CREATING SHARED VALUE REPORT

The Healthy Hydration Company™
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A MESSAGE FROM
NESTLÉ’S CEO

About Creating Shared Value

Creating Shared Value is the basic way Nestlé does business – by leveraging core activities and partnerships to simultaneously create value for shareholders as well as for society. We believe that long-term success is assured if value is jointly created by the company and the community, and where a strong partnership built on trust can be nurtured.

Our Creating Shared Value strategy is built over and above our compliance with national laws, relevant international standards and our own Corporate Business Principles, as well as other internal policies such as the Nestlé Policy on Environmental Sustainability, which applies a product life-cycle approach from farm to consumer in order to minimise the environmental impact of our operations.

Given the nature of our business, we have determined that the areas with the greatest potential for joint value optimisation with society are nutrition, water and rural development, as these are core to our activities and vital to the welfare of the people in the countries where we operate.

This document, an extension of Nestlé’s Creating Shared Value Report, aims to describe how the Creating Shared Value approach is integrated across Nestlé Waters – the bottled water division of our Group – which represents nearly 10% of our sales.

Access to water in terms of quantity and quality is critical to life, and is becoming increasingly problematic every day. Rational use of water is an absolute priority for Nestlé, because water is essential to every stage in our value chain.

At Nestlé Waters, we have made commitments that we believe will enable us to maximise value for both shareholders and society. These include:

▪ Providing healthy and safe products to cover consumers’ hydration needs
▪ Managing water resources for long-term sustainability
▪ Continuously optimising our environmental performance with a focus on packaging and recycling
▪ Promoting hydration science and awareness from medical communities to the general public
▪ Developing water care behaviours, with a focus on child education
▪ Contributing to the environmental, social and economic development of the communities where we operate

We are working in collaboration with a number of stakeholders and support a range of projects and initiatives to achieve these commitments. We hope that you find this report useful and we welcome your feedback on how Nestlé Waters could even better embed the Creating Shared Value concept in its operations to improve its business as well as its contribution to society.

Paul Bulcke
Chief Executive Officer
– Nestlé SA
A MESSAGE FROM
NESTLÉ WATERS’ CEO

About the societal contribution of bottled water

Water is life. This well-known saying is particularly true when applied to drinking. It is our belief that while drinking 1.5 litres per day is a physiological necessity, the quality of what we drink has an important role to play in dealing with our health.

Having access to water in sufficient quantity and quality is indispensable for economic and social development. This is particularly true when applied to our industry. Since the 19th century our entire business has been based on sustainable water management. Nestlé Waters has acquired unique expertise in monitoring and preserving the precious resources in its care. The protection measures applied in collaboration with the local communities surrounding these sources have proved themselves over time.

At Nestlé Waters we utilise all of our expertise to make sure that we bring consumers the very best of water. This commitment would be inconceivable without bottles, which act as a barrier, guaranteeing that the water is protected and untouched until it reaches the consumer’s hands. Once bottled and sealed, the water is perfectly stable and preserved.

However, their production, transport and end-of-life have a direct impact on our company’s ecological footprint. It is our responsibility to become more efficient with every passing year: to reduce the weight of packaging, to use less water and energy, to constantly reduce our carbon emissions and waste, and to encourage recycling. Nestlé Waters is determined to always bring you the very best water at the lowest cost to our planet.

Because these requirements are the cornerstones of our sustained leadership in the long run, I am more than convinced that the development of our economic activities intrinsically drives progress in health, environmental and social matters.

This report is intended to show in a transparent manner how our company is reacting to the challenges it faces. This is also an opportunity for further development of an open dialogue with all stakeholders about the practical measures taken by Nestlé Waters’ employees to reinforce our position as a company committed to creating shared value.

John J. Harris
Chief Executive Officer
– Nestlé Waters SA
The purpose of this report is to highlight how Nestlé Waters is contributing to Nestlé’s overall Creating Shared Value strategy. Creating Shared Value is the foundation of how Nestlé is doing business. We believe that in order to create long-term value for shareholders, we must simultaneously create value for society. For more information on Creating Shared Value at Nestlé, please visit: http://www.nestle.com/CSV

Report boundaries

Our goal is to report in a rigorous, transparent and accessible format that enables stakeholders to understand our industry as well as our commitment to quality, environmental integrity and societal contribution. Production of content for the issues covered in this report was informed by the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines, including the indicator protocols. A full account of Nestlé SA compliance with these guidelines is presented in Nestlé’s most recent report, Nestlé Creating Shared Value and Rural Development Report 2010. This Nestlé Waters report is an extension of the Nestlé Creating Shared Value Report, and therefore has not been individually audited. However, the majority of the figures released herein are part of Nestlé’s cumulative reporting systems and are consolidated in the overall Nestlé Creating Shared Value indicators, which are duly verified and certified by independent external third parties.

This report provides an overview of our management systems, performance and engagements covering the period from 2005-2010. It thus enables trend assessment and provides evidence of improved performance. In a few cases where data were not yet consolidated when this report was published, actual 2009 figures will be indicated instead of 2010 projections. Furthermore, when figures were not available or sound enough over the entire period, we reduced the timescale of the reporting so as to provide the most recent reliable elements.

These data are based on information from our bottling operations only. As such, they do not include a recently acquired factory in Saudi Arabia that also provides industrial water services and water supply to the local municipal network. Additionally, these data do not include other tactical activities such as drinking water filtering devices sold in the United States.

The metric system is used throughout this report

1 litre = 0.2642 U.S. gallons = 33.8 ounces
1 kilometre = 0.6214 miles
1 cubic metre = 1.308 cubic yards
Stakeholder engagement

Stakeholders are those people or organisations that are directly or indirectly interacting with our operations and that may have an influence on our business development. This report provides evidence of our commitment to the effective management of those issues identified as relevant and material to our stakeholders. It demonstrates how we have performed and how we remain accountable to our wide-ranging stakeholders. Our key stakeholders and key audience include:

- **Our employees** – the core of the company and our most important asset
- **Our shareholders** – who have interests in reputational risk management, responsibility and returns
- **Our consumers** – our *raison d’être*, who buy and drink our products to cover their hydration needs
- **Our customers** – who are our primary business partners and are in direct contact with our consumers
- **Civil society organisations** – that contribute to our social licence to operate
- **Inter-governmental organisations** – that inform and regulate international best practice
- **Opinion formers, bloggers and academics** – that inform consumer and stakeholder decision-making
- **Media** – that influence demand for bottled water amongst consumers
- **Local communities** – that work and live in the vicinity of our operations
- **Government partners** – that provide a legal licence to operate and define water legislation

Launching of Project WET in Pakistan
1 THE LEADING HEALTHY HYDRATION COMPANY
1 THE LEADING HEALTHY HYDRATION COMPANY

1.1 Hydration at the heart of public health challenges
1.2 Global leader in the bottled water industry
1.3 Nestlé Waters’ brands and products
1.4 Creating Shared Value
1 THE LEADING HEALTHY HYDRATION COMPANY

1.1 Hydration at the heart of public health challenges

Hydration is one of very few primary needs for human beings and as such, is a core component of human health. Without adequate water intake, our bodies may become insufficiently hydrated. On average, a healthy sedentary adult living in a temperate climate should drink 1.5L a day to balance their water losses and keep her/his body properly hydrated. On top of being the major constituent of the human body and of all vital organs, water is indispensable for many key functions, such as cell life, chemical and metabolic reactions, the transport of nutrients, body temperature regulation, elimination of waste, joint lubrication and shock absorption. An adequate level of hydration is necessary to ensure normal functioning of the body.1

There are a wide variety of hydration options available, from drinking well water and tap water to the most sophisticated packaged beverages. Bottled water and Nestlé Waters products are one component of the total available hydration options that are offered to consumers around the world. However, healthy hydration goes beyond a question of adequate quantitative intake. At Nestlé Waters, we believe what you drink is as important as what you eat.

Access to safe drinking water is a major health challenge worldwide, especially in developing countries. Nestlé Waters recognises the right of all people to have access to clean water to meet their daily hydration needs. Providing access to safe drinking water is first the responsibility of the public authorities. In the absence of good governance and/or public funding capacity, development programmes may intervene, often led by United Nations-affiliated organisations. Bottled water is obviously not a global solution to face this critical challenge, nor does it provide an affordable solution to those living below the poverty line. However, bottled water can offer a safe hydration option to an increasing range of consumers. Since 1998, we have developed the NESTLÉ PURE LIFE business model aimed at making high quality drinking water affordable to a wider audience, especially to the rising middle-class in the emerging world (see page 70-71).

Among public health issues, obesity and type 2 diabetes are soaring. The World Health Organization’s (WHO) projections indicate that by 2015 approximately 2.3 billion adults will be overweight and more than 700 million will be obese. A recently released survey by the Brookings Institution (2010) estimates that the direct and indirect social impacts of obesity amounts to US$215 billion a year in the United States alone. The WHO estimates that the number of type 2 diabetes cases will increase by 50% in 2015 as compared to 2005. Moreover, type 2 diabetes, which used to be diagnosed in middle-aged individuals a few decades ago, is now reaching the paediatric population. Though there are a variety of factors that lead to obesity and type 2 diabetes, the trend is highly correlated to an increase in calorie intake, especially from added sugars.

At the individual level, people can take part in physical activities and adopt good eating habits. Among them, reducing the intake of added sugars from what we eat and drink is highly recommended. The recommendation of the American Heart Association is that the daily intake of added sugars shouldn’t represent more than 100 calories for a woman and 150 calories for a man. As water does not contribute any calories from sugar to our bodies, water should be considered as the primary source of hydration. Drinking water is a simple solution to manage daily calorie intake.

With respect to these primary public health challenges, we firmly believe our products constitute the company’s very first societal contribution. Since our 19th century origins, our company has built its reputation on a vibrant thermal heritage, where people came to the spa to take advantage of the water. Some of our natural mineral waters, which have existed for decades, are still recognised by the medical community for their health benefits in relation to their consistent mineral composition. Because quality remains the foundation of everything we do at Nestlé Waters, our bottles continuously provide safe and healthy options to cover consumer’s hydration needs, wherever they are.

1.2 Global leader in the bottled water industry

Key statistics (end 2010)

- Operating countries: 36
- Number of factories: 102
- Number of brands: 67
- Total exported (in % of total volumes): 5%
- Number of employees: 31,602

Figure 1
Volume production evolution 2005-2010
Total Nestlé Waters (in millions of litres)
Global leadership

Nestlé Waters is the bottled water division of Nestlé. It is 100% owned by Nestlé and accounts for approximately 10% of the group’s global sales. In 2010, Nestlé Waters operated in 36 countries with 102 factories and more than 30,000 employees.

With 24.9 billion litres sold in 2010 (26% more than 2005) (Figure 1), Nestlé Waters is the worldwide leader in the bottled water market, representing about 10.5% of the global market in volume.

In 2010, North America (the United States and Canada) accounted for a little less than half of the total volume sold. The influence of mature European markets (with the highest per capita consumption) has reduced over the past five years, and the region now represents less than 30% of sales. During this same period, our business in emerging countries has grown quickly and continuously to reach nearly 25% of company sales (Figure 2).
1.3 Nestlé Waters’ brands and products

Our business is driven by consumer demand. Wherever we operate, we track consumption trends and adapt our products and services to meet local consumer expectations. Nestlé Waters is present in most distribution channels, including traditional retail, modern trade, out-of-home, restaurants, and offices, and consequently offers a wide range of packaging options.

Whilst the vast majority of our sales (98.5%) are made up of plain water (still or sparkling), we are also tactically engaged in the flavoured water market in some countries and to a marginal degree in fruit juices, non-alcoholic appetizers and soft drinks. Nestlé Waters had 67 commercial brands at the end of 2010, organised into three main families (Figure 3):

- **59 local brands**, combining natural and/or selective origin with strong reputation in their respective domestic markets;
- **5 premium brands** with international range: PERRIER and S. PELLEGRINO (global presence), VITTEL, AQUA PANNA and CONTREX; and
- **3 Nestlé brands** (NESTLÉ PURE LIFE, NESTLÉ AQUAREL, NESTLÉ VERA), a multi-source model to provide safe and affordable drinking water adapted to local preferences.

Five of our brands are ranked amongst the world’s top 10 selling brands worldwide by value: NESTLÉ PURE LIFE, POLAND SPRING (local United States), ARROWHEAD (local United States), S. PELLEGRINO and PERRIER.

A full list of all brands is available at [www.nestle-waters.com](http://www.nestle-waters.com)
Portfolio according to Codex Alimentarius

There are three different types of plain water depending on their intrinsic characteristics (origin, consistency, composition, protection, and treatment). The Codex Alimentarius defines these categories for packaged water suitable for human consumption. The percentage of Nestlé Waters production based on the water Codex is shown in Figure 4.

Natural mineral water

Natural mineral water accounts for the majority of our bottled water sales in Europe, where consumers demand “pure”, “untouched” water. Natural mineral water also constitutes a significant share of our local brands in emerging markets. Natural mineral water is defined as water that is:
- obtained directly from underground sources protected from pollution risks
- characterised by its content of certain mineral salts and their relative proportions
- guarantees constancy of its composition and the stability of its flow
- collected under conditions which guarantee the original microbiological purity and chemical composition
- packaged close to the point of emergence of the source
- cannot be subjected to any treatment (except for limited ones such as carbonation, iron or manganese removal)
- may claim medicinal effects

Water defined by origin

Water defined by origin is the leading product type for our United States local brands, as well as the majority of our local brands outside Europe. Waters defined by origin – often called “spring water” – are waters that:
- come from a specific underground (or sometimes surface) source
- have not passed through a community water system
- are protected within set vulnerability perimeters to avoid pollution and contamination
- are consistently fit for human consumption at the source and kept in that state until bottled
- are not subject to any modification or treatment other than those permitted by this standard

Prepared water

Prepared water is the standard for emerging countries where purity of water means above all, safety. Depending on local legislation, the label would identify the water as “purified water” or “drinking water”. Prepared waters may:
- originate from any type of water supply (including municipal water)
- be subjected to any treatment that modifies the original water in order to comply with chemical, microbiological and radiological safety requirements for pre-packaged waters

3 The Codex Alimentarius Commission was created in 1963 by the Food and Agriculture Organization (FAO) and WHO to develop food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Programme. The main purposes of this Programme are protecting the health of consumers, ensuring fair trade practices in the food trade, and promoting the coordination of all food standards work undertaken by international governmental and non-governmental organisations. [http://www.codexalimentarius.net](http://www.codexalimentarius.net)
1.4 Creating Shared Value

In a world undergoing profound and rapid change, the development of mankind, social progress and the future of our planet all depend on our collective capacity to meet the great challenges of our era. While the creation of value for shareholders remains the raison d’être of every company, it has become increasingly obvious that this goal cannot be achieved in the long term by ignoring the major issues of our times.

