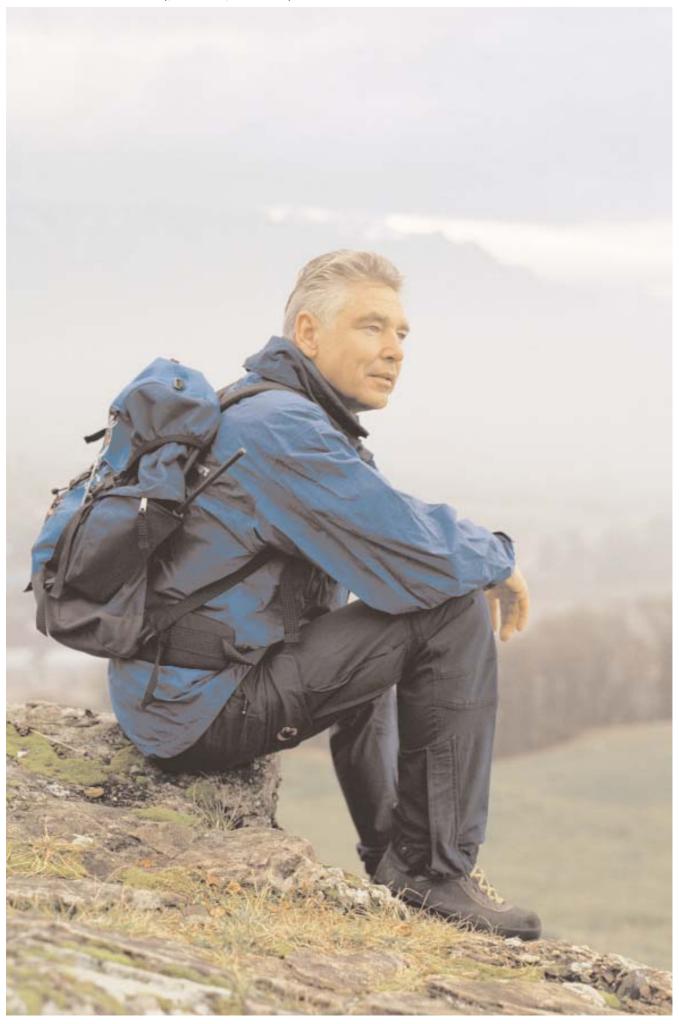


#### Table of contents Case studies 3 Message from the CEO 17 From spas to a world market The history of bottled water around the world 5 Water, a scarce and renewable resource 23 France Sustainable development around sources Nestlé, the world's leading food 24 Argentina Strengthening water resource protection and beverage company 25 Nestlé's commitment Preventing forest fires to sustainable water use 28 France 13 The Nestlé Water Policy Préférence, a partnership for sustainable milk production 14 Sustainable economic growth 31 Egypt Closed loop circuits to reduce water 18 Water and the environment and energy consumption 21 The water cycle 31 South Africa 22 Actively protecting water resources Saving water through employee involvement 27 Water in the Nestlé supply chain 32 The Nestlé Environmental Management System Optimising water use in factories 44 47 Environmental sponsorship 34 Continuously improving waste water 50 management Social aspects 52 Relations with employees 34 Thailand 54 Meeting consumer needs Recycling suitable water streams 56 Involvement in the community 38 France Innovating the glassmaking process 61 Nestlé Research and Development 40 Vietnam Packaging renovation improves 63 The future environmental performance 40 Saudi Arabia A new life for plastic caps 46 Environmental management system Appointing "Environmental Guards" 48 From Italy to Tibet Cleaning up "the roof of the world" 49 Hungary Preserving Balaton National Park 53 Nestlé Waters Alacarte training to improve performance 57 USA, Mexico, Philippines and France Educating the water stewards of the future South Africa Capacity building in water resource management 59 France, USA, Spain Water education through guided tours and exhibitions



### Message from the CEO

Water is essential for life.

As the world's leading food and beverage company, and the world leader in bottled waters, Nestlé has a responsibility towards the sustainable use of water resources. This responsibility is embedded in our *Corporate Business Principles* and in our strategy for sustainability.

Our Company was founded in 1867 by Henri Nestlé with the invention of the first successful cereal-milk infant food. In fact, Henri Nestlé had already developed a bottled water business in the 1840s. Since its creation, our Swiss-based Company has had its head office situated on the shores of Lake Geneva, in a region of clear lakes and pure rivers.

Today, as we move foreward in the 21st century, we are fully convinced that a business strategy for high-quality food and beverage products can only be maintained by business practices founded on the principle of long-term sustainable development. This applies, in particular, to water and the way this scarce and renewable resource is used.

