of them would even prefer to do so, if the situation in the Netherlands was more suitable for investments in forest and nature. These are for example companies that invest in forest for CO<sub>2</sub> compensation. CO<sub>2</sub> neutral used to be a term where a company can be proud of. A lot of organizations find it more interesting to state to their customers that they are CO<sub>2</sub> neutral than they see a marketing advantages in stating to customers that they invest in forest or nature. While CO<sub>2</sub> compensation is a good instrument to involve organizations in the finance of forests, CO<sub>2</sub> compensation however offers only limited chances for the finance of nature in the Netherlands. There is not enough space in the Netherlands for CO<sub>2</sub> compensation, it is more expensive than abroad and it is less effective as the CO<sub>2</sub> admission per tree in tropical countries is much higher than in the Netherlands (Algra, personal communication, April 21, 2010).

Furthermore, there are organizations that are willing to invest in forest and nature to compensate for red functions. However, now the housing market collapsed, the red for green concept is not working properly as a generator of money for nature and forest development. No red means no green (Somsen, personal communication, March 17, 2010). This goes both up for new rural estates as for organizations that compensate house-building locations with the development of green (whether or not on a voluntary basis).

#### **Barriers for institutional organizations that want to see more financial benefits**

For a lot of companies, investing in nature does not lead to direct financial benefits like for example saving energy does (Gerritsen, personal communication, April 16, 2010). While not every organization sees the possibilities, investing in nature can be an economical wise thing to do as it can lead to a lot of indirect financial benefits like image and the visibility of the organization in society.

Furthermore, nature can increase the value of houses. However, at large house-building locations the development of nature costs a lot of money. Investing in nature makes the margin for the property developer smaller because houses do not increase that much in value to compensate for the costs of nature. A lot of thinking and trying out is been done around combining nature and green with house building, but in practice it does make house-building just too expensive. Of course combining the two would add an extra value to the houses, but this is only possible as part of large scale area development. Examples of large scale area developments which combine nature with red functions are rare in the Netherlands. Therefore, organizations like ASR that choose to compensate for house-building on a voluntary basis do this at other locations which are cheaper. No direct link between the houses that are compensated for and the actual nature development is created (Somsen, personal communication, March 17, 2010).



## 6. DEVELOPMENT OF NEW INVESTMENT FORMS

This chapter explores the developments of new and voluntary investment forms in forest and nature. As these investment forms often emerge from local initiatives which are not all very well documented, it is not possible to be complete in the reporting of all these new investment forms. However, it does give an impression of the developments in this area.

As described before, it is hard to draw a sharp line between voluntary investments in forest and nature and obligatory contributions, as there are many gradations in between. New developments around taxes, which do have a real obligate character, are excluded from this research. Red for Green is to some extent also obligatory, but does have a component of choice. Investors ask themselves the question if the economical part of the investment (like houses or a golf course) can pay for the money-losing part, which is the development of nature. If not, they do not invest. Therefore, developments around the red for green concept are included.

Some ideas about new investment forms are already brought into practice, others are still in the phase of the drawing board. New investment forms that are already brought into practice are described in paragraph 6.1. After this, paragraph 6.2 will explore the ideas that are not brought into practice yet.

### 6.1 NEW INVESTMENT FORMS THAT ARE RECENTLY BROUGHT INTO PRACTICE

New investment forms that recently have been brought into practice are (1) the financing nature, forest and landscape by using it as a source for bio-energy, (2) the combination of nature management with the production of dairy products, (3) temporally nature and (4) new red for green constructions. These investment forms are described below.

#### **Financing nature, forest and landscape elements by using it as a source for bio-energy**

There are various examples of nature, forest and landscape elements used as a source of bio-energy from which the revenues are reinvested in the landscape again. At a conference about the finance of the Dutch landscape “Kennisdag Financiering Landschap” which was organized at 17 June 2010, a discussion took place about the question: can landscape support itself because it delivers ecosystem services like the production of bio-energy?

One example that came up was from a pilot in Beetsterzwaag. In the North of Holland wooded banks and windbreaks are characteristic for the landscape, but the maintenance is too expensive today. Thanks to the high energy value of wood shreds this is about to change. Local farmers manage the wooded banks and windbreaks and the trimmings are being used as biomass for the generation of sustainable energy. In this particular case, the exploitation of the biomass-installation is in hands of the local agricultural nature association “De Âlde Delte”, which set up a partnership under the name Delta T. Bio Energy B.V. Besides, De Âlde Delte set up a foundation, “stichting BOOM”, which takes care of the continuous supply of wood shreds from the surroundings of Beetsterzwaag. The energy that is generated by this installation heats two buildings, the revalidation centre Friesland and the school Lyndensteyn. Apart from a considerable saving of natural gas consumption this development contributes a lot to the CO<sub>2</sub> reduction of these two buildings. The heating of these buildings generates money for the management of the landscape elements by the farmers in the surroundings.

With this investment form, it is important to keep insight in the distinction between end and means. The following citation illustrates this:

*“The landscape is not only meant to generate energy. Of course you can make landscape valuable, but you cannot forget where you got it from”.*

The end is keeping the landscape beautiful, the means is to use the high energy value of wood shreds. Small entrepreneurs will have more eyes for the quality of the landscape than big organizations.

To make these kind of initiatives successful, one should try to create a market for biomass on a regional scale and to do the whole production chain, without intervention from energy companies. It is also recommendable to bundle the biomass from different sources: not only from landscape elements but also from for example forest or garden waste. Finally, a good logistic system is required as it is expensive to get wood out of the landscape and get it transported.

### **Combine nature management with the production of dairy products.**

The idea behind this investment form is to create a new pact between nature and agriculture. At the time of writing this report, the initiative “ZuivelNatuur” was just started. It is a corporation between the State Forest Service, farmers, a chain of restaurants, a cheese-maker and an association that stimulates innovation of dairy farmers.

With the start of this initiative, the State Forest Service was for the first time enthusiastic about letting dairy cows graze their nature areas. With this project the State Forest Service aims at high quality nature management with the commitment of “nature farmers” and increasing the commitment of Dutch people with the Dutch nature and landscape.

It is attractive for the chain of restaurants to be involved in this initiative as they like to inform their customers about the origin of their products. Also, the chain of restaurants attaches a high value to biological and corporately responsible products. Consumers profit from this initiative as they like to know what they eat. The added value of dairy products from cows that were grazing in nature areas is that consumers are able to support the management of the landscape and nature through the consumption of the products.

The strong component of ZuivelNatuur is that a connection is been made between different groups in the society: the nature farmers, nature conservation organizations and the end users. Also the rank and file of the party of the State Forest Service and Natuurmonumenten, which are about a million people, will be activated to think about this concept (InnovatieNetwerk, 2010<sup>2</sup>). This will probably make the concept even more successful.

### **Temporally nature**

Possibilities are being explored around developing temporal nature at locations that are waiting for the construction of new buildings. Current laws and regulations obstruct the development of temporally nature areas because when protected species set foot on the land, their presence can be used to stop or delay further developments in the area or compensation can be demanded.

In the Netherlands more than 35.000 hectares of land is bought by property developers and governmental agencies for the benefit of the construction of new buildings, infrastructure, company grounds and the extraction of sand. Often these are former agricultural lands or raised lands where natural values are generally low. It can take years (sometimes even ten years or longer) between the moment that the final destination is been fixed in the zoning plan and the actual realization. All this time, the landowner anxiously tries to keep nature from the land while temporal nature can bring permanent returns. The wastelands are often perfect for pioneers and early species. They can strengthen themselves in those areas and disperse from there to other areas.



Therefore, Haven Amsterdam started a pilot with temporally nature on a wasteland of eight hectares which is meant for port bound business activities. It is not already known which company will establish itself here and at what moment the land will be brought into use. The experiment goes until the land is going to be developed. For this temporal nature Haven Amsterdam is released from the Flora and Fauna Act (Flora- en Faunawet). This makes it possible to give temporal nature a chance to develop and to remove it at the time a new destination is given to the land. In this way, landowners do not have to be afraid that the area will be claimed as permanent nature after giving nature a chance to develop (InnovatieNetwerk, 2010<sup>2</sup>).

