

Module: Introduction

Page: Introduction

0.1

Introduction

Please give a general description and introduction to your organization.

Novo Nordisk is a global healthcare company with more than 85 years of innovation and leadership in diabetes care. The company holds leading positions within haemophilia care, growth hormone therapy and hormone replacement therapy. Our commitment to research is reflected in our full portfolio of insulin products and the many new treatment options in our pipeline.

Headquartered in Denmark, Novo Nordisk employs more than 29,300 employees in 76 countries, and markets its products in 179 countries. Novo Nordisk has production in the US, Denmark, China, Japan, France and Brazil. Novo Nordisk's B shares are listed on the NASDAQ OMX Copenhagen (Novo-B). Its ADRs are listed on the New York Stock Exchange (NVO).

At Novo Nordisk, decisions about our operations are driven by the Triple Bottom Line: a commitment to social responsibility, sound environmental management and balanced economic growth. As climate change has global implications on all three dimensions, taking steps to reduce the company's impact is both an act of corporate responsibility and critical risk mitigation. The strategic commitment to sustainable development has brought the company onto centre stage as a leading player in today's business environment, recognised for its stakeholder engagement and performance within sustainable development. Novo Nordisk is listed in the 2009/2010 Dow Jones Sustainability Indices and has been rated gold class in the SAM classification. For more information, visit novonordisk.com/sustainability.

Novo Nordisk has worked proactively with the company's environmental responsibilities for the last 30 years. Our first environmental report was published in 1994. For the last five years Novo Nordisk has published an integrated annual report, which shows the way Novo Nordisk has integrated the Triple Bottom Line principle in the business.

0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.

Enter Periods that will be disclosed

Thu 01 Jan 2009 - Thu 31 Dec 2009

0.3

Are you participating in the Walmart Sustainability Assessment?

No

0.4

Modules

As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors, the corresponding sector modules will be marked as default options to your information request.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see www.cdproject.net/cdp-questionnaire.

0.5

Country list configuration

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response.

Select country
Denmark
China
Brazil
France
Japan
United States of America
Algeria

0.6

Please select if you wish to complete a shorter information request.

Further Information

As regards the Walmart Supplier Sustainability Assessment Novo Nordisk has not been invited to participate but we have accepted to respond to CDP Supply Chain 2010.

Attachments

Module: Governance

Page: Governance

1.1

Where is the highest level of responsibility for climate change within your company?

Board committee or other executive body

1.1a

Please specify who is responsible.

Committee appointed by the Board

1.2

What is the mechanism by which the board committee or other executive body reviews the company's progress and status regarding climate change?

Our executive committee on Environment, Bioethics and Occupational Health & Safety (EBOC) has overall responsibility for climate action. Two out of the five Executive Vice Presidents in Novo Nordisk's executive management team are represented in the committee. The committee meets on a quarterly basis. The committee is headed by Executive Vice President (EVP) and Chief of Staffs Lise Kingo.

The mandate of the committee is:

- Maintain our Environmental policy, Bioethics policy and the Occupational Health & Safety (EBO) policy
- Maintain the EBO strategy of the company
- Identify, develop and manage EBO issues
- Identify focus areas and appoint key focus groups to address key EBO issues
- Approve strategies, targets and action plans developed by focus groups
- Deliver input to Novo Nordisk's annual report
- Monitor Novo Nordisk's EBO performance
- Conduct yearly review of focus areas and carry out relevant benchmarks.

EBOC has appointed a cross-organisational focus group on climate action which is responsible for driving climate action in Novo Nordisk. The focus group meets every 6 weeks and submits quarterly progress reports to the committee. In addition, a quarterly report on EBO trends, including climate change trends, is prepared to EBOC.

The Environment, Bioethics and Occupational Health & Safety Committee gives an annual update to Executive Management (including last year's performance and targets for the year).

Once a year, EVP Lise Kingo presents an Annual Sustainability Review to our Board of Directors, including climate action progress and performance.

1.4

Do you provide incentives for the management of climate change issues, including the attainment of greenhouse gas (GHG) targets?

Yes

1.5

Please complete the table.

Who is entitled to benefit from those incentives?	The type of incentives
Executive officer	Monetary reward
Business unit managers	Monetary reward
Environment/sustainability managers	Monetary reward
Facility managers	Monetary reward
Energy managers	Monetary reward
Other: Executive Vice President	Monetary reward
Other: Energy stewards	Monetary reward

Further Information

Climate change targets are included in the corporate Balanced Score Card (BSC) and remuneration of executive management and relevant senior management in Novo Nordisk. The Environment, Bioethics and Occupational Health & Safety Committee monitors and follows progress on strategy and BSC targets on a quarterly basis. The individual incentives are recorded and followed-up through our People Performance Process (3P).

2.1

Describe your company’s process for identifying significant risks and/or opportunities from climate change and assessing the degree to which they could affect your business, including the financial implications.

Assessment of risks and opportunities related to climate change is an integral part of our corporate risk management system. Our policy for risk management is that risks are managed to enable the continued growth of our business and to protect our people, assets and reputation. The policy is supported by a standard operating procedure that sets out key activities for Novo Nordisk’s process of identifying, assessing, managing, monitoring and reporting risks facing the organisation. The Risk Management Board, representing senior managers from all parts of the value chain, chaired by the chief financial officer, sets the strategic direction for the risk management process.

The responsibility for identifying risk and assessing the degree to which they could affect our business lies in Line of Business. Each quarter, all major business areas are required to re-assess and report to our corporate Risk Office their most significant risks, considering both financial and non-financial risks, along with plans or processes to manage these risks. The Risk Office challenges business areas about reported risks and encourages exploration of longer-term concerns. Reported risks are then consolidated into a ranking and assessment of the company’s key risks. This information is presented to the Risk Management Board, who challenges the overall risk and control profile of Novo Nordisk. The Risk Management Board provides a quarterly summary report with a consolidated top 10 risk profile to Executive Management.

The risk assessment process is linked to the strategic planning process and considers both financial and non-financial risks. All assessments of risk take into account the likelihood of an event and its potential impact on the business short term (0-3 years) and longer term (4-10 years). Impacts are quantified and assessed in terms of potential financial loss and reputational damage. Risks are assessed both as gross risk and net risk. The assessment of gross risk assumes that no mitigating action has been implemented, whereas net risk assessment takes into account mitigating actions and their anticipated effect. Enterprise risk management increases our ability to assess and understand risks separately and in relation to each other from a global perspective but with local control.

All risks are quantified in financial terms:

Minor risks:	< 500 mDKK
Moderate risks:	500-1000 mDKK
Major risks:	1000-5000 mDKK
Critical risks:	> 500 mDKK

Risks and opportunities related to climate change, be they regulatory, physical and/or reputational, are integrated in risk management in the business units that face these risks. Risk of rising energy prices and tax, for example, are assessed in the quarterly risk report of our strategic sourcing unit. As another example supply disruptions is considered one of our top 10 risks and each year our Corporate Risk Management unit concerned with safety and physical risks makes annual inspections to our production sites assessing among other the risk of flooding, water scarcity, weather-related disruptions in local energy supply and sea-level rise. Risks associated with climate change are also considered in due diligence assessments of major projects. As an example, our new production plant in Tianjin, China is being built at a higher ground level to mitigate the potential risk of flooding as the Tianjin area is close to sea-level.

Global Triple Bottom Line Management makes a quarterly risk report to our Risk Office on climate strategy reviewing risks related to reputation and stakeholder expectations.

Further Information

Attachments

Page: Regulatory Risks**3.1**

Do current and/or anticipated regulatory requirements related to climate change present significant risks to your company?

