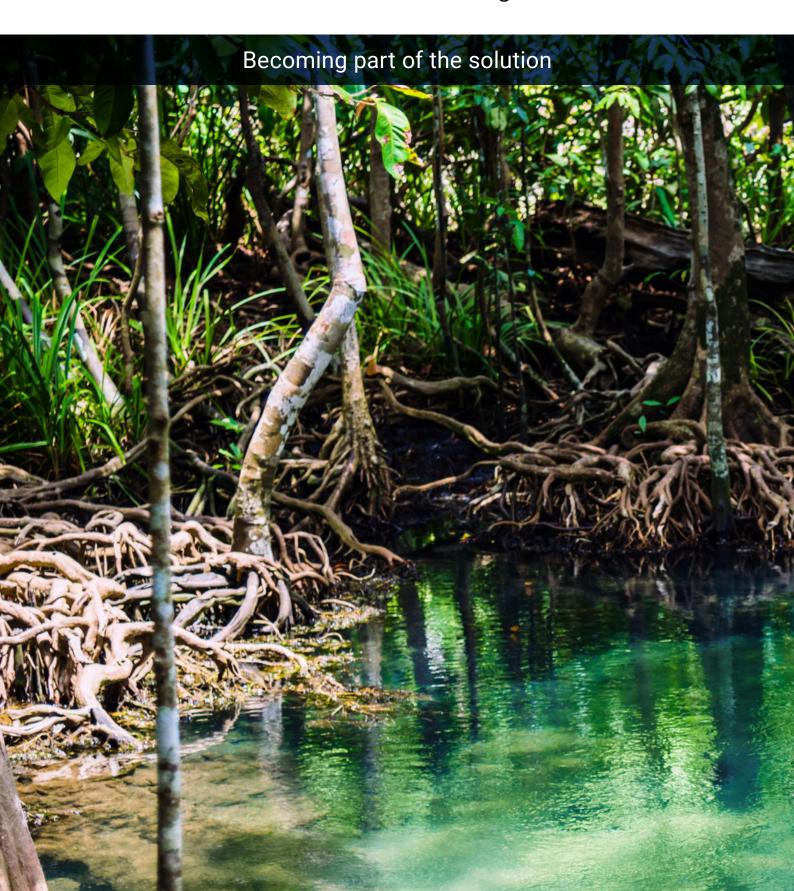


Dutch Institutional Investors and Climate Change





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RANKING DUTCH INSTITUTIONAL INVESTORS ON CONSIDERATION OF CLIMATE CHANGE RISKS AND OPPORTUNITIES

79 Institutional investors representing €1,48 trillion in assets under management 2,9 average score: Pension funds 3,4 & Insurance companies 1,9

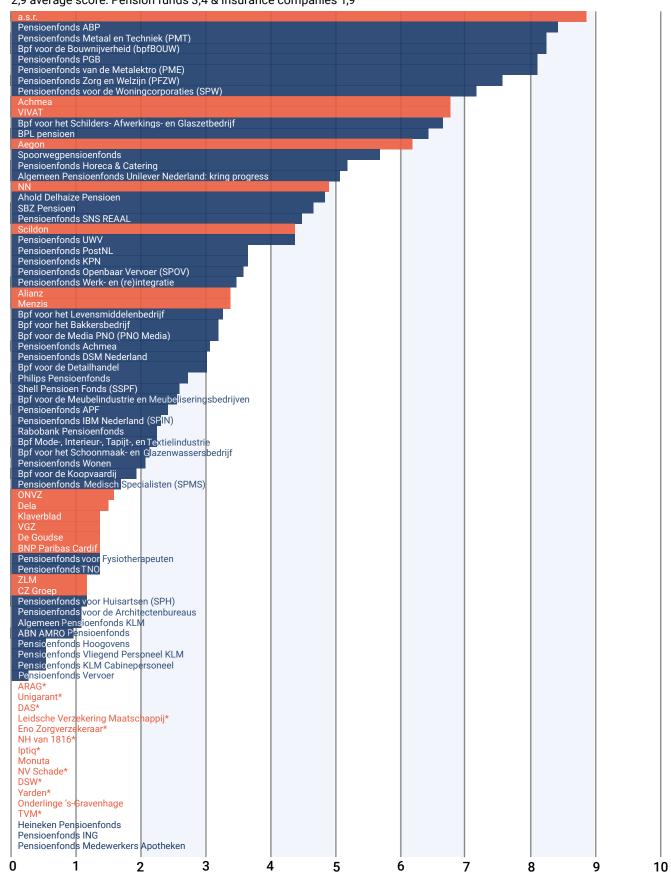


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Introduction

Considering the current trend in global warming, adapting to the impacts of climate change is becoming more and more important, next to preventing additional temperature rises. Acting on climate change can take different forms for investors. For example, analysing the carbon footprint of investment portfolios, investing in renewable energy, or ensuring that assets are protected against the consequences of climate change. This report provides an overview of climate change-related elements that VBDO believes are relevant at this point in time and should be included in the responsible investment strategy of institutional investors.

The goal of this study is to assess if and how institutional investors currently consider the various climate change risks and opportunities. It also considers if and how investors adapt their investment portfolios to ensure resilience. Included in this report are the main findings and a performance ranking of the largest Dutch

institutional investors (pension funds and insurance companies) on how they address climate change in their policies and practices.

