

ASN BANK ISSUE PAPER ON CLIMATE

Summary

- A Introduction**
- B ASN Bank climate criteria**
- C ASN Bank climate policy**
- D Background**

Summary

The ASN Bank Issue Paper on Climate describes the way ASN Bank uses its special investment criteria in relation to climate. According to the IPCC, human-induced greenhouse gas emissions are causing a rapid rise in global warming. Mitigation (preventing greenhouse gas emissions) and adaptation (adapting to warming) may help limit the negative consequences. By investing in activities with minimum greenhouse gas emissions and activities that increase our capacity for adaptation ASN Bank is hoping to contribute to this process of mitigation and adaptation. Mitigation may include energy saving, sustainable energy sources, 2nd generation bio fuels, energy efficiency, various services, etc. Adaptation may involve a range of water-related activities, micro-credit, poverty alleviation, etc.

ASN Bank avoids the fossil energy sectors and is not prepared to invest in nuclear energy because of its many negative effects. Similarly, when selecting government bonds, ASN Bank considers their contribution to the processes of mitigation and adaptation.

Besides carefully selecting its investment options, ASN Bank will also target mitigation and adaptation when casting its vote at shareholders' meetings and negotiating with other companies. With respect to its office-based work, ASN Bank seeks to preserve its current climate-neutral status, reduce greenhouse gas emissions per FTE and guarantee additional, direct and demonstrable compensation.

A. Introduction

This issue paper sets out to provide more information on ASN Bank uses its special climate investment criteria in relation to climate issue. In other words, the criteria themselves are not revised, only explained.

The climate is changing. This time, however, human activities rather than natural causes are to blame. Global warming is a result of the emission of various greenhouse gases. As a sustainable bank ASN Bank would like to help reduce global warming and limit its unavoidable consequences. This issue paper, which is an elaboration of the ASN Bank Climate Policy, describes ASN Bank's approach.

The description of ASN Bank's selection criteria regarding climate investments will be followed by its targets and strategy.

The paper distinguishes between ASN Bank's climate policy regarding direct and indirect effects and is complemented by ASN Bank's other climate-related activities.

B. Climate-related criteria ASN Bank

ASN Bank's climate-related criteria form part of the special investment criteria. The bank has also developed a system for countries based on their scores on international environmental indices.

The climate-related criteria are based on ASN Bank's general business principles, which read as follows:

"ASN Bank provides capital to businesses and organisations that foster a sustainable world. Businesses and sectors that undermine such a sustainable world will be excluded from ASN Bank's activities and products."

The climate-related criteria apply to: ASN Bank investments, ASN Aandelenfonds (shares), ASN Obligatiefonds (bonds), ASN Mixfonds. The exclusion criteria also apply to the ASN Milieu & Waterfonds (environment and water) and ASN Bank's business credit.

The climate-related criteria are complemented by the government's criteria for the so-called groenprojectenfonds (= green projects fund). These climate-related criteria provide the overall framework for the ASN Bank Issue Paper on Climate.

Specific grounds for exclusion:

A Countries

Countries that, judging by a bad score on leading environmental indices, fail to take pro-active steps to protect the environment will be excluded.

B Businesses and institutions

Nuclear energy

- Businesses generating nuclear energy, operating nuclear power stations or selling or distributing nuclear products;
- Businesses specifically targeting this sector as suppliers.

Specific admission criteria:

C Countries

Countries must be able to show evidence of pro-active steps to protecting the environment by being ranked among the more successful countries on leading environmental indices.

D Businesses and institutions

Businesses must be able to show evidence of a pro-active and comprehensive environmental policy. They will be tested on:

- The nature of the raw materials used.
- The nature of the finished products.

- Energy use.
- The use of clean water.
- The nature of emissions and solid waste from production processes.
- The potential for and actual level of re-use of the finished product.
- The assessment will not just cover the business's current environmental status, but also its efforts to implement changes and improvements in this area.