Yes

Do you want to answer using:

The table below

3.2A

What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
Uncertainty surrounding new regulation	Other: Global	0 -- 5	COP-15 has created great uncertainty around the actual, future cost of carbon, globally and regionally, and the direction of future investment and capital flows.
Cap and trade schemes	Other: Europe	0 -- 5	In 2010 UK Carbon Reduction Commitment (CRC) begins. The CRC Energy Efficiency Scheme is the UK's mandatory climate change and energy saving scheme, due to start in April 2010. In 2013-2020 EU ETS Phase III begins with expected more stringent caps + auctioning. EU has proposed to include aviation in the EU ETS from 2013.
Cap and trade schemes	Other: North America	0 -- 5	In 2010-12 US Federal ETS and US Regional reporting and ETS schemes subsumed into federal schema. 12 May 2010 North America released a long-awaited energy and climate bill - the American Power Act - envisages a nationwide cap-and-trade programme. 2013- : Chance of US / Canada Cap & Trade
Cap and trade schemes	Japan	0 -- 5	2011-12: Possibility of ETS in Japan
Cap and trade schemes	China	0--5	The city of Tianjin, where two Novo Nordisk production plants are located, plans to impose a mandatory limit on energy used to heat buildings. According to Bloomberg (4 March 2010) China may start its first city-wide carbon cap-and-trade system by June.
Fuel/energy taxes and regulations	Other: Global	0 -- 5	Transportation as a general issue Novo Nordisk expects to be indirectly impacted by through prices from our transporters.
Fuel/energy taxes and regulations	Denmark	0 -- 5	New national green taxes. Novo Nordisk has estimated the effect of these changes will amount to an extra cost of 40 mill DKK worst case annually corresponding to a 16% increase.
Fuel/energy taxes and regulations	China	0 -- 5	Potential risk of increasing prices on fossils fuels.

3.3

Describe the ways in which the identified risks affect or could affect your business and your value chain.

As a growing, global company with production and activities in all major regions of the world the emergence of several national and regional carbon markets and national tax and regulation poses a potential financial risk to Novo Nordisk on the longer term. Independently of the policy tools (cap-and-trade vs taxes) it is likely that the price of energy and fuels will increase throughout our global value chain, including sourcing, manufacturing, transportation etc. which will make it harder to keep down costs and improve our gross margin.

How significant the risk will be remains to be seen and will vary throughout our value chain. In production, which has ambitious productivity targets (Cost of Goods Sold), energy currently accounts for 3% of production costs.

As approximately half of Novo Nordisk's CO₂-emissions in 2010 will be related to transportation (car fleet, product distribution and business travel), future regulation on road, aviation and maritime emissions poses a potential financial risk to Novo Nordisk. International aviation and maritime transport activities are currently not included in the Kyoto protocol commitments and it remains uncertain whether they will be included in a post-Kyoto deal. The EU has proposed to include aviation in the EU ETS from 2013.

The risk will also vary from market to market. Currently, the highest risk is in Denmark and Europe as 72% of our total emissions are emitted in Denmark and two of our production sites operate under the EU ETS. The cost of quotas is currently marginal but it will increase from 2013 onwards as a greater amount of quotas under the EU ETS will be auctioned. A new national green tax will affect Novo Nordisk a well.

China is also at potential risk of increasing prices on fossil fuels. We are currently expanding production in China and expect China to be among our top-3 markets in few years. Currently 100% of our production in China is based on fossil fuels.

3.4

Are there financial implications associated with the identified risks?

Yes

3.5

Please describe them.

Price increases on energy and fuels could potentially change Novo Nordisk's financial risk assessment and business case on the longer term. The current financial implications associated with cap and trade schemes are rather minimal given that only 10% of Novo Nordisk's global emissions are covered under the EU ETS. Currently only two sites in Denmark (Bagsvaerd and Hilleroed) are covered by the EU-ETS scheme. For the first period from 2005-2009 Novo Nordisk has paid 2.07 mDKK to EU ETS.

Future cost of carbon in the EU ETS scheme will influence cost of renewables and carbon credits. Novo Nordisk has investigated three possible policy scenarios to play out over the next 3-5 years:

1. "Carbon denial": No binding targets. Small collection of targets and policies in OECD. Carbon prices from 60-240 DKK per tonnes CO₂e
2. "Carbon Constraint": Multiple agreements. Binding long term targets, collection of intermediate targets and policies. Carbon prices from 60-330 DKK per tonnes CO₂e
3. "Decarbonisation": Broad agreement. Binding, tough long intermediate term and targets. Carbon prices from 16-450 DKK per tonnes CO₂e

Scenario 2 is estimated to be the most likely. If we assume that Novo Nordisk would have to purchase quotas corresponding to all our emissions from the two plants currently covered by the EU ETS, in 2020 this would mean cost of 1.3 - 7.1 mDKK.

As 72% of Novo Nordisk's energy consumption is consumed at Novo Nordisk's production facilities in Denmark, Novo Nordisk will be financially affected by the recent increase in energy taxes in Denmark (green taxes). Novo Nordisk has estimated the impact of the new tax system and in our worst case scenario calculation, the new taxes will amount to an extra costs of 40 mDKK annually, corresponding to a 16% increase. The changes will have full effect on Novo Nordisk in 2013.

In general the cost of energy is marginal to Novo Nordisk (3% of production costs). However, in the current situation of great uncertainty around future regulation and price of energy and fuels, it is important that we keep close track of regional regulation trends.

3.6

Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.

Novo Nordisk has taken several actions to mitigate and adapt to the identified regulatory risks. An important part of acting on our regulatory risks is continuous monitoring of carbon regulation trends global. This is an integral part of our trend spotting system and is done without incurring costs.

To comply with risks of increased prices on energy and fuels Novo Nordisk has implemented an ambitious energy saving programme including renewable energy as part of our 1st generation climate strategy. The energy saving programme is the largest single investment under our Climate Action programme. From 2004-2009, we have invested 120 mDKK in energy savings covering project spend and staff. More than 200 energy saving projects have been implemented across global production sites resulting in a 10 % cut in energy consumption corresponding to a realised cost saving of 145 mDKK. While parts of the saving is earmarked to financing the premium on renewable electricity in Denmark, the investments in the energy saving programme will continue to yield annual cost savings of approximately 48 mDKK in coming years. Half of all projects are paid back in less than one year and the average pay-back is 1.9 years.

Due to our energy saving efforts, Novo Nordisk expects to be able to “break even” with the supplied quotas at the two sites in the current ETS period (2008-2012). Even though Novo Nordisk’s CO₂ allowances under the EU emission trading scheme are insignificant compared to many other industries, we are following the discussions in EU on the proposed changes to the EU ETS by 2012. Especially we are aware of the benchmark discussions and how this will affect us directly on our own allowances and potentially more significantly indirectly through the energy producers from which we buy energy. Novo Nordisk sees the new energy tax in Denmark as yet another incentive to continue to reduce energy consumption.

In November 2009, Executive Management approved extending the scope of Novo Nordisk’s climate action programme to include emissions from transportation throughout global operations. Focus is on company cars, product distribution and business travel. Initiatives to reduce emissions from company cars have already shown saving potentials of 20-40% on cost and CO₂ emissions. Novo Nordisk’s shipping department has initiated a project ‘from air to sea’ that aims at decreasing the amount of finished products shipped by air. Shifting from air to ship saves a factor 95 per pallet in CO₂ emissions. A pilot project has been conducted to implement video conferencing between Copenhagen, Zurich, Princeton, Tokyo and Beijing. Novo Nordisk will invest about 3-5 mDKK in the coming year in cutting emissions from transportation but the pay-back period is expected to be very short and the overall business case is positive.

Parallel with the energy saving programme Novo Nordisk has engaged in the public debate calling for an ambitious global deal on climate change. As a global business, we call for a long-term, stable and global framework to guide our future operations. Our engagement in the Copenhagen Climate Council has been the main platform to achieve this end. The Copenhagen Climate Council has worked to promote a broad global dialogue and build momentum for achieving an ambitious, global and binding treaty at the UN Climate Summit in Copenhagen in December, 2009.