The results in this report are based on specific climate change related questions included in the VBDO Responsible Investment Benchmark of 2019. This benchmark was conducted among the largest pension funds (50) and insurance companies (29) in The Netherlands. More details on the methodology used for this research are given at the end of this report. Based on the scoring of these climate-related questions, VBDO performed a separate climate change analysis and ranking of both insurance companies and pension funds in this study.

Find out the results of the full Responsible Investment Benchmarks of 2019 by downloading our reports.

Benchmark Responsible Investment by Insurance Companies in the Netherlands

Click on the report or scan the qr-code with your mobile to download or share the report.





Benchmark Responsible Investment by Pension Funds in the Netherlands

Click on the report or scan the qr-code with your mobile to download or share the report.









Main Conclusions and Findings

Institutional investors lack a comprehensive approach for dealing with climate change

With a relatively low average score of 2.9 (on a 10-point scale) it shows there is substantial room for improvement by institutional investors. Furthermore, the ranking highlights the large spread in performance between individual investors.

Larger institutional investors generally perform better on climate change

The ten largest investors score a relatively high 7.8 on the scale. We found that the size of the assets under management (AuM) of both insurance companies and pension funds (calculated as separate groups) correlates with the performance of their climate change approach. While this is a positive relationship, not all small investors perform badly, as shown by smaller investors with full policies, engagement programmes.

On average, pension funds outperform insurance companies

It is shown that, on average, pension funds outperform insurance companies on their approach to climate change with scores of 3.4 against 1.9 respectively.

Inclusion of climate change in the policy of pension funds has increased the past two years, but there are many still falling behind

In 2017, VBDO found that less than half (42%) of the pension funds had developed a climate change policy.¹ Currently, 88% of the pension funds has included climate change in the responsible investment policy. Of the insurance companies, which were not tested in 2017, currently less than half (45%) mention climate change in their responsible investment policy.

The integration of climate risk information and global warming scenarios in both strategic asset allocation and asset/liability management among institutional investors is low

6% of the insurance companies and 32% of the pension funds have included information on climate risk information in their strategic asset allocation and asset/liability management. Considering the financial risks climate change could have on almost all asset classes and portfolios, it is noteworthy that the inclusion of this information has not yet been integrated by a majority of the institutional investors.

Most investors still focus on mitigation of transition risks, but adaption to physical risks is growing

The majority (69%) of investors who include climate change in their policy focus on CO_2 reduction. But only 22% of the pension funds have formulated a policy on physical climate risks, against 14% of the insurance companies. Adapting to physical climate risks refers mainly to resilience of the investment portfolio and only in some cases to resilience of specific or individual assets. Social-ecological resilience (of an area) to the physical risks of climate change is not part of the responsible investment policy of institutional investors.

The structure of this report is based on the four categories of VBDO's Responsible Investment Benchmarks (i.e. governance, policy, implementation and accountability). The table below provides an overview of the findings for each category. (Institutional) investors refers to the combined total of pension funds and insurance companies. Please click on the relevant finding to be directed to the corresponding paragraph. Findings are also highlighted throughout the report.

¹ VBDO (2017). Pension Funds and Climate Change: Now is the time.





1. Climate change and the financial sector

In 2007, the International Panel on Climate Change (IPCC) called the evidence for man-made climate change unequivocal² and scientific consensus has only grown since then. In 2015, 196 countries, signed the Paris Agreement. This agreement aims to substantially reduce the risks and impacts of climate change and pledges to keep global average temperatures well below 2°C above pre-industrial levels and to step up efforts to limit the increase to 1.5°C. Climate change already causes acute and chronic hazards, such as extreme weather events, rising sea levels, and drought.

Dealing with climate change

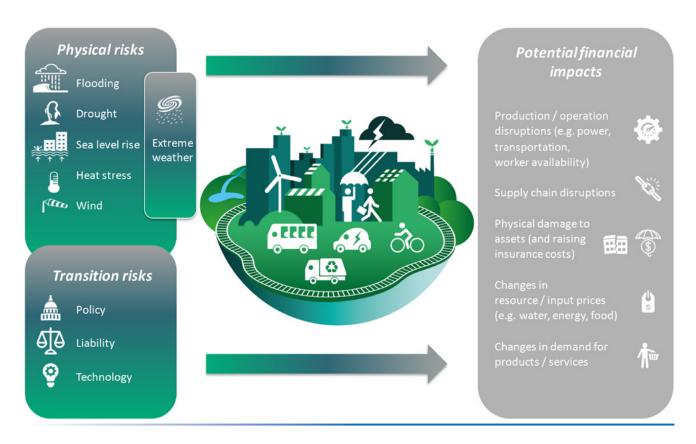
Climate change brings both transition risks and physical risks to the financial sector. Transition risk refers to the uncertainty caused by the adjustment towards a low-carbon and climate-resilient world. These transition risks can have several components, including market risks related to the expectation of new climate policy, such as carbon pricing or the depreciation of

Figure 1 | Climate change risks and their potential financial impacts. Source: Shades of Climate Risk, CICERO, 2017

CO₂ intense assets (so-called stranded assets). Also, regulatory and supervisory authorities are beginning to impose requirements related to transition risk. Liability risk arises when victims of climate-related hazards hold companies or governments accountable. There is also technology risk, since most business activities will have to be adjusted to carbon-free technologies. The physical risks caused by climate change refer to the various real world climate change hazards. These physical risks have both financial and real world impacts through, for example, supply chain disruptions, changes in resource prices, and physical damage to assets and regions.