C. ASN Bank's Climate Policy

C.1 Introduction

ASN Bank's climate policy sets out the bank's targets and strategy for tackling the problem of climate change. This policy document formulates and explains the resolute choices that are necessary for this. The problem of climate change is defined as global warming as a result of human-induced greenhouse gas emissions. ASN Bank endorses the IPCC reports that substantiate claims about human-induced global warming.

Important conclusions from these reports include [1; 2; 3; 4]

- Carbon dioxide is the most important anthropogenic greenhouse gas. The global atmospheric concentration of carbon dioxide has increased from a pre-industrial value of about 280 ppm to 379 ppm³ in 2005. The atmospheric concentration of carbon dioxide in 2005 exceeds by far the natural range over the last 650,000 years (180 to 300 ppm) as determined from ice cores. The annual carbon dioxide concentration growth-rate was larger during the last 10 years (1995 – 2005 average: 1.9 ppm per year), than it has been since the beginning of continuous direct atmospheric measurements (1960 – 2005 average: 1.4 ppm per year) although there is year-to-year variability in growth rates.
- The primary source of the increased atmospheric concentration of carbon dioxide since the pre-industrial period results from fossil fuel use, with land use change providing another significant but smaller contribution.....

New international studies on climate change are being published in rapid succession, making it increasingly clear that climate change is a serious problem. In the period 2000-2004 global emissions of CO₂, the principal greenhouse gas, rose by 3% per year. Growth itself is accelerating, as it was 1.1% per year in the period 1990-1999 [5]. There is clearly no sign of reversal. At present, greenhouse gas emissions are in line with or even exceed the IPCC's worst-case scenarios. The expectation is that within a few decades (between 25 to 50 years) we will reach the point of no return of 450 to 550 ppm of atmospheric CO₂. It is thought that after this point, climate change will be unstoppable and future climate developments will be uncertain.

Alongside carbon dioxide there are five other so-called 'Kyoto' greenhouse gases. Although far less substantial than CO₂, they still contribute heavily to increasing the greenhouse effect: together they are responsible for approximately 45% (the LLGHGs: Long Lived Greenhouse Gases). They are, in order of decreasing importance, methane (CH₄); nitrous oxide (N₂O); perfluorocarbons (PFKs); hydrofluorocarbons (HFKs); and sulphur hexafluoride. Likewise, the 'Montreal' gases (CFKs and HCFKs) contribute to the greenhouse effect. The same is true for water vapour in upper aerial stratus (the contrails of aircraft). The overall contribution to the greenhouse effect of these gases is expressed in equivalent CO₂ (CO₂-eq). So when this document refers to CO₂-eq it covers all greenhouse gases; in other cases, it only covers CO₂.

The IPCC estimates that during the previous century temperatures rose by approximately 0.74°C. Further global warming has become inevitable due to the climate system's inherent delay; if greenhouse gas emissions are reduced now, we will not notice the effects until 2040.

However, there are no signs of reduction yet. The effects of climate change (at 380 ppm) are already noticeable: for instance, 11 of the last 12 years (1994-2006) were among the warmest since 1850, while glaciers and ice covers are visibly diminishing.

Climate controversies

*Our climate is a complex system governed by hundreds of variables. The precise effect of many of these variables on our climate is still unknown, resulting in scientific debate as well as frequent demagoguery. However, ASN Bank believes there is sufficient scientific evidence for the anthropogenic origin of our current climate problem; it is certainly sufficient to warrant precautionary measures. For a brief outline of the usual arguments against the anthropogenic influence, see the publication *Climate Change Controversies* [6].*

Above all, ASN Bank is keen to help limit the problem of climate change: this is called mitigation (solving the problem has become impossible). However, in view of recent developments, it is also becoming increasingly important to help manage the consequences: adaptation. This is particularly pertinent to areas where the effects of climate change are especially acute, such as low-lying areas and areas that are arid already [7]. Although sustainable investors have so far under-explored this subject, the unavoidable effects of climate change demand that we do. However, limitation remains ASN Bank's main priority, in part because Stern [8] has calculated that limitation is considerably cheaper than adaptation.