### **New red for green constructions**

Red for green constructions can take various forms. There are a lot of experiments around red for green constructions. It stimulates that the ones profiting from developments in a certain area also pay for the development of nature or the improvement of the spatial quality. Think of new rural estates, recreation entrepreneurs that are allowed to expand on the condition that they invest in an improvement of nature and landscape as well and finally property developers that are permitted to build at particular locations on the precondition that they make a positive contribution to the landscape in the surroundings. It is also possible for a property developer to put money in a region fund. From this fund desirable developments can be financed. Today, the central discussion is about how to let beneficiaries from red developments pay for nature areas which are not part of the same plan. Especially possibilities to include this in the Land Exploitation Act (Grondexploitatiewet) are being studied.

## **6.2 IDEAS ABOUT NEW INVESTMENT FORMS**

Besides investment forms that are already implemented, there are also investment forms that are only ideas yet. This are (1) building houses on the edges of nature areas and include them in the finance, (2) investing in green stocks and shares at a local scale, (3) new concepts around CO<sub>2</sub> compensation in the Netherlands, (4) forest as a facilitator for companies and (5) the guarantee of a nice view.

### **Building houses on the edges of nature areas and include them in the finance**

“Area concessions” is an investment form that is named in a reconsideration report of the ministry. Land is being granted in concession to property developers which can develop activities in and around nature areas, which can economically contribute to the exploitation of the specific area. The state allows property developers to develop activities or to build houses at the edges of nature areas under certain conditions. The property developer pays for the concession or takes care of the development of the nature area and gets a payment for this from the government which is lower than the planned state investment (Ministry of Agriculture, Nature and Food Quality, 2010).

By building houses in low densities at the edges of nature areas, the finance for other new nature areas becomes available. Next to a contribution of property developers to nature development, it is also possible to think of the management of nature by future occupants of the developed houses. There are a lot of people who would love to live or work in a forest and contribute a mite to nature conservation, but do not have the financial means. Usually only rich people can realize this. In exchange of living or working in a natural environment with an affordable rental price, people could contribute to the management of the area. Furthermore, rules can be developed for the future occupants of the area, not only with regard to nature conservation but also about building materials and sustainability requirements. With this, an interaction is being created between the forest and the occupants that are living in the forest (Innovatienetwerk, 2010<sup>1</sup>).

### **Investing in green stocks and shares at a local scale**

This investment form makes use of the fiscal green regulation (fiscale groenregeling). Today investors in green bonds and shares are provided with information about the projects green banks and green funds are investing in, but do not know where their money in particular is being spend on. There is no one to one relationship between the investors and the projects that are financed. By giving the investors the chance to invest in particular projects they choose for, more people may become attracted to invest in forest and nature. In this way, it is for example possible to provide people with the opportunity to invest in a green project in their own neighborhood.

The National Greenfund is working on this concept for a long time, but it seems hard to implement it (Meijers, personal communication, March 16, 2010). From the interviews with the banks it appeared that this construction would be too expensive for the banks. One bank experimented with this concept and created a link between one particular project and the investors. It appeared that it was too much work to do this for other projects as well.

The idea to create a link between the actual investors and the project invested in is not only applicable for green banks and green funds. One of the interviewed health insurance companies is thinking about providing insurants with a “nature active insurance policy” the opportunity to choose on which projects the money, which is donated to Natuurmonumenten, is being spend on. However, ideas like this do seem to have a lot of organizational impact so the feasibility of this is under question.

### **CO<sub>2</sub> compensation in the Netherlands**

Companies that invest in forest often do this with the underlying motive to compensate for their CO<sub>2</sub> emissions. Because compensating in the Netherlands is much more expensive than abroad as there is less space and the CO<sub>2</sub> admission per tree in tropical countries is much higher than in the Netherlands, most companies choose to compensate abroad.

One of the ideas that was brought forward in the “Battle of Concepts”, a prize contest organized by InnovatieNetwerk for the future finance of new forest in the Netherlands, was to link foreign forest projects to forest projects in the Netherlands and call them “sister”forests. Following this line, in the Dutch forests also information should be provided to visitors about the sister forests in foreign countries. With this, a walk through these forests in the Netherlands would get a deeper meaning (Innovatienetwerk, 2010<sup>1</sup>).

The advantage for companies to invest in these kind of forest projects is that it is much more tangible than “only” investing in forest in countries abroad. During the interviews in this research, a lot of organizations mentioned that tangibility is an important issue. More than half of the organizations regrets it that it is not possible for them to compensate in the Netherlands as they find themselves in the position that they have no choice if they fully want to compensate their CO<sub>2</sub> emissions.

The combination of forest development in the Netherlands and forest protection abroad is already made by the tree-for-tree fund of Natuurmonumenten with the realization of the second climate forest in Zuid-Limburg and the protection of the Harapan rainforest in Indonesia. The new idea of creating “sister forests” and informing visitors about this can make the concept even more successful.

### **Forest as a facilitator for companies**

Companies are able to contribute to the development of nature and forest, which often takes place through the sponsoring of nature conservation organizations. To make this more attractive it is a chance to create facilities in these nature areas, which can be used by the investors as a location for meetings, brainstorm sessions and as a place to welcome business relations. Besides, it can provide image and it can fit in the CSR policy of the company. This investment form can also be combined with the former example of CO<sub>2</sub> compensation in the Netherlands.

**Guarantee of a nice view**

This investment form refers to a deal between house owners that like to have a nice view and landowners that are able to guarantee this nice view in exchange for a payment. The right of having this view is being fixed by a notary and registered in the land register. This is an investment form that can be used for the finance of landscape and is not suggested for the finance of nature and forest yet. However, this might offer the same opportunities.



## 7. POLICY CHANGES

Firstly, this chapter describes the influence of the type of nature (the designation of the land in governmental plans) on the willingness of private parties to invest. Furthermore, it discusses the government's role in stimulating private investments in forest and nature; in the past, today and in the future. With this, it addresses policy changes made over time and the implications for new policies in future.

### 7.1 INVESTORS AND THE TYPE OF NATURE INVESTED IN

Institutional organizations often invest in forest and nature by sponsoring nature conservation organizations or by compensating their CO<sub>2</sub> emissions by the development of forest through intermediaries, as most of them do not have landownership. Of course they find it important that the nature or the forest that is developed will not diminish, but the exact protection status of the lands where nature is developed does not really matter for them.

For both institutional organizations that have landownership (like property developers) as for private individuals (like quitting farmers) the protection status of a nature area is important. When agricultural land is converted to nature and the land is part of the Ecological Main Structure, one will get conversion subsidy (80% to 85% of the decline in value from converting cultivated land into nature is compensated for in the form of a payment). When land is converted that is not part of the Ecological Main Structure, one cannot get this conversion subsidy. In fact, this would be a destruction of capital. Only few will do this, for example to get permits from the municipality for other developments or to attract visitors.

For owners of rural estates the nature beauty law (NSW) is important. When an estate is at least five hectares, the area is unbroken and consists at least for 30% out of forest or nature it can be qualified as a NSW- rural estate. This classification offers fiscal advantages.

Except for the fiscal advantages and subsidies that are tied to the protection status of an area, the categorization of nature areas is of little importance for both entrepreneurs as large institutional organizations. In general, the titles "National Landscape" or "National Park" do not say very much to investors and it is not a reason for them to invest in those areas instead of others. The familiarity of these areas should not be overestimated. Especially when an area has a long policy history and already have had different names, people lose the overview. The state recognizes this and is therefore studying the possibilities to change the patchwork of policies into something more simple and less bureaucratic.

A regional approach can be a successful method in attracting more local investors. National Landscapes can be a start for a local brand or a region fund. However, it should be more than just putting a label on it to let it work and to attract investors. Investing in forest and nature becomes more attractive when the management and finance are well arranged for a long period of time. When something is organized to guarantee this, it is more attractive for potential investors. This can be done by using a regional approach.

Besides the protection status of nature areas, which investors find primarily important for financial reasons, the actual type of nature that is invested in is very important for the willingness to develop new nature, especially for farmers. There is more social basis for the development of new nature that can be integrated in the operational management of farms, like grasslands, than for example the development of forest.

