

Greenhouse Gas Emissions Questionnaire

31st May 2006

1. General: How does climate change represent commercial risks and/or opportunities for your company?

According to generally accepted information, climate change poses a variety of potential risks.

Change in ecological balance and in weather patterns may possibly result in shortages in agricultural raw materials, shortages in water, floods, cyclones, ..., which may disrupt the supply chain, including means of transport.

Cost of natural resources and energy may increase dramatically.

Availability and reliability of both electricity and natural gas may be jeopardised.

Moreover, climate change may affect local communities and food consumption habits.

2. Regulation: What are the financial and strategic impacts on your company of existing regulation of GHG emissions, and what do you estimate to be the impact of proposed future regulation?

Food industry is not a significant emitter of greenhouse gases in comparison to other industrial sectors such as power plants, metal, cement,...

As stated in *The Nestlé Policy on the Environment*, Nestlé complies with applicable environmental legislation.

The major existing regulation focusing on GHG emissions is the Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

Nestlé works with authorities and consultants to assist the installations included in the EU-ETS in each Member State in order to ensure compliance with legislation.

Nestlé's first priority is to continue to improve its energy efficiency worldwide throughout its activities (manufacturing, logistics, administration) which results in a continuous reduction of greenhouse gas emissions. In addition, fuel shift, e.g. from coal to gas, further reduces greenhouse gas emissions.

As a result, Nestlé has been so far a net seller of GHG emission allowances in the European Union.

However, as the energy sector is one of the largest sources of CO₂ emissions, energy prices increase as utility companies try to pass on their increased compliance costs. Another non negligible impact is the administrative burden of participation in emission trading.

Nestlé factories in developing countries present a significant opportunity to invest in clean development projects (combustion plant fuel switching, co-generation plants, new process technologies, etc) which will generate tradable emission allowances that can be sold to improve capital investment payback.

Nestlé closely monitors legal development and ISO work in the area of greenhouse gas emissions and periodically update its cost / benefit analysis, in order to be able to minimise the financial impact of the EU-ETS, e.g. through CDM and JI projects.

3. Physical risks: How are your operations affected by extreme weather events, changes in weather patterns, rising temperatures, sea level rise and other related phenomena both now and in the future?

What actions are you taking to adapt to these risks, and what are the associated financial implications?

As already mentioned in § 1., extreme weather events, changes in weather patterns, rising temperatures, sea level rise and other related phenomena may possibly result in shortages in agricultural raw materials and freshwater, which may disrupt the supply chain, including means of transport.

Cost of natural resources and energy may increase dramatically in certain regions.

Availability and reliability of both electricity and natural gas may be jeopardised locally.

Moreover, climate change may affect local communities and food consumption habits.

Nestlé carefully investigates possible impacts on its activities of such changes on a case by case basis when conducting risk assessment and/or claims related investigations. In addition, Nestlé has developed an exposure related data base where floods and other natural hazards exposures are documented and continuously updated.

4. Innovation: What technologies, products, processes or services has your company developed, or is developing, in response to climate change?

The main gases that contribute to global warming in Nestlé operations are carbon dioxide (CO₂) and a small quantity of refrigeration gases.

Nestlé's success in reducing greenhouse gas emissions has been the result of:

- focused efforts on energy reduction,
- fuel replacement initiatives,
- co-generation activities,
- the phase-out of ozone depleting substances.

The CO₂ emissions from Nestlé manufacturing operations were reduced by more than 12% since the start of the negotiations leading to the 'Kyoto Protocol' in 1997. During this period, Nestlé production volumes increased by more than 55%.

Nestlé is committed to realizing further savings in energy consumption and has set internal targets for continuous improvement. This will result in further reduction of CO₂ emissions.

This was also achieved through the gradual replacement of coal or oil-fired boilers by cleaner gas-fired boilers. As an additional result, the air acidification potential of sulfur oxide equivalents (SO_x) reduced substantially by 40% since 1998.

A particular highlight was the commissioning of a state-of-the-art co-generation plant at our Himeji Nescafé factory in Japan. This installation has won several prestigious awards due to its extremely high energy efficiency of 92% and the significant reduction of CO₂ emissions by 32 000 tonnes, equivalent to the amount discharged by 6 700 households.

Another milestone was the conversion of our Nescafé and Milo factory in Graneros (Chile) to natural gas. This project was accepted as one of the first examples under the Kyoto Protocol for establishing a methodology to generate tradable "emission credits" in a developing country. The emission rights were subsequently sold to a Japanese power generator.