ASN Bank seeks to make a difference by addressing both the direct and indirect effects. The direct effects are the office-related effects (see box).

ASN Bank's contribution to the direct effects:

Regarding the direct effects ASN Bank would like to help solve the problem of climate change by reducing overall greenhouse gas emissions per FTE and by fully compensating for the remaining greenhouse gas equivalents. The latter refers to greenhouse gas emissions by staff travel (for work and commuting purposes); the use of electricity by ASN offices and the heating of ASN offices.

The indirect effects are linked to ASN Bank's core activity: investment. For any bank, and therefore also for ASN Bank, the impact of the direct effects is far smaller than that of the indirect effects. As such, this issue paper focuses on ASN Bank's contribution to reducing the indirect effects; in this context, ASN Bank's policy on climate is not limited to the Netherlands, but has a global reach. Nonetheless, ASN Bank also accepts responsibility for its direct effects, which will be covered in section C.3.

A simple example will shed light on the differences between direct and indirect effects at ASN Bank. DSM was one of the 130 businesses that ASN Bank invested in by the end of 2006. In 2006 DSM was responsible for emitting 10,250,000 tonnes of CO₂-eq. By the end of 2006, the various ASN Bank funds owned 0.027% of DSM shares (50 thousand shares out of a total of approx. 185 million DSM shares). In other words, this equals indirect emissions of 2,770 tonnes of CO₂-eq. In comparison, ASN Bank's direct CO₂ emissions came to nearly 150 tonnes in 2006.

C.2 Targets and strategy indirect effects

ASN Bank has set itself both mitigation and adaptation targets in order to help reduce and manage the problem of climate change via its core activity (the indirect effects).

Mitigation target:

ASN Bank seeks to maximise its contribution to mitigation per invested euro.

Further information:

ASN Bank looks at the issue from its customer's perspective. ASN Bank wants to guarantee the customer the highest possible contribution to alleviating the problem of climate change per saved or invested euro. But in the long term ASN Bank also aims for a return that safeguards ASN Bank's future and recognises the need to manage the entrusted resources in a way that meets the customers' expectations. So clearly ASN Bank never loses sight of the return on its investments. As such the term 'maximum' covers this limiting condition as well.

A target must be complemented by a method for measuring whether the target has been met. However, we are not dealing with a so-called 'smart' target here: a specific, measurable, adequate, realistic and time-based target. For instance, the target need not be met within a particular timeframe, as it is an effort objective. Likewise, the target is not always measurable,

although this is changing as we gain access to more and more information¹.

ASN Bank's strategy for realising this mitigation target consists of three sub-strategies:

- A **Selection**: to avoid financing activities that cause relatively high greenhouse gas emissions and to invest instead in activities that emit relatively low levels of greenhouse gas.
- B **Engagement**: to engage in dialogue to boost the performance of those investments in the universe with a relatively poor climate performance.
- C **Voting**: to cast our vote at shareholders' meetings in favour of measures to improve the climate performance and in favour of a link between remuneration and climate performance.

Adaptation target:

ASN Bank seeks to maximise its contribution to adaptation per invested euro.

Further information:

Here too ASN Bank looks at the issue from its customer's perspective. ASN Bank would like to assure its customers the greatest possible contribution to managing the problem of climate change per saved or invested euro. Of course, ASN Bank will not lose sight of the return on its investments as it tries to meet this target, which again is not a 'smart' target but an effort objective. After all, it is difficult to quantify the 'degree of adaptation' in numbers.² ASN Bank already has a major presence in this field, mainly thanks to its financing of water-related projects and businesses.

Here too ASN Bank's strategy for realising this adaptation target consists of the three sub-strategies selection, engagement and voting.