## 7.2 CHANGES IN THE GOVERNMENT'S ROLE

The Dutch political system is making a move from government to governance, which means a change from top-down steering by the central government to a bottom-up approach. The financing of nature by private parties and local initiatives fits very well in the scope of the growing popularity of the bottom-up approach. With the introduction of the nature policy plan in 1990 governmental policies became imbedded with a notion of manipulability: the government draws the borders, the land within these borders is bought and developed into new nature, the land is managed and the government takes care of all these activities. When the government has ownership over the land, it can choose what to do with it (Gerritsen, personal communication, April 16, 2010)

Today, it is being recognized that this is not a feasible and desirable development. Therefore, there is a shift towards the idea of involving private parties in nature conservation. Landownership is not that important any more, but goal realization is (Gerritsen, personal communication, April 16, 2010). However, some private parties mention that they still experience an unfair competition with land-managing organizations like Natuurmonumenten and the State Forest Service. The government would automatically pass lands on to Natuurmonumenten and the State Forest Service as these parties are able to do a higher bid as they can use government money. Also, a difference is been made in the height of conversion subsidies. When private parties convert cultivated land into new nature, they are compensated for the decline in value for 80% (sometimes 85%), while land-managing organizations like Natuurmonumenten and the State Forest Service get the full 100%.

To make nature conservation more attractive for private individuals, the declaration of Linschoten states that an equal treatment of private individuals and land-managing organizations is important. Seven parties signed this declaration at the 27<sup>th</sup> of May: the Federation for Private Landownership (Federatie Particulier Grondbezit), Corporation for Nature and Countryside Management (Stichting Beheer Natuur en Landelijk gebied), Natural Countryside Netherlands (Natuurlijk Platteland Nederland), Natuurmonumenten, State Forest Service (Staatbosbeheer), the 12 Landshaps (de 12 Landshappen) and the National Greenfund (Het Nationaal Groenfonds) (Wing, 2009<sup>2</sup>). Within the scope of stimulating private investors a construction is being developed to provide private investors in forest and nature that work in corporation with each other, the same height of conversion subsidy as land-managing organizations already get, namely the full 100%. At this moment, a lot of private individuals are just waiting how the declaration of Linschoten turns out for them as no clarity is given yet (Veurink, personal communication, March 29, 2010).

To encourage farmers to invest in forest and nature the government can offer farmers land outside the Ecological Main Structure in replacement for the land that they convert into new nature. The compensation of the conversion of the land into new nature with new agricultural land (that has a good location and is easily accessible) probably works better than a monetary compensation. Of course farmers can buy new land with a monetary compensation for the agricultural land that loses its production capacity but the location may not be favorable. It offers farmers more confidence when the government (that wants the area converted into new nature) takes the risk of land compensation. The land that is converted into new nature can still be owned and managed by the farmer, so in fact the conversion of land into new nature leads to an enlargement of the company (Dijkman, W. & Vliet, J., van, 2009). This idea follows logically on the finding in this research that farmers usually do not want to make their company smaller but prefer an enlargement, even when a part should be managed as nature.

From interviews with third parties it was mentioned that private individuals are often satisfied with low returns on the condition that they have landownership. If the government wants to involve private parties in the finance of forest and nature, it is essential to give up the ownership over the land. Particular areas that are state property or in the hands of land-managing organizations can be put into the market. This does not go up

for every land type as not every type of nature is interesting for private individuals. Also, there can be discussion about if it is desirable that private individuals manage “dark green nature areas”, which are vulnerable. However, land-managing organizations also own nature areas that are not part of the Ecological Main Structure and might as well be managed by private individuals. When there is a house nearby, or the possibility is offered to build one house at the edge of the nature area, it becomes attractive for private individuals to buy a piece of nature. One can also think of rural estates which are in the past often bought with government money, but can as well be managed by private individuals. When the government sells already developed nature areas which are state property, it can buy new lands that again can be developed into new nature. This can take the form of a revolving fund. From the revenues of the sale of these areas also the management payments for the new (private individual) managers of nature areas can be financed.

Examples from the past show that private individuals are interested in managing a piece of nature. There used to be a lot of people from Amsterdam that bought pieces of heath land in the Veluwe and build summer-houses nearby. Sometimes they developed a piece of forest and they even created arboretums. However, the development of nature is difficult for people that have no experience. Know-how is needed and one should apply for various permits. Therefore it might be an interesting idea to bring the nature areas on the market when they are already developed in combination with an advice about the future management. This way, private parties do not have to wait for the permits and this method requires less know-how about nature development.

The province Noord-Brabant already picked up the idea to sell land that is part of the Ecological Main Structure to private parties for nature development. In 2009 this province sold 64 parcels of agricultural land (in total 75 hectares) to private individuals. It was the first time that land inside the Ecological Main Structure, bought by the Government Service for Land and Water Management under the authority of the province, was first offered for sale to private individuals. There was a great respond of interested people for buying these parcels (de Regt, personal communication, May 25, 2010). Lessons can be learned from this successful example of involving private individuals in nature conservation.

Other examples that stimulate private investments in forest and nature (also from the province Noord Brabant) are the easement of procedures for land allocation, the raise of payments for nature conservation to private individuals and the enlargement of the Ecological Main Structure in favor of rural estate owners. The goal of these actions of the province Noord Brabant is to keep more land in the hands of farmers, rather than self-evidently transfer the ownership to the three nature conservation organizations Brabants Landschap, Natuurmonumenten and the State Forest Service (Wegener Nieuws Media, 2008). Formerly, only specifically assigned parts of the Ecological Main Structure were open for nature conservation by private parties. The other land that needed to be converted into new nature was planned to be bought by the government. Now, everyone that has land in the Ecological Main Structure can decide to start with nature conservation (de Regt, personal communication, May 25, 2010).

From the examples above, it is clear that the role of the government with regard to nature conservation is changing and provinces are experimenting with this. It appeared that there is a need for more space for entrepreneurship. This is also how nature in the Netherlands is formed. Today, nature development starts from “above”. Up to the level of parcels ecologists determine the nature goals from a large distance and map them out. One of the interviewees mentioned that more space should be created for the landowner to give an own interpretation to nature development and management. Of course the goals should be met, but the government can be more flexible with regard to the location and how the goals are exactly realized.





## 8. DISCUSSION

### Different points of views

While writing this report, it appeared that both the existing literature and the interviewees that have been spoken too, have different notions about the future finance of forest and nature in the Netherlands. It is important to be aware of this, because it may be the first point for discussion before the right investment forms can be formed. During this study it became clear that roughly two streams of people can be distinguished that have different points of views. On the one hand there is a group of people that advocate that forest and nature can be financed by efficient allocation through markets. On the other hand there is a group of people that believes forest and nature are “pitiable” so there is a need for subsidies, taxes and obligatory contributions from the ones that are profiting relatively more from nature and forest than others, to finance it. The first viewpoint leads to voluntary investments in forest and nature, for example because it delivers bio-energy, forest products or it attracts customers. The second viewpoint implicates that there is a need for obligatory contributions, which can be split in two categories. One category has a component of choice (one can develop something on the condition that one will also invest in forest and nature) while the other category does not involve a component of choice and does not offer anything in exchange (like taxes from tourism). Besides, the second viewpoint also involves that voluntary investments should be stimulated by subsidies because otherwise it would not be attractive enough to invest in forest and nature.

The reality is probably somewhere in between these two viewpoints and varies from situation to situation. The study of the “Task Force Financing Landscape Netherlands” which was carried out in 2008 under direction of Rinnooy Kan underlines the importance of valuable contributions of private initiatives like taking part of landscape auctions or establishing “health care rural estates” but also states that the actual practice is stubborn. Not only because of the administrative and organizational obstacles, but also because of the voluntary character, the lack of knowledge and know-how. While the study of the Task Force Financing Landscape Netherlands (2008) does not have high expectations from voluntary investments in forest and nature for the future finance of landscape in the Netherlands, this research is investigating the possibilities once again. Therefore, this study has a focus on voluntary investments and does also include the “half obligatory” investment forms that involve a component of choice (where a development is allowed on the condition that one will invest in forest or nature). Totally obligatory contributions to forest and nature which do not include a component of choice are not considered as investments and are therefore not part of this research.