Being a leader means behaving in a responsible manner so that our activity is not dissociated from our capacity to create value for society at the same time. That is what we call Creating Shared Value (Figure 5).

The Creating Shared Value model comprises the framework of this report, which is presented as follows:

- **Section 2 – Quality is our foundation** (page 16). Creating Shared Value is founded on compliance with national laws and relevant conventions, as well as our own regulations. Compliance is primarily encapsulated in our Nestlé Corporate Business Principles and its related policies. By extension, compliance constitutes the company’s overall quality assurance on which we base our mission: to be recognised as the leading healthy hydration company by all of our stakeholders.

- **Section 3 – Managing our water resources** (page 30). Our operations rely entirely on access to renewable water sources in sufficient quantity and quality. Sustainable water resource management is not only a crucial prerequisite for our business, but is also a core condition of our social licence to operate.

- **Section 4 – Optimising our environmental performance** (page 44). This section covers our commitments and achievements in the minimisation of the environmental impacts of our operations. Over the past few years, civil society has raised concerns about the environmental impact of the bottled water industry. This section addresses these concerns through a detailed, realistic and practical assessment of our performance, including areas where improvements are needed and work is in progress.

- **Section 5 – Creating Shared Value** (page 66). Beyond compliance and sustainability, Nestlé examined its value chain and determined that Nutrition, Water and Rural Development are the three areas of greatest potential to further enhance our contribution to society. At Nestlé Waters we have specified how our company can contribute to these three core societal challenges, based on our business specificities:

  Nutrition → Healthy hydration
  Water → Water care
  Rural development → Community development
2 QUALITY IS OUR FOUNDATION
2 QUALITY IS OUR FOUNDATION

2.1 Business conduct
2.2 Product quality assurance
2.3 Product quality across the value chain
Nestlé has always been widely recognised as a quality-driven company, and so is Nestlé Waters. Three ultimate objectives are constantly guiding and inspiring our company’s quality policy and practices:

- **Excel in compliance**
  This is our very foundation and is essential in order to be fully trusted by all of our stakeholders. It includes not only complying with established internal values, policies, standards, guidelines, specifications and practices, but also being in full conformity with relevant international or local laws, regulation and standards.

- **Deliver competitive advantage**
  This ensures we have the best offer on the shelf. We will continue to identify improvement opportunities in everything we do, so we can guarantee the availability of high quality products and services at a competitive price.

- **Delight our consumers**
  This approach is at the heart of everything we do at Nestlé Waters. Our goal is to constantly strive to understand their needs, and what our consumers really value. We can then make products that satisfy their expectations. It is essential that we serve our consumers and customers in the best possible way, and achieve ultimate consumer satisfaction.

These objectives are encapsulated in Nestlé Continuous Excellence (NCE), a group-wide initiative providing a set of common practices. It aims to further develop operational efficiency and leverage new behaviour, thinking and skills within the entire organisation, in order to create value for consumers and customers as well as other stakeholders.

Achieving these goals goes beyond guaranteeing safe and healthy products. It starts with sound and inalienable business principles, which act as a core determinant of our Group’s culture and way of conducting business.
2.1 Business conduct

Nestlé business practices are governed by integrity, honesty, fair dealing and full compliance with all applicable laws and regulations. The Nestlé Corporate Business Principles are at the foundation of our business practices. Each of these 10 principles is supported by policies to enable implementation, and their application by all employees is monitored and regularly audited. Our principles are presented in Table 1, along with the location within the report describing how each principle is addressed as measured results and case studies.

http://www.nestle.com/Investors/CorporateGovernance

<table>
<thead>
<tr>
<th>Business principle</th>
<th>Location in this report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers</td>
<td></td>
</tr>
<tr>
<td>1 Nutrition, health and wellness</td>
<td>The leading healthy hydration company (page 8) and Healthy hydration (page 69)</td>
</tr>
<tr>
<td>2 Quality assurance and product safety</td>
<td>Quality is our foundation (page 18)</td>
</tr>
<tr>
<td>3 Consumer communication</td>
<td>Product quality assurance (page 22) and Healthy hydration (page 69)</td>
</tr>
<tr>
<td>Human rights and labour practices</td>
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</tr>
<tr>
<td>4 Human rights in our business activities</td>
<td>Covered in Nestlé Creating Shared Value Report 2010</td>
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<tr>
<td>Our people</td>
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</tr>
<tr>
<td>5 Leadership and personal responsibility</td>
<td>Covered in Nestlé Creating Shared Value Report 2010</td>
</tr>
<tr>
<td>6 Safety and health at work</td>
<td>Safety and health at work (page 21)</td>
</tr>
<tr>
<td>Suppliers and customers</td>
<td></td>
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<tr>
<td>7 Supplier and customer relations</td>
<td>Covered in Nestlé Creating Shared Value Report 2010</td>
</tr>
<tr>
<td>Agriculture and rural development</td>
<td>Water resource protection (page 36) and Community development (page 77)</td>
</tr>
<tr>
<td>The environment</td>
<td></td>
</tr>
<tr>
<td>9 Environmental sustainability</td>
<td>Optimising our environmental performance (page 44)</td>
</tr>
<tr>
<td>10 Water</td>
<td>Managing our water resources (page 30) and Water care (page 73)</td>
</tr>
</tbody>
</table>
Achieving higher standards

With an ever increasing choice of bottled beverages, it is crucial that consumers not only trust the products that they purchase, but also the way the producer behaves. Our commitment to quality is embedded throughout the entire organisation, including our employees, our operations and supply chain, as well as our support functions and our partners along our value chain.

The foundation of this commitment to quality is Nestlé Waters’ compliance with the Nestlé Quality Management System (NQMS), a process-based system to provide our customers and consumers with the highest quality standards and assurance (Figure 6). The NQMS promotes continuous improvement in quality responsibility across the value chain, including striving for zero defects and no waste, and compliance with international food safety and quality standards.

Third-party verification provides independent assurance that our quality standards for food, the environment, and health and safety conform to internationally recognised standards. We have certified our Nestlé systems to three different international standards: ISO 22000 for food safety management systems; ISO 14001 for environmental management; and OHSAS 18001 for occupational health and safety. A few of our most recent acquisitions were not yet certified when this report was released, as the Nestlé operating systems are currently being instilled and implemented. These factories will ultimately seek international certification. One hundred percent of new and acquired factories up to December 2010 are scheduled to be certified for these three standards by the end of 2011.

Figure 6

Nestlé Quality Policy

CONSUMER TRUST AND PREFERENCE
Consumer confidence and satisfaction in all our brands, products and services

ZERO-DEFECT, NO-WASTE ATTITUDE
We always strive for excellence and no-waste in everything we do

LEADING FOOD, NUTRITION, HEALTH AND WELLNESS COMPANY
We never compromise on food safety and always comply with all applicable regulatory requirements

EVERYBODY’S COMMITMENT
Quality is a Group-wide objective
Safety and health at work

Safety is one of Nestlé’s 10 Corporate Business Principles, establishing safety as a non-negotiable priority. High quality workplace conditions contribute not only to product quality, but also to employee safety and satisfaction. We are committed to preventing accidents, injuries and illness related to work, and to protecting employees, contractors and others in our value chain. We also understand that when an employee experiences an injury it is our responsibility to investigate to see how we can improve working conditions.

We require everyone to play an active role in promoting awareness and knowledge of safety and health to employees, contractors and other people related to or impacted by our business activities. Each of our facilities builds a proactive safety culture through communication, training, education and equipping employees so that unsafe situations are avoided and rapid response is available.

We monitor our performance through the Nestlé Occupational Safety and Health Management System. Eighty-five percent of our factories were certified OSHAS 18001 by independent accredited bodies when we published this report, ensuring that safety procedures are in place and are fully operational. As a consequence, consistent improvements have been achieved during the reporting period (see Figures 7 and 8).

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**Figure 7**

Total recordable injury frequency rate*

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>20.7</td>
<td>17.9</td>
<td>15.5</td>
<td>10.8</td>
<td>8.2</td>
<td>6.9</td>
</tr>
</tbody>
</table>

*Number of injuries requiring medical treatment per million working hours, including employees, temporary workers and contractors

**Figure 8**

Lost time injury frequency rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>13.5</td>
<td>8.0</td>
<td>5.9</td>
<td>3.5</td>
<td>2.9</td>
<td>2.9</td>
</tr>
</tbody>
</table>

**Number of lost time injuries per million working hours, including employees, temporary workers and contractors

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Safety in action Nestlé Waters Direct in Portugal

A good illustration of our operational commitment to safety is highlighted at our Nestlé Waters Direct operations in Portugal. Our Home and Office delivery division has specific safety considerations related to urban traffic and repeated handling of heavy loads throughout the work day. Safety programmes were initiated so that the Portugal factory’s nearly 200 employees were educated on various safety topics and gaps were identified. As a result, new methods of working and new procedures were implemented. This commitment to safety was reflected in reduced workplace accidents, from 20 in 2005 to 1 in 2009.
2.2 Product quality assurance

Nestlé Waters strives to create value that can be sustained over the long term by meeting consumer needs for quality and producing reliable products that provide a healthy way to meet daily hydration needs. This commitment and reputation for high-quality products has been built over many years. Our products guarantee that water is safe to consume, complies with all relevant laws and regulations and consistently meets the highest non-negotiable standards of quality.

Bottled water regulation

The bottled water industry is controlled by regulations at the international, national and industry levels. Regulation of bottled water in the United States and in Europe is among the strictest in the world. Furthermore, bottled water is not only regulated under food regulation, but also in accordance with packaging and food contact standards, as well as even more specific local legislation. In addition, compliance with international standards and guidelines set by the Codex Alimentarius and the WHO, which is then reinforced by industry self-regulation, ensures the highest level of safety and quality for bottled water. These regulations collectively make bottled water one of the safest food products available for human consumption.

The water

In the United States, the Food and Drug Administration (FDA) is the primary regulatory body for water. With the Safe Drinking Water Act, which applies to all types of drinking water, the FDA sets specific standards for different types of bottled water, determines the maximum allowable mineral and microbiological levels, and defines the required quality tests. In Europe, the European Commission plays a similar role, informing the national legislation in place for each Member State. As a world leader in the bottled water sector, we apply the strictest standards, ensuring compliance with regulatory requirements and sometimes going well beyond them. Our standards for quality also apply in developing countries, where local regulations may be lacking or non-existent.

An abstract of some maximum allowable levels compared to Nestlé Waters own standards is shown in Table 2 for the United States market. For all of these items, Nestlé Waters North America’s standards for maximum allowable levels of potential contaminants exceed government requirements. In addition, some United States federal regulations for bottled water are stronger than those for municipal water, most notably for lead, coliform and E. coli contaminants.

Since 2005, Nestlé Waters North America has made detailed water analysis reports publicly available on the company’s website for all of its brands. These reports are comparable to those published by public water utilities and are based on independent testing results from certified laboratories. These disclose performance with respect to more than 100 microbiological or chemical items. Nestlé Waters North America has also publicly endorsed United States Senator Frank Lautenberg’s recent call for a federal standard on the clear, consistent and transparent communication of bottled water quality composition and testing.

Our spring and natural mineral waters fulfil another key commitment: to bring consumers water with unique original properties. This is achieved through the careful selection of underground sources, which have been preserved for decades or even centuries, to ensure we consistently benefit from their natural and balanced mineral composition and unique taste characteristics. These rare sources provide naturally filtered water that undergoes no chemical treatments, with no disinfectants or preservatives added to it (see also Water care, page 73).

http://www.nestle-watersna.com/Menu/OurBrands
Table 2: Nestlé Waters North America maximum allowable compound and microorganism levels

<table>
<thead>
<tr>
<th>Item</th>
<th>EPA* maximum allowable level</th>
<th>FDA maximum allowable level</th>
<th>Nestlé Waters maximum allowable level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>0.015mg/L</td>
<td>0.005mg/L</td>
<td>&lt;0.0005mg/L</td>
</tr>
<tr>
<td>Copper</td>
<td>1.3mg/L</td>
<td>1.0mg/L</td>
<td>&lt;0.05mg/L</td>
</tr>
<tr>
<td>Trihalomethanes (trichloromethane, tribromomethane, dibromochloromethane, bromodichloromethane)</td>
<td>0.08mg/L</td>
<td>0.08mg/L</td>
<td>&lt;0.0005mg/L (individual) &lt;0.002mg/L (sum)</td>
</tr>
<tr>
<td>Bromate</td>
<td>0.01mg/L</td>
<td>0.01mg/L</td>
<td>Target: &lt;0.0005mg/L</td>
</tr>
<tr>
<td>Max: &lt;0.002mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrate</td>
<td>10mg/L</td>
<td>10mg/L</td>
<td>&lt;5mg/L</td>
</tr>
<tr>
<td>Arsenic</td>
<td>10mg/L</td>
<td>10mg/L</td>
<td>&lt;0.0014mg/L</td>
</tr>
<tr>
<td>Perchlorate</td>
<td>-</td>
<td>-</td>
<td>&lt;0.0005mg/L</td>
</tr>
</tbody>
</table>

**Microorganisms**

<table>
<thead>
<tr>
<th>Item</th>
<th>EPA* maximum allowable level</th>
<th>FDA maximum allowable level</th>
<th>Nestlé Waters maximum allowable level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total coliform</td>
<td>&lt;1 cfu/100 ml. Not more than 5% of monthly samples showing positive. No E. Coli or fecal coliform positive samples</td>
<td>&lt;1 cfu/100ml. No sample to exceed 4 cfu/100ml and arithmetic mean of 10 samples &lt;1 cfu/100 ml</td>
<td>100% of product samples negative for total coliform bacteria</td>
</tr>
<tr>
<td>Heterotrophic or total plate count</td>
<td>&lt;500 cfu/ml</td>
<td>-</td>
<td>&lt;20 cfu/100ml (product) &lt;100 cfu/ml (source)</td>
</tr>
<tr>
<td>Pseudomonas</td>
<td>-</td>
<td>-</td>
<td>Absent per 100ml</td>
</tr>
<tr>
<td>Cryptosporidium</td>
<td>If detected, must treat down to zero</td>
<td>-</td>
<td>Absent</td>
</tr>
<tr>
<td>Giardia</td>
<td>If detected, must treat down to zero</td>
<td>-</td>
<td>Absent</td>
</tr>
</tbody>
</table>

* United States Environmental Protection Agency

mg/L = milligrams/litre; ml = millilitres; cfu = colony forming unit
2 QUALITY IS OUR FOUNDATION

The bottle

Delivering superior quality water would be impossible without bottling. The bottle is the last link in a closed, hermetically sealed chain that preserves water from any external influence from source to consumption. The bottle acts as a barrier, guaranteeing the water is protected and untouched until it reaches the consumer’s hands. Once bottled and sealed, the water is perfectly stable and preserved, provided it is stored in a place protected from too much light and from extreme temperatures. Our guarantee of consistency generally runs for a two-year period for most of our bottles of plain still water, as indicated by the shelf-life date on each bottle.