It is beyond doubt that climate change is affecting the financial sector in many ways, but the financial sector can also play a part in influencing what causes climate change and in adaptation to the effects of climate change.

 2 IPCC (2007). Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.



Dealing with climate change is often divided into two approaches: climate change **mitigation** and **adaptation** on to climate change. Mitigation hereby refers to the causes of climate change and focuses on the reduction of greenhouse gases such as CO_2 . Adaptation is about adjusting to the physical effects of climate change. This requires completely different strategies because of the variety of physical effects that occur, the location and context-specific character of these effects, and the different approaches needed to effectively adapt to these effects.

Financial adaptation strategies may lead to climate change resilience of investment portfolios by purely reducing financial exposure (portfolio resilience) or by ensuring protection of the assets (asset resilience). These are already two very different approaches. But ultimately, portfolio and asset resilience can only exist in a viable – that is a social-ecological resilient – world. Thus, ideally investment decision making will be directed at ensuring the overall viability, or so-called real world social-ecological resilience.

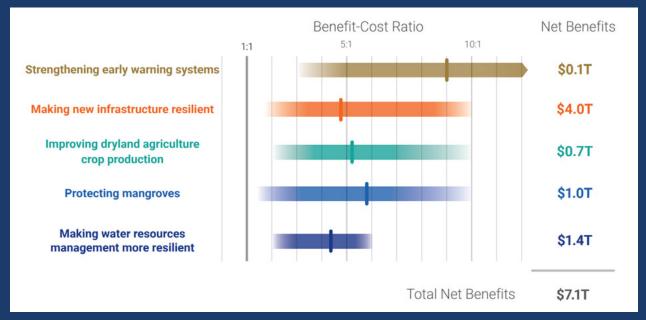
BOX 1: OPPORTUNITIES FOR INVESTMENT IN ADAPTATION

While avoiding losses is often the motivation for investing in resilience, taken alone such losses underestimate the total benefits to society. Many adaptation actions generate significant additional economic, social and environmental benefits. The Global Center of Adaptation (GCA) identified a broad economic case for investment in adaptation in five different areas in their Adapt Now report, published in 2019.

Adaptation actions in these areas bring multiple benefits, also referred to as the **triple dividend**. The first dividend is **avoided losses** - that is, the ability of the investment to reduce future losses. The second is **positive economic benefits** through reducing risk, increasing productivity, and driving innovation through the need for adaptation. The third dividend is **social and environmental benefits**.

The graph below shows approximate global net benefits of \$7.1 trillion to be gained by 2030 from investing \$1.8 trillion globally across these five areas from 2020-2030. Not all adaptation actions are investable yet, therefore public and private parties need to work together and start to value the avoided losses and share benefits. Throughout this report several examples of adaptation related investments are presented, such as mangroves, flood protection and disaster mitigation.

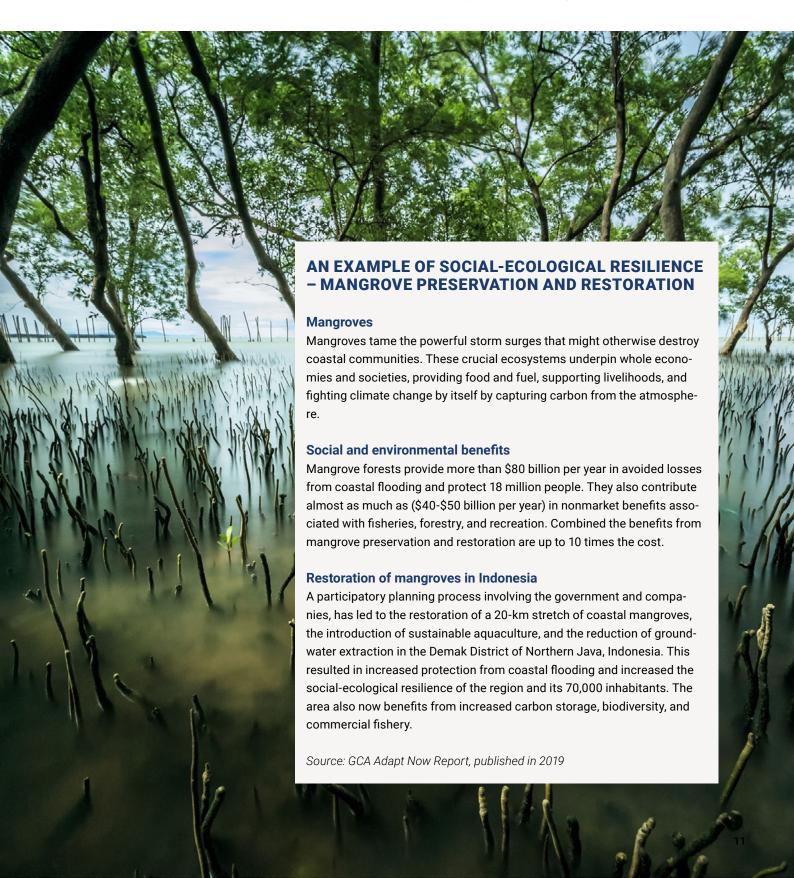
Figure 3 | Benefits and Costs of Illustrative Investments in Adaptation. Source: Adapt Now, Global Commission on Adaptation, 2019.