By focusing on these two targets ASN Bank contributes to reducing and managing the problem of climate change. Its contribution increases in line with the growth of its investment volume, which is why ASN Bank also aims to increase its number of customers and the volume of assets managed. However, this aspect will not be looked at in any more detail in this issue paper.

C.2.1 Mitigation and adaptation

Global warming is inevitable. This is important for the way ASN Bank translates its climate policy, as it means that managing the effects of climate change (e.g. drought, flooding, a loss of biodiversity) will also be unavoidable and must form a key part of this climate policy. However, we must continue our efforts to prevent a further rise in temperature, because it improves the potential for adaptation. In other words, mitigation and adaptation are inextricably linked.

¹ For instance through initiatives such as Trucost, which allows us to calculate the 'carbon footprint' of the ASN Bank investment funds per invested euro.

² One possible method is the definition of activities or sectors that contribute to adaptation (water boards, micro-credit) and maximise their share of the overall investment portfolio.

C.2.2 From mitigation target to activities

To actually achieve its mitigation target ASN Bank has developed its three strategies in more detail below.

Sub A. Selection

To achieve its mitigation target ASN Bank has identified the activities³ it wishes to avoid through its investments. These activities need to be well-defined so our investment policy is clear. We would like to stress, however, that the following list only takes the climate performance into account and none of the other environmental and human rights aspects that ASN Bank also normally considers.

Activities that cause direct and indirect greenhouse gas emissions and that are therefore avoided by ASN Bank as investments include (see also the Appendix):

- Electricity production using lignite, coal, oil or gas.
- Activities with high fossil energy consumption, including: mining, the exploration and production of lignite, coal, oil and gas, basic chemical industry, heavy metal industry, and the production of cement.
- Deforestation.
- Agricultural activities that cause high levels of greenhouse gas emissions, for instance through deforestation or the drying up of wetlands.
- Products with high fossil energy consumption during use: road and air transport.

According to the WRI, these activities together account for approximately 70% of overall global greenhouse gas emissions (see Appendix 1).

ASN Bank would also like to avoid any indirect involvement (for instance through financial institutions) in investments in the aforementioned activities.

The activities that ASN Bank is prepared to invest in are then selected on the basis of their 'climate performance'. Energy saving plays a major role in this, as it has been widely recognised as the most cost-effective way of limiting greenhouse gas emissions [9]. The emission of greenhouse gases per turnover is a good climate performance indicator.

Although within the fossil fuel sector as a whole the gas sector causes considerably lower levels of greenhouse gas emissions, ASN Bank prefers not to invest in this sector. This also overlooks the fact that within the fossil fuel sector only the exploration and production of gas can help bring about a 'low-carbon' transition to a fully sustainable energy supply (CO₂/KWh-el for gas is 0.45 kg, for oil 0.5 kg and for coal 0.8 kg, which is nearly twice as much as for gas!). However, an exception may be made for gas-based CHP (sized according to the heat demand), because it emits very low levels of greenhouse gas across the chain as a whole; some studies suggest the level is comparable to that of sustainable resources [10].

Electricity production

The above interpretation of our climate targets has allowed ASN Bank to categorise the activities it wishes to avoid. Within these categories, electricity production calls for some further elucidation. It generates the highest level of greenhouse gas emissions and is also extremely diverse. When selecting among

the various energy sources for the generation of electricity ASN Bank interprets its special investment criteria as follows:

- 1 Across the chain as a whole, the energy source is among those causing the lowest levels of greenhouse gas emissions.
- 2 The energy source causes a minimum number of unwelcome side effects. This covers issues such as safety, other environmental effects and human rights.

ASN Bank therefore avoids investing in electricity production with high levels of direct and indirect greenhouse gas emission and many unwelcome side effects:

- 1 Electricity production through lignite, coal and oil;
- 2 Electricity production through gas, which does not utilise the escaping heat (sized according to the heat demand);
- 3 First generation bio fuels.