Today, a lot of thinking is going on about the creation of new investment forms which try to obligate private parties in one way or another to contribute to the finance of forest and nature. This way of thinking originates from the common pool character of nature described by Hardin in 1968. These goods have the effect of creating a tension between the profit or advantage that actors derive from nature and their contribution to nature costs. When individuals or organizations cannot be excluded from the benefits that others provide, no-one is really motivated to contribute to the joint effort. Instead, private individuals or organizations prefer to free-ride on the efforts of others (Dioniso et al., 1990). The idea that obligations to contribute to nature costs by the ones that are profiting from it are not needed because it is also economically interesting for private parties to invest in forest and nature is worth while to investigate. Local examples prove that, although nature and forest are in essence common-pool goods which give rise to the problem of free-riding, private parties are willing to invest in forest and nature on a voluntary basis, especially when the advantages for the investing organization or private individual are larger than for others that can make use of it. Think for example of rural estates that are open to public, but where the landowner has the opportunity to live. For institutional organizations these advantages can have a totally different character, like image, exposure or the creation of a business relationship. According Bowles et al. (1998), ignoring environmental issues is no longer a rational choice for the private sector. This is underlined by the following citation:

*“Business must address the link between economic and environmental issues, not only because governments may force them to do so, but also because consumers demand for it directly” (Bowles et al., 1998).*

While local examples show that there is a truth in the theory that nature and forest can be financed by voluntary investments of private parties, these examples cannot be extrapolated to the whole Netherlands yet. Up to today, it is far from possible to finance nature completely with voluntary investments. There is less interest in nature conservation by private parties than was originally expected and the generation of private money in region funds stays behind. However, this does not necessarily mean that private parties are not willing to invest in forest and nature. Maybe the right investment forms just do not exist yet. This can be a result of not having the insights in the motives of private parties to invest in forest and nature, while the information is just out there as already a wide range of parties invest in forest and nature.

### **Contribution to the existing knowledge**

The most valuable contribution of this research to the existing knowledge is therefore the study of motives of private parties to invest in forest and nature. While this research was designed to study economical motives, it appeared that investments in forest and nature almost always originate from a combination of ideological and economical motives. Only one research has been carried out so far that took the investors point of view as a starting point to explore motives of private parties to invest in forest and nature, which was carried out as part of the project “investing in ecology” and the campaign “Netherlands Beautiful” (Padt et al., 2002). That specific study made a differentiation between ideological and economical motives. This research shows that some motives are hard to label as “ideological” or “economical” as they involve some form of self interest (and therefore are not pure ideological), but do not lead to direct or indirect financial benefits and are thus not economical motives either. With this, a third category of motives appeared from this research, that involves an aspect of self-interest that is not financial. Think for example of the value a private individual attaches to his or her social acceptance in the neighborhood.

Furthermore, it turns out that “if” and “how” private parties invest in forest and nature depends on certain characteristics and factors that influence the situation of the investors. For private individuals this are factors such as the designation of the land in governmental plans and the question if the company has any successors. For institutional organizations other factors play a role, like the opinion of shareholders and top managers towards nature and the type of consumer the organization focuses on. Because of the variety of factors that can influence the motives of private investors, it is important to offer custom-made investment forms adjusted to the situation of the investors. This is already acknowledged by sponsored organizations like Natuurmonumenten, which offer the sponsoring organizations something in return that suits to the organization type.

### **Reflection on the methodology**

The investment forms described in this research are not exhaustive. There are a lot of local initiatives that experiment with new investment forms. It is impossible to make an inventory of all these local initiatives. This study therefore did not mean to give an exhaustible overview of investment forms, but to provide an insight in the investment forms that exist and how they develop. Besides, this research focuses to a lesser degree on the investment forms themselves, but more on the factors that determine if an investment form is going to be used. This requires insight in the motives of investors, an understanding of the barriers they experience, knowledge about the differentiation between investors and factors that lead to success. Far more studies have been done on investment forms yet than on motives and investors.

Another comment on this study is that no *potential* investors (companies and private individuals that are not investing yet, but may do this in the future) are interviewed. The reason for this is that it takes a lot of time (especially with institutional organizations) to find the right person in an organization that is able to tell something about the policy of the organization with regard to sponsoring and choices for investments in

general. It already appeared from the interviews with investors that it is difficult to find the right person in an organization that is able to tell why the company is investing in forest and nature. The expectation is that it would be even more time-consuming to ask non-investing companies why they are not investing. However, this is an important question. Therefore umbrella organizations for both private individuals as institutional organizations that invest in forest and nature are approached for an interview as the best alternative for interviewing the non-investors themselves. These umbrella organizations also have insights in barriers to invest in forest and nature for potential investors.

The third comment on this research refers to the third category of motives that is created in this study, based on the characteristic of self-interest without (indirect) financial benefits. However, there can be discussion about the exact meaning of the word “self-interest”. To a certain extent the ideological motives named in this research do also involve an aspect of self-interest. By doing a good deed, people are provided with a “good feeling”. When this “good feeling” is a reason for them to invest in forest and nature, self-interest plays a role. In this research motives are being categorized as ideological when an organization or private individual acts from a relatively low directly assignable degree of self-interest, for example from the will to do something good for the natural environment. When self-interest is more evident, like having a nice living environment, this research does not talk about an ideological motive. To conclude, it is hard to draw a sharp line between ideological motives and motives that are not financial but do include a form of self-interest. Discussion about this remains possible.

The last comment on this study is about the definition of “nature”. While this study is about the finance of forest and nature, most studies that have been carried out so far are about the finance of landscape. During the interviews, this brought up confusion. In this research, nature is seen as one of the features of landscape. The definition of nature that came up from the literature and is used in this research is *“the world of living things and the outdoors”* (Houghton Mifflin Company, 2009). The definition of landscape that is applied in this study is: *“an area like it is observed and experienced by people and of which the character is determined by the combined work of nature and of man”* (Bouma, et al., 2008). While landscape refers to the visual aspects of an area as a whole (like the construction of landscape elements, the cultivation of parcels and the location of buildings), nature relates to biodiversity (the diversity of plant- and animal species). However, the term nature falls within the catch-all term “landscape”. Landscape elements for example also lead to higher biodiversity and can form connections from one nature area to the other. Investments in landscape elements like wooded banks and windbreaks are therefore not only investments in landscape but also in nature. However, the other way around, not everything that is considered as landscape is also considered as nature. Think for example of typical housing patterns which form a characteristic of certain landscapes but have nothing to do with nature.

### **New opportunities**

Possibilities to attract new types of investors especially exist in the field of health care, recreation, living, energy and food production. Investment forms for private parties should be “custom made” to be interesting. Next to companies that compensate for environmental damage in countries abroad, private parties can be stimulated to compensate for visual damage of the landscape, by investing in forest and nature nearby.

The Province Noord Brabant shares the opinion that it is time to look for new types of investors. In a memo about the realization of the Ecological Main Structure written in 2008, the province states that looking at the progress so far, it is time to undertake action. Exploring the field of new contracting parties is one of the opportunities they see to speed up the realization of the Ecological Main Structure. Attracting parties like health insurance companies, health care institutions and housing corporations but also companies that are willing to invest in a favorable business climate can form a part of the solution to find more private finance for forest and nature (Commissie Ruimte en Milieu, 2008). Up to today, the intention to attract new parties is still an ambition which has not been brought into practice yet. At the moment the province is still very busy with stimulating private nature conservation by private individuals (which is mainly focused on farmers; one of the traditional landscape parties), from which the realization stays far behind the goals.

Besides the idea to find new types of investors, there is a movement to create a new pact between nature and agriculture. Due to the scaling-up of agriculture, nature and agriculture grew apart over the years. The larger the Ecological Main Structure gets, the higher the management bill becomes. At a certain moment land-managing organizations will also fail to live up to the expectations and there will be a need to go to a transition, where nature can be used also for economical purposes (Meijers, personal communication, March 16, 2010). To put this into perspective, the largest part of nature in the Netherlands is man-made and is very often agricultural nature. To preserve this kind of nature, it should also be managed this way. Following this line, new types of companies will emerge with a totally different design than the current “agricultural practice” or “natural practice”. Nature and agriculture should become more interrelated just as they were in the past. According to the study “Towards a rich landscape” (Naar een rijk landschap) of McCarthy et al. in 2009, the revenues from the maintenance of nature and landscape are for farmers, in relation to their income, just a marginal factor. However, this research shows that this highly depends on the agricultural use of the land. The study of McCarthy et al. also concluded that “a farmer wants to farm”, on which can be anticipated by providing a farmer more space for production in exchange for the maintenance of landscape elements. This solution fits within the findings of this research: the prevention of the need for cutting down the company size can win farmers over to invest in landscape elements, forest and nature.

As the government is not able to develop the Ecological Main Structure without the help of private parties in time, also options to sell nature areas to private parties should be considered. When concessions are being made, for example by providing private individuals the opportunity to build a house nearby, a lot of private individuals may be interested. Of course this is not feasible for every type of nature, as some areas may be too vulnerable or not attractive for private individuals, but for other areas this may be a suitable option. Already a lot of discussion exist about this subject and the outcomes will be very dependent on politics.