The Nestlé Water Policy, provided herein, describes our commitment to the sustainable use of water resources. It complements The Nestlé Policy on the Environment.

In this document, we describe how water sustainability, protection and stewardship are integrated throughout all areas related to our activities, including manufacturing of our products, their preparation by consumers, and production of our bottled waters. Our practices, initiatives and achievements are highlighted through a wide range of case studies taken from actual Nestlé operations.

We ensure proper stewardship practices both inside and outside Nestlé. Water management training programmes have been implemented at our offices and sites. We consult with local communities on water issues. In many countries, support for water education has been extended to non-governmental organisations, that are highly active in this field.

Finally, the fact that we have continuously reduced the quantity of water used to manufacture each kilo of Nestlé product, even with a considerable growth in our bottled water business, clearly shows that our commitment to sustainable use of water resources is given the utmost attention throughout our Company. I intend to make sure that this continues in the future.

P. Brabeck-Letmathe Chief Executive Officer



# Water, a scarce and renewable resource

Water is essential for life. It represents about 60% of an adult's body weight and some 75% of a new-born baby's body weight. On average a loss of 12% of our body water (approximately, 5 litres) can cause serious illness.

At first sight, water would appear to be an abundant resource on our so-called "blue planet".

However, 97.5% of the world's water is in the form of salt water in our seas and oceans. 70% of the remaining 2.5% of fresh water is frozen in polar icebergs and glaciers. So, in fact, the fresh water that is available for both human and environmental needs represents barely 1% of the earth's total water mass.

The increase in the world's population – approximately two billion people in the past 30 years – has considerably reduced the per capita availability of water resources. Although the need for water is rising steadily, accessible water remains unevenly distributed: 23 of the 190 countries in the world have 66% of the resources.

The effects of human activity must also be taken into account. Pollution has an enduring impact – both on freshwater quantity and quality – whether its source is urban, industrial or farm-related.

The World Health Organisation has identified the lack or poor quality of drinking water as one of the world's leading causes of mortality. Indeed, 1.2 billion people in the world still don't have access to a drinking water system, and 2.5 to 3 billion lack decent sanitary facilities.

The World Summit on Sustainable Development (WSSD), convened in Johannesburg in 2002, produced a Plan of Implementation that included the launch of an action programme, with financial and technical assistance, to halve, by 2015, those without access to safe drinking water or basic sanitation.

At the beginning of the 21st century, water is as valuable and scarce as it has ever been. However, in contrast to mining resources and hydrocarbons, water is a renewable resource, unlikely ever to be exhausted by human activities. Year to year, the average amount of the earth's total rainfall is sufficient to meet total needs. But there are many parts of the world where the gap between rainfall and needs creates significant water shortage.

To ensure its sustainability, this wonderful, natural resource must therefore be protected and managed with the utmost care by all involved.



# Nestlé, the world's leading food and beverage company

Nestlé provides high quality food and beverage products for many millions of consumers throughout the world. The range of Nestlé brands is extensive: from Nescafé to Nestea, from Maggi to Buitoni, from Purina to Nestlé itself. Other well-known brands include Nespresso, Nesquik, Milo, Smarties, Kit Kat and Perrier. The Company's range of food and beverages encompasses coffee, milk products, infant and adult nutrition, ice cream, soups and bouillons, pasta, chocolate and confectionery, breakfast cereals, petcare and bottled waters.

This huge variety of products, consumed in so many different countries all over the world, gives Nestlé its ranking at the top of the food industry. This is why Nestlé has the responsibility – and the pleasure – to create everyday enjoyment for millions of people: Good Food, Good Life.

#### Nestlé Waters, world leader in bottled waters

Over the years, Nestlé has been placing greater priority on bottled waters. For the consumer, regular consumption of bottled water is an important contribution to good and balanced nutrition.

Nestlé first became involved in bottled water in 1969 by acquiring a stake in the Société Générale des Eaux Minérales de Vittel. In the 1970s, Nestlé acquired Rietenauer and Blaue Quellen AG in Germany; and the entire Perrier Group in 1992.

Once created, the Bottled Water Group began to step up its development. It extended to the rest of Europe and Asia, then to Latin America and to the Middle East. Its American subsidiary was already a leading player in the USA. By the end of 1997, the Group was present in every continent. In 1998, its position as world bottled water leader was consolidated with the acquisition of the San Pellegrino Group, the renowned Italian bottled water company.

In 2002, the Group, previously known as Perrier Vittel, was re-named Nestlé Waters. Today, Nestlé Waters is established in 130 countries. Its most famous brands include Perrier, Vittel, Contrex, S.Pellegrino, Acqua Panna, Poland Spring, Eco de los Andes, La Vie, and Baraka, as well as Nestlé Pure Life and Nestlé Aquarel.