Electricity production with other negative side effects:

- 4 Nuclear energy.

All other forms of electricity production are therefore eligible for investment by ASN Bank, providing they meet all other special investment criteria. We have a preference for cutting down on electricity consumption, as its cost and potential make it a far more attractive option than the alternatives. This is followed by: concentrated solar power, wind energy, 2nd generation biomass, solar PV, hydropower (providing the conditions are advantageous), geothermal energy, heat pumps, etc.

Supporting statement:

Sub 1: Electricity production using lignite, coal and oil

Compared to other methods, electricity production using lignite, coal and oil generates the highest level of greenhouse gas emissions. Although this level can be reduced by raising efficiency this is not enough for ASN Bank. In ASN Bank's view, there is no such thing as a 'clean coal-fired power station'. CO₂ capture in, for instance, gas fields does not improve the situation, as this technique requires extra energy and has not yet passed the experimental stage. Likewise the technique does not help reduce the emission of the other types of gas (particles, NOx) and may be hazardous (a CO₂ leak can create a suffocating blanket).

Sub 2: Electricity production using gas without utilising the escaping heat

ASN Bank also rules out electricity production using gas. But because from a climate perspective this method of generating electricity is clearly better than other fossil fuel sources ASN Bank is prepared to invest in gas-fired CHP installations sized according to the heat demand. Across the chain as a whole these come closest to sustainable energy with respect to greenhouse gas emissions. Some sources claim that compared to current PV systems this method of electricity production actually performs better – at least for now [10]. However, expectations are that the production of PV systems will require less fossil energy in future.

Sub 3: First generation bio fuels

Bio fuels, or organic matter, can be used for the generation of electricity, but also for the production of bio diesel and bio petrol. However, the degree to which the many different bio fuels help reduce greenhouse gas emissions varies considerably.

3 The use of the word 'activities', rather than 'sectors', is deliberate, because activities is more specific and also sets out ASN Bank's objectives more clearly. The term sectors is too broad and not precise enough.

We therefore distinguish between 1st and 2nd generation bio fuels. 1st generation bio fuels generate potential CO₂ reductions of a maximum 50% across the chain, but often far less than that. In contrast, 2nd generation bio fuels offer a much higher return: a reduction in CO₂ of up to 90% across the chain at a much higher production per hectare. In some cases the production of bio fuels triggers other unwelcome environmental effects, such as a loss of biodiversity or even the violation of human rights or competition with food production [11].

Most of these drawbacks can be attributed to 1st generation bio fuels, which for the most part consist of food crops (rapeseed, sunflower, sugar cane, sugar beet, palm oil, maize) and are used to produce liquid bio fuels (bio-ethanol and bio-diesel).

The Task Force Energietransitie (Task Force Energy Transition) has therefore drawn up environmental criteria for biomass [12]. Although the criteria help avoid at least some of the problems, ASN Bank believes they provide insufficient guarantees, particularly on the following points: jeopardising food production and deforestation. Likewise, they provide insufficient assurance of a clearly positive CO₂ balance [13].

To avoid these various drawbacks, ASN Bank has decided to only invest in 2nd generation bio fuels. These are often solid or wood-based bio fuels that form part of one of the following groups⁴:

All organic matter (cellulose) that is not suitable for consumption (for either humans or animals). These are normally organic waste flows from the production of food or processing of wood (straw, wood waste).

Wood (if imported it requires a FSC certificate; wood residue and wood waste do not require a FSC certificate);

Organic household and garden waste or business, commercial and industrial waste (e.g. paper pulp, sewage sludge, manure). Sometimes, food crops need to be added in order to obtain a proper mixture. ASN Bank permits this providing the basic raw material fits into one of the above categories.