Recyclable plastic is our primary packaging material. Nestlé Waters uses three types of plastic packaging to bottle its products: PET (polyethylene terephtalate) in our smaller formats; HDPE (high-density polyethylene) in some of our larger formats; and PC (polycarbonate) for some of our Home and Office activities. All these materials fully comply with stringent international and national regulations on safety for food packaging. The share of glass containers now accounts for 3% of our 2010 production. Our use of other primary packaging such as aluminium cans is very marginal.

In addition to being a safe container, the bottle carries important information for consumers. The labels, for example, provide information about the water’s characteristics to the consumer. Nestlé Waters believes that consumers have a right to know both the source and composition of purchased water. We believe it is a brand advantage to make such information easily available to consumers as it helps build confidence in our product. Contact details on the label also allow consumers to speak to Consumer Care Centre operators and request further information. Codes located on each bottle allow us to trace products, plant locations, the bottling line and the time of production for quality control requirements.
2.3 Product quality across the value chain

At the factory level

Quality at the source and factory level is monitored internally and tested by external laboratories. Each of our factories is equipped with its own laboratory to conduct in-house tests to ensure product quality. At the factory level, microbiological and chemical analysis is carried out to ensure safety and compliance. The average frequency of product quality controls is shown in Table 3. Factory laboratories are enrolled in international and independent proficiency testing based on which the accuracy of the analytical facility is assessed.

### Table 3: Average frequency of product quality testing

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical</td>
<td>hourly</td>
</tr>
<tr>
<td>Microbiological</td>
<td>daily</td>
</tr>
<tr>
<td>Organic micro-pollutants (460 molecules)</td>
<td>yearly</td>
</tr>
<tr>
<td>New pollutants (40 molecules including pharmaceuticals)</td>
<td>yearly</td>
</tr>
<tr>
<td>Radiological (α and β activities)</td>
<td>every 3 years</td>
</tr>
</tbody>
</table>

Sensory analysis

Sensory analysis (tasting, smelling) is a mandatory stage of the factory level product control protocol. Every Nestlé Waters factory has its own sensory expert panel. Each member has been selected, trained and equipped with sensory kits developed by quality experts to validate the sensory compliance of our products. Human sensory capacities are highly efficient for detecting certain quality issues and come closest to the consumer experience. Humans are potentially able to detect chemicals that are undetectable even by laboratory testing. For instance, a molecule like trichloroanisole can be detected via the human sensors at 0.2 nanograms per litre concentration, while chromatographic devices are only able to detect it at 0.5 nanograms per litre.

Packaging is also continuously monitored on the production line and must comply with various testing protocols in the laboratory, including sensory testing.

Two tests per m³

There are many tests and checks carried out on our products. In 2008, Nestlé Waters France conducted an internal survey showing that the factories producing VITTEL, CONTREX, HEPAR and PERRIER brands conducted 4,114,000 product control or analysis tests on water. This equates to 2.05 tests for every 1m³ of water produced. This broadly represents the average number of tests carried out at all factories.

Sensory analysis at the Product Technology Centre, Vittel – France
NESTLÉ PURE LIFE – 14 step quality process for purified water

A significant share of our product portfolio in our emerging markets and in the United States is made up of purified water (or prepared water – see page 13 for definition of the different water categories). Below are the 14 steps of the quality process Nestlé Waters uses to produce NESTLÉ PURE LIFE in North America. The process aims to guarantee the highest safety standards for drinking water and ensure a taste that is in accordance with consumer preference.

1. Water is carefully collected and received through stainless steel pipes from either a local well or municipal water supply. Quality testing of the original source is conducted regularly to monitor for abnormalities.
2. This step is taken when the water originates from a municipal or public drinking water system. It consists of removing chlorines and THMs (trihalomethanes) through a daily-monitored activated carbon filtration process.
3. A water softener is used to reduce water hardness.
4. Demineralisation removes unwanted minerals (through reverse osmosis or distillation).
5. Water received in storage tanks is monitored on a daily basis.
6. Selected minerals are added to cater to consumer taste preferences.
7. Pharmaceutical grade micro-filtration removes particles as small as 0.2 microns. It is also capable of removing potential microbiological contaminants. This is monitored on an hourly basis.
8. Ultra-violet filtration provides additional product disinfection. This is monitored on an hourly basis.
9. Ozone disinfection is the third disinfection step (steps 7-9), using a highly reactive form of oxygen. This is monitored on an hourly basis.
10. The filling room is highly sanitary to ensure bottling is conducted in a microbiologically controlled environment. It is continuously monitored and controlled.
11. Packaging quality assurance is conducted by human inspection and the latest in modern equipment designed to ensure the removal of any packaging defects.
12. Line sanitation includes automated cleaning equipment to ensure maximum cleanliness, effectiveness and control.
13. Each plant is equipped with its own laboratory and quality assurance staff to analyse and ensure that all aspects of the final product comply with company standards and specifications.
14. Independent control testing is conducted at external certified laboratories or a Nestlé Waters Quality Assurance Laboratory (page 27).
The Nestlé Waters Quality Assurance Centre

Depending on the origin of each spring or well, a yearly plan of sampling is established. The plan requires every factory to send samples for testing, either on a quarterly or annual basis to the Nestlé Waters Quality Assurance Centre (NWQAC), located at the Vittel factory compound in France, and/or its two affiliated regional laboratories in Los Angeles, California; and San Giorgio in Bosco, Italy. Over 600 chemical and microbiological parameters (including heavy metals and pesticides) are tested during this analysis.

The NWQAC is a centre of water competency; it is the first French laboratory accredited by COFRAC (a French accreditation organisation) for chemical and microbiological analysis in the water sector. It is also the only accredited laboratory for virus analysis in the water sector. The NWQAC includes a molecular biology laboratory that conducts analysis to identify micro-organisms through the recognition of nucleic acid fragments (DNA or RNA). The NWQAC’s chemistry laboratory is equipped with state-of-the-art measuring devices, able to detect compounds at the picogram level (one trillionth of a gram).

These tests are an important input for our Early Warning System to prevent and anticipate potential risks. In 2010, this included testing for approximately 40 pharmaceutically active components, such as antibiotics, anticonvulsants and sex hormones. All of our products tested negative.
Innovation and renovation

We invest in innovation and product development based on a deep understanding of consumer expectations. At the Nestlé Waters’ Product Technology Centre (PTC), located at the Vittel factory compound in France, we employ a team of 80 researchers, including nutritionists, hydrogeologists, biochemists, microbiologists, and experts in packaging and packaging materials. One of our current priorities is to identify new products and/or methods that will continuously optimise our environmental performance (see Section 4).

Our approval process for new ingredients and packaging materials developed at the PTC includes an official review by the NWQAC. The NWQAC must validate that any new products or manufacturers are fully compliant in terms of food safety and migration risks, sensory alteration risk and regulatory requirements (based on European Union and FDA requirements). The testing process involves analysis to ensure that variables such as temperature will not affect taste. The results of this testing are kept in a master database, and factories may only utilise approved materials. In addition, the NWQAC investigates food safety and migration beyond the requirements of existing regulation. This includes unregulated chemical components or secondary packaging such as label ink. These additional measures ensure maximum protection of the water and anticipate any potential risk of migration.

For our prepared waters, we utilise a “60/40 methodology” as a method of ensuring that Nestlé Waters products are the preferred beverage choice of consumers. We aim to achieve 60% product preference against key competitors in a blind consumer taste test. A panel of consumers is specially trained for this sensory assessment. For each selected product, taste attributes are established and profiled against those of a competitor product. In our innovation, renovation and product development processes, the 60/40 preference is an important prerequisite for the launch of new or updated products.

On-shelf compliance programme

At Nestlé Waters, our plain and still waters generally have a two-year shelf-life. This guarantee is indicated via the consumption “best before” date indicated on each of our bottles and is part of the safety guarantee that we deliver to our consumers. For this reason, it is critical to prevent any potential quality deviation of our products during that period. Every year, sampling programs are established everywhere we are operating in order to collect final products in-store and test the continuity of their micro biological and chemical integrity.

Consumer feedback

Gathering and responding to consumer feedback is a key component of our quality model. It ensures our products meet consumer taste requirements and also serves to address quality issues or other concerns. Based on consumer feedback, we carry out investigations using the DMAIC process (Define, Measure, Analyse, Improve, Control) (Figure 9). It has proven to be an effective tool in our efforts to investigate problems, reduce product defects and ultimately improve consumer satisfaction. As shown in the Table 4, we achieved 0.76 dissatisfied consumer contacts per million bottles we sold in the retail channel in 2009.

Figure 9
Define, Measure, Analyse, Improve, Control (DMAIC)
2 Quality is our foundation

Bottling materials
3 MANAGING OUR WATER RESOURCES
3 MANAGING OUR WATER RESOURCES

3.1 Water resource monitoring
3.2 Water resource protection
3.3 Water use efficiency
3 MANAGING OUR WATER RESOURCES

Nestlé Waters is the worldwide bottled water leader. However, our global operations amount to only 0.0009% of worldwide estimated freshwater withdrawals. Even though we are a relatively small water user, we are deeply aware how precious that resource is.

As a beverage industry, we are entirely dependent upon a secured supply of water in sufficient quantity and consistent quality. Accurate monitoring of our water resources is a primary business interest. The ability to sustain a bottled water business in the long-term means ensuring natural renewability as well as protecting and preserving the water sources we utilise.

Natural mineral and spring waters can only be subjected to very selective and strictly limited types of treatments (if any). Therefore, maintaining the original chemical and microbiological composition of our water sources is a regulatory condition of our license to operate. The fact that many of our brands have been in existence for decades – POLAND SPRING since 1845, VITTEL since 1854, PERRIER since 1863 and S. PELLEGRINO since 1899 – highlights the acute expertise we have accumulated in sustainable water management.

This chapter aims to demonstrate how our management of water resources is in alignment with the definition of sustainability as described by the United Nations’ Brundtland Commission: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Water resource management at Nestlé Waters is based on three fundamental measures, as described in this section:

1. Monitoring of each catchment
2. Protection measures adapted to the potential risk of deviation for each catchment
3. Continuous optimisation of water use according to production needs

3 MANAGING OUR WATER RESOURCES

Cedric Egger – Water Resource Manager, Zone Europe
3.1 Water resource monitoring

New water resource exploration

New sites are intensively investigated and monitored prior to becoming a Nestlé Waters source. The first step in identifying a new source is to complete a Water Resource Study in collaboration with independent experts. In addition to investigating quality and quantity of the source, the study includes a detailed range of site information, including topography, potential pollution sources, geology, hydrology, and modelling data. If the Water Resource Study indicates a potential site, exploratory drilling and geophysical investigations are then performed. If the results of the study are positive, public authorities deliver an official licence to operate, defining amongst other controlling conditions, the quantitative limitation for withdrawals. The administrative certification of a new source for bottling can take as long as three years, whereas building the actual factory may take only one year. We pride ourselves on investing only in sites that meet our standards for quantity, quality, sustainability, and of course, taste.

Quantitative monitoring

Nestlé Waters has developed a monitoring system of physical parameters (withdrawals, level, flow, conductivity, temperature, and rainfall) for all catchments. Constant interpretation of data is critical in order to immediately detect any abnormality and anticipate long-term trends. It allows us to implement immediate action including temporarily reducing or stopping bottled water production. The ability to react quickly is essential if we are to avoid deviations that may lead to a major intervention on the catchment, a temporary decrease of water supply or even the permanent loss of a resource for our bottling activities. Figure 10 presents a summary page of a typical monthly report for Nestlé Waters’ catchments around the world.
Although our sources of water for bottling are typically separate from those drawn on by local communities or municipalities, we support community-wide water resource management initiatives wherever possible. Environmental monitoring extends beyond the immediate locality of our water sources to include the whole water recharge area. In partnership with local communities, we work to ensure that only as much water is taken from an aquifer as its replenishment capacity allows.

Qualitative monitoring

Consistency of the original characteristics of mineral water (and to some extent for spring water) is part of the regulatory specifications which dictate that treatments are not allowed to correct abnormalities. Even though the original quality of water is much less critical for purified water, samples are taken directly from the source to perform complete analysis on a regular basis. Qualitative monitoring is implemented at all stages of the production process from the water source to the filling machines, to water transportation in pipes and storage tanks. Thus, our waters are continuously controlled to ensure their full compliance with the respective regulatory framework as well as our internal quality standards. Details on water quality monitoring and its related testing protocols are discussed in Section 2 on page 22.

Water Resource Review

The Water Resource Review is an internal audit process to evaluate the long term sustainability of each of our sources. The review includes an internal risk assessment tool that anticipates as soon as possible corrective actions that may be needed to avoid any potential water supply issues. The Water Resource Review allows us to rank our different sites in order to identify our most sensitive sites and adjust our local protection policy, or initiate new prevention plans in collaboration with the local community. These measures may include land acquisitions, extension of protection perimeters or transformation of farming practices.

1. Identity card of the catchment (name, factory, brand, altitude)
2. Technical information identifying daily and monthly licenses for withdrawal; pump position; minimal dynamic water level; and monthly water withdrawals compared to monthly production to calculate additional water use
3. Daily and cumulative water withdrawals
4. Daily average of continuous measurement of the catchment's physical characteristics (flow, pressure at the wellhead, dynamic and static water levels, conductivity, temperature, flora)
5. Daily weather indicators (temperature, rainfall)
6. Graphic representation of data 3 + 4 + 5. Same graphs are also consolidated on a longer timescale (yearly, five years, etc.) for highlighting historical trends
7. Samples collected for NWQAC for analysis and comment
Hydrogeologist Questionnaire

Assaad Saadeh is one of the dozen hydrogeologists within Nestlé Waters who are in charge of our most precious asset—water resources. With a sound academic background, Assaad has worked for Nestlé Waters for five years. He is currently responsible for water resources management for Asia, Oceania and Africa (AOA).

**Q:** What is a hydrogeologist?
**A:** Hydrogeologist is a scientist who is trained to understand water presence and movement beneath the ground. One of my advanced degrees is in engineering geology and hydrogeology. I am a member of the International Association of Hydrogeologists and am a certified expert in hydrogeology for the court system.

**Q:** What does your daily job entail?
**A:** My job mainly consists of ensuring sustainable water resources for our operational business units in the AOA zone. My daily routine entails keeping in close contact with the various markets in AOA to assess their needs in terms of water resources. Following this continuous assessment, I assist the markets as needed to find and verify the capacity of additional resources to sustain their growth.