Nestlé internet site: www.nestle.com

### Nestlé Corporate Business Principles

Throughout its 136-year life, Nestlé's fundamental approach to business has been the creation of long-term sustainable value for its consumers, customers, employees, shareholders, and society as a whole.

The Nestlé Corporate Business Principles set out the basic rules that Nestlé follows to make sure that the highest standards of conduct are maintained. These were issued in 1998 and updated in 2002 in order to integrate all existing business principles at Nestlé into one single document, which now also includes Corporate Governance Principles. The updated Nestlé Corporate Business Principles include all nine principles of the UN Secretary General's Global Compact for Business, regarding labour standards, human rights, and the environment.

Topics covered in the Nestlé Corporate Business Principles include: national legislation and international recommendations; consumers; children as consumers; infant health and nutrition; human rights; human resources and the workplace; child labour; business partners; conflicts of interest; relationship with suppliers; competition; external relations; protection of the environment; water policy; agricultural raw materials; and compliance.

These Principles have been translated into over forty languages and all Nestlé managers are required to know and abide by them. They are incorporated into our ongoing training programmes, particularly for new employees.



# Nestlé's commitment to sustainable water use

Nestlé supports the sustainable use of water, strictly controls its utilisation in the Company's activities and strives for continuous improvement in the management of water resources.







As a food and beverage manufacturer, water is absolutely essential for Nestlé. Water is used to produce the agricultural raw materials purchased, it is used in manufacturing the Company's products, it is used for their preparation by consumers, and it is used for bottled waters.

Throughout its operations, Nestlé is totally committed to sustainable water use.

The Nestlé Water Policy was first published in 2000 and has been updated in this document. It confirms the Company's long-term commitment to the responsible management of water resources – part of Nestlé's broader commitment towards sustainable development in general.

At Nestlé, we define "sustainable development" as the process of increasing the world's access to higher quality food, while contributing to long-term social and economic development, and preserving the environment for future generations.

The Nestlé Sustainability Review, 2002

#### Nestlé is a small water user...

More than 70% of all freshwater withdrawal is used in agriculture – and much of this is lost through evaporation.

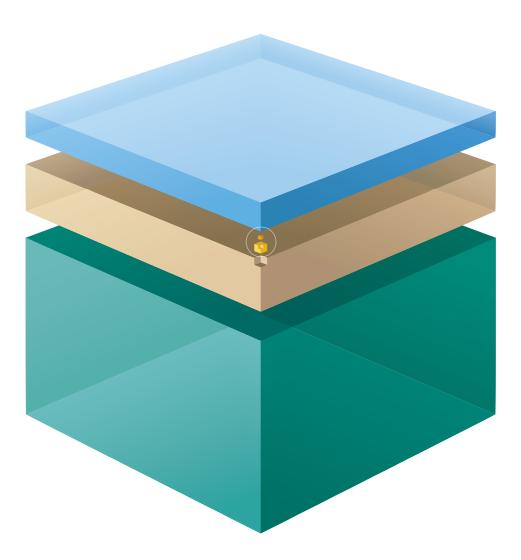
While Nestlé supports the sustainable use of all water, it is important to realise that the Company's use of freshwater resources is relatively small, and to put it into perspective. Nestlé's worldwide operations utilise just 0.005% per year of the total estimated freshwater withdrawal. Nestlé Waters uses only 0.0008%.

... and helps to increase accessibility to safe water Bottled water is not a major part of the solution to the world's drinking water needs. However, when no public safe water supply is available, bottled water can be a source of clean water.

Bottled water is often the consumers' choice for a healthy beverage that gives them a source of minerals, helps to prevent obesity, and in so doing, reduces the risk of associated healthcare problems.

Its convenience and portability are also in tune with today's lifestyles and consumption modes – "on-thego" or in the office.