Besides, Nestlé is now extending his long experience in natural refrigerants for industrial applications to smaller, commercial refrigeration units and has started building and testing ice cream freezers with CO₂ refrigeration systems. This natural substance fulfils most requirements expected from a modern refrigerant, and, unlike currently available solutions such as HFCs or HCFCs, it has a negligible impact on the environment and is inherently safe even under the most extreme conditions.

Reducing the environmental impact of transport is of high importance to Nestlé. Nestlé initiated a pilot with Schenker, one of the leading international integrated logistics companies, to determine the environmental impact per unit of product delivered in one of their European land transport networks. The results of this study showed that transport generated on average some 15 kg of CO₂ emissions per tonne of product delivered. This represents about 10% of CO₂ generated during the manufacturing process and is equivalent to emissions released by a standard passenger car travelling for 100 kilometres. Actions have been defined to reduce the transport-related environmental impact by giving further consideration to types of vehicle used, distances driven, fuel type used, loading degrees, etc.

Other examples of Nestlé environmental achievements are available on www.environment.nestle.com.

5. Responsibility: Who at board level has specific responsibility for climate change related issues and who manages your company's climate change strategies? How do you communicate the risks and opportunities from GHG emissions and climate change in your annual report and other communications channels?

Mr. W. Bauer, Nestlé Executive Vice-President, Technical, Production, Environment, Research and Development, is in charge of climate change related issues.

Nestlé Environmental Officers at national level and at the international head-office are in charge of managing climate change related issues. Their compensation is linked to attainment of energy savings, thus of GHG reduction targets.

Information on Nestlé environmental policy, performance and activities, including these related to GHG emissions, are available in the annual Nestlé Management Report as well as on Nestlé internet site (www.environment.nestle.com).

6. Emissions: What is the quantity in tonnes CO₂e of annual emissions of the six main GHG's produced by your owned and controlled facilities in the following areas, listing data by country?

- **Globally:** 4.31 million tonnes CO₂e in 2005,

- **Annex B countries of the Kyoto Protocol :** 2.22 million tonnes CO₂e in 2005,
(1.47 million tonnes CO₂e in 2005 excluding Australia and USA)

- **EU Emissions Trading Scheme:** 0.45 million tonnes CO₂e in 2005 (verified)

To assist in comparing responses please state which methodology you are using for calculating emissions and the boundaries selected for emissions reporting.

At Nestlé, manufacturing is a very important part of the supply chain. In nearly 500 factories around the world, perishable raw materials are transformed into safe, convenient, high quality food products.

Air emissions are sometimes generated from the manufacturing process, for example from cooking operations or energy production. In Nestlé factories, the objective is to maximise eco-efficiency, i.e. to maximise the production of goods, while at the same time, minimising consumption of resources and reducing waste and emissions.

To measure progress towards its eco-efficiency objective, Nestlé performs periodical factory environmental surveys, a systematic, comprehensive and uniform approach for assessing the environmental performance of its factories.

In the past, many individual Nestlé factories had used different methods to track environmental performance. To consolidate data, to benchmark best practices and to allow internal and external reporting, a system was established that defines standardised environmental performance indicators (EPIs) across Nestlé. In 1997, all manufacturing sites were required to report their performance results annually and consolidation of EPIs began on a Group wide basis. Because of

the significant difference in products, the pharmaceutical group, Alcon, was not included at this stage.

The consolidated Group EPIs cover manufacturing operations and include greenhouse gases emissions. Greenhouse gases have been defined as the sum of all on-site emissions of CO₂ - the main greenhouse gas - from combustion processes used to manufacture Nestlé products. These CO₂ emissions can result from burning of fuels in boilers, roasters, dryers and electric generators.

Please standardise your response data to be consistent with the accounting approach employed by the GHG Protocol (www.ghgprotocol.org). Please list GHG Protocol scope 1, 2 and 3 emissions equivalent showing full details of the sources.

Nestlé currently only capture direct GHG emissions (Scope 1). Our data capture processes are currently being revised to capture electricity indirect GHG emissions (Scope 2) and will be expanded in time to capture other indirect GHG emissions (Scope 3).

How has this data been audited and/or externally verified?

Nestlé environmental performance indicators have been validated by an independent verification company. Intertek CSeR Group was selected by Nestlé to provide an independent verification of the effectiveness of the systems and processes employed to generate and report Nestlé 2005 environmental performance indicators. The Independent Assurance Statement, available at www.environment.nestle.com, confirms that the information presented and the data collection system used by Nestlé appear to be reliable and the underlying trends are substantially correct.