Partnerships (under which public-private partnerships but also corporations between farmers), thinking in whole marketing chains and localization are factors that can lead to success for private investors in forest and nature. When acting environmentally responsible in the whole marketing chain also companies that do not have land are able to invest in forest and nature. These are indirect investments which can have a snow ball effect. Think for example of the corporation of “nature farmers” with restaurants and cheese dairies. Local or regional branding can bring an added value to the products, which makes more people willing to buy the products for relatively high prices as they know the products are sustainably produced. The actual investors are the ones buying the products.

Finally, the advantage of investing in nature above other social goals is that it is tangible and it has a permanent character. There are still opportunities to make more advantage of the positive characteristic of tangibility. There is for example no direct link yet between investors in green stocks and shares and the actual projects invested in. Also, the possibilities of citizen participation in nature management can be further explored. There are people that like to work on something with a permanent character which also delivers tangible results. In the eco-district EVA-Lanxmeer, situated in Culemborg, there is a local working group that manages a part of a former water-collection area. They see this area as a communal garden. Initiatives like this can only develop when residents are involved in the making of plans in an early stage (Kaptein, personal communication, May 7, 2010).

### **Impact of new developments and implications for the future**

The change from top-down steering by the central government to a bottom-up approach brings with it space for local creativity. Local initiatives have the potential to make a substantial contribution to the development and management of forest and nature. However, the shift towards a bottom-up approach today also brings with it lack of organization. State and provincial policies are sometimes even counteracted by local authorities with regard to the policy for new rural estates, knowledge about new investment forms is often not spread and local initiatives are not interconnected with each other. In bringing local initiatives together so investment forms can be combined or one area can learn from the other, the government can play a more important role.

Today, a development is visible that the new generation policy makers is increasingly focusing on landscape, instead of purely on forest and nature. The advantage of this new point of view is that it leads to more attention for integral area development, which involves more parties. When more parties are involved, the costs for landscape development and management are easier to be spread. This movement can already be recognized in the landscape- and region funds that came up in various regions in the Netherlands, which are founded to collect money from both public as private actors for the benefit of the regional landscape.

With regard to agriculture the process of scaling-up will continue also in the coming decades. As a result, the amount of agricultural companies will be halved in the period up to 2030. The vacant land becomes available for growing companies or other purposes like living, working, infrastructure or nature. In the same time a differentiation will take place in the agricultural practice. On the one side high productive companies will develop which have to meet high sustainability requirements. On the other side companies will arise that combine agriculture with other functions, like camping sites or nature and landscape management (Raad Landelijk Gebied, 2009).

Furthermore, the increasing awareness of customers for environmental issues has a great impact on suppliers. An essential fact that came up during the interviews is that a lot of companies invest in forest and nature to meet the changing demands of society. For the finance of nature by private parties this means that the opinion of the general public towards environmental issues is very important, because when society finds it important private parties need to adapt. When the government invests in making the general public more aware of these issues, this probably translates itself automatically to more investments in forest and nature by the private sector.

While it was assumed that the economical crisis would have a negative impact on private investments in forest and nature, new insights show that the opposite is true (Vissers, personal communication, May 27, 2010) . Because of the economical crisis companies are just willing to invest in forest and nature to distinguish themselves from their competitors. At the moment companies are charting a course for the future. What is going to be our strategy to survive? Sustainability and the environment are increasingly important issues, especially from a competition point of view.

The final influencing factor on the private finance of forest and nature is politics. Politics determine how far the government will go in the privatization of nature conservation and which investment forms are suitable and should be stimulated. Politics is a factor which remains unsure. However, what is for sure is that the current budgets are under pressure and new ways of financing forest and nature need to be taken into consideration to meet the conservation goals in time.

### **The Netherlands in comparison with other countries**

In the Netherlands already a lot of investment forms exist. Because of the bottom-up approach, there is a lot of space for local creativity. Unique in the Netherlands are the green banks and green funds. This is a form of a public-private partnership. In fact, four parties are working together here: the banks (there are in total eight green banks and green funds), the private individuals that invest in green shares and bonds, the companies that invest in sustainable projects and make use of the “green regulation” and finally the government, which has the directing role in this all. Other countries in Europe are very interested in this public-private partnership and possibilities are being explored to implement the system of green banks and green funds also in other countries in the European Union (Keulen, personal communication, March 31, 2010).

Like other countries can learn from Dutch investment forms like green banks and green funds, the Netherlands can also learn from countries abroad with regard to other investment forms. Two investment forms came up from the literature that are successfully applied by countries abroad and may offer opportunities for the private finance of forest and nature in the Netherlands.

The first example refers to the state of New Jersey which developed an innovative zoning and credit program to protect a valuable nature area known as the Pine Barrens. This kind of program could also been implemented in the Netherlands to involve private parties in the finance of nature conservation. In the region of Pine Barrens various zones of use were established that indicate three general categories of land: (1) preservation areas which are the most ecologically sensitive, (2) buffer zones where only limited economical activity with low environmental impact is permitted and (3) growth areas. Landowners in the preservation zone or buffer zone can earn conservation credits by placing restricted covenants which prevent development on their property. Landowners in growth areas are only allowed to increase the density of development on their property if they purchase conservation credits from others (Bowles, et al., 1997). In the Netherlands there are already some experiments to involve private parties in the finance of forest and nature by the use of tradable development permits. The zoning of the land into categories could be an improvement of the system that is already occasionally applied in the Netherlands.

The second idea that can help to find finance for forest is the placement of windmills in forest, like this is already done in countries as Sweden, Germany and Ireland. The placement of windmills in open areas often leads to the visual destruction of the landscape, while the inconvenience from windmills in a uninhabited forest is limited. Instead of costing money a forest with windmills can actually be profitable. In this way, green ambitions and energy ambitions can be combined. Landowners can earn money from the production of wind energy by leasing out a part of forest to an energy company or by placing the windmills themselves, for example in a “wind corporation”. The revenues from the energy production can finance a part of the management of the nature area (Innovatienetwerk, 2010<sup>2</sup>).

## 9. CONCLUSION

Private financing of forest and nature is currently a hot topic. The objective for this research is to clarify the opportunities for financing forest and nature in the Netherlands by voluntary investments of the private sector. The answer to the first research question of this research that is about which parties invest in forest and nature in the Netherlands, is that these parties are diverse. This research had a focus on private individuals and institutional organizations. It appeared that investors in forest and nature range from rural estate owners and farmers to banks, insurance companies, energy suppliers, car-lease companies and even waste-processing companies.

The second research question refers to the motives of private parties to invest in forest and nature. From the literature already two types of motives appeared, namely economical motives (like image and financial advantages from subsidies and tax eliminations) and ideological motives (like taking care of future generations). From this study, also a third category of motives appeared, which involve some form of self interest and are therefore not pure ideological, but do not lead to direct or indirect financial benefits and are thus not economical motives either. Think for example of the value a private individual attaches to its social acceptance in the neighborhood. While for private individuals it is obvious that a third category of motives exist, it is not clear if a third category also exists for institutional organizations. Institutional organizations do have motives that are not ideological and do not lead to a direct financial benefit, but to what extent businesses can have indirect financial benefits (from for example a good image) is difficult to say. When the indirect financial benefit is the motive to invest, it is still an economical choice. Also, seemingly ideological deeds can be used as a marketing tool and can therefore be based on an economical reasoning.

With regard to the third research question about the investment forms used by private individuals and institutional organizations, this research shows that the form of investment that is used relates to the type of investor. Investment forms used by private individuals are the conversion of agricultural land into new nature (which can as well be land that is property of the private individual for over a long time as land that is recently been bought), the management of existing nature and the development and management of landscape elements. Private individuals cannot be seen as a homogenous group, the choice for one investment form or the other depends highly on the specific characteristics of the private individuals and the situation they are in. Determining factors for private individuals are the designation of the land in governmental plans (which is important to get subsidies), the question if the company has any successors (when there are no successors private individuals will earlier come to the decision to develop nature) and plans with regard to the direct surroundings of the enterprise (which influences the space for new developments and can lead to restrictions). For farmers the current agricultural use of the land and the quality of the land for agricultural purposes are also important. When the current agricultural use of the land is not more profitable than nature development (including landscape elements) or when the quality of the land for agricultural purposes is poor, one will easier decide to invest in new nature.