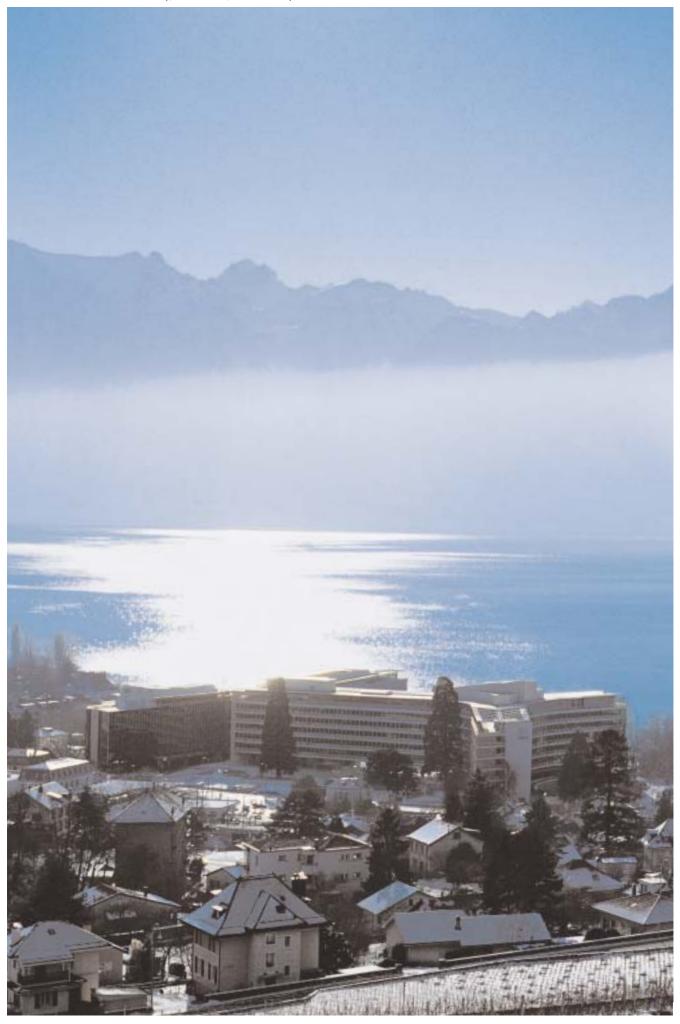
### Worldwide freshwater use



Global freshwater withdrawal: 4010 000 billion litres/year 100% (4010 km³/year)

Agriculture 70%Industry 20%Domestic 10%





### The Nestlé Water Policy

Water is a natural resource that is indispensable for life. Nestlé recognises that the responsible management of worldwide water resources is an absolute necessity. Preserving both the quantity and the quality of water is not only an environmental challenge, but also one that spans economic, political, social, cultural and emotional considerations.

As a leading food and beverage company, water is a key priority for Nestlé – for manufacturing Nestlé's food products, for their preparation by consumers and for bottled waters. To help assure a long-term, high quality, adequate water supply, Nestlé supports the sustainable use of water, strictly controls its utilisation in the Company's activities and strives for continuous improvement in the management of water resources.

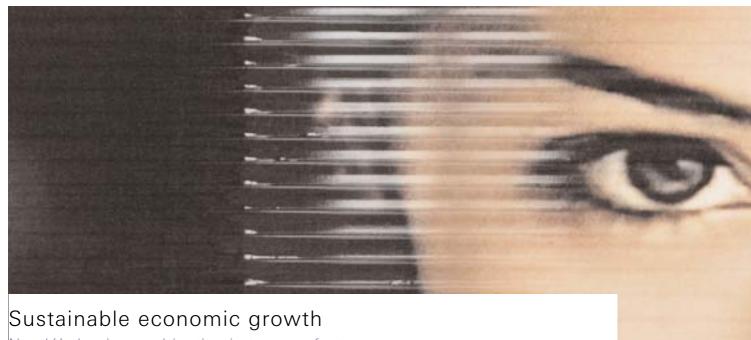
The Nestlé Water Policy complements The Nestlé Policy on the Environment and includes the following:

- 1. Water is essential for nutrition. Nestlé Waters, the water business of Nestlé, provides a wide range of pure, safe, wholesome and convenient bottled waters of high quality to meet the increasing and varied needs of consumers throughout the world. Protection of springs and their surroundings is of primary importance in this endeavour.
- 2. Nestlé directs its worldwide research and development network towards:
- the innovation and renovation of its products and processes, including manufacturing methods that minimise water consumption and waste water generation;
- scientific research that is centred on the physiological and quality aspects of water.
- 3. Agricultural raw materials are dependent on water. Although, in general, Nestlé is not involved in the production of raw materials, it supports

and encourages sustainable, environmentally-sound farming methods, including best possible practices for water use and conservation, and gene technology. As a raw material for food processing, water must satisfy both local legal requirements and internal quality criteria.