This is why we believe it is the fiduciary duty, and in the long-term interest, of the financial sector to aim for real world social-ecological resilience. Of course, this is not only the interest of investors, but also of governments, companies, science, civic society, and individuals.

In this light it is important to not only focus on the risk and cost side of adapting to climate change, but also take into account the opportunities and benefits. Box 1 provides an example of the approach the Global Center of Adaptation (GCA) has taken to determine the yields of investing in real world adaptation.







2. Results

2.1 Governance

Governance generally refers to the role and responsibility of the board and senior management regarding an organisation's responsible investment policy. Successful implementation of policy depends heavily on it being discussed at the appropriate level within an investment company. For our climate ranking in this report, the commitment to climate specific initiatives and consultation of stakeholders on climate change by the investors was assessed.

Climate-related consultation

Consulting participants and society in general on a regular basis on climate-related issues, contributes to a solid grounding and understanding of the issue.

Beyond that, these consultations help build a robust and climate-focused responsible investment policy.

30% of institutional investors consult their participants or society in general on climate related issues.

Several elements can be part of climate change-related consultations, ranging from the integration of climate-related risks in the responsible investment policy to social-ecological resilience. Figure 3 indicates the minimal difference between insurance companies and pension funds on climate change-related consultation and highlights the majority of both insurance companies and pension funds does not do any climate change related consultation.

Commitment to climate specific initiatives

Climate-related initiatives are necessary for gaining structure and uniformity in measuring, assessing and reporting on climate change factors. Committing to these initiatives is also important to gain and share knowledge on how to manage complex climate change related issues. With many different initiatives at hand – pledges, active ownership initiatives, measurement frameworks, and disclosure frameworks – overall, only 24% of insurance companies and 50% of pension funds commit to one or more climate change-related initiatives.

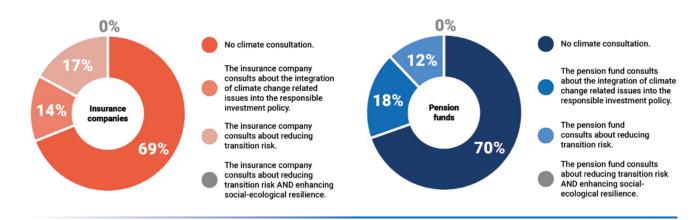
Pledges

Pledges are voluntary commitments. The Montréal Carbon Pledge is signed by 3% of insurance companies and 26% of pension funds, while the Paris Pledge for Action is signed by 21% of insurance companies and 18% of pension funds (19% combined).

Active ownership

Active ownership refers to the practice of actively exercising your rights as a shareholder by discussing environmental, social and governance (ESG) issues. Several initiatives aim to combine active ownership practices, such as Climate Action 100+ and the Institutional Investor Group on Climate Change (IIGCC). The most popular initiative under active ownership is Climate Action 100+. Taking part in this are 21% of insurance companies and 30% of pension funds (27% combined).







The **Montréal Pledge** aims to promote the disclosure of companies' carbon footprints. By signing the pledge, signatories express their commitment to measure and disclose their carbon footprints. Signatories of The **Paris Pledge** commit to ensure the ambition set out by the Paris Agreement is met or exceeded to limit global temperature rise to less than 2°C.

Active ownership

Climate Action 100+ has the objective to "engage with the world's largest corporate greenhouse gas emitters to curb emissions, strengthen climate-related financial disclosures and improve governance on climate change". The initiative aims to produce, in partnership with researchers, a public annual report that assesses how the 100 focus companies have responded to the collaborative engagement. It will also set the signatory investors' engagement priorities for the year ahead.

The **Institutional Investors Group on Climate Change (IIGCC)** provides a platform to encourage collaboration in order to manage the risks and opportunities related to climate change. IIGCC requires regular reporting from members, as well as a pro-active stance towards promoting public policies, investment practices, and corporate behaviour that address the long-term risks and opportunities associated with climate change.

Measurement

The Platform for Carbon Accounting Financials (PCAF) comprises 12 Dutch financial institutions. PCAF promotes carbon disclosure and develops measurement methodologies. The platform also aligns carbon accounting and footprinting.

Disclosure

The Task Force on Climate-Related Financial Disclosures (TCFD) was established by the Financial Stability Board (FSB). The Task Force is developing guidelines for a new common language to discuss climate change in terms of financial risks.

The Carbon Disclosure Project (CDP), a collaboration of 525 investor signatories with a combined US\$96 trillion in assets. The CDP questionnaire requests disclosure of greenhouse gas emissions from all recipients and the feedback gives investors valuable insight and information into companies' business strategies regarding climate change. CDP has been engaging and informing investors regarding the measurement and disclosure of environmental risks since 2000.

Other initiatives include the **2 Degrees Investing Initiative, Science Based Targets Initiative, Climate Bonds Initiative, Natural Capital Protocol and the Asset Owners Disclosure Framework (AODP)**. These were all mentioned by less than 10% of the investors in this study.



Measurement frameworks

Measurement frameworks are used to enhance effectiveness in measuring the right key performance indicators (KPIs), for a specific sector or topic. The most used measurement framework is Platform Carbon Accounting Financials (PCAF), used by 14% of insurance companies and 12% of pension funds.