Sub 4: Nuclear energy

ASN Bank excludes businesses that generate nuclear energy, operate nuclear power stations or sell or distribute nuclear products as well as suppliers that specifically target this sector, as they fail to meet the following conditions⁵:

- a) Safe nuclear power stations: After Harrisburg and Chernobyl the safety of nuclear power stations has certainly increased, but none of the current power stations or those under construction (all of which are so-called type III or III+) is completely safe. Similarly, there are no guarantees that the so-called 'inherently safe' nuclear power stations will never witness any serious incidents. Inherently safe refers to the use of physical principles that prevent uncontrolled nuclear fission so the reactor core cannot melt. In the event of a calamity, the reactor will automatically shut down because it follows the laws of nature, even when human intervention and safety systems fail. The development of this type of power station is still 'at an early stage' [14], so its inherent safety is, for now, theoretical only.
- b) Sustainable permanent storage of radio-active waste: At present there are no permanent storage facilities, which means that radio-active waste is stored so as to be retrieva-

ble. However, in ASN Bank's view sustainable permanent storage is necessary, because the current interim storage does not provide a long-term solution (with long-term here referring to >10,000 years). Nor does 'transmutation' technology provide a definitive solution. Although it is capable of reducing the waste's level of radio-activity, the material still requires permanent storage for over 1,000 to 2,000 years, with a tiny proportion of residual radio-active elements remaining [14]. ASN Bank stipulates that permanent storage really is permanent, that is, storage that prevents contact with the biosphere for at least 10,000 years.

- c) Uranium extraction meets ASN Bank's Special Investment Criteria: the key environmental aspects of uranium extraction are: spoiling of the landscape (especially in the case of opencast mining); the release of Radon gas; the release of heavy metals; contamination of the soil with acid in the case of solution mining. However, some uranium mines have obtained ISO 14001 certificates. There has certainly been some irresponsible uranium mining in the past. Right now, ASN Bank is uncertain whether this situation has improved enough.
- d) No involvement in military applications (non-proliferation): Even in the event of full global compliance with the Non-Proliferation Treaty, five countries (the US, China, Russia, France and the UK) retain the right to produce nuclear weapons. India, Pakistan, North Korea and Israel are also known to possess the capability to produce nuclear weapons. Nuclear power stations play an important role in the production of radio-active material that is used in the production of nuclear and/or other weapons. However, proliferation also covers the spread of the technological know-how needed to produce nuclear weapons [14]. Bearing this in mind, it should be clear that it would be virtually impossible to invest in the nuclear energy sector without running the risk of involvement in the production chain of nuclear and/or other weapons. Having said that, it seems almost certain that few new nuclear weapons are being produced at the moment, because in the aftermath of the cold war they are more likely being dismantled.
- e) Internalisation of all costs: This means that all the costs associated with the nuclear energy chain as a whole are included in the price of electricity. This is not happening at the moment. In fact, it has been laid down by international treaty that in the event of an accident a company running a nuclear power plant is liable for 340 million euro only (to be raised to 700 million euro). And in the Netherlands, for instance, the state will cover the financial risks of future permanent storage [14, 15].
- d) Involvement stakeholders: The stakeholders involved must be widely consulted and allowed adequate input before the construction of a nuclear power plant is given the green light. Since this is a local issue, it calls for review at local level. It is impossible to make general statements on the issue.

Sub B. Engagement:

To engage in dialogue to boost the performance of those investments in the universe with a relatively poor climate performance. Interim evaluation of the investments in the universe of both the ASN funds and ASN Bank may show that a certain investment has a relatively poor climate performance compared to the rest of the sector. This may eventually result in the investment being divested, but ASN Bank will first approach

⁴ There is no clear definition of 2nd generation bio fuels, hence this list.

⁵ In other words, businesses involved in the construction of nuclear power stations that do not meet the listed criteria.

the investment in question with the request to improve the climate performance. See also the ASN Bank Engagement Policy [16].