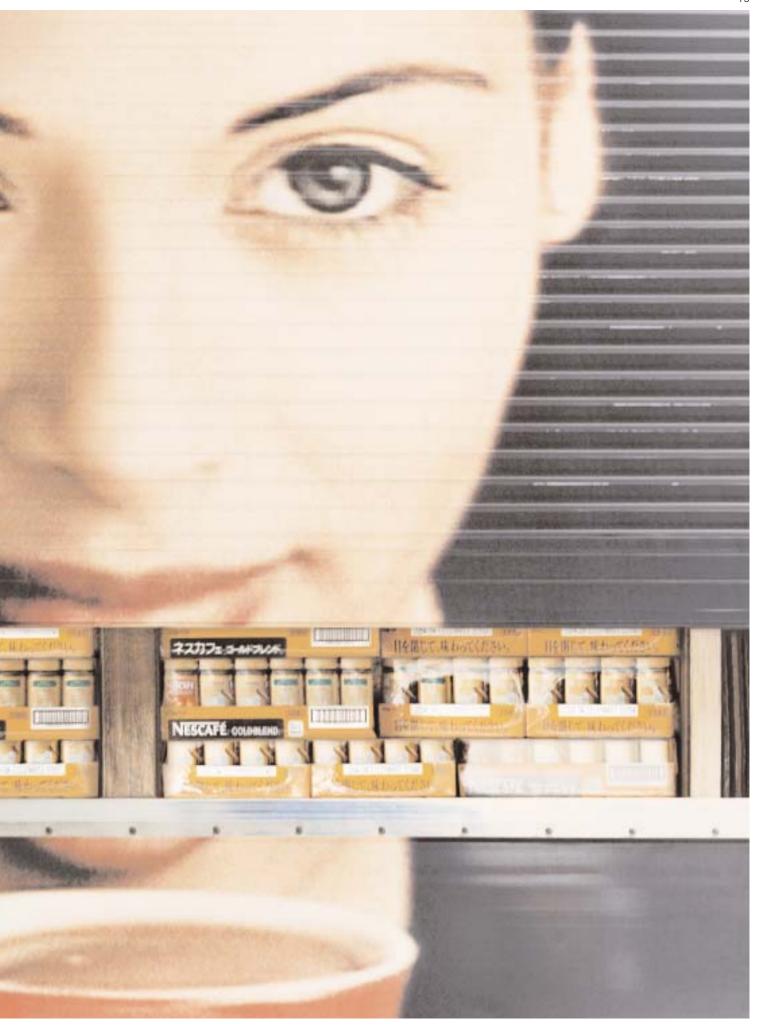
- 4. Nestlé strives to achieve optimal performance in its manufacturing activities, including water management:
- without compromise to the safety and quality of its products, freshwater use is reduced as much as possible and, wherever feasible, water is re-used and recycled; and
- used water is treated and returned to the environment according to local legislation; where none exist, internal Nestlé standards are applied.
- 5. The Nestlé Environmental Management System (NEMS) ensures the continuous improvement of Nestlé's environmental performance, including management of water resources: objectives are established, progress is monitored, results are checked and corrective and preventive actions are implemented.
- 6. As part of its broader commitment towards the good of the community, Nestlé:
- in co-operation with health authorities, promotes to consumers the importance of using safe water for food and drink preparation; and
- provides education, supports initiatives and fosters awareness of the importance of water resource conservation among employees, governments, local communities, schools, industry, consumers and other stakeholders.

P. Brabeck-Letmathe Chief Executive Officer



Nestlé's business objective is to manufacture and market the Company's products in such a way as to create value that can be sustained over the long term for shareholders, employees, consumers, business partners and the large number of national economies in which Nestlé operates.





Nestlé does not favour short-term profit at the expense of successful long-term business development, but Nestlé recognises the need to generate a healthy profit each year in order to maintain the support of shareholders and financial markets, and to finance investments. This is reflected in the Company's consistent growth in overall turnover over many decades.

As far as current performance is concerned, the year 2002 was again a record year with CHF 89.2 billion in sales (an increase of 5% over 2001) and CHF 7.6 billion in net profit (an increase of 13% over 2001).

Sustainable economic growth is also the case with Nestlé Waters, the water business of Nestlé. It is now the world leader with 16% share of the bottled water market. It accounts for approximately 9% of Nestlé's overall sales, with a turnover of CHF 7.7 billion.

Because of its long-term strategy and worldwide operations, Nestlé has a significant, positive impact on the economies of many countries.

By the 1920s, Nestlé already had production facilities in the majority of European countries, and in 1921 built its first in a developing country, Brazil. Today, about 30% of Nestlé's business is in the developing world, and over 45% of its factories are located in these regions – reflecting the Company's commitment to local or regional production.

While improving the quality of foods that are locally available, Nestlé also contributes to developing countries' sustainable economic development. It does this in many different ways – transferring its technology, training local employees to international standards, running apprentice programmes, as well as paying taxes that help fund local infrastructure construction.