Disclosure frameworks

Disclosure frameworks can help to set a standard for reporting on the KPIs set by measurement frameworks. Disclosure frameworks are used by investors and companies to report consistent and transparent information back to stakeholders. The most used disclosure framework by institutional investors is the Carbon Disclosure Project (CDP), adopted by 21% of insurance companies and 16% of pension funds (18% combined). It is striking to note the recommendations of the Taskforce on Climate-related Financial Disclosures have a relatively low uptake (combined 16%) among institutional investors.

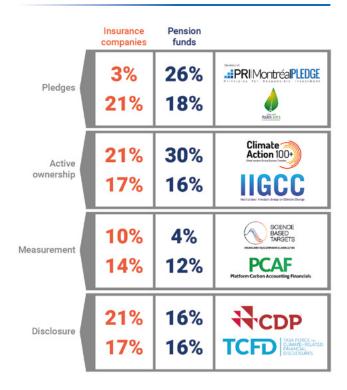
2.2 Policy

This section discusses the incorporation of climate change issues into the responsible investment policy of insurance companies and pension funds.

Climate change integration in responsible investment policy

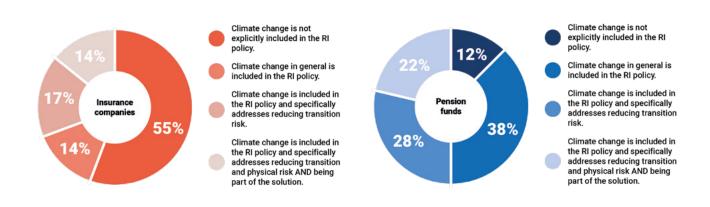
The level of integration of climate change into the RI policy implicates to what extent investors address climate change issues in their investment decisions. Currently, a large discrepancy is observed between

Figure 4 | Most used initiatives by institutional investors



insurance companies and pension funds relating to the extensiveness of their climate change policy. As described in chapter 1, several different approaches in dealing with climate change in the policy can be distinguished. These approaches range from risk reduction, investment opportunities to various types of climate change adaptation (purely financial, asset based and social-ecological). Striving for social-ecological resilience is considered being part of the real world solution to the effects of climate change.

Figure 5 | Climate change integration in responsible investment policy



88% of pension funds include climate change issues in the policy, compared to 45% of insurance companies.

In 2017, only 42% of the pension funds had explicitly mentioned climate change in its responsible investment policy (2017 VBDO climate change study). Some investors have taken the first step by including climate change in general. Most investors do this by specifying climate as one of the focus themes, but often without following this up with specific policy to reduce climate change risk or assess and increase investments in climate change solutions. Others have taken steps to take measurements of the carbon footprint of the portfolio, or of specific asset classes.

Reducing transitional climate change risks

Half of the pension funds and a third of insurance companies (31%) have a specific climate change risk reduction policy. There are different ways in which investors reduce transition and physical climate risks with the majority referring to reducing the carbon footprint of their investment portfolio. The listed equity portfolio is the most targeted asset class for reduction targets, while none of the institutional investors have set targets for the entire investment portfolio. Also, the ambitiousness of carbon reduction targets varies widely. Some investors go one step further and include how they are working on reducing transition risks by aligning investments with the well below 2°C climate goal (i.e. Paris agreement). A more ambitious way of setting

transition risk reduction targets is to include net-zero carbon emission portfolio targets by 2050, though for many investors this is still a step too far.

Adapting to climate change and becoming part of the solution

Besides transition risk, investors also need to incorporate the physical risks caused by climate change. Only a few include adaptation to physical risks as a specific part of their climate change risk reduction policy. The more ambitious form of climate change policy is focused at 'being part of the solution'. This is mentioned by 14% of insurance companies and 22% of pension funds. The institutional investors that indicate they aim to be part of the solution, all do so by increasing investment in climate change mitigation, such as renewable energy. The next step would be to look for solutions for physical consequences of climate change to achieve real world social-ecological resilience. Assessing and earmarking investments to achieve social-ecological resilience requires investors to know how their investments contribute to such solutions and create sustainable value for society and the environment.

Although some investors indicate they are in the process of investigating, as of yet, none have formally included social-ecological resilience in their policy. An example of investments in social-ecological resilience is found on page 17.



The city of Miami is acutely aware of its vulnerability to the effects of climate change. The value of the real estate between Palm Beach and Miami, the geographical location, and the occurrence of hurricanes, all have contributed to the precautionary steps the city has taken to mitigate the risk of extreme weather events and adapt to longer-term impacts of climate change. Recently, the city issued a \$400 million bond that allows more robust investment into storm drain upgrades, flood pumps, and sea walls to curb current and projected flooding for the next 50 years.

Source: Urban Land Institute (2019). Climate Risk and Real Estate Investment Decision-Making.



Inclusion of climate-related themes

Information on inclusion of climate-related themes in the RI policy was also collected. Inclusion of environmental issues is mostly focused on the mitigation of climate change and directed at emissions, mentioned by 65% of the investors. More indirect themes, such as the circular economy, eco-systems-related topics, and climate friendly agriculture were mentioned far less. Besides climate specific issues, an interesting result is that, in general, environmental themes are of lower priority than social and/or governance themes. The most included E, S and G themes are respectively: emissions (65%), human rights (68%) and corruption (53%).

Specification of regions and sectors

For most of the climate-related environmental issues specified in the policy, it is important to pay attention to which regions and sectors they are most relevant. In this study, both pension funds and insurance companies were asked if they identified specific regions (e.g. with high water stress levels) and sectors (e.g. with high climate change exposure/impact) within their responsible investment policy.