My job consists of evaluating (at an early stage) the feasibility of new projects that are greenfield sites or potential acquisitions from the water resources point of view. I also ensure that the markets are properly monitoring their water resources every day and that they are being used in a responsible way. Finally, I am in constant contact and coordination with Nestlé Waters’ head office regarding any new updates of standards to ensure that the markets are utilising their water resources in full conformity with Nestlé Waters’ standards.

**Q:** What sort of tools do you use for your job?
**A:** Since the various markets in the AOA zone are widely spread, I often rely on satellite images. Geological maps are continuously used to check the geological/hydrogeological situation of the sites. Sometimes I use geographic information system (GIS) software to analyse spatial data, as well as other specialised software for groundwater modelling or for pumping test analysis.

**Q:** How does your job help fulfil Nestlé Waters’ core principles?
**A:** My job helps to ensure that our natural water resources are used in the most sustainable and efficient manner by closely monitoring our resources, and by developing new tools for water resources monitoring. Water resource management in the AOA zone can be quite a challenging task as it is an area of significant growth, while at the same time suffering in many places from water stress and water scarcity.

**3.2 Water resource protection**

**Technical protection**

Maintaining the highest standards means implementing protection measures against accidental or voluntary actions. At Nestlé Waters we have a complete set of technical specifications covering how drillings, pumping or storage operations shall be manoeuvred to comply with strict hygiene conditions. The technical specifications include disinfection processes for all the equipment that are directly in contact with water to avoid any contamination. Technical requirements also set standards for materials, such as the mandatory use of stainless steel or high density polyethylene for pipes, and 304L or 316L stainless steel for wellheads or equipment within the well. Technical protection also deals with the overall design of the catchment system to minimise impacts to retention zones and identify the time needed during maintenance in order to lower risk of microbiological contamination. Our stringent specifications have been recognised by French regulation authorities who have asked Nestlé Waters to prepare updated technical guidelines for mineral water operational systems.
We adhere to measures that are adapted to the specific hydrogeological context of each source. These measures aim to prevent external disturbance within the immediate area surrounding the catchment, and to ensure that no contamination occurs during transport to the bottling plant. This includes locks and motion sensors covering all potential access points. Motion sensor activity is directly connected to our security guards and production offices. If there is a security breach, we are able to initiate measures to stop pumps or divert flows as necessary. At some of our sources, the bottling production area is very near to the source, whereas in others a greater distance from source to the bottling area allows more reaction time and different security measures.

Regulatory protection

Local regulations can also delineate the protection areas around the springs. Depending on source vulnerability, these specifications can cover a large or small extended perimeter and can be more or less stringent. Within these regulatory perimeters, activities likely to have an adverse impact on water quality can be banned or regulated, especially underground work or facilities that could be toxic to the environment. Some of our natural springs have recharge areas located in natural parks or ecological reserves. Others benefit from protected area boundaries. For example, in Argentina in the province of Mendoza – home to the ECO DE LOS ANDES spring – there is an extensive protection area of 110,000 hectares in which any activity that could contaminate the heritage of the water is forbidden.

Partnership protection

Technical or regulatory protection is not always sufficient to fully guarantee long-term protection. The vulnerability of a given source is highly dependent on several parameters including:

- Localisation and delineation of the recharge area (i.e. where the rain or snowmelt seeps underground to feed the aquifer);
- Geological natural protection of the aquifer from surface contamination (depth, permeability, filtration characteristics of the geological layers);
- Human activities that may affect groundwater quality, including farming practices, industrial runoff, traffic accidents, stormwater runoff from roads and domestic waste.

Considering these parameters, we identify different perimeters of vulnerability with respect to a high, moderate or low risk of contamination. In many places around the world, Nestlé Waters is engaged along with local communities in a collaborative approach to water resource management. This integrated water resource management approach guarantees the stability of water, which is especially important for our natural mineral waters that are characterised by a consistent mineral composition over time.

As each spring is unique, the extent of the solutions and intensity of the protection measures are adapted to each local context. One of the best examples of such a partnership is in Vittel, France, where a large-scale programme called Agrivair has for decades ensured the protection of three Nestlé Waters springs - VITTEL, HÉPAR and CONTREX, as described on the following page.
Agrivair – Watershed conservation and biodiversity protection

The Vosges region lies in the rolling valleys of north-eastern France, a green expanse overlaying the deep, flowing mineral waters of VITTEL, HÉPAR and CONTREX, each a separate and unique source. Protection of these water sources is essential, as our mineral water is purely natural – it is untreated and untouched until it reaches the palate.

The quality, integrity and sustainability of these sources are directly connected to the land above. Recognising this connection, Nestlé Waters began working with historians, sociologists, economists, agronomists, animal technicians and hydrogeologists in the 1980s to create the Agrivair project, a partnership born to protect the land and its resources. In collaboration with the French National Institute for Agricultural Research (Institut National de la Recherche Agronomique, INRA), the programme aims to work with the local farming community in order to avoid the risk of deterioration in the quality and purity of the mineral water in the Vosges. To do so, Agrivair favours an open discussion and collaborative approach to the problem and involve all the different players, to have a real determination to go through a radical changing of practices and behaviours.

Agrivair provided financial and technological assistance to local farmers and land users in order to reduce environmental pollution and support transformational efforts. Farmers have eliminated any artificial fertilisation and pesticides, implemented crop rotation for improved soil conditions, and abandoned farming of crops such as corn, which create nitrogen pollution; other land owners, such as golf course, park and race track establishments have eliminated the use of pesticides, herbicides and nitrates. These practices eliminate potential pollution of the water source, protecting the integrity of the VITTEL, HÉPAR and CONTREX brands.

In order to protect the food chain of pests and predators it is crucial to preserve a natural, healthy ecosystem and to maintain a biological balance between predators and prey. For example, ladybirds were introduced to naturally control aphid populations, and through a partnership with the Bird Protection League, birds of prey were introduced as a method of limiting the population of field mice, who had begun disturbing the production of forage.

Agrivair has received praise for its initiatives. The 2010 Business and Environment Awards, held by the French Ministry for Ecology, Energy, Sustainable Development and the Sea and the French Environment and Energy Control Agency, were delivered at the Pollutec industry fair. Vittel won a Special Distinction in the “Business and Biodiversity” category for best approach to site management for its initiatives towards the protection of water resources and biodiversity. This award recognises Vittel’s contribution to sustainable development and local shared value creation through its conservation actions, benefiting all stakeholders in its territory. Chosen from 61 submissions, this award identifies Vittel initiatives as leading programmes for site management and environmental conservation.

The Agrivair programme protects 10,000 hectares of land, making it one of the world’s largest private protected areas. The programme serves as an ideal example of watershed conservation and community collaboration, protecting both the land and the waters below. It is used as a first-class model for watershed conservation for Nestlé Waters and its initiatives and programmes for water resource management can be seen at many of our water sources sites.

The Agrivair programme results in a win-win situation for the farmers and Nestlé Waters

<table>
<thead>
<tr>
<th>Costs</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>Secured long-term farming (30 years)</td>
</tr>
<tr>
<td>• No direct financial cost but high transaction costs: cost of learning new practices and participating in identification and testing of practices and incentive system; business negotiations</td>
<td>• Cancellation of short-term and long-term debts</td>
</tr>
<tr>
<td>• Farm equipment and technical assistance</td>
<td>• Additional lands</td>
</tr>
<tr>
<td>• Farm compensation</td>
<td>• Environmentally-friendly and organic practices consolidating farm profitability and revenue</td>
</tr>
<tr>
<td>• Agrivair structure</td>
<td>• Sustainable water resources management</td>
</tr>
<tr>
<td>• Preservation of original qualities of the water</td>
<td></td>
</tr>
</tbody>
</table>
3 MANAGING OUR WATER RESOURCES

Philippe Pierre, Head of Agrivair, with a local farmer, Vittel – France
3.3 Water use efficiency

Water assessment

As a bottled water industry leader, we are extremely aware of how precious water is to human beings. Thus, it is our primary responsibility to be an exemplary and careful water user in order to avoid waste. The Global Environmental Footprint tool (see page 48) can compile the overall water consumptions along our product life cycle. In 2010, this amounted to 2.6L per litre produced. Figure 11 illustrates how this water is used.

In comparison to other beverage options, the bottled water industry is a very small water user (Figure 12). Such differences are mainly due to the use of water to produce the ingredients necessary for these beverages (such as sugar, sweeteners, fruits, cereals, and colorants). The manufacturing phase for bottled water is also much less demanding for water, as the transformation processes are minimal.

Future water stress assessment should take into account local water stress conditions to provide a more accurate vision of overall water consumption.

Direct water use

We distinguish between direct water use (withdrawn at the factory level) and indirect water use (use by our suppliers or third parties for packaging, energy, and transportation). Even though we are a relatively small water user, we focus on constantly reducing our direct water use. At the factory level, water is not only used to fill the bottle. Like any other industry, water is required for industrial processes such as cleaning and cooling. We call this additional water (above what is inside the bottle). Over the reporting period, Nestlé Waters reduced its additional water use by 34%, reaching a global average of 0.65L of additional water per litre that we produce (see Figure 13).

While our global average is 0.65L of additional water, we have some factories that are higher than this on average, as well as some factories that improve upon this. At the factory level, water is not only used to fill the bottle. Like any other industry, water is required for industrial processes such as cleaning and cooling. We call this additional water (above what is inside the bottle). Over the reporting period, Nestlé Waters reduced its additional water use by 34%, reaching a global average of 0.65L of additional water per litre that we produce (see Figure 13).

While our global average is 0.65L of additional water, we have some factories that are higher than this on average, as well as some factories that improve upon this. At the high end of additional water use, in 2010, 5% of our factories required above 2L/L of additional water (versus 25% in 2005). Of our best-in-class factories, in 2010, 18% of our factories required less than 0.35L/L of additional water (versus only 13% in 2005). Some of them are already below 0.2L/L. Yearly water reduction achievements can be seen in Vietnam, Italy, Nigeria and Canada on the following page.

In addition, as every Nestlé Waters’ factory is equipped with a wastewater treatment facility, any wastewater discharged back into the environment is guaranteed to be clean.
LaVie, Vietnam

Method: Installation of a frequency inverter, enabling the plant’s technicians to vary the flow from the wells according to production needs. This requires an intensive validation process to ensure that the change in flow has no impact on quality.

Water savings: 150,000 m³/year

San Pellegrino, Italy

Method: Reuse the water used for final rinsing of the bottles. After treatment, the water is reused for the washing of glass bottles and for the pasteurisation stage of soft drinks.

Water savings: 119,000 m³/year

Agbara, Nigeria

Method: Making use of the close proximity of a Nestlé food factory, the factory installed a connection between the two entities. Now, all surplus water is re-used by Nestlé, leading to a reduction of water used for bottled water production.

Water savings: 100,000 m³/year

Guelph, Canada

Method: Even in an already well performing factory, improvement was possible due to: 1) optimised programming of pumps and use of frequency inverters; and 2) optimised capacity for water tanks and water tank vessels.

Water savings: 62,000 m³/year
3 MANAGING OUR WATER RESOURCES
4 OPTIMISING OUR ENVIRONMENTAL PERFORMANCE
4 OPTIMISING OUR ENVIRONMENTAL PERFORMANCE

4.1 Measuring impacts on the environment
4.2 Overall achievements 2005-2010
4.3 Optimising packaging
4.4 Optimising manufacturing
4.5 Optimising distribution
4.6 Conclusion – 2005-2010
At Nestlé Waters, we place a great deal of importance on environmental responsibility, establishing the continuous optimisation of our environmental performance as a corporate priority.

The environment is a complex issue, involving many overlapping global challenges: access to water in sufficient quantity and quality; climate change; depletion of non-renewable resources; waste management; and biodiversity. We believe that clarity, transparency, honesty, and delivering on our commitments is critical. This includes not setting environmental goals that are unattainable or too far in the future to allow for regular assessment. We are firmly committed to avoiding any methodological shortcuts or statements that would mislead external audiences. Instead, we prioritise environmental efficiency and clear communication and feel it is a competitive advantage that should not be compromised.

This section provides detailed information about the environmental impacts of our bottled water business. It describes how we monitor these impacts at every stage of the product life-cycle. We will discuss in detail where we have focused our efforts between 2005 and 2010, as well as other contributing factors that have led to a continuous reduction of our environmental impact. This section also highlights our current priorities and future challenges. Our ultimate goal is to be recognised as best-in-class in sustainability within the beverage industry.

For further information on Nestlé’s policies on sustainability, please visit:

http://www.nestle.com/CSV/waterandenvironmentalsustainability
4.1 Measuring impacts on the environment

Bottled water life-cycle

The life cycle of our products can be divided into three main phases (Figure 14):

- **Packaging:** The packaging phase includes: the extraction of raw materials necessary for producing packaging materials, including primary packaging (bottles, caps, labels) and secondary packaging (crates, boxes, film pack, pallets); the transformation of raw materials into various forms of primary and secondary packaging; the supply of packaging to Nestlé Waters factories (finished packaging, PET resin and PET preforms for producing bottles); and the bottle end-of-life, including collection, sorting and recycling.

- **Manufacturing:** The manufacturing phase covers the entire production process at the factory level, including: transformation of packaging materials into bottles; product bottling (pumping, storage, treatments (if any), filling); conditioning with secondary packaging; and storage until finished products are transported for delivery.

- **Distribution:** Distribution covers both the transport and consumer phases. This includes: transport from the Nestlé Waters factory to customers; storage at wholesalers and/or point of sale (on-shelf); purchase by the consumer; transport from retail to the consumer’s destination; cooling devices (if any) for Home and Office delivery or home storage; consumption of the product; washing of drinking receptacle (if any); and consumer disposal of the empty packaging.

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**Figure 14**
Product life-cycle

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Global Environmental Footprint

The Global Environmental Footprint (GEF) tool was developed in 2008 to carry out Life Cycle Assessment (LCA) with a multi-environmental criteria approach, making it one of the most complete measurement tools for the specific requirements of the bottled water industry. The GEF tool was designed for Nestlé Waters by RDC-Environment for the purpose of measuring and managing our environmental achievements. Both the tool and the methodology associated with it underwent a critical review by a panel of international LCA experts. Greenhouse gas (GHG) emissions as well as water and energy consumption are calculated using methods that meet the recommendations of the GHG Protocol, ISO 14064-1 (GHG accounting and verification) and ISO 14040-44 (LCA) quality standards. GHG emissions are calculated in grams of CO₂ equivalent (eq).

The GEF is a precise environmental management tool that can be applied to all levels and all segments of a product, a brand, a plant, a company or an entire country. Products can be analysed and compared by looking at every life-cycle step as it exists or with various evolutions. Action levers can then be identified and prioritised, making the GEF an efficient eco-design tool. When developing new products or building new factories, the GEF allows integration of a range of environmental performance variables and scenarios, ensuring the environment is considered at the very early stages of project development.