The investment forms used by institutional organizations to invest in forest and nature can be divided into four main categories: (1) the development of nature and forest by oneself, (2) financing forest and nature development and management that other parties carry out, (3) helping the government with land transactions and (4) by acting as a stimulator for private investments in forest and nature. Also institutional organizations differ between themselves with regard the investment forms they use. Determining factors for institutional organizations are different from the factors that were important for private individuals. With institutional organizations shareholders and top managers play an important role. Furthermore, the type of consumer the organization focuses on, whether the organization has landownership or not and finally the relation between the organization and nature (or the environment) are important. The core business of an organization can have a positive link with nature which makes investing in it interesting (think of health insurance companies), but it

can as well be that the core business damages the natural environment and one chooses to compensate for that (think of energy companies).

The fourth research question is about which forms of investment are suitable for which types of nature. This research shows that the type of nature is not important for investors, as long as it can be integrated in the operational management of the company (especially with farms) and it is possible to get financial benefits from subsidies and tax advantages. This means that the development of nature is more attractive on land that falls within the Ecological Main Structure or on which the natural beauty act is applicable. When land is not part of the Ecological Main Structure no conversion subsidy is given and in fact conversion into new nature would be a destruction of capital. The natural beauty act delivers tax advantages for rural estate owners. In general, the titles “National Landscape” or “National Park” do not say very much to investors and there is no reason for them to invest in those areas instead of others.

Finally, the last research question is about the current role and future opportunities of the government in stimulating private investments in forest and nature. Today, the Dutch government tries to enlarge the contribution of private parties to nature conservation through subsidies, fiscal measurements and tax raising. Besides, there are investment forms with a public-private character which are for example red for green constructions, which stimulate that the ones profiting from developments in a certain area also pay for the development of nature or the improvement of the spatial quality. While the government also tries to come up with attractive and totally voluntary investment forms, like landscape auctions, these actions still bring in relatively low amounts of money and usually cost a lot of energy. However, the social basis for voluntary investment forms is higher and therefore studying the possibilities is essential. Today, a lot of new investment forms are only locally implemented. Sharing knowledge can bring this initiatives together so one area can learn from the other. Also, by studying the motives of private investors new investment forms can be more adequately formed. The current instruments are particularly oriented at traditional nature and landscape parties like land-managing organizations, municipalities, district water boards and farmers. The voluntary finance of forest and nature by private parties can get more successful by exploring the field of potential investors and by responding to their specific motives and situation.

Possibilities to attract new types of investors especially exist in the field of health care, recreation, living, energy and food production. Nature and agriculture should become more interrelated just as they were in the past. Furthermore, all kinds of organizations that bring visual damage to the landscape should be stimulated to invest in forest and nature. Today, most companies are focused on environmental damage (which can be compensated abroad) instead of visual damage, which is a missed chance for the private finance of forest and nature in the Netherlands.

To be interesting, investment forms for private individuals should be “custom made”. The factors that influence “if” and “how” private parties invest in forest and nature, which are described in this study, are therefore very important. Furthermore, this research has shown that partnerships (under which public-private partnerships but also corporations between farmers), thinking in whole marketing chains and localization are indicators for success in the creation of investment forms for private investors in forest and nature in the future.



## 10. REFERENCE LIST

### Books, articles and policy documents

- Beck, J.P., Arts, G.H.P., Gaaff, A., Buijsman, E., Verschuren, M., 2008. *Natuurbalans 2008*. Planbureau voor de leefomgeving/ Wageningen Universiteit, Bilthoven.
- Beck, J.P., Knecht, B., de, Bredenoord, H.W.B., Brink, T.H., van den, Tisma, A., Veen, M.P., van, Verburg, R.W., Willems, W.J., 2009. *Natuurbalans 2009*. Planbureau voor de leefomgeving/ Wageningen UR, Bilthoven.
- Bade, T., Schroeff, O., van der, Middendorp, B. van, 2008. *Landschap erfgoed Utrecht. 'Binnenlopen door buiten te wandelen'. Economische quick scan van het verkenningsgebied Deltaplan Gelderse Vallei*. Triple E, Arnhem.
- Bouma, J., Egmond, N.D., van, Groen, L.A., Ierland, E.C., van, Opschoor, J.B., Sijmons, D.F., Veldkamp, A., Zande, A.N., van der, 2008. *De toekomst van het Nederlands landschap. Wetenschappelijke bijdragen aan de toekomstige landschapskwaliteit*. Koninklijke Nederlandse Academie van Wetenschappen, Amsterdam.
- Bowles, I., Downes, D., Clark, D., Guérin-McManus, M., 2008. *Economic incentives and legal tools for private sector conservation*. Duke environmental law & policy forum, **8**: 209-241.
- Buijs, A.E. & C.M. Volker, 1997. *Publiek draagvlak voor natuur en natuurbeleid*. Wageningen UR, Wageningen.
- Cambridge University Press, 2008. *Cambridge advanced learner's dictionary*. Third Edition. Cambridge University Press, Cambridge.
- Commissie Ruimte en Milieu, 2008. *Realisatie EHS, verbeteren en vernieuwen: "Ondernemend aan de slag"*. Provincie Noord Brabant, 's Hertogenbosch.
- Dijkman, W. & Vliet, J., van, 2009. *Westelijke Langstraat*. Parel voor boeren natuurbeheer. CLM Onderzoek en Advies BV, Culemborg.
- Dionisio, F., Gordo, I., 2006. *The tragedy of the commons, the public goods dilemma, and the meaning of rivalry and excludability in evolutionary biology*. Evolutionary Ecology Research, **8**: 321-332.
- Elo, S., Kyngäs, H., 2008. *The qualitative content analysis process*. Journal of Advanced Nursing, **62** (1): 107-115.
- Gibson, C.A., McKean, N.C., Ostrom, I.N., 2000. *People and forests. Communities, Institutions, and Governance*. Massachusetts Institute of Technology, United States.
- Hardin, G. 1968. *The tragedy of the commons*. Science, **162**: 1243–1248.
- Hansman, H.J.M., Borgstein, M.H., Kolkman, W. 1999. *Vermarkten van natuur. Perspectieven voor ketenarrangementen?* LEI Wageningen UR, Den Haag.
- Hirshleifer, J., 1970. *Investment, Interest and Capital*. Pearson Prentice Hall, Englewood Cliffs, New Jersey.
- Innovatienetwerk, 2010<sup>1</sup>. *50 Ideeën voor nieuwe bossen*. Communicatiebureau de Lynx, Utrecht.
- Klemperer, W.D., 1996. *Forest Resource Economics and Finance*. McGRAW-Hill Series International Editions, Forestry Series, Singapore.

Kloen, H., Padt, F., Verschuur, G., Joldersma, R., Lobry, E., Graaff, R., de, 2004. *Handleiding voor het organiseren van een landschapsfonds. Lokaal Landschapsfonds voor natuur en landschap*. CLM Onderzoek en Advies, Lobry Organisatie-ontwikkeling, Landbouw Economisch Instituut, s.l.

Kooiman, J., 1993. *Modern Governance, new government society interactions*. Sage, London.

Kooiman, M., Marrewijk, D., van, Linssen, M., 2005. *Landschappen met toekomstwaarde. Cultuurhistorische karakteristiek van de Nationale Landschappen*. Projectbureau Belvedere, Utrecht.

Landell-Mills, N & Porras, T. I. 2002. *“Silver bullet or fools’ gold? A global review of markets for forest environmental services and their impact on the poor”*. Instruments for sustainable private sector forestry series. International Institute for Environment and Development, London.

Loenen, P. van, Sluiskens, G.J., Woltering, C.M., 2001. *Eén boer maakt nog géén landschap. Agrarisch landschapsonderhoud gefinancierd vanuit de toeristisch/ recreatieve sector*. Rapport 32. Plant Research International, Wageningen.

Longman, 2006. *Dictionary of Contemporary English*. Fourth revised edition. Pearson Education Limited, United Kingdom.

McCarthy, B., Otterman, E., Ee, J. van, Hagens, J., Bade, T., Schroeff, O., van der, Smid, G, 2009. *Naar een rijk landschap. Financiering Nationale Landschappen*, Triple E & NovioConsult, s.l.

Ministry of Agriculture, Nature and Food Quality, 2005. *Naar een nieuwe natuur; over natuurontwikkeling in Nederland, Brochure nr. 13*. Ministry of Agriculture, Nature and Food Quality, Den Haag.

Ministry of Agriculture, Nature and Food Quality, 2010. *Ruimte voor leven. Leefomgeving en natuur. Rapport brede heroverwegingen*. Ministry of Agriculture, Nature and Food Quality, Den Haag.