From the results, it is clear that few investors have made their climate specific policies this precise. Sector specification is more common than of regions, but the specification of both sectors and regions is often implied through the selection of themes. For example, if deforestation is selected as a theme, the policy is naturally targeted to regions where deforestation problems

Figure 6 | Climate issues most mentioned by institutional investors





EMISSIONS 65%

CIRCULAR ECONOMY 15%





CLIMATE FRIENDLY AGRICULTURE 13% ECOSYSTEMS 11%

are bigger, and to sectors that cause deforestation. In line with these findings, almost all of the investors that do specify sectors, do so in combination with a carbon reduction target. And the sectors that are mentioned comprise mostly energy (oil, gas etc) and utilities, as most improvement can be made in these sectors.

FINANCING OF NATURE-BASED SOLUTIONS - NATIONAL ADAPTATION PROGRAMME

Canada has launched a national merit-based programme with the Disaster Mitigation and Adaptation Fund (DMAF). Managing US\$1.6 billion, the fund allows communities to better manage risks from natural hazards like floods, wild-fires, and droughts through investment in natural and constructed infrastructure. It also shows how public sector interventions can work with the private sector as partners when investments can bring beneficial returns for both. Examples include payments for ecosystem services (PES), green bonds, resilience bonds, insurance schemes, and water user fees.

Source: Infrastructure Canada (2019). Disaster Mitigation and Adaptation Fund.

2.3 Implementation

Implementation is the collective term for responsible investment instruments and asset allocation approaches. In this section, climate-related strategic asset allocation and active ownership activities were assessed.

Strategic asset allocation

While ESG criteria can be considered at either individual share or corporate bond level, they can also be considered in strategic asset allocation (SAA) or asset & liability management (ALM). SSA is a portfolio strategy involving setting target allocations of the portfolio, while taking the effect of various types of risk into account over a large universe of asset classes. ALM is the management of financial risks that arise due to mismatches between the assets and liabilities as part of an investment strategy.

The results of this study indicate that some pension funds investigate the effects of general ESG information on SAA or ALM, while others also look into the effects of climate-related risks on their strategic investment decisions. It is unusual for pension funds to actively analyse how global warming scenarios (e.g. 1.5/2/3/4°C) will affect the risk/return of their investment portfolio. Such scenarios can include a variety of climate change factors, possibly leading to financial risks and are therefore useful and important indicators for investors, for example, information and trends on food security or related to renewable or fossil fuels.

21% of the insurance companies, compared to 54% of the pension funds, includes climate risk in their strategic asset allocation. Generally, pension funds are further ahead in the process of implementing climate/ESG-related information in strategic asset allocation and/or asset & liability management. Climate-related risk information has influenced asset allocation or was integrated in ALM modelling at 3% of the insurance companies and 18% of the pension funds. 10% of the institutional investors investigate global warming scenarios.

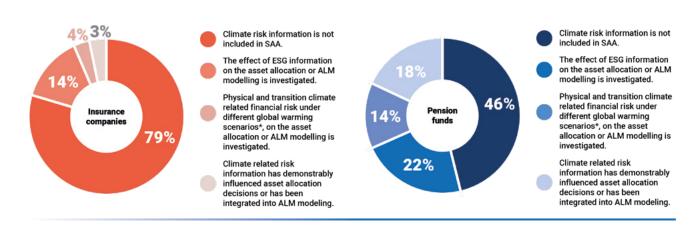
Active ownership

Active ownership, comprised of voting and engagement, is essential in changing the behaviour of companies in an investment portfolio. We consider two aspects within active ownership: the degree to which active ownership is practiced, and whether it is specified for certain themes, i.e. climate change. We recognise major differences between insurance companies and pension funds with 38% of insurance companies voting on or engaging with companies on climate-related issues, compared to 82% of pension funds (Figure 9).

Climate change related engagement is the most widely used RI-instrument. Both case-by-case engagement and collective engagement are popular among institutional investors with pension funds applying more case by case engagement.

Voting appears to be more popular among pension funds, and mainly relates to the governance of climate change such as climate related transparency, remuneration, and risk management. Initiating and/or supporting shareholder resolutions (e.g. Follow This shareholder resolution) is used by the least amount of institutional investors, but is favoured more by insurance companies.

Figure 7 | ESG and Climate risk integration into strategic asset allocation and asset liability management







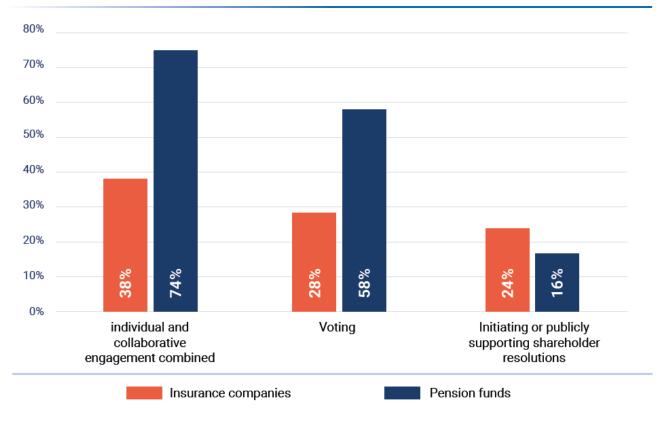
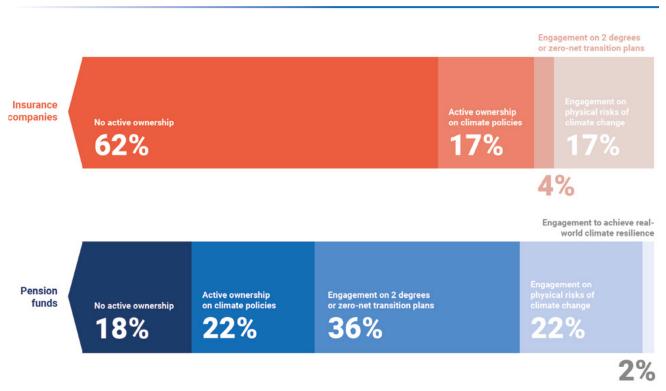