The GEF measures nine impact areas that are certified by an external panel of experts, including:

- Water consumption
- Non-renewable energy
- GHG emissions
- Air acidification
- Eutrophication
- Renewable energy
- Ozone depletion potential
- Human toxicity
- Solid waste

Environmental data collection

The data input for the GEF tool is sourced from internal figures to assess our company’s direct impacts, with reference to external environmental databases (such as Ecoinvent and Plastic Europe for life-cycle inventories and data). Country specific data are used for energy and end-of-life parameters. Nestlé Waters aims to calculate the environmental impact of all its activities worldwide for the following three main impacts: GHG emissions; consumption of water; and consumption of non-renewable energy.

The inventories of emissions or resource consumption are carried out using a life cycle approach. Inventories are based on Nestlé Waters’ primary data, collected by year and by country, and on secondary data from the GEF tool and from literature. A peer review has been carried out by an external LCA expert in order to validate data sources, methodology and results.

System boundaries

The GEF system has several areas that are not covered in the analysis:

- Ingredients used for beverages other than plain water
- Activities carried out by co-packers
- Cooling in retail and at the consumer’s destination (except for Home and Office delivery)
- Transport of water from the retail store to the consumer’s destination
- Employee business travel and transport of employees from home to the work place
4.2 Overall achievements 2005-2010

During the reporting period (2005-2010), Nestlé Waters reduced its overall GHG emissions by 20% and non-renewable energy use by 17% (Figure 15). Overall achievements for 2005-2010 are divided into three categories: packaging, manufacturing and distribution. Most of these reductions occurred during the packaging phase of our business.

Our environmental performance was optimised for packaging, manufacturing and distribution, as described in the following sections:

- The packaging section outlines the three main drivers that have contributed to consistent improvement in this area (page 50).
- The manufacturing section details how our production sites have continuously reduced their impact due to more efficient use of energy at our factories (see page 57).
- The distribution section focuses on transport impacts, which have remained relatively stable over the reporting period. Transport is the phase where environmental impacts are most influenced by external parameters. Nestlé Waters is therefore prioritising five promising opportunities to achieve greater environmental optimisation in this area (page 59).
4.3 Optimising packaging and recycling

Packaging is the first contributor to our product environmental footprint, representing 40% of GHG emissions and 49% of non-renewable energy consumption for an average Nestlé Waters product in 2010. Packaging has also been the main area of focus for the overall reduction of these impacts. With 71 g CO$_2$eq and 1.6 MJ (megajoules) per litre in 2010, GHG emissions and non-renewable energy impacts for the packaging phase have been reduced by 34% and 26% respectively since 2005 (Figure 16). This achievement is the result of three key factors:

- Reducing packaging weight
- More efficient PET resin production
- Increasing collection rates

Reducing packaging weight

As shown in Table 5, Nestlé Waters has continuously reduced its total packaging weight over the reporting period. In 2010, we used on average 41.7 grams of packaging materials per litre, which is 19% less than in 2005.

<table>
<thead>
<tr>
<th>in g/L</th>
<th>2005</th>
<th>2010</th>
<th>Reduction 2005-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottle</td>
<td>34.7</td>
<td>27.6</td>
<td>-20%</td>
</tr>
<tr>
<td>Cap</td>
<td>2.4</td>
<td>2.1</td>
<td>-12%</td>
</tr>
<tr>
<td>Label</td>
<td>1.0</td>
<td>0.8</td>
<td>-28%</td>
</tr>
<tr>
<td>Secondary</td>
<td>13.5</td>
<td>11.2</td>
<td>-17%</td>
</tr>
<tr>
<td>Total</td>
<td>51.7</td>
<td>41.7</td>
<td>-19%</td>
</tr>
</tbody>
</table>

This accomplishment is largely due to our ongoing efforts to lighten the weight of the bottle. Through renovation programmes at the PTC and in collaboration with packaging agencies, Nestlé Waters has engaged in developing new generations of bottles, caps, and labels, as well as secondary packaging solutions that offer a lighter weight without compromising quality (e.g. resistance during transport, solidity, permeability, softness).

Table 6 summarises the 2005-2010 bottle weight reduction achievements for the three dominant bottle formats at Nestlé Waters, which together represented more than an half of our global production in 2010.

<table>
<thead>
<tr>
<th>Bottle format</th>
<th>% of total production 2010</th>
<th>Average weight (in g/bottle)</th>
<th>Reduction 2005-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5L PET</td>
<td>38%</td>
<td>15.6</td>
<td>10.9</td>
</tr>
<tr>
<td>1.5L PET</td>
<td>17%</td>
<td>32.7</td>
<td>29.6</td>
</tr>
<tr>
<td>2L PET</td>
<td>5%</td>
<td>41.7</td>
<td>36.7</td>
</tr>
</tbody>
</table>
Optimising Our Environmental Performance

When considering packaging weight reduction, another parameter to take into account is the evolution of our product mix (Figure 17).

The share of small individual bottles (0.5L and smaller) has rapidly grown to reach more than 40% of Nestlé Waters’ volume in 2010. The 0.5L bottles on average still require a fraction more PET than a 1.5L bottle (when equated to 1L). Thus, the increasing share of small formats has had a negative, albeit limited impact on the environmental achievements of the company in the packaging phase. On the other hand, the continuous reduction of glass material demand, notably non-refillable glass, has more than compensated for the increasing share of small formats. Today, glass bottles are limited to only 3% of the company’s total volume.

More efficient PET resin production

Since 2005, PET producers have made considerable efforts to improve the efficiency of PET resin manufacturing and have succeeded in significantly reducing its environmental impacts. In particular, production of Purified Terephthalic Acid (PTA) has benefited from major technological upgrades, while the efficiency of the polycondensation step (PET production) has also been optimised.

Nestlé Waters utilises the international database from Plastic Europe to assess the environmental impacts of PET. In April 2010, a new eco-profile study of PET was consolidated with data provided by major European PET and PTA producers. The report confirmed noteworthy changes in the environmental performance of producing 1kg of primary uncompounded PET resin. The updated figures are shown in Table 7.

As PET bottles represented three quarters of our 2010 production, such an improvement in PET production process has been one of the major contributors to the 2005-2010 reduction of our packaging footprint.

**Table 7: Impact of 1kg of primary uncompounded PET**

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2010</th>
<th>Reduction 2005-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary energy demand</td>
<td>82MJ</td>
<td>69MJ</td>
<td>-16%</td>
</tr>
<tr>
<td>Global warming potential (GWP)</td>
<td>3.5kg CO₂eq</td>
<td>2.2kg CO₂eq</td>
<td>-37%</td>
</tr>
</tbody>
</table>
About “bio-plastics”

Our packaging experts based at the Product Technology Centre in Vittel (France) closely follow developments in alternative packaging materials, such as the production of packaging materials from renewable origin [e.g. PET from plants] or bio-degradable materials. In the long-term, such developments should offer environmentally responsible options for replacing the use of non-renewable resources with renewable sources. For the time being, there are still a number of unknowns and uncertainties to address before moving beyond the current research and experimentation stages. These include the following uncertainties: compliance of these materials with our quality and safety standards; supply capacity; and importantly, impacts on the environment, which include the use of water resources, overall energy consumption and carbon footprint. When analysing new packaging material alternatives, we utilise an in-depth “cradle to grave” life-cycle assessment to accurately assess their environmental impacts. Above all, in the context of the international food crisis, we believe that the industrial development of bio plastics should, in the short- and long-term future, have no negative impact on food availability.

Considering all of these parameters, we believe that currently, PET is the packaging material that is most suitable for the beverage industry. A significant transition on an industrial scale from PET to an alternative bio-material that would satisfy the previous requirements cannot be realistically foreseen within the next few years. However, our R&D capacities will continue to actively explore and seriously consider alternative packaging solutions, as long as they make positive and proven technological and environmental sense. In 2008, Nestlé Waters and Nestlé France partnered, along with other corporations, with PARISTECH- Ecole des Mines de Paris to create the Chair of Bio-plastics. The primary purpose of this consortium is to contribute to innovative research programmes and assessment surveys that will further explore this promising technology.
Increasing collection rates

Most of our packaging is made of 100% recyclable materials, including glass, cardboard and PET. While the bottled water industry is a marginal user of some packaging types (paper, glass, wood, cardboard), it is a significant user of PET. PET resin is from the polyester family. While two-thirds of the global polyester market is used for textile application, PET resin for bottled water packaging accounts for 9% of the global market. As the worldwide leader in the bottled water industry, we recognise that the use and recycling of PET is a core area of responsibility of our company.

Recycled PET: what is at stake?

PET is 100% recyclable and transforms into what is called recycled PET, or r-PET. R-PET is used in many different industries, including:

- Textiles (clothing, carpets, filling for duvets and pillows)
- Building materials (insulation, flooring)
- Car industry (plastic, filling for seats, baby seats)
- Furniture (seating, bins, benches)
- Toys
- Non-food grade containers

The beverage industry has emerged as a new user of r-PET products in recent years. This is due to recent regulation approving r-PET for food contact.

Using r-PET saves significant amounts of energy and GHG emissions when compared to virgin PET. While some impacts are generated during the recycling processes, the overall impact is lower when compared to manufacturing virgin PET from crude oil. Reports from NAPCOR (National Association for PET Container Resources) and PETCORE (PET containers recycling Europe) in 2010 highlight that there is a critical and increasing imbalance between supply and demand in the r-PET market, at the regional and global level.

Due to its low availability, use of r-PET by one industry is currently to the detriment of another. Until a more balanced supply and demand for r-PET is achieved, Nestlé Waters does not consider use of r-PET for its own bottle as an environmental benefit, nor is it a strategic priority. Nevertheless, it can be an appropriate response when there is an identified consumer demand. A few of our brands have recently introduced r-PET bottles: LEVISSIMA in Italy; RESOURCE in the United States (25% r-PET); and MONTCLAR in Canada (100% r-PET). Nestlé Waters has prioritised increasing collection rates of PET bottles in order to increase r-PET availability.
Nestlé Waters’ contribution to recycling

Globally, there is no uniform packaging collection system. The collection of bottles and packaging materials remains a collective challenge for the beverage industry, involving all stakeholders along the recycling chain: packaging producers, bottlers, consumers, and public authorities that organise collection systems for household waste.

One of our core aims is to continuously raise consumer awareness on the importance of PET bottle collection. For example, if a 1.5L VITTEL bottle sold in France is recycled, the overall carbon footprint is reduced by a quarter. We utilise all of our direct communication channels, such as the label, advertisements, internet, and sponsored events, to disseminate educational messages. Nestlé Waters also supports and funds public and professional association campaigns that aim to encourage bottle collection.

Nestlé Waters is also continuously working to improve collection capacity, through our own initiatives or in collaboration with professional associations. Coordinated efforts with public authorities are necessary to improve the current collection scheme or initiate a new programme. In France, Nestlé Waters was a co-founder of Eco-emballages in 1992, whose mission is to organise, oversee and help remove household packaging waste. Since the establishment of Eco-emballages, PET bottle collection rates have continuously increased in France. We also partnered with DSD (Duales System Deutschland) in Germany to achieve a similar increase in PET recycling. DSD facilitates a multi-waste collection system that is adapted to suit municipal preferences. Companies pay a license fee to DSD to finance collection systems and other programmes related to recycling. A “Green Dot” placed on related consumer goods packaging symbolises participation in the programme.

At the prompting of our Nestlé Waters subsidiaries, multiple PET bottle collection initiatives have arisen during the past few years, including: funding new collection containers; influencing public authorities via professional associations; placing PET bottle collection bins in public spaces; and providing social protection to people that collect recyclable materials for subsistence in emerging and developing countries.

Encouraging PET collection in China

Nestlé Waters China provides a good example of PET educational initiatives. In 2009 and 2010, the company launched an on-line recycling campaign, together with in-store promotion and search engine banner ads. Those that visit the website and participate in the campaign are informed about recycling through facts and environmental-themed cartoons, and are then eligible for prizes and lucky draw games. The goal is to expand the campaign to other regions of China, encouraging recycling within a rapidly growing bottled water market.
Recycling programmes in the United Kingdom

BUXTON, the number one British natural mineral water brand, named after its home spa town in the Peak District, has initiated programmes to increase recycling for people “on-the-go”. Recycle On-the-Go was launched in July 2010 within the local community. The goal is to provide convenient recycling stations and to improve consumer awareness. So far, 26 stations have been placed in public areas to encourage recycling of beverage containers and a further 25 will be installed in 2011.

Importantly, each station has three sections to avoid contamination: general waste, cans, and plastic bottles. A consumer survey on the recycling programme returned positive results, with suggestions for improvement including a request for new sites and improved signage. The recycle stations were installed in partnership with Recoup, the UK’s leading authority on plastic waste management, and the High Peak Borough Council. Each recycle station helps improve consumer awareness about the importance of recycling, provides away from home recycling opportunities and ultimately reduces landfill waste.

Recycling programmes in Canada

Manitoba, one of Canada’s prairie provinces and the country’s major commercial transportation hub, is now positioned to become North America’s recycling leader due to the implementation of a ground-breaking recycling method developed by the Canadian beverage industry.

The programme, known as the hybrid recycling model, includes public space recycling, industrial, commercial and institutional recycling, public education, and regular mass communication about recycling and littering. A conglomerate non-profit organisation is managing and funding the programme as well as co-funding the province’s existing curbside recycling stream.

Funding for these programmes comes from a two-cent container recycling fee paid by brand owners like Nestlé Waters. This fully-integrated recycling programme is the first initiative of its kind. We are confident that Manitoba, which currently has the lowest recycling rate in Canada for beverage containers, about 45%, will become one of the most proficient recyclers in North America, achieving a 75% diversion rate over the next few years.

Ken Friesen, Executive Director of the Canadian Beverage Container Recycling Corporation, Manitoba - Canada
PET bottle collection rates 2005-2009

There are considerable discrepancies in terms of recycling rates from one country to another. This is largely due to the capacity for material collection and the dedication of government authorities to addressing this issue. Figure 18 shows the recycling rates within Europe, illustrating high discrepancies amongst countries.

From a global perspective, it is estimated that approximately one third of PET bottles are collected for recycling. As a direct result of the combined efforts of all stakeholders along the recycling chain, collection rates have significantly risen during the reporting period in the United States and in Europe, where three-quarters of our product is sold (see Figure 19). The figures are less reliable in other regions, but the same positive trend is evident in all regions.

Nestlé Waters recognises that much work is required to divert more and more bottles from landfills and incinerators to recycling centres. The company is committed to intensifying its efforts to continuously improve PET bottle collection and recycling rates.
4.4 Optimising manufacturing

The bottled water industry involves a relatively light manufacturing process, meaning it does not require any heavy transformation processes. Impacts considered in the manufacturing phase are primarily related to energy required for the entire production process at the factory level. This includes the transformation of packaging materials into bottles, product bottling (pumping, storage, treatments if any), filling, securing with secondary packaging, and storage until finished products are shipped outside of the factory.