In April 2010 Novo Nordisk participated in the 2nd meeting for signatories to the UN Global Compact Caring for Climate platform in Geneva. Our partnership with DONG Energy in Denmark continuous and a ‘Think Tank’ for renewable energy has been established. From 2004-2009, we have invested about 2 mDKK on advocacy.

By proactively addressing the root cause rather than waiting to treat the complications, Novo Nordisk’s has reduced risks of future carbon constraints and compliance costs. We will continue this proactive approach in the future as an integrated part of our 2nd generation climate strategy.

Further Information

Attachments

4.1

Do current and/or anticipated physical impacts of climate change present significant risks to your company?

No

4.7

Please explain why you do not consider your company to be exposed to significant physical risks - current and/or anticipated.

Based on current knowledge physical impacts of climate change are not considered to present significant risks to Novo Nordisk. Novo Nordisk operations were not affected by extreme weather events, changes in weather patterns and other weather related phenomena in 2009.

We have reviewed the risk of our global production sites being exposed to physical risks from climate change in terms of:

- Flooding
- Water back flow through the sewer system
- Water scarcity/stress
- Failure in the electricity supply due to shortage of water (hydro or cooling water)

Sources used for the review were Assessment Report of the UN Intergovernmental Panel on Climate Change (2007), Global International Waters Assessment (GIWA), United Nations Environment Programme (UNEP) and Global Environment Facility (GEF).

Our review showed that currently there were no significant physical risks from climate change to our production sites.

Minor risks were identified at two of our production plants that are located in areas of water scarcity; Montes Claros, Brazil and Tianjin, China. Initiatives are being taken to protect water resources in the area and secure water supply. One such initiative has been taken in connection with the projection of the new production facility in Tianjin. This has been designed to be 20% more water efficient than the newest similar production facility. The financial implications of this has been insignificant and approved as part of the design of the production facility. We will continue to focus on water savings at especially these locations.

In addition, the new production plant in China is built with a higher ground level than the existing plant as the plant is close to sea-level.

We are well aware that the physical impact may become significant in the future as leading scientists assess that climate change could become much worse, much faster than expected by the IPCC in its 4th Assessment Report. We continue to monitor the latest climate science as part of our risk management procedures.

Further Information

Attachments

5.1

Does climate change present other significant risks - current and/or anticipated - for your company?

Yes

Do you want to answer using:

The table below

5.2A

What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
Reputational risks	Global	Current	As a company managed according to the Triple Bottom Line principle we are expected to have a robust strategy to reduce our carbon footprint. With our 1st generation strategy we have earned a leadership reputation in the field. If we fail to meet expectations to our 2 nd generation strategy we run the risk of criticism for falling behind from external as well as internal stakeholders.

5.3

Describe the ways in which the identified risks affect or could affect your business and your value chain.

As a company renowned for our commitment to sustainable development managed through the Triple Bottom Line principle we are expected to show leadership on climate change and our 1st generation strategy has set the bar high for the 2nd generation. If we fail to set new long-term targets, including expanding the scope of climate action beyond production, we run a reputational risk of public criticism for falling behind. A good reputation and public trust are critical elements in securing our license to operate and innovate and our ability to attract and retain employees and investors, including the 40% of our top 20 investors that are signatories to the CDP.

5.4

Are there financial implications associated with the identified risks?

Yes

5.5

Please describe them

Though we generally consider reputation and trust to be intangible value measures, in our internal risk reporting we estimate that the reputational risk and the related deficit on our public trust 'account' would have a financial cost of less than 500 mDKK and thereby classified as a minor risk.

5.6

Describe any actions the company has taken or plans to take to manage or adapt to the other risks that have been identified, including the costs of those actions.

From 2005 to 2009 we have invested in climate communication and climate advocacy aimed at building leadership reputation and trust among external and internal stakeholders. Communication and advocacy activities have covered a wide range of activities, including internal climate engagement campaigns, seed-funding of a major business summit on climate change in May 2009, TV

documentaries on CNBC and CCTV (Chinese national television), +100 presentations of our climate strategy to external audiences and key stakeholders etc. In total we have invested approximately 8.5 mDKK in climate communication and advocacy from 2005-2009 with internal launch communication and COP-15 activities accounting for the major part of this budget.. While the value in terms of employee engagement, reputation and trust is hard to quantify, we estimate – very conservatively - that the sum invested in communication and advocacy is at least paid back.

In 2009 Novo Nordisk conducted a review of the value of our climate action programme from 2005-2009. The review concluded that Novo Nordisk's climate action programme has strengthened the company's reputation and built trust by meeting key stakeholders' changing expectations on tackling carbon emissions.

We are currently framing a 2nd generation climate strategy aimed at maintaining a leadership position in the field of climate action. In preparation of the strategy we have conducted a thorough trend analysis and a range of interviews with stakeholders in the sustainability and socially responsible investment (SRI) community to ensure that our 2nd generation strategy is attuned with key stakeholder demands and current trends in corporate climate action. We will also prepare a communication strategy for the 2nd generation climate strategy to ensure that we leverage the strategy.

The strategy work has a budget of 200,000 DKK. We estimate that the cost of communication, advocacy and stakeholder engagement related to the 2nd generation climate strategy will be around 300-500,000 DKK annually.

Further Information

Attachments

Page: Regulatory Opportunities

6.1

Do current and/or anticipated regulatory requirements related to climate change present significant opportunities for your company?

No

6.7

Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.

Currently regulatory requirements related to climate change represent a risk to Novo Nordisk due to price increases on energy and fuels and uncertainty around new regulation. However some future legal requirements could turn into opportunities. As an example the emerging trends in public procurement of drugs and healthcare services could prove to be a business opportunity for Novo Nordisk, in particular if it becomes a regulatory requirement, creating preference for product from companies with strong carbon management performance. But currently these opportunities are not assessed to be significant.

Further Information

Attachments

Page: Physical Opportunities

7.1

Do current and/or anticipated physical impacts of climate change present significant opportunities for your company?

No

7.7

Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.

Looking at the direct impacts of climate change on human health, climate change is likely to create increased demand for treatment of vector-borne and respiratory diseases. As our core business is chronic diseases such as diabetes and haemophilia we do not see significant opportunities in terms of selling more drugs as a consequence of climate change.

Looking at the indirect impacts of climate change on human health, we see emerging, but still not significant, opportunities that we will explore and further assess in coming years. Whether the opportunity will become significant or not is too early to tell. In May 2009, the Lancet and University College London (UCL) issued a report on the health effects of climate change. The report argues that the indirect effects of climate change on water, food security, and extreme climatic events are likely to have the biggest effect on global health.

The indirect effects of climate change also embrace chronic disease. As an example, an Australian study points to the links between climate change and diabetes, hypertension and obesity. Higher prices for fresh produce are likely to force those on low incomes to purchase lower quality, processed foods. This will further contribute to associated health risks such as childhood obesity and diabetes.

Finally, the health benefits of tackling climate change are another emerging research area. A recent analysis published in the Lancet suggests a potential 6–17% reduction in the total diabetes disease burden in Delhi as a result of a transition to more active travel.

Further Information

Attachments

Page: Other Opportunities

8.1

Does climate change present other significant opportunities - current and/or anticipated - for your company?

Yes

Do you want to answer using:

The table below

8.2A

What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?