The Company's policy of local or regional production enables developing countries to move from being simply a producer of agricultural raw materials to being a manufacturer of finished products. As a result, national governments across the world seek out and welcome Nestlé investments, and the Company is continually evaluating new opportunities and investing in new operational facilities.



Drinking fountains San Pellegrino Terme, Italy



Contrex bottling plant, circa 1910

Case study From spas to a world market 17

### The history of bottled water around the world

The origins of bottled water can be traced back to the earliest civilisations. Well aware of water's health benefits, the Romans searched for and developed sources as they set about establishing their empire. According to legend, after crossing the Pyrenees, Hannibal, the famous general of the Carthaginian army, rested his troops and elephants at Les Bouillens in France, the location of the Perrier spring.

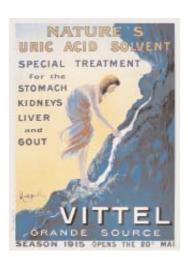
The spa movement that began to emerge in Europe in the eighteenth century had its origins in baths dating from Roman times. Science and medicine touted natural mineral water's beneficial effects for bathing, showering and drinking. For example, as early as 1760, people came to Contrexéville in France – at the Contrex spring – for a cure to eliminate kidney stones. The spa tradition was also developing in many other countries, including Italy – at the San Pellegrino baths – and the Americas.

Cold spa waters were bottled for the first time in France in the 1850s. The legal permit to bottle Vittel Grande Source natural mineral water was granted as early as 1855. Perrier followed in 1863, and other European countries a few years later. In 1903, Vittel Grande Source and Hépar natural mineral waters were declared "d'intérêt public" ("of public interest") by the French authorities.

Water spas and the bottling of natural mineral waters had also become well established in North America at that time. In 1845, Poland Spring water was bottled for sale in three-gallon demi-johns. In South America, São Lourenço bottled water appeared in Brazil in 1890.

In the early days, consumption of bottled natural mineral water was the privilege of the haute bourgeoisie, captains of industry, politicians, royalty, and so on. It was bottled in glass or stoneware, with porcelain or cork stoppers. By the mid-nineteenth century, however, the development of railways and the emergence of industrial production techniques were gradually transforming the business. Bottling methods changed as consumption spread, and by the mid-twentieth century, global production had climbed to several hundred million bottles.

Vittel revolutionised the market in 1968 by launching the first plastic bottle – aimed at more general public