The manufacturing phase accounts for approximately one-fifth of the overall GHG emission and non-renewable energy footprint of our company. In 2010, manufacturing by Nestlé Waters generated 36g CO₂eq per litre (-15% vs. 2005) and required 0.6MJ of energy per litre (-16% vs. 2005) (see Figure 20).

Energy efficiency

Nestlé Waters has introduced many initiatives to optimise the energy efficiency of its plants, including increasing line productivity, investing in more energy-efficient machines, heat recovery, sharing expertise among the engineering community, and introducing new bottle blowing technologies. Cumulatively, these energy saving actions have created a decoupling effect as shown in Figure 21. While our production has increased, our energy use per litre has decreased by 22%.

In addition, Nestlé Waters is seriously exploring the economic feasibility of renewable energy use to partially or fully support factory operations. Our operations in Italy, France and Switzerland are currently developing programmes in collaboration with rural communities to produce energy from bio-mass. We are also exploring opportunities to develop other renewable energy sources (such as wind or solar) to supply our factory energy needs.

Renewable energy in Italy

Nestlé Waters Italy has invested in a biomass boiler that produces 100% renewable energy at the Pejo plant. This boiler replaced the previous oil-powered boiler. The biomass used to operate the boiler is sourced from wood production and waste wood chips, all from within 40km of the plant. The Pejo plant has a long-term goal of providing enough energy to connect nearby towns to a network grid that utilises renewable energy from the biomass boiler.

Nestlé Waters Italy spearheaded a consortium in March 2010 to finance energy from renewable sources (wind, photovoltaic and hydroelectric). The Consortium San Pellegrino Nestlé Green Energy is owned in equal share by San Pellegrino and Nestlé Italy, alongside a pool of private investors. Approximately 51GWh of energy would be financed each year; approximately half of which is sourced from the Wind Energy Park, which is the property of the Consortium. The San Bernardo spring, plus five other bottled water plants and two Nestlé Italy plants will use the energy supplied by the Consortium through the national grid.
Optimising Our environmental performance

Industrial waste

Limiting our industrial waste is another operational priority. From 2008 to 2010, our total amount of industrial waste, by-products and sludge has remained stable at around 3.3 kg per cubic metre. Importantly, we measure our waste based on what happens after it leaves the site. During this three-year period, the share of by-product and sludge for recovery (versus waste and sludge for disposal) has continuously increased, to reach 92% of the total industrial waste stream in 2010 (Table 8). The remaining 8% are manufactured materials that are destined for final disposal in an off-site landfill or incineration without heat recovery.

Table 8: Industrial waste 2008-2010

<table>
<thead>
<tr>
<th>Waste, by-products and sludge (kg/m³)</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>% recovered</td>
<td>85%</td>
<td>90%</td>
<td>92%</td>
</tr>
</tbody>
</table>

Building new facilities

Nestlé Waters places great importance on the environmental efficiency of new buildings. Investment in efficient buildings has been a priority in the United States in recent years. In 2003, our Michigan plant was one of the first United States industrial plants of any kind to earn LEED® certification. Seven years later, Nestlé Waters North America has nine LEED certified plants, with more LEED certified manufacturing space than any beverage company in the United States. In addition, our new North American headquarters building in Stamford, Connecticut was renovated to achieve LEED certification.

Nestlé Waters North America has received LEED Gold or Silver certification for four of its facilities:
- Dallas, Texas (Silver rating, 2009)
- Kingfield, Maine (Gold rating, 2009)
- Breinigsville, Pennsylvania (Gold rating, 2009)
- Hollis, Maine (Silver rating, 2009)

Some characteristics of LEED certified beverage plants include the use of non-toxic building materials, design of water and energy efficient operating systems, improved mechanisms for waste reduction, minimal impact of exterior lighting and constructed wetlands for water treatment on-site.

5 Leadership in Energy and Environmental Design – a United States green building programme certified by the U.S. Green Building Council. The highest LEED certification is “Platinum”, followed by “Gold”, “Silver” and “Certified”.

Fuel-efficient forklifts in Argentina

In 2005, gasoline-fuelled forklifts at the ECO DE LOS ANDES plant in Argentina were replaced with LPG (liquefied petroleum gas) forklifts in an effort to reduce emissions. Our successful reduction of these gases includes CO, HC, NOx, lead, C₆H₆ and particulates.

<table>
<thead>
<tr>
<th>Gas</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>-75%</td>
</tr>
<tr>
<td>HC</td>
<td>-40%</td>
</tr>
<tr>
<td>NOx</td>
<td>-70%</td>
</tr>
<tr>
<td>Lead</td>
<td>-100%</td>
</tr>
<tr>
<td>C₆H₆ (benzene)</td>
<td>-72%</td>
</tr>
<tr>
<td>Particulate</td>
<td>-100%</td>
</tr>
</tbody>
</table>

Nestlé Waters - CREATING SHARED VALUE REPORT 2005-2010
4.5 Optimising distribution

Environmental impacts in the distribution phase have remained stable over the reporting period (-1% for GHG emissions and non-renewable energy) (Figure 22). Of the areas covered in our GEF tool, the main impact of this phase is domestic transport from factory to customers. It is important to note that cooling of Home and Office fountains is quite a significant variable in this specific channel.

Due to the high volume and weight of our products, transport has always been a key consideration for the bottled water business model. At Nestlé Waters we have built significant expertise due to our longstanding experience in supply chain management. As a result, our logistics and delivery programmes are amongst the most efficient in the consumer goods sector.

Our company’s transport policy must take into account several external parameters that we have a limited influence on, including:
- Geographical position of the populated areas
- Available freight and transport infrastructure in a given country or region
- Regulatory limitations for payload, e.g. the maximum allowed weight of finished goods per truck

Nevertheless, Nestlé Waters has continued exploring opportunities to further reduce our distribution footprint. Between 2005 and 2010, new initiatives have been launched throughout our organisation. Some of these success stories are detailed in the following pages, highlighting new opportunities in the next few years. Today, the Nestlé Waters’ transport policy focuses on the following five key areas:
- Reducing distance to consumers
- Using alternative transport
- Exploring new technologies
- Optimising payload
- Working with our carriers

Figure 22
Distribution phase evolution 2005-2010
Exported brands

Exports represent 5% of Nestlé Waters sales. Only five of our 67 brands have an international range. Of these, neighbouring countries play a major role. In the case of VITTEL, Germany, Belgium and Switzerland represent 90% of the brand’s exports. The borders of these countries are less than 200 km from the spring. We have only two brands that can be considered to have a significant global presence: PERRIER and S. PELLEGRINO, which are enjoyed by consumers around the world for the uniqueness of their composition and the refinement of their taste.

The comparisons below equate the GHG emissions of PERRIER exports to the United States to other bottled beverage production impacts. From the south of France, PERRIER bottles are shipped on containers across the Atlantic Ocean.

- The carbon footprint of PERRIER PET bottles exported from France to the United States is comparable to the production of one average soft-drink produced and sold in the United States.

- The carbon footprint of PERRIER glass bottles exported from France to the United States is similar to the production of one bottle of orange juice produced and sold in the United States.
Optimising Our Environmental Performance

Reducing distance to consumers

Because the bottled water industry involves large volumes of product, transport is a primary consideration and therefore the vast majority of our business is locally focused. In 2010, 95% of Nestlé Waters’ production was sold in its country of origin. Globally, between 2005 and 2010, the average distance travelled from factory to customers has remained stable, at approximately 450 km. Nestlé Waters encourages direct shipping (i.e. no intermediary storage) from factory to customers to limit transport distance. In 2010, 80% of our products were directly shipped to customers.

Bottling operations are located in the immediate vicinity of the water sources. While distance is an important economic and environmental consideration, the bottled water industry has limited flexibility in choosing the location of its sources and factories. This is particularly true for natural mineral or spring sources, which require stringent requirements guaranteeing consistency of its original and natural composition. These unique sources are typically located outside of urban centres.

The NESTLÉ PURE LIFE model is introducing opportunities to reduce distance to consumers. NESTLÉ PURE LIFE is a global multi-source model providing safe and affordable drinking water, adapted to local preferences. The water can be purified utilising several treatments in order to comply with our stringent product quality requirements. Compared with natural mineral waters, prepared waters offer a wider range of opportunities for exploring new water resources, in particular to settle our factories closer to populated areas.

NESTLÉ PURE LIFE’s multi-source model in Brazil

In Brazil, by the end of 2010, two factories were bottling NESTLÉ PURE LIFE (NESTLÉ PUREZA VITAL): one outside of Rio de Janeiro (Petrópolis), and another in the far west of the São Paulo region (Santa Barbara). The average distance to consumers was approximately 430km. A third factory in the immediate periphery of São Paulo will open in April 2011 (Mina d’Ouro). This new production capacity allows for a restructuring of the geographical coverage for each NESTLÉ PURE LIFE factory: Petrópolis will strictly focus on the Rio de Janeiro region; the new factory will focus on the São Paulo megalopolis; and Santa Barbara production will be redirected to the south and west of the São Paulo region. This reallocation is expected to reduce the average transportation distance from 430 to 300km (-30%).
4 OPTIMISING OUR ENVIRONMENTAL PERFORMANCE

Intermodal freight in Italy

In Italy, most of our sources are located in the Alps region in the North of the country, whereas per capita consumption is relatively higher in the South due to a warmer climate. Because of this geographical context, the average distance for domestic transport of our products is about 500 km in Italy. Thanks to a developed north-south railway network, 40% of the company’s transports [expressed in tonnes per kilometre] utilise rail. Products are loaded on trucks to go to the nearest train station. Goods are then loaded onto containers heading to regional distribution centres in the South of Italy. From these distribution centres, goods are only a short distance to our customers. This percentage is even higher for our national big brands such as LEVISSIMA (45% by rail) and NESTLÉ VERA (50%). As a consequence, Italy is amongst the best-in-class at Nestlé Waters for good environmental performances in transport.

Using alternative transport modes

In many cases, two or three modes of transport are combined before our products reach the consumer. However, it remains highly dependent on the status of the existing alternative freight networks in a given region, such as railway, shipping canals and harbours. At Nestlé Waters we explore all economically-feasible opportunities to divert an increasing share of our transported tonnage from roads.

Exploring new technologies

Nestlé Waters carefully follows the development of any new technologies that would improve environmental performance for a given transport mode. In particular, our Home and Office businesses in North America and Poland have initiated pilot projects to replace their regular truck fleet with hybrid trucks (gasoline and electric engines). This transition is expected to accelerate in future years as the technology improves and our current delivery trucks are replaced.

Optimising payload

Payload is one of the areas of the distribution phase where we have found opportunities to reduce our environmental footprint. Local regulations define the maximum allowable weight of final product that can be loaded onto a truck. Based on current limitations, Nestlé Waters has actively worked to optimise the ratio between our actual load and the authorised allowance to reduce the environmental impact of transport per litre. As a result, the worldwide average road payload has been increased by 4% from 2009 to 2010, reaching 23.1 tonnes of finished product per truck. We also believe that increasing payload regulatory limitations can be very beneficial in order to decrease the number of trucks on the road, thereby reducing the environmental impacts per litre transported.

Working with suppliers

We favour long-term partnerships with carriers and include environmental criterions in the supplier selection process. The most recent trucks (such as Euro4, Euro5) have benefited from significant improvements to reduce fuel consumption and emissions versus older generations. Consequently, we also pay close attention to the environmental performance of partner/supplier vehicle fleets. Despite this on-going work to improve vehicle performance, we continue to utilise national average truck efficiency statistics in our environmental performance calculations. We are working with suppliers to progressively incorporate actual carrier data in order to more accurately reflect our selective truck policy. Once this has been implemented, we expect a further reduction in our accounting of Nestlé Waters’ transport impacts.
Hybrid trucks for Home and Office delivery in North America

The North America private fleet consists of nearly 4,000 pieces of equipment of all classes of vehicles that serve all company business functions from Home and Office delivery, manufacturing, transportation, and logistics. Nestlé Waters North America has rolled out several alternative power equipment initiatives, which include compressed natural gas utility customer service vans and 32 hydrogen fuel cell forklifts. In 2008, medium-duty diesel hybrid-electric vehicles were introduced into the fleet for Home and Office delivery, which resulted in a 25-30% improvement in overall fuel economy. Nestlé Waters North America also partnered in early 2011 with the Maryland Hybrid Truck Initiative (MHTI) to extend its hybrid truck fleet by 25 additional Hybrid Electric Freightliner M2 trucks and will have 37 operational by the end of 2011.

PERRIER in France – a new bottle to improve payload

In January 2010, Nestlé Waters France changed the shape of its 1L PET PERRIER bottle, which gave us the opportunity to increase the number of bottles per pallet and per vehicle. This resulted in an 8% reduction of total emissions related to transport of PERRIER PET bottles in France.
Keep America Beautiful Award for Nestlé Waters

Nestlé Waters North America was presented with Keep America Beautiful’s 2010 Vision for America Award for leadership in source reduction, innovative recycling practices, resource stewardship and community involvement. Keep America Beautiful, Inc. is America’s largest volunteer-based non-profit community improvement organisation, combining education with hands-on stewardship to make the nation’s communities cleaner, greener, safer, and more liveable. Nestlé Waters North America was honoured with the award this year thanks to their many efforts to reduce the company’s environmental footprint, including:

- A 30% reduction in GHG emissions per litre of water in the past five years
- A 60% reduction in the amount of PET plastic used in packaging over the last 15 years through package design and reducing the weight of materials
- Support for aggressive recycling legislation that includes PET plastic water bottles
- Support of local infrastructure and institutions in the communities where the company operates
4.6 Conclusion – 2005-2010

Packaging has been the primary contributor to the optimisation of our environmental performance from 2005-2010. When considering GHG emissions per litre, packaging accounts for 85% of the overall 20% reduction (Figure 23). This is primarily due to Nestlé Waters’ efforts to reduce the weight of packaging materials. Indirect factors have also played an important role, especially the technical optimisation of producing PET resin and, to a lesser extent, increasing packaging collection rates. Improvements in energy efficiency at the manufacturing level have also been quite significant for the company’s environmental achievements, whereas optimisations in the distribution phase have played a rather marginal role over the reporting period.

Nestlé Waters is committed to continuous improvement in its environmental performance. At the same time, our business is dynamic, and making long-term commitments is not realistic. For this reason, instead of five-year goals, we set yearly objectives. We believe this is the most-efficient way to commit to our goals and continue to improve over time, across our entire organisation.