O’Sullivan, A., Sheffrin, S.M., 2003. *Economics: Principles in Action*. Pearson Prentice Hall, Upper Saddle River, New Jersey.

Ostrom, E., 1990. *Governing the commons, The Evolution of Institutions for Collective Action*. Cambridge University Press, United Kingdom.

Overbeek, G., Graaf, R., de, 2009. *Investeren in landschap. Bewoners en bedrijven in Amstelland, Binnenveld, Het Groene Woud en Ooijpolder-Groesbeek*. LEI Wageningen UR, Den Haag.

Padt, F.J.G., Kloen, H., Verschuur, G.W., Joldersma, R., 2002. *Investeringsvormen voor natuur- en landschapsbeheer*. CLM Onderzoek en Advies BV, Utrecht.

Raad Landelijk Gebied, 2009. *Braakliggend veld. Advies over de toekomst van het landelijk gebied*. RLG publicatie, Utrecht.

Reinhard, S., Silvis, H., 2007. *Investeren in het Nederlandse Landschap: hoe te financieren?* LEI- Wageningen UR, Den Haag.

Sanders, M.E., Blitterswijk, H., van, Huiskens, H.P.J., Wijk, M.N., van, Blankena, A., 2003. *Beleidsvaluatie agrarisch en particulier natuurbeheer voor de Natuurbalans 2003. Waarin: particulieren in samenwerkingsverbanden met terreinbeherende organisaties*. Alterra, Research Instituut voor de Groene Ruimte, Wageningen.

Schroder, R., Koomen, A.J.M, Kranendonk, R., Tersteeg, J., 2008. *Kennis voor Nationale Landschappen. Een analyse voor kennisuitwisseling en implementatie in 2007 en 2008*. Alterra, Research Instituut voor de Groene Ruimte, Wageningen.

Smit, H., Luttik, P., Boosten, G., 2005. *Natuur en landschap als investering; Perspectieven van nieuwe financiële instrumenten voor natuur en landschap*. Natuurplanbureau, Wageningen.

Task Force Financiering Landschap Nederland, 2008. *Landschap verdient beter!* Ministerie van Landbouw, Natuur en Voedselkwaliteit, Den Haag.

Houghton Mifflin Company, 2009. *The American Heritage Dictionary of the English Language*, Fourth Edition, Houghton Mifflin Company, Boston.

Werkgroep Klimaatadaptatie Het Groene Woud, 2009. *Aanpakvoorstel voor klimaatadaptatie in Het Groene Woud*. s.n., s.l.

Wielen, P., van de, Vreke, J., Reinhard, S., Bos, E., 2004. *Instrumentenanalyse natuur en Landschap; Een analyse naar de kansrijkheid van een aantal beleidsinstrumenten ter verbreding van natuur*. Alterra, Research Instituut voor de Groene Ruimte, Wageningen.

Wing, 2009. *Inventarisatie. Stand van zaken ingediende initiatieven "Investeren in Landschap"*. Wing, s.l.

Wing, 2009<sup>2</sup>. *Werkdocument. Verklaring van Linschoten*. Wing, s.l.

Word Wildlife Fund, 2009. *Guide to Conservation Finance. Sustainable Financing for the Planet*. Word Wildlife Fund, Washington.

## Websites

AgriHolland BV, 2010. *Dossier EHS*. Date of access: January 6, 2010.  
<<http://www.groeneruimte.nl/dossiers/ehs/home.html>>

B4o Landschapsarchitectuur + Stedenbouw + Recreatieontwikkeling, 2010. *Nieuw landgoed beleid in Nederland*. Date of access: February 9, 2010. <[http://nieuwlandgoed.nl/landgoed\\_beleid/](http://nieuwlandgoed.nl/landgoed_beleid/)>

WebFinance, Inc., 2010. *Business Dictionary*. Date of access: January 20, 2010.  
<<http://www.businessdictionary.com/definition/investment.html>>

Climate Neutral Group, 2010. *CO<sub>2</sub> projecten*. Date of access: June 10, 2010.  
<<http://www.climateutralgroup.com/ShowContent.aspx?page=FAQ+projecten&lang=NL>>

Centraal Bureau voor Statistiek, 2007. *Herziene versie: Kosten natuur- en landschapsbeheer blijven ongeveer gelijk*. Date of access: February 5, 2010. <<http://www.cbs.nl/nl-NL/menu/themas/natuur-milieu/publicaties/artikelen/archief/2007/2007-90070-wk-rev.htm>>

CLM & Landschapsbeheer Nederland, 2010. *Nederland Mooi*. Date of access: February 4, 2010.  
<<http://www.nederlandmooi.nl/>>

InnovatieNetwerk, 2010<sup>2</sup>. *Concepten*. Date of access: June 24, 2010.  
<<http://www.innovatienetwerk.org/nl/concepten/>>

Investopedia ULC, 2010. *Investment Dictionary*. Date of access: January 20, 2010.  
<<http://www.investopedia.com>>

Investor Glossary, 2010. *Defining the word of investing*. Date of access: January 18, 2010.  
<<http://www.investorglossary.com/investment.htm>>

Mayring, P., 2000. *Qualitative content analysis*. Vol. 1(2). Forum qualitative Sozialforschung/Forum: Qualitative Social Research. Date of Access: March 3, 2010. <<http://qualitative-research.net/fqs/fqs-e/2-00inhalt-e.html>>.

Meyer, B.M., 2010. *Econterms, Glossary of Research Economics*. Date of access: January 20, 2010.  
<<http://www.econterms.com/>>

Ministry of Agriculture, Nature and Food Quality<sup>1</sup>, 2010. *Compendium voor de leefomgeving*. Date of access: January 5, 2010. <<http://www.compendiumvoordeleefomgeving.nl/indicatoren/nl1314-Nationale-parken.html?i=19-75>>

Ministry of Agriculture, Nature and Food Quality<sup>2</sup>, 2010. *Nationale Parken*. Date of access: January 6, 2010, <[http://www.minInv.nl/portal/page?\\_pageid=116,1640949&\\_dad=portal&\\_schema=PORTAL&p\\_document\\_id=110237&p\\_node\\_id=145274&p\\_mode=BROWSE](http://www.minInv.nl/portal/page?_pageid=116,1640949&_dad=portal&_schema=PORTAL&p_document_id=110237&p_node_id=145274&p_mode=BROWSE)>

Ministry of Finance, 2010. *Kredietcrisis*. Date of access: January 20, 2010.  
<[http://www.minfin.nl/Onderwerpen/Financiële\\_markten/Kredietcrisis/Ontstaan\\_kredietcrisis](http://www.minfin.nl/Onderwerpen/Financiële_markten/Kredietcrisis/Ontstaan_kredietcrisis)>

The 12 Provinces, 2010. *Subsidiestelsel Natuur- & Landschapsbeheer*. Date of access: June 21, 2010.  
<<http://www.natuurbeheersubsidie.nl/2-Home>>

Wegener Nieuws Media, 2008. *VVD'er Onno Hoes: Ruim baan voor particulier natuurbeheer*. Date of access: June 21, 2010. <<http://www.brabantsdagblad.nl/regios/brabant/2747178/VVDer-Onno-Hoes-Ruim-baan-voor-particulier-natuurbeheer.ece>>

### **Personal communication**

Algra (Greenchoice), 2010. Personal communication, face-to-face interview, d.d. April 21, 2010.

Ansems (Menzis), 2010. Personal communication, face-to-face interview, d.d. March 22, 2010.

van Beerendonk (Strawberry Company van Beerendonk), 2010. Personal communication, face-to-face interview, d.d. March 10, 2010.

Gerritsen (Ministry of Agriculture, Nature and Food Quality), 2010. Personal communication, face-to-face interview, d.d. April 16, 2010

Gielis (Province Noord Brabant), 2010. Personal communication, telephone conversation, d.d. May 20, 2010

Groot (Natuurmonumenten), 2010. Personal communication, face-to-face interview, d.d. June 4, 2010.

Habraken (Rabobank), 2010. Personal communication, face-to-face interview, d.d. March 15, 2010.

Kaptein (Corporation E.V.A.), 2010. Personal communication, face-to-face interview, d.d. May 7, 2010.

Keulen (Rabobank), 2010. Personal communication, face-to-face interview, d.d. March 31, 2010.

Meijers (National Greenfund), 2010. Personal communication, face-to-face interview, d.d. March 16, 2010.