Figure 9 | Use of active ownership instruments on climate change related issues



also to which extent specific properties, cities, countries, or regions are exposed to climate risks. Based on this insight, PGGM is able to lead the discussion with external investment managers on the risks and necessary control

mechanisms to protect its investments. Read more about PGGM's climate risk assessment.

Direct real estate investments

Direct real estate investments refer to investments made directly into real estate objects, such as buildings, which can be done on the basis of certification schemes and internationally set targets.

Most of the insurance companies in this report (69%) invest in direct real estate, but the majority of these companies don't use sustainability guidelines in the selection process of new real estate objects or the maintenance of existing real estate. Of the insurance companies that do invest in direct real estate, a quarter require adherence to minimum standards, such as BREEAM (Building Research Establishment Environmental Assessment Method), and/or LEED (Leadership in Energy and Environmental Design). 15% of insurance companies align direct real estate investments with the 2050 target of zero carbon emissions.

Although we observe a high involvement with the insurance companies, the majority of pension funds do not invest in direct real estate (78%). Of the pension funds that do, almost 1/5 do not use climate related guideli-

nes when selecting real estate investments. A majority of pension funds that directly invest in real estate require adherence to minimum standards (64%), and 18% align their direct real estate investments with the 2050 target of zero carbon emissions. However, it is not only mitigation-related criteria that are important to consider when analysing direct real estate investments. Real estate is particularly sensitive to the physical risks of climate change related to the location of the asset (e.g. sea level rise, extreme heat, extreme precipitation etc.).

Infrastructure

Due to the long-term nature of investments in infrastructure and their illiquidity, it is essential to integrate ESG criteria into the investment decision. Climate adaptation-related criteria are especially important to include within infrastructure investments as infrastructure is sensitive to the physical risks of climate change, but also important for the purpose of real world adaptation to the effects of climate change: Both the impact of infrastructure (environmental degradation, pollution, improved access to basic services, health and safety for

Table 1 | Explanation of different types of infrastructure. Source: WWF (2019). Greening the Belt and Road Initiative

Sustainable infrastructure	Resilient infrastructure	Green infrastructure	Natural infrastructure
Integrates ESG risk in planning/ building/ operations (E is in many cases related to mitigation)	Resilient for climate change effects (adaptation)	Contributes to achieve environmentally sustainable outcomes (both adaptation and mitigation) Low carbon (renewable energy; mass transportation) Environmental resilience	(Semi-)natural structures as alternative to building infrastructure (wetlands; vegetation providing water purification and flood risk reduction)



workers) and impact to infrastructure (floods, droughts, natural resource constraints) have potential financial consequences.

More than half of institutional investors (55% of insurance companies, 54% of pension funds) invest in infrastructure. However, of the investors that do, less than 20% of the insurance companies and 67% of pension funds consider both environmental and social issues in the selection of infrastructure investments.

Green infrastructure consists of structures and facilities that contribute directly to achieving low carbon and environmentally sustainable outcomes (see Box 1 for further clarification). Projects often also provide ecosystem services such as water purification and water flow, biodiversity, and coastal and erosion protection, while also being able to play a fundamental role in societies by enhancing quality of life.

Investors can focus on making their infrastructure portfolio more sustainable and future-proof by investing in projects with ecological and societal benefits, as well as going beyond the assessment of ESG risks. Our results show that institutional investors rarely consider investing in green infrastructure (5% of investors that invest in infrastructure).

2.4 Accountability

Accountability allows participants, clients and society as a whole to hold investors accountable for the foundation and implications of their investment decisions. There are several levels of disclosure that institutional investors can apply with regard to climate change, varying from the alignment of their investments to the Paris Agreement to including criteria for achieving social-ecological resilience.

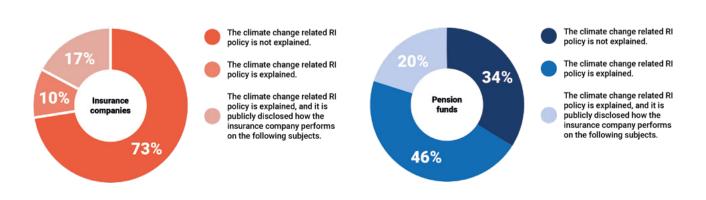
Reporting on climate change

Pension funds are ahead of insurance companies when it comes to reporting on climate change. While a minority of insurance companies (27%) explain their climate change-related responsible investment policy, this number is almost two thirds for pension funds 66%.