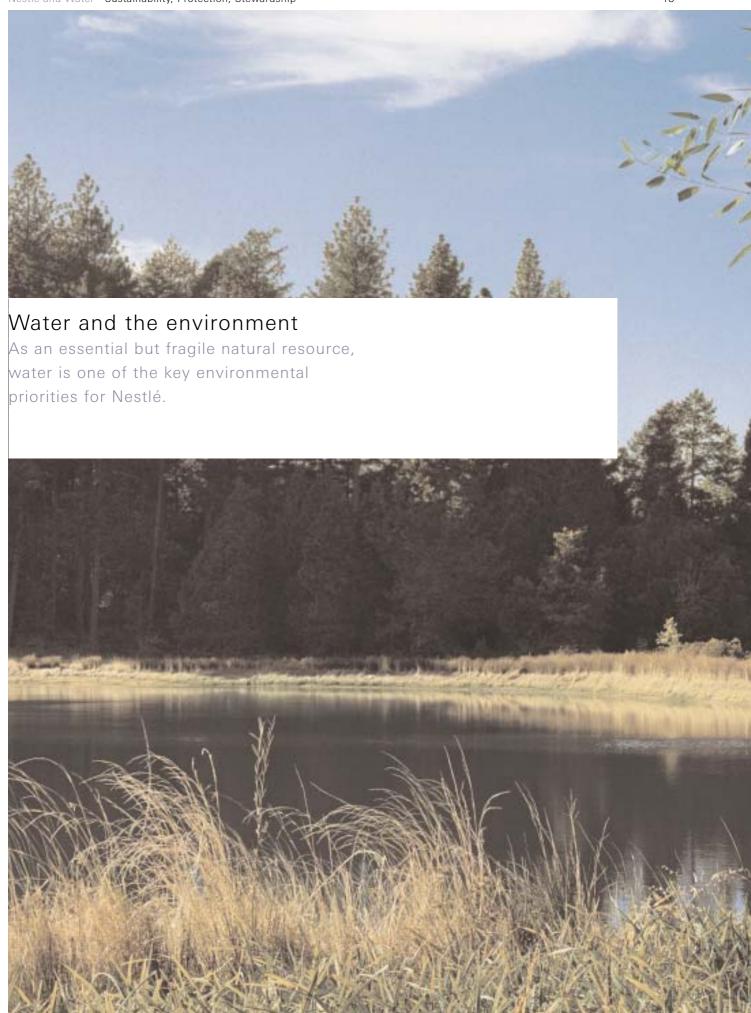


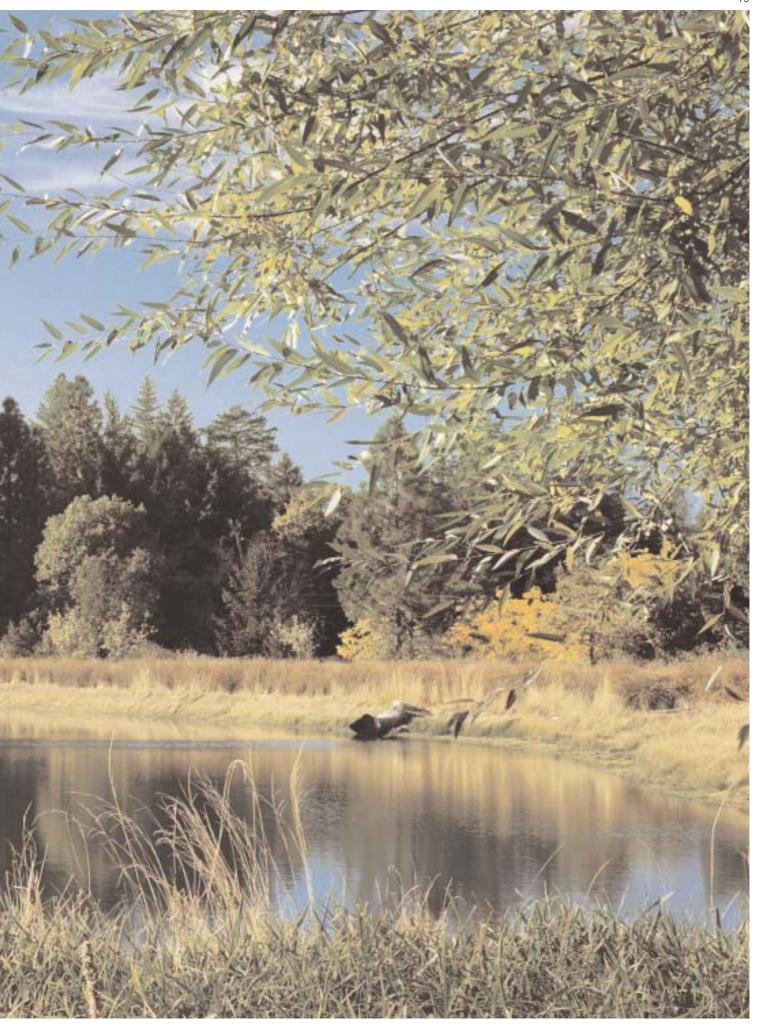
consumption. It supported its launch with an advertising campaign emphasising vitality rather than medical benefits. In the mid-1980s, another revolution moved the market forward with PET (polyethylene terephtalate), a new recyclable plastic material that became the packaging benchmark worldwide. This new, lighter, stronger material improved packaging practicality to meet evolving consumer needs.

Natural mineral water distinguishes itself from other bottled waters by its underground origin, its unique stable composition of minerals and trace elements, its original purity, and its claimed health benefits. To avoid any alteration, natural mineral water must be bottled at the source and can undergo only a strictly limited number of expressly authorised treatments.

Today, other categories of bottled water exist, including spring water and specially formulated drinking water. They have to meet certain well defined standards. When necessary, treatment is allowed to reduce, remove or prevent chemical substances or the growth of pathogens.

More and more people around the world are recognising the health benefits of drinking water and are showing their preference for the taste and convenience of bottled waters. This is reflected in an annual growth rate of 9% since 1997, with the global bottled water market totalling 126 billion litres in 2002.







Lake Geneva, Switzerland

As a manifestation of its respect for the environment and its support for sustainable development, Nestlé has developed *The Nestlé Policy on the Environment*. The cornerstone of the policy, first published in 1991 and updated in 1999, is Nestlé's long-standing commitment to environmentally sound business practices throughout the world.

The policy has ensured that preserving natural resources and minimising waste have become an integral part of the day-to-day activities in all Nestlé operations, and also an integral element in achieving global competitiveness.

In particular, this applies to water.

#### Water is a renewable natural resource

Water can be found in many forms and places on our planet, as rain and snow, streams and lakes, seas and oceans, vapour and clouds, and ice, as well as water in the ground and in vegetation.

The total quantity of water on the planet is estimated at 1400 million km<sup>3</sup>. Although this volume doesn't vary, it continuously evolves in what is called the water cycle – from vapour to liquid or ice, then with the help of the sun, back again to vapour.