7. *Products and services: What are your estimated emissions in tonnes CO₂e associated with the following areas and please explain the calculation methodology employed.*

- Use and disposal of your products and services? Consumption of food products does not generate CO₂ emissions directly. Food products are generally entirely consumed and only product packaging remains after consumption.

Nestlé is firmly committed to continue progress in finding packaging solutions that will contribute to a better environment.

Reducing the amount of packaging material needed for a product, while safeguarding safety and quality, is a continuing key objective and priority for Nestlé. Packaging material savings from 1991 to 2005 amounted to 284 000 tonnes and CHF 520 million. These savings have enabled to reduce emissions at the packaging disposal stage.

In addition to packaging source reduction, Nestlé supports industrial and government efforts to promote integrated waste management, optimising resource conservation and limiting the amount of waste material that goes to landfills. It provides a practical and sustainable system that integrates waste streams, collection and treatment methods, environmental benefits and economic optimisation. Reuse, recycling, composting, energy recovery and landfilling are part of integrated waste management.

- Your supply chain? At every step along the supply chain, Nestlé addresses environmental aspects. Comprehensive environmental surveys of Nestlé distribution sites and transportation activities have been conducted throughout the world. As mentioned in § 4, Nestlé initiated a pilot with Schenker, one of the leading international integrated logistics companies, to determine the environmental impact per unit of product delivered in one of their European land transport networks. The results of this study showed that transport generated on average some 15 kg of CO₂ emissions per tonne of product delivered. This represents about 10% of CO₂ generated during the manufacturing process and is equivalent to emissions released by a standard passenger car travelling for 100 kilometres. Guidelines for reducing the environmental impact of supply chain are in place and regularly updated. For example, practical information is provided on reducing energy consumption, thus emissions, in warehouses through use and maintenance of appropriate insulation and through better operating practices.

Further information, including examples of Nestlé environmental achievements in distribution activities, is available at www.environment.nestle.com

We also encourage our agricultural raw material suppliers to optimise their energy usage, as part of sustainable agriculture practices. It should be noted that agricultural raw materials used to manufacture food products absorb CO₂ during their growth.

8. Emissions reduction: What is your firm's current emissions reduction strategy? How much investment have you committed to its implementation, what are the costs/profits, what are your emissions reduction targets and time-frames to achieve them?

NEMS, the Nestlé Environmental Management System implemented about 10 years ago and fully aligned with ISO 14001 specifies that each operation establishes annual environmental objectives and targets based on *The Nestlé Policy on the Environment* and local objectives. Results are consolidated globally and reported publicly each year.

We measure and publish emissions intensity against production, in kg CO₂e / tonne of product :

<u>Year</u>	<u>1998</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
Intensity	212	191	178	155	142	133	118

The reduction of emissions intensity by 44.1% since 1998 confirms the effectiveness of our emissions reduction strategy.

Continuation of current energy management programmes and continuous improvement programmes should enable to further reduce emissions per tonne of product. Higher reduction levels per tonne of product should result from implementation of new technologies, once available, and further optimisation of supply chain.

Further information on NEMS is available at www.environment.nestle.com.

9. Emissions trading: What is your firm's strategy for, and expected cost/profit from trading in the EU Emissions Trading Scheme, CDM/JI projects and other trading systems, where relevant?

As previously mentioned in § 2, food industry is not a significant emitter of greenhouse gases in comparison to other industrial sectors such as power plants, metal, cement,...

Nestlé's first priority is to continue to improve its energy efficiency worldwide throughout its activities (manufacturing, logistics, administration) which results in a continuous reduction of greenhouse gas emissions. For instance, although USA and Australia have not ratified the Kyoto Protocol, Nestlé factories in both countries are expected to realize greenhouse gas reductions, through the Nestlé corporate energy savings targets.

Nestlé works with authorities and consultants to assist the installations included in the EU-ETS in each Member State in order to ensure compliance with legislation.

Nestlé factories in developing countries present a significant opportunity to invest in clean development projects (combustion plant fuel switching, co-generation plants, new process technologies, etc) which will generate tradable emission allowances that can be sold to improve capital investment payback.

Nestlé closely monitors legal development and ISO work in the area of greenhouse gas emissions and periodically update its cost / benefit analysis, in order to be able to minimise the cost impact of the EU-ETS, e.g. through CDM and JI projects.

10. Energy costs: What are the total costs of your energy consumption, e.g. fossil fuels and electric power? Please quantify the potential impact on profitability from changes in energy prices and consumption. Confidential