Sub C. Voting:

At shareholders' meetings we vote in favour of measures to improve the climate performance and in favour of a link between remuneration and climate performance. In their capacity as investors in shares from listed companies, the ASN investment funds have voting rights. In the US in particular – with other regions expected to follow suit in future – so-called 'shareholder proposals' are frequent items on the agenda asking businesses to improve their climate performance, for instance by investing in sustainable energy or boosting energy efficiency. In such cases, ASN Bank will vote in favour of such a proposal. And, where relevant, ASN Bank will vote in favour of a link between the board's remuneration and the climate targets or greater transparency and more climate performance targets. See also ASN Bank's Voting Policy [17].

C.2.3 From adaptation target to adaptation activities

After mitigation, the second priority set out in ASN Bank's climate policy is adaptation. ASN Bank aims to invest more in activities that manage the negative greenhouse effects. Evidence has shown that these negative effects are inevitable, indeed can already be seen. These negative effects include:

- An increase in the number and intensity of droughts.
- An increase in the number of floods.
- A drop in food production.
- The spread of disease.
- A loss of biodiversity.

The regions where these changes tend to converge and that have limited capacity for adaptation are particularly vulnerable to these negative effects. These are predominantly the poor regions near the lower latitudes.

Like the mitigation strategy, the adaptation strategy consists of the following three sub-strategies:

- A **Selection:** to opt for investment in activities that deal specifically with adaptation by anticipating the aforementioned negative effects, including [7]:
- Water management (Dutch water boards and water board banks, water companies).
 - Coastal defences and water management.
 - Poverty alleviation via, for instance, micro-credit; in the poorer regions, especially, this raises prosperity levels and the potential for adaptation.
 - Adaptation of food production to new climate conditions.
 - Economic development based on greater independence from climate conditions.
 - The development of cheap and effective medicines for poorer regions.
 - Activities aimed at the preservation and expansion of forest area and sustainable fisheries management.
- B **Engagement:** to encourage investments in the universe that fail to take advantage of adaptation potential to capitalise on this potential.
- C **Voting:** to vote in favour of adaptation measures at shareholders' meetings.

C.2.4 Countries

Countries, too, are assessed on their climate performance. This performance is considered when we select government bonds. Countries are excluded if they fail to take pro-active steps to help protect the environment (based on a bad score on leading environmental indices) and included when they take active steps to help protect the environment (by being among the more successful on the leading environmental indices). The indices consulted are the Environmental Sustainability Index (ESI) and the Environmental Performance Index (EPI), both drawn up by Columbia and Yale University [18]. The ESI focuses on the quality of the environmental policy and features the following special climate indicators:

- greenhouse gas emissions per capita.
- greenhouse gas emissions per GDP (Gross Domestic Product).
- coal consumption per populated land area.
- vehicles per populated land area.
- percentage of land area with sustainable certified forest.

Complementing the ESI, the EPI measures the actual environmental performance. The EPI measures how close countries are to reaching their climate targets by monitoring the following indicators:

- energy intensity (in TJ per GDP).
- greenhouse gas emissions per GDP (Target: no emissions).
- share of sustainable energy (target: 100%).

C.3 Targets and strategy direct effects

Practice what you preach is ASN Bank's guiding principle when it comes to its direct climate effects. ASN Bank's climate investment policy must be reflected in its approach to the direct effects. We therefore have targets and a strategy for the direct effects as well.

Direct effects target:

ASN Bank will maintain its status as a fully climate-neutral office environment.

Strategy:

- 5% reduction in actual CO₂ emissions per FTE as per 31-12-2008.
- 100% use of green electricity (already achieved and to be maintained).
- 100% compensation of all CO₂ emissions (already achieved as per 1-1-2006).

Further information:

To quantify its CO₂ emissions ASN Bank follows the office protocols specified by the WBCSD and also prescribed by the GRI. These include:

- CO₂ emissions from transport: 'CO₂ Emissions from Business Travel' and 'CO₂ Emissions from Employee Commuting' (WBCSD).
- CO₂ emissions from heating: 'CO₂ Emissions from Fuel Use in Facilities' (WBCSD).
- CO₂ emissions from electricity: 'Indirect CO₂ Emissions from Purchased Electricity' (WBCSD).