17% of insurance companies additionally publicly discloses alignment of investments with well below 2°C scenarios, net-zero carbon emission portfolio targets by 2050, and/or adaptation to physical investor risks of climate change. For pension funds this percentages is 20%.

No institutional investor mentioned criteria for achieving social-ecological resilience in the investment decision-making process or investing in adaptation to achieve real-world climate resilience as part of their reporting policy regarding climate change.

Figure 10 | Reporting on climate change by institutional investors

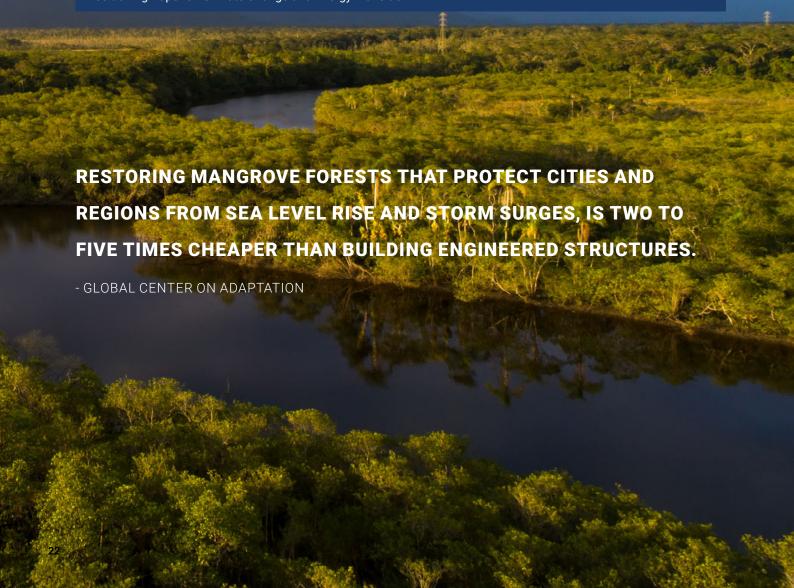


BOX 3: BEST PRACTICE - A.S.R.'S COMPREHENSIVE CLIMATE APPROACH

a.s.r received the highest total score among Dutch pension funds and insurance companies included in this study. In their SRI policy they touch upon several climate change related aspects and acknowledge the fact that climate change is not just mitigation of emissions or lowering transitional risks, but also reducing the risk to the physical impacts of climate change and benefiting from new opportunities.

- As a signatory of the Paris Pledge for Action, they pursue efforts to limit global warming to 1.5°C and have analysed and identified relevant risks for the investment portfolio.
- To gain more insight, a.s.r. is extending its top-down climate scenario analysis with scenario analysis at an asset level (leveraging local data) in 2019, which will be combined to set up Science-Based Targets by 2021 that will be included in the integration of the TCFD Framework.
- They are committed to undertake carbon footprint measurements of their entire (> 95%) investment portfolio by 2021.
- As an insurance company, asset owner, asset manager and real estate manager, climate change is a direct risk
 to their business, both on the liabilities of the claims they pay out and of their assets: the value of our investments.
 As complex as climate risks may be, it only represents half the story. Climate change also presents unprecedented
 opportunities for action.
- The integration of global warming scenarios helps a.s.r. to make better investment decisions for allocations to asset classes, regions, and sectors, thereby constructing a more resilient investment portfolio.

More information on a.s.r.'s approach can be found in a.s.r.'s Socially Responsible Investment Policy and a.s.r. Positioning Paper on Climate Change and Energy Transition.





4. Methodology

This study assesses if and how institutional investors currently consider the various climate change risks and opportunities. The pension funds and insurance companies were assessed on the following topics:

- · Level of detail of the climate change policy
- · Commitment to specific climate change-related initiatives, such as measurement frameworks
- · Consultation of experts on climate change
- Specific climate-related themes included in the policy, along with a specification of regions or sectors
- Research on the effect of climate risks and global warming scenarios on strategic investment decision-making
- · Active ownership on climate change
- · Reporting on climate change
- Climate change criteria in direct real estate investments
- · Climate change criteria in infrastructure

These questions were answered by the investors, and subsequently checked by VBDO for accuracy. The questions related to initiatives, themes and sectors, real estate, and infrastructure were qualitative and are not included in the score, but do provide valuable insights. All active ownership questions count as one question and all other questions are weighed equally.

VBDO has made choices in the comprehensiveness of the list of questions that are combined in the final score. The calculation of the score (and subsequent ranking) is a reflection of the topics that the VBDO deems necessary to include in the responsible investment policy. These are not all-encompassing, but create a ranking that differentiates investors on what is needed at this point in time to mitigate, adapt, and become part of the solution to climate change.

In this study, 79 institutional investors were asked to fill in the questionnaire and we received 68 respondents (86%). The performance of the other 11 investors was assessed based on publicly disclosed information.

The set-up, questions, and scoring of this benchmark have been carefully prepared and assessed with our members and stakeholders during the review round of the general VBDO Responsible Investment Benchmarks.

If you would like to receive more information about the methodology used in this research, please contact VBDO.

About VBDO

VBDO is the Dutch Association of Investors for Sustainable Development. Since its inception in 1995, VBDO's mission is to create a sustainable capital market. VBDO offers opportunities for members to enhance their professional expertise by being part of an active community of practitioners, participating in programmes including masterclasses, roundtables, and quarterly VBDO Platform meetings for institutional members.

Join VBDO to make responsible investment mainstream!



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