Figure 23
Contributing factors to GHG emission reduction per litre 2005-2010
5 CREATING SHARED VALUE
5 CREATING SHARED VALUE

5.1 Healthy hydration
5.2 Water care
5.3 Community development
Delivering high quality products, promoting high standards of business conduct, sustainably managing water resources, and continuously reducing our environmental impact are fundamental conditions to maintain our business leadership role in the long-term.

Going a step further, we believe that what is good for business can also be beneficial to society. This is what we call Creating Shared Value. Nestlé has worked alongside a number of stakeholders to better understand its role and contribution to the major challenges of our era. Nestlé has identified three relevant fields in which to concentrate our efforts. These three fields identify areas where the needs of society overlap with the company’s business interests:

**Nutrition**, which is not only the *raison d’être* of Nestlé, but is also a key element to consider with respect to major public health challenges: malnutrition, the ageing population, obesity, etc.

**Water**, where access, quality and quantity is increasingly problematic. Rational use of water is an absolute priority for Nestlé, because water is essential to every stage of our value chain.

**Rural development**, as the continuous improvement of living conditions in the agricultural communities where our products are sourced is the best way to ensure long-term supply that meets our quality standards.

As the bottled water division of the Nestlé Group, Nestlé Waters has translated these principles and commitments into areas relevant to the water business. Nestlé Waters is committed to engage in the following areas:

**Nutrition** → Develop **Healthy hydration** science, awareness and accessibility

**Water** → Implement **Water care** initiatives to improve consideration of water

**Rural development** → Work for **Community development** in areas where we are operating
5.1 Healthy hydration

Being the leading healthy hydration company also means being committed to leveraging hydration science and exploring its contribution to human health. We are funding clinical research and contributing to the release of scientific evidence within the medical community, with the objective to further position healthy hydration as an essential component of a healthy lifestyle. Importantly, we also strive to distribute comprehensive information to the general public and consumers to help develop their awareness on this matter.

Last but not least, access to safe drinking water is a humanitarian priority when a natural disaster occurs. In serious cases, the public water supply is often damaged and becomes unusable, making bottled water an immediate solution. We have made it our responsibility to mobilise our organisation to provide an immediate and effective response to affected populations wherever feasible.

Leveraging hydration science

As a healthy hydration company, we believe it is our responsibility to provide resources to those involved in the science of hydration. It is a common understanding that we need to drink water to live. However, the human necessity for water intake is often overlooked in nutritional recommendations. The purpose of hydration research is to provide further answers, both for highlighting the nutritional value of water and for demonstrating the beneficial effect of hydration on human health. Nestlé Waters provides regular funding for hydration research, and participates in the research as well. Some of the most recent articles covering hydration and published in scientific journals were made possible through Nestlé Waters input.

In 2010, Nestlé Waters funded and participated in a critical review (i.e. a study on a range of scientific articles) that summarised the current knowledge from physiologists, doctors and scientists on water, hydration and health, and produced a collective article. The study – published in *Nutrition Reviews* – encourages more research into the health benefits of water and points out the various knowledge gaps that would benefit from further study. The same year, another article was published in the *European Journal of Clinical Nutrition*. This article reviews the quantitative intake of water that is necessary to properly hydrate our bodies. It also explores the impacts of inadequate water hydration. In particular, it states that a healthy sedentary adult living in a temperate climate should drink on average 1.5L a day, on top of the water contained in food, to maintain an adequately hydrated body (Figure 24). It also indicates that mild dehydration corresponding to only 1-2% of body weight loss in adults can impair cognitive functions (alertness, concentration and short term memory) and physical performance (endurance, sport skills).

It is also important to us that healthcare professionals have access to the most up-to-date scientific research. To enable dissemination of information, Nestlé and Nestlé Waters participate in congresses and conferences around the world, as well as provide information directly to healthcare professionals. Information on our publications is advertised through the Nestlé Nutrition Institute, which can be found at: [http://www.nestlenutrition-institute.org](http://www.nestlenutrition-institute.org).

Valuing hydration as part of a healthy lifestyle

In 2009, we partnered with the American Heart Association to promote heart health by sponsoring seven START! Health Walks with a US$500,000 donation and an on-pack promotion to raise awareness about the START! movement. Our NESTLÉ PURE LIFE brand also partnered with Bob Greene, founder of the Best Life™ programme, to launch the Pure Life / Best life Challenge to help people make small changes and form new healthy habits in four key areas: Eat Right, Drink Right, Get Active and Get Green.

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Creating shared value

The following publications were released between 2005 and 2010 thanks in part to our company’s contribution:

- **Water, hydration, and health**  

- **Impact of water intake on energy intake and weight status: a systematic review**  

- **Water as an essential nutrient: the physiological basis of hydration**  

- **Pourquoi faut-il boire de l’eau? Pour maintenir la balance hydrique**  

- **Drinking water is associated with weight loss in overweight dieting women independent of diet and activity**  

- **Replacing sweetened caloric beverages with drinking water is associated with lower energy intake**  

- **Hydration and cognitive function in children**  

- **Water in human health and wellbeing**  

- **Nestlé Hydration Symposium, 15-16 November 2004, Nestlé Research Center, Lausanne, Switzerland**  

### Promoting healthy hydration

We also recommend local activities to disseminate research-based awareness on hydration to a wider audience, by leveraging new hydration information to the media. Our ultimate goal is to transform the science of healthy hydration into an understandable language and educational messages, in a way that connects with consumers. We have strict guidelines on the method in which we communicate this information. Any claim that we make with respect to health is always based on scientific research and subject to a strict process of validation via our Regulatory and Scientific Affairs Department to ensure full compliance with the most recent guidance from public health authorities. Our on-going brand communication includes a high variety of communication supports, such as TV and press advertising, brochures for patient rooms, organising or sponsoring health related events, and our website.

With 25 billion litres sold in 2010, our bottles are probably our most direct way to pass healthy hydration messages to our consumers. Thus, our labels include a “nutritional compass” that provides the nutritional content of the product, advice for consumption and how to obtain knowledge on hydration science.

Since 1998, we have developed the Nestlé brands’ business model that aims to make high quality drinking water affordable to a wider consumer base, in particular to the rising middle-class in the emerging world. The Nestlé Waters brands PURE LIFE, AQUAREL, and VÉRA were distributed in 40 countries by the end of 2010, and had, in one decade, turned into the number one bottled water brand in the world (Figure 25). These brands help to meet the expectation of a growing population that is developing its purchasing power and is willing to buy a trusted and safe drinking water to meet their family’s daily water needs.
To facilitate this, the Nestlé Waters’ model is founded on a competitive price that is made possible by a globalised offer (allowing scaled savings) and multi-source production (reducing supply chain costs). Whereas NESTLÉ VÉRA and NESTLÉ AQUAREL are mineral or spring waters, NESTLÉ PURE LIFE is mostly purified water that complies with stringent specifications. There are some exceptions such as in the United Kingdom and Brazil, where NESTLÉ PURE LIFE is spring or mineral water. Product quality is guaranteed by Nestlé’s credentials. Depending on local taste preferences, the formula of NESTLÉ PURE LIFE may be adapted to adjust the mineral composition with respect to local expectations.

Nestlé Waters brands have made education on healthy hydration one of the key communication axes to consumers. In 2008, the brand launched the “Aqualand” TV advertisement, which kicked-off the “8 glasses a day” hydrabalance plan to raise awareness on the fundamentals of healthy hydration. That global campaign has been translating sound scientific evidence on water balance into understandable information for the general public.

As for healthy hydration, children are a current focus at Nestlé Waters. We believe that the sooner you adopt a healthy lifestyle, the more sustainable it will be. Children often see water as a less attractive option compared to colourful sugar-sweetened alternatives. Our ambition is to make drinking water more appealing to children, so they make drinking water their first choice when it comes to daily hydration. Nestlé Waters intends to focus its educational efforts on children, highlighting the benefits of water hydration.

8 For a healthy sedentary adult living in a temperate climate / 1 glass = 200 ml for an adult
Creating shared value

5 Creating shared value

Disaster relief

When a natural disaster occurs, water sources and distribution systems are often polluted or damaged, resulting in an immediate need for safe drinking water. Providing access to safe drinking water to those affected becomes a sanitation priority that will continue until infrastructure is restored. Bottled water can play a vital role in the aftermath of a disaster.

Any time such an emergency situation occurs in a region where we operate, we provide water relief for suffering communities. We not only provide bottled water and donations, we also mobilise local employees to help in organisation, distribution and logistical coordination in affected areas.

The amount of donations per year depends of course on the situation and needs. Donations are typically in partnership with local governments or national NGOs such as Project Water, a local volunteer organisation in Canada, or the American Red Cross.

In 2010, significant earthquakes were felt in Haiti and Chile, severe drought conditions plagued parts of eastern North America, and typhoons and heavy rainfall impacted countries and communities in Asia. Pakistan experienced some of the worst floods the country has ever seen, affecting over 14 million people. Nestlé Waters’ immediate response in Pakistan included the donation of approximately 100,000L of bottled water, distributed with other food aid through local NGOs and relief organisations, with help and supervision provided by Nestlé staff. In addition, Nestlé partnered with the Swiss Development Cooperation to provide water for irrigation and drinking in flood-affected areas by installing hand pumps for extraction of clean groundwater. Nestlé Waters provided technical services for installation of pumps and water quality sampling.

In Brazil, through our CCU-Nestlé Aguas joint-venture, we contributed US$1 million, including 500,000L of CACHANTUN and NESTLÉ PURE LIFE bottled water. The quake paralysed parts of central Chile and claimed over 500 victims. Shortly after the February earthquake, on 11 April 2010, Nestlé Waters sponsored the Santiago marathon, which gathered 25,000 runners and fueled national pride in the country. Coinciding with the bicentenary of Chilean state independence, runners were kitted in different coloured vests, positioning themselves as a giant Chilean flag pattern visible from the sky as they passed by the presidential palace of La Moneda. The event served as a symbol of a nation’s unity and solidarity in the face of adversity.

Haiti earthquake relief

On 12 January 2010, the Caribbean island of Haiti was struck by a 7.0 magnitude earthquake. Its epicentre was only 15 miles from the island’s capital of Port-Au-Prince, causing severe destruction of government buildings, infrastructure and residential areas. Immediately after the earthquake hit, Nestlé Waters North America pledged US$1 million in bottled water products, and shipments from nearby Caribbean locations started within one week of the quake.

Working with the humanitarian response organisation AmeriCares, 22 truckloads of NESTLÉ PURE LIFE, POLAND SPRING, and ZEPHYRHILLS were initially donated. Due to the extent of damaged infrastructure on the island, our logistics and supply chain teams worked hard to coordinate with local partner organisations to ensure bottled water delivery to areas and people who were most in need. Overall, 3 million bottles of water have been donated. Support for victims continued well after the initial quake, and included liquid meal supplements, milk and food aid from Nestlé Dominica.
5.2 Water care

Access to water in sufficient quality and quantity has always been a necessary condition for health, as well as social and economic progress. The continuous growth of the world’s population is putting increasing demand on freshwater resources. There are more people to feed, more industrial goods to supply, and increasing demand from a growing middle class, putting more and more pressure on water supply. While water is a renewable resource, it is one that can be overexploited. In many places, rainfall is not sufficient to compensate water withdrawals, and as a result, many aquifers are depleted. As a consequence, local water stress is increasing, jeopardising regional development capacities, generating disputes amongst water users and adding to geopolitical concerns. Beyond the question of quantity, pollution sources are quickly (sometimes irreversibly) deteriorating the water quality of our rivers, lakes and underground aquifers. We therefore require ever more sophisticated and costly treatments to supply much needed water.

At Nestlé Waters, we have always been driven by prevention instead of treatment: this is what we call a “water care” approach. But “water care” goes beyond preserving water in the immediate vicinity of our operations. Nestlé Waters is engaged in sharing its expertise in water resources and sustainable management. We have developed multiple collaborative actions with third-parties in order to raise further awareness and consideration of water issues. We are proud to be recognised for our expertise in addressing water resource management and to have assumed an active leadership role in this area. By continuously stepping up our own efforts, increasing awareness of water issues around the world, and forging partnerships with wide-ranging stakeholders, we are playing a part in defining and developing responsible, sustainable local solutions to the global water challenge.

Perpetuating a natural legacy

There is no doubt that the protection of our natural mineral and spring waters facilitates the preservation of these unique sources in their natural state over time. At Nestlé Waters, we are proud of our role in the perpetuation of a priceless natural heritage, especially in a time when the available quantity and quality of many freshwater reserves is quickly depleting in many parts of the world.

In November 2010, Nestlé Waters released a book sold in bookstores in France, Switzerland and Belgium and launched a website highlighting the uniqueness of 15 of its natural mineral water springs. Realms of Water presents how these unique springs are powerfully influenced by the region’s terroir, or sense of place, where its unique taste and mineral composition was forged. The unchanging nature of the terroir allows a mineral water to retain its identity and stability through time. Although man does not intervene in the process through which mineral water develops, he is responsible for guaranteeing the quality of the surrounding environment, and for protecting the spring from pollution. From Italy to Argentina, England to Turkey, Spain to Vietnam, Realms of Water presents how concerted actions with local communities facilitates passing down a priceless legacy, and perpetuating the diversity of our most precious of natural resources.

[www.realmsofwater.com](http://www.realmsofwater.com)
Creating shared value

Water education: a 20-year commitment

At Nestlé Waters, we believe that educating young people today is the most efficient way to facilitate a life-long commitment to water conservation.

Nestlé Waters has been the largest private donor to the Project WET (Water Education for Teachers) Foundation for decades. Thanks to this on-going support (our newest donor agreement has renewed the partnership to 2014), Project WET is today recognised as the leading worldwide organisation for water education. This United States-based foundation has been publishing water education materials for 25 years. The Project WET’s fun, hands-on and interactive approach spreads important messages about water, water resources, water management and water protection. Project WET reaches millions of children in more than 50 countries across every continent, and works in partnership with UNESCO, USAID, the World Meteorological Organisation and the World Water Council.

Nestlé Waters’ involvement with Project WET began in the United States in 1992. We have provided funding and on-going operational support for the past two decades, helping extend the educational network across the United States, training more than 30,000 teachers a year. Our contribution extends far beyond North America. Since 2005, a dozen additional Nestlé Waters subsidiaries have been leading the localisation, implementation and distribution of Project WET educational materials in their respective countries. These include the following countries:

- Vietnam
- United Arab Emirates
- Mexico
- China
- Hungary
- France
- Argentina
- South Korea
- Italy
- Pakistan
- Thailand
- United Kingdom

Those national programmes are often initiated in collaboration with the local Ministry of Education or institutional partners, with a specific focus on raising awareness about the importance of water conservation. Working hand-in-hand with local authorities, we have helped to deliver water education to hundreds of thousands of children over the reporting period.

www.projectwet.org

Project WET China

In 2010, we launched Project WET (WET 项目) in 18 primary schools in Shanghai, China. These schools adopted eight Project WET activities as part of the classroom curriculum. Five workshops for teachers were held, and over the course of the year, 45 training courses reached out to nearly 20,000 students.