When calculating its overall CO₂ emissions ASN Bank includes the emissions caused by staff travel (for both business and commuting purposes), the emissions from heating the office and the emissions from electricity use.

The table below shows the main sources of CO₂ emissions at ASN Bank in 2006:

CO₂ emissions ASN Bank 2006 (in tonnes)	
Source	Emissions
Electricity*	0.00
Car	73.42
Bus	4.25
Tram/metro	3.88
Train	30.17
Aeroplane	1.74
Heating	33.75
Total emissions	147.21

*is 100% sustainable energy (wind, water, solar)

Cutting emissions

However, ASN Bank has also set itself the target of cutting its actual emissions per FTE by an absolute 5% as per 31-12-2008 compared to 31-12-2006. This cut in emissions will have to be realised in the area of heating or transport, and in particular car travel. A special ASN Bank Car Lease Policy will be developed to try and achieve the latter. It must be noted, however, that compared to other years there was very little air travel in 2006. Another major source of emissions is heating. In part because it often involves personal choices staff commitment to achieving cuts is essential here. ASN Bank will therefore launch a temporary Climate Commission (The Carbon Club). This commission, made up of ASN Bank staff, will advise the board on limiting CO₂ emissions per FTE.

Green electricity

Because we purchase green electricity CO₂ emissions from electricity use are zero (almost 100% wind energy). This leaves the emissions from heating and transport. ASN Bank has decided to fully compensate for these remaining emissions, so that they too are neutral (that is to say, zero).

Compensation

For compensation purposes in particular ASN Bank is looking for alternatives to investing in forests. Compensation here refers to greenhouse gas emissions from the use of gas (heating the office) and the use of petrol/diesel. It goes without saying that ASN Bank will continue to cut emissions via energy saving and cleaner transport. However, this will always leave some that can only be reduced to zero via compensation. ASN Bank has specified the following conditions: 100% compensation, additional and demonstrable. We have a preference for projects in the area of sustainable energy and energy saving, in other words preventative projects. Options include:

- Emission reduction in poor countries (CDM on a small scale).
- Sustainable energy (preferably wind).
- Unprofitable leading projects.

C.4 Other activities

Alongside its various direct and indirect activities, the ASN Bank Climate Policy will take shape through many other channels, including participation in:

- Carbon Disclosure Project.
- Global Compact.
- Groenberaad Banken (Banks' Environmental Consultation).
- Project Biomassa en WKK (Project Biomass and CHP).
- Duurzame Energie Koepel (Sustainable Energy Umbrella).
- Comité van Aanbeveling Green4Sure (Recommending Committee Green4Sure).
- Stichting keurmerk warmtepompen (foundation for heat pump certificates).
- Vereniging Q (an organisation promoting building with renewable resources).

D Background

This issue paper will come into effect upon ratification by the board of ASN Bank. Should this lead to adjustments to our investments, these will be made effective as soon as possible or if contractual possible contract allows it.

Sources:

- 1 IPCC; Climate Change 2007: The Physical Science Basis, Summary. Working Group I Contribution to the Intergovernmental Panel on Climate Change (February 2007).
- 2 IPCC; Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary. Working Group II Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report (April 2007).
- 3 IPCC; Climate Change 2007: Mitigation of Climate Change, Summary. Working Group III Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report (April 2007).
- 4 IPCC; Synthesis Report (November 2007).
- 5 Raupach et al; Global and regional drivers of accelerating CO₂ emissions. PNAS Early Edition (April 2007).
- 6 Climate Change Controversies (The Royal Society, June 2007).
- 7 Vulnerability and Adaptation to Climate Change in Developing Countries (WRI EarthTrends; Chris Ward, July 30, 2007).
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