Opportunities	Region/Country	Timescale in Years	Comment
Strengthened reputation and increased ability to attract and retain global talent and investors	Other: Global	0 – 5	Climate change – and sustainability in general – is high on public agenda and gains increasing importance in many of our top-14 markets, including US, UK and China. Showing leadership on climate change can contribute to differentiating our company and creating company and product preference.
Leadership opportunity: Climate and health	Other: Global	0—5	The merging of climate, health and development agendas is a leadership opportunity for Novo Nordisk that can tie climate action closer to core business and our Changing Diabetes® programmes.
Green healthcare: Increased focus on green public procurement of drugs and devices	Other: EU/UK	6 –10	The EU is currently preparing criteria for green public procurement of medical devices. In addition, the National Health Service in the UK, one of Novo Nordisk's top 14 markets, has recently launched an ambitious carbon reduction strategy and will 'look into how to decrease the impact from drugs'.

8.3

Describe the ways in which the identified opportunities affect or could affect your business and your value chain.

Climate change – and sustainability in general – is high on the public agenda and gains increasing importance among consumers in many of our top-14 markets, including US, UK and China. Showing leadership on climate change can contribute to differentiating our company and creating company and product preference in key markets.

Novo Nordisk is a first mover on climate action and is thus in a good position to fully leverage this in key markets in coming years in particular in terms of building our reputation as a sustainable company among our key stakeholders and attracting and retaining employees and investors.

More and more affiliates see the climate strategy as a differentiating factor that they leverage in reputation management, stakeholder engagement and employee attraction and engagement activities in local markets. This trend reflects the growing public awareness of sustainability with the UK, France, Japan, Germany and the US being some of the countries where this trend is most significant. We attach examples of how our affiliates are using the climate strategy in company promotion in the US and France.

Another leadership opportunity is to drive the linking of the climate change agenda to the health and broader development agenda. The merging of climate, health and development agendas is a unique leadership opportunity for Novo Nordisk that would tie climate action closer to core business and our access to health programmes and advocacy for global public health – and potentially lead to innovation and new business opportunities. The agenda is currently led by science, public sector organisations and NGOs.

Also the emerging trends in public procurement of drugs and healthcare services could prove to be a business opportunity for Novo Nordisk, in particular if it becomes a regulatory requirement, creating preference for product from companies with strong carbon management performance.

8.4

Are there financial implications associated with the identified opportunities?

Yes

8.5

Please describe them.

It is expected that the identified opportunities potentially can create significant value to the company in terms of reputation, trust from key stakeholders, employee engagement and – on a longer term – product and company preference in public tenders.

8.6

Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.

To date Novo Nordisk has invested about 110m DKK into our climate action programme from 2004-2009 building a leadership position on climate change. Of this approximately 8,5 mDKK has been invested in building reputation and trust. The business case is positive. Energy savings alone have led to a realised cost saving of 120mDKK including the intangible benefits such as reputation and trust with key stakeholders.

We are currently framing a 2nd generation climate strategy aimed at maintaining a leadership position in the field of climate action. The total investment, which will include investment in energy savings and renewable energy, and in driving the climate and health agenda, has not been calculated yet as the strategy work is ongoing. The budget for the strategy work is 200,000 DKK. We estimate that the cost of leadership communication, advocacy and stakeholder engagement related to the 2nd generation climate strategy will amount to around 300-500,000 DKK annually. We expect that the 2nd generation climate strategy will create substantial value to the company.

From HQ we will increase assistance to affiliates in leveraging our climate action and TBL credentials in general in key markets. This activity will be conducted by existing resources and requires only limited investment.

Further Information

Attachments

Module: Strategy

Page: Strategy

9.1

Please describe how your overall group business strategy links with actions taken on risks and opportunities (identified in questions 3 to 8), including any emissions reduction targets or achievements, public policy engagement and external communications.

Overall group business strategy

Novo Nordisk is committed to conducting its business in a financially, environmentally and socially responsible way – our Triple Bottom Line commitment. This strategic approach takes into account climate changes and its associated risks and opportunities. As climate change has global implications on all three dimensions, taking steps to reduce the company's impact is both an act of corporate responsibility and critical risk mitigation.

Our 1st generation climate strategy, framed during 2004 and 2005, has been driven by our commitment to sustainable development managed through the Triple Bottom Line principle. The strategy revolves around responsibility and long-term risk mitigation preparing our business for a carbon-constrained future. During 2004-2009 Novo Nordisk has focused on decoupling business growth from growth in CO₂ emissions at our global production sites, and on advocating an ambitious global deal in the lead-up to the UN Climate Summit at Copenhagen (COP-15). Our climate action programme covers the following main initiatives:

- Reduction target
- Partnerships
- Public policy engagement - Advocacy
- Communication externally and internally

Reduction targets and achievements

Our target is to reduce CO2 emissions from global production by an absolute 10% from 2004 to 2014. Three levers have been put into play in achieving the reduction: Optimisation through the Novo Nordisk LEAN programme, cLEAN®, energy saving programme and conversion to renewable energy. At the end of 2009, we surpassed our 2014 target 5 years ahead of schedule. Building on the success of the 1st generation strategy, Novo Nordisk is currently framing a 2nd generation strategy. Within our own operations we aim to continue to drive improvements in scope 1 and 2 emissions and extend to scope 3.

Partnerships

Recognising the complexity and cross-cutting nature of climate change, partnerships have been at the core of our strategic approach. In 2003, Novo Nordisk began shaping its strategic response to climate change and in January 2006, Novo Nordisk joined the WWF Climate Savers Programme. The agreement between WWF and Novo Nordisk commits the company to restructure energy consumption from global production sites so that the company's total CO2 emissions by 2014 will be 10% less than in 2004. In light of the projected significant growth in production capacity, the absolute target represents a relative reduction of approximately 65% and required a decoupling of business growth and growth in CO2 emissions.

Producing the diabetes active pharmaceutical ingredient in Novo Nordisk's insulin products is a highly energy-intensive process which only takes place in Denmark. In total, Danish production facilities account for 82% of the company's total CO2 emissions from production. In May 2007, Novo Nordisk signed a partnership agreement with the Danish energy company DONG Energy. Under the partnership, Novo Nordisk pledges to convert all energy savings realised at its Danish production into the purchase of electricity from a new wind farm in the North Sea. With the agreement, Novo Nordisk has devised a cost-neutral way to significantly achieve reductions in CO2 emissions and at the same time help build the market for renewable energy in Denmark.

Public policy engagement - Advocating for better climate

Recognising the responsibility of business in tackling the global climate challenge, Novo Nordisk is engaged in a range of climate advocacy activities: The Copenhagen Climate Council, The UN Global Compact 'Caring for Climate' and Prince of Wales Corporate Leaders Group on Climate Change. Novo Nordisk aims to influence the public agenda to attain a long-term framework for sustainable development and demonstrate commitment to the Triple Bottom Line. Our public policy engagement is further elaborated in question 9.11.

Disclosure and communication

External reporting is a core activity to Novo Nordisk. Our integrated Annual Report covers our environmental performance and climate actions. Novo Nordisk has disclosed our carbon footprint to CDP since the first rating was made in 2003 and responds to the annual SAM Research questionnaire. We currently hold a gold rating in Dow Jones Sustainability Index.

We communicate about climate strategy in different media on an ongoing basis. Since 2006 external communication has consisted of more than 100 presentations to professional audiences, contributions to more than 15 books, guides and case studies on corporate climate action and substantial positive coverage in national and international media, including CNBC and CCTV.

Further Information

Attachments

Page: Strategy - Targets

9.2

Do you have a current emissions reduction target?