Neutelinks (Koffiebranderij Peeze), 2010. Personal communication, face-to-face interview, d.d. April 8, 2010.

van Paassen (Landschapsbeheer Nederland), 2010. Personal communication, face-to-face interview, d.d. April 27, 2010.

de Regt (Province Noord Brabant), 2010. Personal communication, by phone, d.d. May 25, 2010.

Sanders (TenneT), 2010. Personal communication, telephone conversation and email contact, d.d. July 8, 2010.

Schimmelpenninck (Federation for Private Landownership), 2010. Personal communication, face-to face interview, d.d. April 7, 2010.

Somsen (ASR Vastgoed), 2010. Personal communication, face-to-face interview, d.d. March 17, 2010.

Verwer (Landgoed Westcreecke), 2010. Personal communication, face-to-face interview, d.d. April 22, 2010.

Veurink (Corporation for Nature and Countryside Management), 2010. Personal communication, face-to-face interview, d.d. March 29, 2010.

Vissers (Province Noord Brabant), 2010. Personal communication, telephone conversation, d.d. May 27, 2010.

Wals (Triodos), 2010. Personal communication, face-to-face interview, d.d. April 15, 2010.

### **Meetings**

Kennisdag Financiering Landschap, June 17, 2010. Organization by “the 12 Landscapes” (de 12 Landschappen). Kasteel Groeneveld, Baarn.



## APPENDIX 1. INTERVIEW QUESTIONS FOR INVESTORS

Below an overview is presented of the questions that were used during the interviews with investors in forest and nature in the Netherlands. However, some questions appeared to be more applicable for a certain type of investor than others. Also, dependent on the answers of interviewees, questions were added. The list of interview questions below is therefore meant to give a general impression of the questions that were brought forward, not to give a complete overview of all interview questions.

1. Why are you/ is your company investing in forest and nature?
2. What do you expect will be the revenues from the investment?
3. What is the advantage of investing in forest and nature in comparison with other social goals (especially with sponsoring)?
4. How do you/ is your company investing in forest and nature? (forms of investments)
5. Who are your partners in the project(s) invested in?
6. What are the advantages of the investment form(s) you/ your company uses?
7. Is the distance to the object that is invested in important for you or your companies choice to invest?
8. In which type(s) of nature do you or does your company invest? (National Parks, National Landscapes, Rural Estates, Ecological Main Structure, other)
9. Would you also have invested in the specific parcel of nature if it was not that specific type of nature?
10. What do(es) the type(s) of nature in which your company invests, based on national policies, mean to you or your company? Was it a conscious choice to choose for a certain type of nature, or was it just the most logic choice in the sense that:
  - a. the type(s) of nature invested in is/ are in the neighbourhood of the company;
  - b. the type(s) of nature invested in make(s) certain investment forms possible ;
  - c. other reasons.
11. Are you investing in nature/ forest development or management?
  - a. If one of the two; for what reason is only invested in one of the two?
  - b. If both:
    - i. For what reason is invested in both development and management?
    - ii. Is there a focus on one of the two? If yes: where does this focus depend on?
12. Do you have any recommendations about other companies/ individuals I can interview that invest in forest and nature or projects/ investment forms that can be meaningful for my research?

**Additional questions dependent on the type of investor:**

*Especially for owners of rural estates:*

13. How do you get revenues from the rural estate and why did you choose for this way of exploitation?

*Especially for banks:*

14. How can clients of your bank invest in forest and nature?
15. What is the reasoning behind the investment forms your bank makes possible?

*Especially for companies with a lot of clients:*

16. How important is a direct (one-to-one) link between clients of the company and the investment in nature?



## APPENDIX 2. INTERVIEW QUESTIONS FOR THIRD PARTIES

Below an overview of the questions for third parties is presented. These parties are organizations that are in a way related to private investors in forest and nature, for example the National Greenfund or nature conservation organizations. Also governmental agencies fall under this category.

Some questions were easier to answer for specific organizations and persons than others. Dependent on the knowledge of the interviewees some questions were added while other questions were left out. The interview structure remained flexible, allowing new questions to be brought up during the interview as a reaction to the specific answers of the interviewee. As expected, all organizations together were able to provide in the answers to the questions listed below.

1. How are you/ is your organization related to the subject of this research: private investments in forest and nature?
2. With which types of investors your organization comes in touch? What are the motives of these parties to invest in forest and nature?
3. What are new opportunities to involve companies and private individuals in the finance of forest and nature?
4. Do you have examples of companies that invest in forest or nature:
  - a. Because their core-business is harmful for the environment (compensation)?
  - b. Because their core-business is positively linked with forest and nature?
5. What offers the best chances for the future: force people/ companies to contribute to the finance of forest and nature or encourage voluntary investments in forest and nature?
6. Which themes that can be linked to nature can offer opportunities for the finance of nature by private parties (for example health, living, recreation)?
7. Who are potential investors in forest and nature?
8. What are barriers for private parties to invest in forest and nature?
9. How could the government stimulate private investments in forest and nature?
10. How can a region fund been filled?
11. Is it more attractive for private parties to invest in a National Landscape or National Park as in nature outside these type of areas? Can commitment to a region or local branding offer something extra to entrepreneurs which makes them willing to invest in those areas and not in other types of nature?
12. Do you know any reports or policy documents that may be useful for this research?
13. Do you have any recommendations about other parties (investors and not investors) that I can interview?

**Additional questions dependent on the type of organization**

*Especially for governmental agencies:*

14. What does the government already do to stimulate private investments in forest and nature?
15. What are the developments in governmental policies that aim at an increased involvement of private parties in the finance of forest and nature?

## APPENDIX 3. INTERVIEWEES

### Interviews with investors:

Name	Organization (Dutch)	Type of organization
(Jurjen) Algra	Greenchoice	Energy company
(Mieke) Ansems	Menzis	Health Insurance company
(Frans) van Beerendonk	Aardbeienbedrijf	Strawberry company
(Niels) Beeringen	Arval	Car leasing company
(Frans) van Boeckel	Landgoed Velder	Rural estate
(Tjisse) Brookman	De Friesland	Health insurance company
(Walter) Brunninkhuis	Vakantiepark Hoeve Springendal	Holiday park
(Rianka) Habraken	Rabobank	Bank
(Annet) Jansens – van der Geijn	Rabo Groenbank	Bank
(Huub) Keulen	Rabo Groenbank	Bank
(Floris) van de Lande	Landgoed De Hoevens	Rural estate
(Clemens) Lourens	Afvalzorg	Waste processing company
(Janneke) Neutelinks	Koffiebranderij Peeze	Coffee-roasting company
(Gerrit) Nieuwenhuis	Melkveehouder (Liederbroek B.V.)	Dairy farmer
(Erik) Somsen	ASR Vastgoed	Insurance company/ property developer
(Ernst) Verwer	Landgoed Westcreecke	Rural estate
(Melanie) Wals	Triodos Bank N.V.	Bank
(Marco) Witlox	Landschapscamping De Graspol	Landscape campingsite

### Interviews with third parties:

Name	Organization (Dutch)	Type of organization
(Stephan) Dekker	Wageningen Universiteit	Wageningen University
(Eric) Gerritsen	Ministerie van Landbouw, Natuur en Voedselkwaliteit	Ministry of Agriculture, Nature and Food Quality
(Conny) Groot	Natuurmonumenten	Natuurmonumenten
(Willem) Meijers	Nationaal Groenfonds	National Greenfund
(Marleen) Kaptein	Stichting E.V.A. Ecologisch Centrum voor Educatie, Voorlichting en Advies	Corporation E.V.A. Ecological Centre for Education, Information and Advise
(Aad) van Paassen	Landschapsbeheer Nederland	Landscape Management Netherlands
(Albert) Schimmelpenninck	Federatie Particulier Grondbezit	Federation for Private Landownership
(Hans) Veurink	Stichting Beheer Natuur en Landelijk gebied	Corporation for Nature and Countryside Management

### Additional contact by phone and/ or email:

Name	Organization (Dutch)	Type of organization
(Desiree) Beeren	Leaders for Nature	Leaders for Nature (powered by IUCN NL)
(Rini) Gielis	Provincie Noord Brabant	Province Noord Brabant
(Eibert) Jongsma	Stichting Groen Blauwe Diensten Overijssel	Corporation Green and Blue Services Overijssel
(Rob) Messelink	Provincie Overijssel	Province Overijssel
(Sietske) de Regt	Provincie Noord Brabant	Province Noord Brabant
(Henk) Sanders	TenneT	Transmission System Operator
(Harrie) Vissers	Provincie Noord Brabant	Province Noord Brabant