Project WET Lebanon

Nestlé Waters Lebanon initiated a Project WET initiative in 2005. After a pilot phase in a few private schools and participating in several community events, the company partnered with the Ministry of Education to accelerate the diffusion of the programme to public schools. An agreement with the DOPS (Pedagogical department of the education ministry) in 2007 allowed us to directly reach over 500 teachers. Each teacher has received WET training and has been equipped with Project WET materials to disseminate water conservation education to their pupils.
Understanding permafrost melting in Italy

Nestlé Waters Italy assists the University of Milan’s scientists in conducting innovative research on permafrost in the Alpine glacier where LEVISSIMA’s water is sourced. Permafrost is soil or rock that is permanently frozen, and while there are still many unknowns, its current depletion around the world is a key indicator of climate change. This research project is the natural evolution of the partnership that LEVISSIMA first agreed to in 2007 with the University of Milan, studying the quantification and development of the Piazzido-Dosdé glacier. This new stage will run until the end of 2011, with the ultimate goal to provide the national and international scientific community with information that will help improve understanding of the mountains and their waters. As with previous experiments, the research team are carrying out tests with “zero environmental impact”. The team relies on professional alpinists to position research sensors without the use of any mechanical forms of transportation.

Together for World Water Day

World Water Day was conceived by the United Nations following the Rio Earth Summit in 1992 and is celebrated annually on 22 March. The goal of World Water Day is to draw attention and global awareness to the importance of freshwater. In partnership with Project WET, Nestlé Waters celebrates the World Water Day by organising educational activities for youth and children, the water stewards of the future. On 22 March 2010, our first coordinated global event was celebrated in Nestlé Waters factories in Argentina, France, Germany, Greece, Hungary, Italy, Lebanon, South Korea, Spain, Switzerland, United Kingdom, United States, and Vietnam.

Watershed preservation

Nestlé Waters is engaged in multiple initiatives around the world that have a common goal: develop responsible water care behaviour and stewardship beyond our primary business concerns. We partner with various organisations sharing the same vision to develop programmes aimed at restoring or cleaning watersheds, as well as educating children on relevant water challenges. One of our programmes, amongst a dozen similar programmes initiated by Nestlé Waters North America during the reporting period, is our OZARKA brand’s partnership with Ducks Unlimited, which makes efforts to restore and improve wetlands near OZARKA’s bottling facility in Hawkins, Texas and along the Texas Gulf Coast. This active wetland management effort will improve wetland areas that provide critical habitat for migratory and wintering waterfowl, and benefit breeding wood ducks and other resident water birds and native wildlife species.

Leveraging water science

Our expertise in sustainable water management and water quality protection is built on decades of active commitment, and this is knowledge that we are willing to share. Our hydrogeologists are increasingly participating in sessions and giving presentations at key international water events, such as the following:

- Water Resources Management Conference held in Malta (2009)
- “Improving efficiency in water management” seminar organised by the Water and Energy Exchange in Cyprus (2010)
- 38th International Association of Hydrogeologists congress in Cracow (2010)
5.3 Community development

Our operations depend on the capacity to ensure a long-term licence to operate. From a strictly legal approach, a “licence to operate” corresponds to obtaining water withdrawal permits from local authorities. However, in practice, “licence to operate” is about being accepted by and integrated within the local communities in which we operate. In most cases, we are not the only activity that occurs in the area. Our business’ future is dependent upon the local community’s commitment to preserve the local water source, both in terms of responsible use as well as protection from pollution. Trust is key, and we work to have an open and transparent dialogue with the local community. Beyond dialogue, and beyond the value created from jobs and taxes, we are also an active member of the local community, through participation in and contribution to local community events and initiatives.

Economic and social contributions

Most of our plants are located in rural or remote areas, in the immediate vicinity of the water sources. In many cases, our company is an important economic base within the local community. We are often the main local tax and job provider; we are often the primary economic outlet for local suppliers and service providers. This creates an obvious social and economic responsibility that goes far beyond our employees and their families, and relates to the overall well-being and prosperity of these communities.

Nestlé Waters’ first contribution to the local economy includes the creation of jobs and benefits, paying local taxes and building or improving public infrastructure. In 2009, Nestlé Waters paid approximately 100M CHF (US$108 million) in taxes to local authorities and communities.

Beyond contributing to the local economy through employment and tax contributions, Nestlé Waters brands pride themselves on supporting local community events and social or cultural associations. This is accomplished through sponsorship of local athletic teams, investment or donation to events and working in partnership with local government or non-governmental organisations. A good example is Buxton, in the United Kingdom, where Nestlé Waters has been supporting local programmes for the past 20 years, including:

- Collaboration with the High Peak Borough Council to protect 500 square miles of National park surrounding the BUXTON and NESTLÉ PURE LIFE springs
- Investment in local events and institutions, such as the Buxton Festival and Buxton in Bloom
- Sponsorship of the Buxton Cricket Club, Golf Club and Football Club
- Implementation of recycle stations in Buxton to promote recycling “on-the-go”
- Education on water conservation in local schools, through Project WET, helping teachers, parents and children to protect and preserve water.

New facilities often create the need for new or improved infrastructure. Our facilities require at minimum, roads and access, electricity, communications, water lines, and sewage lines. If it is a completely new facility, all of this infrastructure must be built, and if it is already in place, it may require upgrading or expansion. At Nestlé Waters we recognise our responsibility to contribute to the maintenance and improvement of the public infrastructure used by the company. For example, we may restore or support the restoration of a road frequently used by our trucks. We also have a responsibility towards the safety of the residents of the communities that we operate in or near. When necessary, additional safety measures such as pedestrian sidewalks and street lighting are installed. New development, including infrastructure, goes through environmental review prior to construction, which in some cases includes community consultation/public comments, depending on the country or jurisdiction in which our facility is located.
Nestlé Waters Egypt has set up a corporate social responsibility platform that will improve the village of Kafr el Arbein, the rural village where our Banha factory is located and our BARAKA water brand is produced. The village is part of Banha City (Kalioubiya Governorate), about 40 kilometres north of Egypt’s capital city, Cairo. The aim of this project is to address the village’s infrastructure, including significant improvement to the village’s road safety, cleanliness and environment, as well as contribute to the village’s beautification. This project was originally planned internally at Nestlé Waters Egypt in 2007, and since then we have been working in partnership with local authorities. The project has helped this local operation to build strong ties with local partners as well as with its employees.

Project components include:

- Re-asphalting the village’s main roads
- Cleaning a canal and building banks with stones and public benches
- Creating safe sidewalks for pedestrians
- Upgrading the lighting system along main roads
- Covering the canal facing the factory and planting a garden
- Transferring the weekly market from the village centre to another location
- Transforming streets in order to allow the trucks to drive safely
- Reinforcing a bridge, dramatically enhancing pedestrians safety in the village
- Planting trees along main roads
- Installing rubbish bins and implementing a daily street cleaning and rubbish collection system
- Uniform painting of the village buildings for design character

Nestlé Waters attended a weekly village meeting to discuss with village representatives the importance of their role to the success of the project, as well as any future changes that the village should be aware of. In addition, an awareness campaign was initiated to bring attention to personal health, safety and environmental responsibility. Initially, ten boards were placed on the village main street, and later more boards were produced with images of local residents. Feedback from the local residents was very positive, with the most constructive change being the placement of bins and daily street cleaning and rubbish collection.
Few commercial goods are so intimately linked with their origin as bottled water. Indeed, we have an inextricable cultural link with the regions where we operate. Particularly for our naturally sourced waters, it is often the case that the name of our brand is identical to the town, or directly refers to the geographical origin of the source. We then share a common identity that creates a mutual responsibility with respect to one another’s reputation. The common identity has sometimes been built over decades or even centuries, when mineral water stood for thermal spas. In most cases, while we are no longer the owner of thermal spas, they are a core constituent of our history and we have a common interest with the new private or public owners to maintain and invigorate this cultural heritage.

One of the most symbolic aspects of the connection between brand and community is sharing access to water with the local population. Many public fountains and taps within thermal compounds are directly sourced from Nestlé Waters’ resources and maintained by the company. For example, over 5,000m³ a year are provided at no cost directly to St. Anne’s fountain in the town centre of Buxton, for public drinking water supply.

Going beyond sharing drinking water, Nestlé Waters factories are sometimes involved in improvement of the local water supply infrastructures for domestic or agricultural needs. Our ERIKLI brand originates from the region of Bursa in Turkey. The surrounding local villages of Alacam, Saitabat and Derekkizik have benefited from continuous investments by Nestlé Waters to revitalise and upgrade the local water supply facilities. In addition to providing safe water to the population, these investments help to develop the efficiency of local irrigation systems, covering more than 400 ha of farm land in rural communities.
Addressing the concerns of our neighbours – São Lourenço, Brazil

Nestlé Waters acquired the SÃO LOURENÇO brand in the 90’s. Our first priority was to ensure the alignment of the manufacturing facilities to Nestlé Waters’ standards and processes. While focusing on the transformation of factory operations, local management initially missed an opportunity to establish a regular and open dialogue with the local stakeholders to explain the on-going changes and listen to the developing concerns of the São Lourenço population.

In the early 2000s, Nestlé Waters Brazil experienced community discontent over its operations. Three events set off the controversy, including: floods in the São Lourenço region; Nestlé Waters Brazil’s decision to change the mineral content of a new brand sourced from the spring; and the poor conditions of the park the factory was located in due to lack of investment. The park – owned by Nestlé Waters – is one of the city’s main tourist attractions and is home to nine different natural mineral water springs.

The dissatisfaction with Nestlé Waters’ operations initiated a new strategy targeted at engaging in open dialogue with the community. Relevant stakeholders were identified and a meeting was held with local NGO representatives, community officials and key opinion leaders. This meeting initiated an open dialogue with the community and Nestlé Waters Brazil. Our response was to first renovate the park’s spa, a project that was finished in the beginning of 2008. Another project included native pine tree restoration over an area of 26,000m². Other community measures included social and educational events in the park to draw visitors, and programmes in partnership with the government designed to improve health and wellness.

In 2008, Nestlé Waters Brazil decided to further strengthen its relations with the local community by creating the Amigos do Parque group, made up of local government representatives, NGOs and other members of the community. The group’s objective was to open and foster dialogue with the city in order to discuss issues and future projects, all for the park’s benefit. Lastly, school education and teacher training programmes were developed to educate children about healthy eating habits.
Biodiversity preservation

Lastly, our water care approach has another benefit other than preserving the long-term integrity of groundwater resources. Limiting the use of pesticides and fertilisers, preserving land and re-vegetating/restoring disturbed areas is also very beneficial to local biodiversity. In 2010, our PLANCOET natural mineral water factory in France initiated a programme with five local partners for the enhancement and protection of biodiversity and natural heritage around the spring source. The programme aims to be an example of exemplary site management in Brittany, as well as a site for environmental education and eco-tourism. A research study is currently underway that will report on the success of the programme and will be released in 2011/2012.

We believe that biodiversity benefits the entire population. We intend to further extend good practices in order to continuously contribute to environmental excellence in our partner communities.

Habitat protection – Henniez, Switzerland

Biodiversity and species survival is being threatened globally through human disruption of land and ecosystems. One of the key reasons for this decline is habitat degradation due to polluted runoff from agricultural practices. Organic farming practices initiated within the Henniez estate in Switzerland have helped to maintain quality habitat, both on natural areas and agricultural land. Taking advantage of the protected and clean environment, a local beekeeper has set up several successful hives, and honey is now being produced at Henniez.
Native tree restoration for watershed protection – Santa María, México

Aztec legend surrounds the crystal-clear waters of Santa María Atepatzingo spring. A tale of ill-fated lovers, legend has it that the bodies of Princess Iztaccihuatl and warrior Popocatepetl formed a pair of volcanoes, one active (at 5,452m) and one extinct (at 5,286m) in the Iztac-Popo National Park in central Mexico. From the depths of the Iztacihuatl volcano, having first seeped through the surface geological layer composed largely of volcanic sediment that has undergone a dissolving process, SANTA MARÍA spring water drains into the deepest-lying rocks and then arises naturally under a protected stone shelter beneath a grassy slope on a ranch near the village of Tlahuapan. Unlike many water sources that come from unprotected sites within Mexico, the waters of the SANTA MARÍA Atepatzingo spring lie at the heart of a 2,438 hectare protected ranch.

Formerly utilised for agricultural fields and fruit trees, restoration of the bare, unused land began in November 2001. Within a few years, approximately 100 hectares had been restored to the native forest of pine and oak. This restoration is important to prevent erosion and to encourage replenishment of the groundwater. By 2006, the restoration was so successful that a Mexican environmental agency classified the area as an experimental ecology zone devoted solely to the protection of forest and wildlife. As of 2009, 348,124 new trees were planted on the ranch, encouraging protection of the watershed and laying the foundation for a diverse ecosystem. In addition to environmental protection, we also aim to respect the water needs of the surrounding community. Nestlé Waters uses only 10% of the spring source for bottling, the rest flowing on to the surrounding villages, to be used for agriculture, industry and domestic needs.
Cultural and ecological preservation in a UNESCO biosphere reserve – Viladrau, Spain

The Montseny mountain range, the highest area within Catalonia in eastern Spain, is home to a diverse range of landscapes, habitats and flora and fauna. This unique landscape was formally recognised for its natural beauty and varied environment in 1978 and was designated as a UNESCO Biosphere Reserve. The reserve serves as a regional natural wonder, attracting over 1,500 tourists every year. Just outside of this 30,000 hectare reserve lies the small town of Viladrau, home to Nestlé Waters’ VILADRAU natural spring. The underground waters of Viladrau are inextricably linked to the water catchment within the biosphere, making watershed preservation critical for both the spring and the UNESCO status of the reserve.

The Montseny Biosphere Reserve is home to a variety of European natural environments, from Mediterranean to oak woodland to boreo-alpine vegetation on the mountaintops. This range of habitats results in a corresponding high diversity of habitats and species. The reserve hosts 270 species typical of Central Europe and the Mediterranean, including wild boar, foxes, and the endemic and endangered Montseny brook newt (Calotriton arnoldi). We employ a biodiversity protection policy to ensure that the spring is properly managed and that the surrounding environment does not feel the impact of human activity. Environmental improvements such as site restoration and tree planting in the area around the factory have had marked effects. In addition to partnerships with local stakeholders, starting in 2010, UNESCOCAT, the UNESCO Catalan branch, will monitor the Viladrau factory for its impact on biodiversity. It is our hope that the results of the surveys and monitoring will show that the efforts of the VILADRAU factory have maintained and improved the biodiversity of the area as well as the watershed as a whole.