Yes

9.6

Please complete the table. (If you have a current emissions reduction target or have a recently completed target)

Target Type	Value of Target	Unit	Base year	Emissions in base year (metric tonnes CO2-e)	Target Year	GHGs and GHG sources to which the target applies	Target met?	Comment
Absolute emissions reduction	10	% reduction from base year	2004	210000	2014	Scope 1 + 2	Yes	<p>By end of 2009 our scope 1 and 2 emissions were just below the target of 190,000 metric tonnes. But in 2011 our new facility in China will start producing which will increase the CO2 emissions by expected 25,000 metric tonnes per year.</p> <p>Our WWF Climate Savers agreement allows us to take our savings from sourcing of wind power into account. When doing so, we have met our target in 2009 and will stay below in 2010 as well as in 2014.</p> <p>The 10% absolute reduction target is voluntary and bold. In light of the projected significant growth in production capacity, the absolute target represents a reduction of approximately 65%. It requires that growth in production is decoupled from growth in energy consumption and calls for both incremental advances and radically innovative solutions. The reduction is achieved through three levers; optimisation through the Novo Nordisk LEAN programme, cLEAN®, the energy efficiency programme and conversion to renewable energy. Offsets are not part of the plan.</p>

Further Information

Attachments

¿

Is question 9.7 relevant for your company?

Yes

9.7

Please use the table below to describe your company's actions to reduce its GHG emissions.

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Invest ment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
Energy saving programme 2005 - 2009 achievements	Achieved	80000000	kWh (kilowatt-hour)	28500	Achieved	237000000	DKK	120000000	DKK	Achieved	Investment and monetary savings are cumulated over the period 2005-2009
Renewable energy: Purchase of electricity from off shore windmill park in DK - partnership with the local energy supplier DONG Energy. The windmill park started operation in 2009 and was fully operational in September 2009.	Not relevant	-	-	37915	Achieved	414952	DKK	-	-	Not relevant	Started in 2009 and will when fully operational cost app. 11.3 mio DKK in premium per. year not taken inflation into account.
Renewable energy: Biomass boiler in our plant in Brazil (shift from heavy fuel).	Not relevant	-	-	12500	Anticipated	4000000	DKK	-	-	Not relevant	Anticipated reduction in CO2 emission in 2014. (comparison between heavy fuel oil and bio mass)

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
LEAN programme 2005 - 2009 achievements	Achieved	1500000	GJ	100000	Achieved			15000000	DKK	Achieved	The LEAN programme started in 2005 and is still ongoing. We cannot attribute investments to the specific emission reduction part of the LEAN programme because this is part of a package of investments and it is not appropriate to report the overall investments.
Renewable energy: Biomass boiler in our plant in France is currently under investigation, possibly in collaboration with the local energy supplier. (Shift from natural gas to bio mass).	Not relevant	-	-	7700	Anticipated				-	Not relevant	Project under investigation hence the investment not yet calculated.
Project optimization at site Kalundborg, Denmark.	Achieved	81000	GJ	8500	Achieved			8100000	DKK	Achieved	The project is fully implemented in 2010. The investment numbers is non-public.

9.9**Please provide any other information you consider necessary to describe your emission reduction activities.**

We have since 2005 had an intensive energy saving programme. Local energy stewards are responsible for identifying and implementing the energy projects. Every three years they must carry out a systematic new search for energy saving opportunities and report these to the management. The energy saving programme is part of the incentive programme and thus the implementation is followed closely - each month. Energy saving projects with a pay back time less than 5 years are implemented.

Denmark:

Since 2007 the energy saving programme have been in cooperation with Dong Energy. The energy supplier helps us identify energy saving opportunities. The monetary savings obtained is used for the premium for electricity from the offshore windmill park. The anticipated reduction in CO2 emission in 2014 will be 97000 metric tonnes of CO2.

LEAN programme:

We have estimated the energy savings and CO2 reductions as a result of our LEAN programme in the period 2005 - 2009. First we mapped the historic development in energy consumption and CO2 emissions 2000 - 2005. Then, by continuing the same trend we took the difference between a 2005 - 2009 scenario without LEAN, and the realised consumption data with known energy savings subtracted. The monetary savings are cumulated over the period. The total investment is not estimated.

The project optimization at site Ka in DK started in 2009. Therefore the annual savings number, annual emission reduction and monetary savings number is lower than when the project is fully implemented in 2010. The total CO2 reduction is expected to save at least 20.000 tonnes of CO2 per year depending on development in production. The investment numbers is non-public.

9.10**Do you engage with policy makers on possible responses to climate change including taxation, regulation and carbon trading?**

Yes

9.11**Please describe.**

Public policy engagement - Advocating for better climate:

Recognising the responsibility of business in tackling the global climate challenge, Novo Nordisk is engaged in a range of climate advocacy activities.

As a global business, we need a long-term, stable and global framework to guide our future operations. Our engagement in the Copenhagen Climate Council has been the main platform to achieve this end. The Copenhagen Climate Council is an independent global initiative gathering business leaders from Europe, the Americas, Asia and Oceania and leading politicians, authorities and scientists. The Copenhagen Climate Council has worked to promote a broad global dialogue and build momentum for achieving an ambitious, global and binding treaty at the UN Climate Summit in Copenhagen in December, 2009.

In 2009, the main activities of the council were the World Business Summit on Climate Change in May and a business event at the Kronborg castle during the COP-15. Held in May 2009, the outcome of the World Business Summit was a list of six items that the business community believes to be necessary ingredients of a new, effective climate agreement. The key message was that by given a clear target, and policies and incentives to stimulate initiatives from business, business will and can deliver the solutions needed. The transformation to a low-carbon economy it not only possible, it also offers a promise of economic growth. The summit was supported by the Danish government, UN Global

Compact, the World Business Council for Sustainable Development and others. See the Copenhagen Call as presented on the World Business Summit on Climate Change, Copenhagen, 24-26 May 2009.

Recognising the need for a unified call for action from global business across sectors and regions Novo Nordisk has signed up to the United Nations-supported statement, 'Caring for climate: The Business Leadership Platform', launched at the Global Compact Leaders Summit in Geneva in July, 2007.

Novo Nordisk is also a signatory to the Bali Communiqué, the Poznan Communiqué and the Copenhagen Communiqué of the Prince of Wales Corporate Leaders Group on Climate Change.

Further Information

Attachments

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: Emissions Boundary - (1 Jan 2009 - 31 Dec 2009)

10.1

Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.

Companies over which financial control is exercised per consolidated audited financial statements.

10.2

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions within this boundary which are not included in your disclosure?

Yes

10.3

Please complete the following table.

Source	Scope	Explain why the source is excluded
Sales offices	Scope 1 and 2	At the time where the agreement with WWF was signed, we were not able to present a CO2 emission baseline for sales offices. By end of 2009 we estimated the CO2 emissions from the sales offices to 30000 metric tonnes. Initiatives to reduce the CO2 impact from these offices will be an integrated part of our 2 nd generation climate strategy.
R&D outside DK	Scope 1 and 2	Two small units in Seattle, US and Beijing, China are established after 2005 when the reporting scope was decided. The current CO2 emissions are estimated to 1000 metric tonnes.
Remote cooling storages	Scope 1 and 2	When the agreement with WWF was signed, we did not know the emissions and energy consumption, therefore the remote cooling storages could not be included in the calculation of the 2004 baseline. Subsequently we have estimated the CO2 emissions from the cooling storages to 4500 metric tonnes. Initiatives to reduce the CO2 impact from remote cooling storages will be an integrated part of our 2 nd generation climate strategy.
Cooling agents	Scope 1	In 2007 we initiated an overall strategy to reduce the emissions from cooling agents and a reduction target was set. From 2008 we have started a systematic internal and external reporting of releases from our cooling systems in CO2-e. Thus it was not a part of the scope in the WWF Climate Savers agreement from 2006. In 2009 the CO2-e from cooling agents was 5841 metric tonnes.
CH4/N2O	Scope 1 and 2	The CO2-e from CH4 and N2O has been calculated for 2009 but has not been a part of the scope of the agreement with WWF from 2006. The emissions from 2009 in CO2-e were 2209 metric tonnes for CH4 and 750 metric tonnes for N2O for Scope 1 and 2.

Further Information

The scope of the current climate strategy is the same as the reporting scope in Novo Nordisk annual report. The report covers the financial and non-financial performance in a given calendar year from 1 January to 31 December. In the annual report 2009 historic CO₂ emissions are reported from 2004 to 2009 following the financial year, which is the same as the calendar year.

Accounting policies for the non-financial data in the annual report are based on data for Novo Nordisk A/S, including NNIT A/S, NNE Pharmaplan A/S and subsidiaries. Environmental data covers the significant environmental impact of the organisation's activities at the production sites, which produce approved products for the market – 14 in total.

The current CO₂ emission reduction target covers all production sites globally. This means the energy intensive insulin production site in Kalundborg, Denmark, filling plants in France, Brazil and the US, device production in Denmark and China, and a packaging facility in Japan. Also included are our largest Research & Development plant in Denmark and Headquarters in Denmark. In the total CO₂ figure is not included the contribution from cooling agents, CH₄ and N₂O.

Attachments

Page: Methodology - (1 Jan 2009 - 31 Dec 2009)

11.1a

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions and/or describe the procedure you have used (in the text box in 11.1b below).

Please select the published methodologies that you use.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other: Local energy suppliers

11.1b

Please describe the procedure that you use.

Calculation of emissions are based on energy consumption reported by all sites each quarter to our central data system "CATCH" and emission factors as explained below. Novo Nordisk bases the emission calculation on the principles of the Green House Gas Protocol and as agreed with WWF.

Direct emissions (Scope 1): Calculating direct emissions is based on fuel consumption. For Novo Nordisk's own production of steam and district heat, we mainly use natural gas with oil as back up. Only Koriyama uses oil (kerosene) as their main fuel supply. The calculations of emissions will follow the following principles:

Actual consumption of the fuel during the year will be used for the calculations rather than fuel amounts purchased (the purchased amount may differ from the actual consumption if part of the purchase is put in stocks).

The lower heating value of the fuel is used when converting the consumption of fuel measured in cubic meter (m³) into the actual energy consumption in Giga Joules (GJ).

The following hierarchy of sources of emission factors is applied:

1. First preference; emission factors and lower heating values from fuel suppliers
2. Second preference; emission factors and lower heating values from official national source (also used for national inventory) eg the Danish Energy Agency in Denmark (www.ens.dk) or www.Energinet.dk assuming 100% oxidation
3. Last preference; default emission factors and lower heating values of the GHG Protocol Initiative (see www.ghgprotocol.org)

It is possible to apply mixed sources of lower heating values and emission factors eg from lower heating value from the fuel supplier and an emission factor from the official national source. Novo Nordisk's Environmental Department keeps records of the sources of lower heating values and emission factors.

Indirect emissions (Scope 2): Calculation of CO₂ emissions from production of externally supplied energy (electricity, district heat and steam) is based on key factors from our suppliers. Due to large variations year on year, it was agreed with WWF to base the emission data on three year averages. Novo Nordisk has recalculated its reported historical emissions accordingly.

Electricity:

The following hierarchy is followed when applying emission factors for electricity:

1. Use regional specific emission factors. (Montes Claros (Brazil), Chartres (France), Clayton (US), Koriyama (Japan) and all Danish sites
2. High quality national emission factors
3. IEA/GHG protocol value – latest available year (Tianjin (China) and Algeria due to lack of regional factors).

Grid, distribution and transmission losses are not taken into account in the calculations, as Novo Nordisk does not own or control the transmission or distribution system (cf. GHG Protocol Chapter 4).

Note: In Denmark the published grid factors for East and West Denmark includes the transmission loss (approx. 1.5 %).

Total emissions = consumption of electricity × emission factor.

Steam and heat hierarchy:

The following hierarchy is followed when applying emission factors for electricity:

4. Plant specific information (Kalundborg)
5. Regional specific (Gentofte, Hjoerring)
6. IEA/GHG protocol (latest available year)

Steam:

Kalundborg (Denmark) and Tianjin (China) use steam from external supplier. At Kalundborg, emission factors provided by Asnaes power plant will be used in the calculation using the same allocation methodology as for electricity.

For Tianjin no official heat and steam factors are available. It has been agreed with WWF to use factors calculated by Danish DONG Energy, adapted to the Chinese – less efficient – power plants. The factor is 90 kg/GJ.

Total emissions = steam consumption × emission factors

District heat:

Only sites in Hjoerring and Gentofte in Denmark and Tianjin (China) use district heat.

For Gentofte and Hjoerring regional specific factors are used. For Tianjin, please refer to the above section on steam.

Grid distribution and transmission losses are taken into account in the district heat steam calculations.

Total emissions = district heat consumption × emission factors

11.2

Please also provide the names of and links to any calculation tools used.

Please select the calculation tools used.
Other: Excel spread sheets (energy consumption multiplied with emission factors per location)
GHG Protocol - GHG emissions from transport or mobile sources 2.0 June 2009

11.3

Please give the global warming potentials you have applied and their origin.

Gas	Reference	GWP
Carbon dioxide		1
Methane	Other: GWP20	62
Nitrous oxide	Other: GWP20	275
HFC-134a	Other: GWP20	3300
HCFC-22	Other: GWP20	4800
Other: HFC-407C	Other: GWP20	3605
Other: Propylene	Other: GWP20	3
Other: HFC-404A	Other: GWP20	5588
Other: HFC-507	Other: GWP20	5700
Other: Propane	Other: GWP20	3

11.4

Please give the emission factors you have applied and their origin.

Fuel/Material	Emission Factor	Unit	Reference
Gas/Diesel oil	74	Other: Kg/GJ	Danish standard factor used for EU ETS
Gas/Diesel oil	86	Other: Kg/GJ	Local supplier in Brazil - Petrobras
Gas/Diesel oil	69	Other: Kg/GJ	Local supplier in US - Cary oil company
Kerosene	72	Other: Kg/GJ	GHG Standard
Wood or wood waste	0	Other: Kg/GJ	GHG Standard
Natural gas	57	Other: Kg/GJ	Danish standard factor used for EU ETS
Natural gas	56	Other: Kg/GJ	GHG Standard

Further Information

Scope 2 emissions of CO₂ from energy (total) are based on standard factors for fuel and for energy on a three-year average of available emission factors from the external suppliers of energy. Hence, emission factors for 2009 are the three-year average of 2006 to 2008. The emissions are calculated according to the GHG protocol.

Novo Nordisk use three-year averages due to two factors:

1. Emission factors for the previous calendar year are not available in January and therefore not available for calculation and inclusion of Novo Nordisk's CO₂ emissions in Novo Nordisk's annual report, which is published the first Monday in February.

2. 82% of Novo Nordisk's CO2 emissions are emitted from our production activities in Denmark. The Danish emission factors are highly dependent on the energy production in Sweden. This again is dependent on the volume of rain any given year.

Attachments

Page: Emissions Scope 1 - (1 Jan 2009 - 31 Dec 2009)

12.1

Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.

40883

¿

Is question 12.2 relevant to your company?

Yes

12.2

Please break down your total gross global Scope 1 emissions in metric tonnes CO2-e by country/region.

Country	Scope 1 Metric tonnes CO2-e
Denmark	27830
Brazil	1197
Algeria	84
France	5993
China	51
United States of America	5337
Japan	389

12.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by business division. (Only data for the current reporting year requested.)

Business Division	Scope 1 Metric tonnes CO2-e
Diabetes API	0
Diabetes Finished Products	20198
Biopharm	6126
CMC - pilot plants	2932
R&D	4356

Business Division	Scope 1 Metric tonnes CO2-e
International operations	84
HQ and IT	4436
Devices and Sourcing	2750

¿

Is question 12.6 relevant to your company?

Yes

12.6

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO2-e)
CO2	40883	40883
CH4	11	660
N2O	1	205
HFCs	1348	5841

¿

Is question 12.8 relevant to your company?

Yes

12.8

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

217104

¿

Is question 12.10 relevant to your company?

Yes

12.10

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh
Gas/Diesel oil	331
Kerosene	1529
Residual fuel oil	3881

Fuels	MWh
Natural gas	196003
Wood or wood waste	15360

12.12

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Metering/ Measurement Constraints Sampling	The main uncertainty lies in the uncertainty in the meters themselves, in the manual reading of consumption, weighing of fuel (wood). Novo Nordisk has procedures to ensure as accurate data as possible at all levels from data gathering to approval at the different levels of the organisation.

Further Information

Our current reporting scope has not included emissions from CH₄, N₂O, and cooling agents. The calculated Scope 1 emissions (40883 metric tonnes) are only for CO₂ emissions from fuel consumption. But we have calculated them (see table 12.6) and we plan to include going forward.

Attachments

Page: Emissions Scope 2 - (1 Jan 2009 - 31 Dec 2009)

13.1

Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO₂-e.

143319

¿

Is question 13.2 relevant to your company?

Yes

13.2

Please break down your total gross global Scope 2 emissions in metric tonnes of CO₂-e by country/region.

Country	Metric tonnes CO2-e
Denmark	123819
China	5088
Brazil	0
France	996
United States of America	12384
Algeria	196
Japan	837

13.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by business division. (Only data for the current reporting year requested.)

Business division name	Metric tonnes CO2-e
Diabetes API	55264
Diabetes Finished Products	28509
Biopharm	20797
Devices and Sourcing	14080
CMC pilot plants	2861
International operations	196
R&D	8406
HQ and IT	13206

¿

Is question 13.6 relevant to your company?

Yes

13.6

How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?

Please supply data for these energy types.	MWh
Electricity	282079
Heat	38563
Steam	86611

13.8

Please estimate the level of uncertainty of the total gross global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data

gathering, handling, and calculations.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
More than 2% but less than or equal to 5%	Metering/ Measurement Constraints Sampling	The main uncertainty lies in the uncertainty in the meters themselves and in the manual reading of consumption. Novo Nordisk has procedures to ensure as accurate data as possible at all levels from data gathering to approval at the different levels of the organisation.

Further Information

Attachments

Page: Emissions Scope 2 Contractual

14.1

Do you consider that the grid average factors used to report Scope 2 emissions in question 13 reflect the contractual arrangements you have with electricity suppliers?

No

14.2

You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO₂-e.

105404

14.3

Explain the origin of the alternative figure including information about the emission factors used and the tariffs.

We have a contract with our Danish energy supplier - DONG Energy to purchase from the new off-shore windmill park - Horns Rev II. As agreed with WWF in the Climate Savers agreement, this purchase gives an emission factor of 0 for electricity in DK.

The windmill park started in operation during 2009 and was fully operational from September 2009, hence as described in our contract with DONG Energy we will get REC certificates for all electricity purchased in DK going forward. We have emphasised to DONG energy that the supplied green electricity should come from new windmills. In 2007 Novo Nordisk committed to purchase electricity from Horns Rev II until 2020 corresponding to 1/3 of the capacity (200 MW). Thus the investment became attractive to DONG Energy.

14.4

Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?

Yes

14.5

Please provide details including the number and type of certificates.

Type of certificate	Number of certificates	Comments
Renewable Energy Certificates	73230	Number of certificates is in MWh purchased in 2009 from DONG Energy.

Further Information

Attachments

Page: Emissions Scope 3

¿

Is question 15.1 relevant to your company?

Yes

15.1

Please provide data on sources of Scope 3 emissions that are relevant to your organization.

Sources of Scope 3 emissions	Metric tonnes of CO2-e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
Leased assets (Scope 1 emissions of the lessee)	47500	Company cars (owned or leased by Novo Nordisk): operational control The emissions are calculated using the GHG tool 'GHG emissions from transport or mobile sources' and based on reports from the leasing companies we use. The metric covers about 90 % of Novo Nordisk's total car fleet.	
Transportation & distribution of sold products	39900	In scope: - Intercontinental transport by air or sea - Road transport in Europe between NN production sites Not in scope: Domestic transport from NN production sites to customer or daughter companies are not include but are estimated to account for less than 1 % of total emission from product distribution. Data is reported to Novo Nordisk by the transportation companies.	
Business travel	48500	The figure includes CO2 emissions from air travel in 2009 and covers about 65 % of total business travel by flights. The emissions are estimated based on reports from the travel agents we use.	
Employee commuting and tele working	43000	Rough estimate based on 'Circle model for commuting' and no of employees per site, office or business unit.	
Transportation & distribution of inputs & waste generated in operations	24000	Transport of raw materials - only direct spends: Rough estimate calculated/extrapolated based on financial factors.	
Waste generated in operations	13000	Waste and waste water treatment: CO2 impact from incineration and special treatment of waste water (also incineration). Recycle and e-waste not included. Rough estimate.	
Use and disposal of sold products at the end of their life		Life-Cycle-Analysis on Novo Nordisk's FlexPen®	Novo Nordisk does not produce pulmonary insulin and our devices are purely mechanic and do not consume energy when used. Generally product use and disposal accounts for only minor part of our

Sources of Scope 3 emissions	Metric tonnes of CO2-e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
			<p>carbon footprint. To exemplify we have made a Life-Cycle-Analysis on Novo Nordisk's FlexPen® - FlexPen® is a prefilled, single-use insulin injection system. The LCA concluded that the energy consumption when using one FlexPen® per week for a year corresponds to driving less than 45 km (EU)/ 80 km (Japan)/ 45 miles (US) in a family car. Or in crude terms the environmental impacts from a FlexPen® are similar to those of a music CD – without its box. Fore more details see the attached Environmental Product Declarations for FlexPen®.</p>

Further Information

In November 2009, executive management approved extending the scope of Novo Nordisk's climate action programme to include emissions from transportation throughout global operations. Building on the success of the 1st generation strategy, we are currently framing a 2nd generation strategy. The 2nd generation strategy will embrace executive management's decision to expand the scope of the climate strategy to include emissions from company cars, product distribution and business travel.

Company cars:

As company cars account for 45 % of the CO₂-emissions from transportation our car fleet is the obvious place to start. In 2010 we are conducting a pilot project on reduction of emissions from the car fleet. The pilot affiliates will have to calculate their 2009 baseline and agree on an action plan to reduce emissions from the car fleet over a period of five years.

Product distribution:

Novo Nordisk is focusing on increasing the share of finished products being shipped by ship as opposed to air freight. Shifting from air to ship saves a factor 95 per pallet in CO₂ emissions. In addition it is cheaper and better quality to ship our products by sea.

Business travel:

A pilot project has been conducted to implement telepresence between Copenhagen, Zurich, Princeton, Tokyo and Beijing in order to find alternative solutions to business flights. Currently, the project is on hold due to pending technical challenges that need to be resolved before the project can proceed.

In addition, the 2nd generation strategy should address emissions from offices globally, cooling agents releases, commuting, supply chain, product design and product disposal which are either within our direct control and/or significant in terms of size of emissions and/or significant from a stakeholder perspective.

Attachments

LCA FlexPen®

Page: Emissions 7

16.1

Does the use of your goods and/or services enable GHG emissions to be avoided by a third party?

No

¿

Is question 17.1 relevant to your company?

Yes

17.1

Please provide your total carbon dioxide emissions in metric tonnes CO₂ from the combustion of biologically sequestered carbon i.e. carbon dioxide emissions from burning biomass/biofuels.

0

Further Information

There is no direct effect in terms of reducing emissions by third party and their use of Novo Nordisk's products and services. However, there is a potential to reduce GHG emissions through communicating the close link there is between preventing the lifestyle disease diabetes type 2 and mitigating climate change. By promoting healthy food (more vegetables, less red meat) and physical activity (less driving in cars) we can reduce emissions and improve public health.

At the site in Montes Claros, Brazil, Novo Nordisk is using biomass from Eucalyptus trees, certified by the Brazilian authorities. In 2008, Novo Nordisk used 4,332 tons wood for the steam production as an alternative to heavy fuel oil. The eucalyptus comes from plantations replanted with a rotation time of 8 years. Novo Nordisk considers this fuel CO2 neutral.

Attachments

18.1a

Please describe a financial intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

If you do not consider a financial intensity measurement to be relevant to your company, select "Not relevant" in column 5 and explain why in column 6.

Figure for Scope 1 and Scope 2 emissions	GHG units	Multiple of currency unit	Currency unit	Financial intensity metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
3.60	Metric tonnes CO2-e	Million	DKK	Revenue	<p>The financial intensity metric stated in column 1 is tonnes of CO2-e emissions per sales in DKK.</p> <p>The Scope 1 and 2 emissions (184202 metric tonnes CO2-e) are as reported in 12.1 and 13.1 - without the reduction in CO2 emissions from the green electricity purchased in DK. And without CO2-e from CH4, N2O and cooling agents.</p> <p>The sales number used for the calculation can be found on page 14 of Novo Nordisk's Annual Report 2009 and are covered by the financial audit statement and the non-financial assurance statement.</p>

18.1b

Please describe an activity-related intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

Oil and gas sector companies are also asked to report activity-related intensity metrics in answer to table O&G1.3.

If you do not consider an activity-related intensity measurement to be relevant to your company, select "Not relevant" in column 3 and explain why in column 4.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
6.28	Metric tonnes CO2-e	per full-time equivalent employee	<p>The activity-related intensity metric stated in column 1 is tonnes of CO2-e emissions per employee.</p> <p>The Scope 1 and 2 emissions (184202 metric tonnes CO2-e) are as reported in 12.1 and 13.1 - without the reduction in CO2 emissions from the green electricity purchased in DK. And without CO2-e from CH4, N2O and cooling agents.</p> <p>The number of employees used for the calculation can be found on page 15 of Novo Nordisk's Annual Report 2009 and are covered by the financial audit statement and the non-financial assurance statement.</p>

19.1

Do the absolute emissions (Scope 1 and Scope 2 combined) for the reporting year vary significantly compared to the previous year?

Yes

19.2

Please explain why they have varied and why the variation is significant.

The reported emissions were reduced from 214727 metric tonnes in 2008 to 184202 metric tonnes in 2009. The decrease was mainly due to process optimization in our insulin bulk production in DK, but the energy saving programme also contributed with significant reduction in CO2 emissions. The future reduction in CO2 emissions coming from energy saving projects implemented in 2009 will result in annual CO2 reductions of 8018 metric tonnes.

20.1A

Please complete the following table indicating the percentage of reported emissions that have been verified/assured and attach the relevant statement.

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
More than 80% but less than or equal to 100%	More than 80% but less than or equal to 100%	Not verified

20.1B

I have attached an external verification statement that covers the following scopes:

Scope 1
Scope 2

Further Information

The total scope 1 and scope 2 emissions reported are covered by both the assurance statement by PricewaterhouseCoopers in Novo Nordisk's Annual Report 2009 (page 107) and the methodology is confirmed by third party (Ecofys) in the WWF Climate Saver Report – see attachments.

PricewaterhouseCooper's work is undertaken to perform an evaluation of the non-financial reporting against the principles of materiality, completeness and responsiveness of the AA1000AS (2003). Moreover, they plan and perform their work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 'Assurance Engagements other than Audits or Review of Historical Financial Information' to obtain limited assurance that the non-financial reporting is free of material misstatements and that the information has been presented in accordance with the non-financial accounting policies. The work performed by PricewaterhouseCoopers secures a limited assurance that the Nonfinancial Reporting is free of material misstatements and that the information has been presented in accordance with the non-financial accounting policies.

In 2008, Novo Nordisk embarked on a 'Sarbox-light' process, where the non-financial reporting will be aligned with the Sarbox-control environment for Novo Nordisk's financial reporting. Novo Nordisk is listed on the NYSE and is therefore required to follow Sarboannes-Oxley. Our aspiration is that the assurance statement given on the non-financial reporting in Novo Nordisk's Annual Report 2010 will be with a reasonable level of assurance.

Attachments

Verification statement Novo Nordisk Annual Report 2009
Verification statement WWF Climate Saver Report 2010

Page: Emissions 9 Trading

21.1

Do you participate in any emission trading schemes?

Yes

21.2

Please complete the following table for each of the emission trading schemes in which you participate.

Scheme name	Period for which data is supplied.	Allowances allocated	Allowances purchased	Verified emissions - number	Verified emissions - units	Details of ownership
European Union ETS	Thu 01 Jan 2009 - Thu 31 Dec 2009	19655	0	14565	Metric tonnes CO2	Facilities we own and operate

21.3

What is your strategy for complying with the schemes in which you participate or anticipate participating?

Through our Climate Strategy Action Programme (LEAN and energy saving programme) we are striving to reduce energy consumption at the two locations covered by the EU-ETS Scheme. Our allocation is close to the actual emissions so far.

21.4

Has your company originated any project-based carbon credits or purchased any within the reporting period?

No

Further Information

The Danish legislation requires us to register quotas also for our production plant in Kalundborg, Denmark which uses heat and steam from the local combined heat and power plant. In 2009 we have transferred the surplus from the two Danish sites (Hillerød and Bagsværd) directly covered by EU-ETS to the Kalundborg quotas account. Totally we needed 6728 quotas. 6354 quotas were transferred from Hillerød and Bagsværd. Thus in 2009 we had a deficit of 374 Quotas (purchased in 2008).

Attachments

Module: Climate Change Communications

Page: Communications 1

22.1

Have you published information about your company's response to climate change/GHG emissions in other places than in your CDP response?

Yes

22.2

In your Annual Reports or other mainstream filing? (If so, please attach your latest publication(s).)

Yes

22.3

Through voluntary communications such as CSR reports? (If so, please attach your latest publication(s).)

Yes

Further Information

Novo Nordisk annual report 2009:
Novo Nordisk discloses total CO2 emissions and a graph on CO2 emissions per sales in the Annual Report – both print and online. The Novo Nordisk climate strategy has been covered in both the management section and feature articles in all Annual Reports since 2005. The articles have described Novo Nordisk's climate activities from various angles and included communication of progress in achieving CO2 reductions through energy savings. The full Novo Nordisk's Annual Report 2009 (climate performance reported on inside flap and pp 11, 15, 35-36, 89 and 93) is attached. The on-line report can be accessed through annualreport2009.novonordisk.com. For supporting information in the online universe click:

annualreport2009.novonordisk.com/environment.aspx

WWF climate saver report:

Novo Nordisk submits an annual report to WWF as a Climate Saver. This report includes information on progress towards the target. The report including an Independent Assurance Statement is attached.

Website communication:

In May, 2009, Novo Nordisk added a special section on climate action to our global website communicating our position, targets and performance. See:

novonordisk.com/sustainability/default.asp

Attachments

Novo Nordisk Annual Report 2009
WWF Climate Savers Report 2010

[https://www.cdproject.net/Sites/2010/20/13520/Investor CDP 2010/Shared Documents/Attachments/InvestorCDP2010/Communications/Novo-Nordisk-AR-2009-en.pdf](https://www.cdproject.net/Sites/2010/20/13520/Investor%20CDP%202010/Shared%20Documents/Attachments/InvestorCDP2010/Communications/Novo-Nordisk-AR-2009-en.pdf)

Carbon Disclosure Programme