Each year, 110 000 km³ of rain fall across the world's continents. About 64% of the rain evaporates, directly or through vegetation, and 70% of the remaining 36% falls into watercourses. Some of this can then be used for human purposes.

Barely 11% of the rain, 12 000 km³ per year, penetrates the ground. At this point it begins an underground journey that can last from several months to hundreds, or even thousands of years before the water resurfaces as springs.

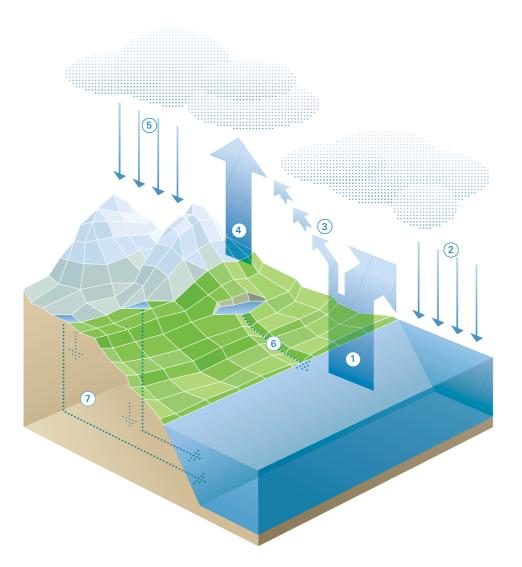
## Freshwater availability does not always match local needs

Rain is the only source of renewable fresh water. But unfortunately rainfall is erratic in time and location, creating both devastating floods and droughts.

If more water is drawn from underground aquifers or lakes than is replenished by rain, then these resources will disappear over time. In some regions the situation is already critical and once exhausted, water will no longer be available to meet the needs of future generations living in these regions.

However, it isn't just a matter of quantity, but also one of quality. Many watercourses and lakes would be able to supply water sufficiently, if there was adequate treatment of polluted water.

### The water cycle



#### Total quantity of water on earth:

approximately 1 400 000 000 km³, of which 97.5% in the oceans, 1.8% in the polar icecaps, and the rest within the continents. The atmosphere contains approximately 13 000 km³ of water. The total amount of water on earth is constant.

- 1 Evaporation 450 000 km<sup>3</sup>/yr
- 2 410 000 km<sup>3</sup>/yr falls back into the oceans
- $3-40\,000\;km^3/yr$  are carried off above the continents
- 4 Evaporation 70 000 km<sup>3</sup>/yr
- 5 Precipitations over the continents 110 000 km³/yr
- 6 Run-off 28 000 km<sup>3</sup>/yr
- 7 Percolation 12 000 km<sup>3</sup>/yr

# Actively protecting water resources



Poland Spring catchment area, USA

A desirable water resource has to meet two sets of criteria. Quantitatively, the available flow must satisfy today's and tomorrow's consumer demands. In addition, water quality must comply with local regulations and be guaranteed over a long period of time.

In this context, Nestlé Waters applies robust water resource protection measures. These relate to three aspects. First, the need to select water resources in environmentally sound areas. Second, focusing resource protection on water withdrawal facilities. And third, protecting the whole catchment area.

To avoid any risk of altering the natural quality of the water resource, withdrawal sites are protected against possible intrusion, deterioration or destruction. To avoid infiltration of surface water, stringent technical specifications are applied. Full certification of the source and regular analysis of water samples are carried out to guarantee the physical, chemical and microbiological composition of the water.

Resource protection extends to the whole catchment area, the impluvium, which may cover as much as 10 000 hectares, as is the case for the Vittel and Contrex springs in France. At these springs, an observation network continuously monitors surface waters and controls activities in the catchment area. This means that risks of pollution are quickly identified, and effective preventive actions are implemented, all with the ultimate objective of avoiding any adverse impacts to the water resource.

Over the years, Nestlé Waters has acquired a unique and diversified experience in water resource protection and management throughout the world. Whatever the operating conditions, Nestlé Waters' interest and duty is always to strive to ensure the water resource's sustainability – and to protect the ecosystem.

Case study France 23

# Sustainable development around sources

Located in the heart of the Vosges mountains in France, Nestlé Waters' Vittel and Contrex springs are surrounded by fields and forests. In the early 1970's, intensification of farming practices led to concerns about imbalances in the local ecosystem.

In 1975, a surface and run-off water monitoring system was installed. A multi-disciplinary team of researchers set out to determine how to maintain high agricultural yields while preserving natural mineral water quality. Tests were conducted in three pilot farms, resulting in scientifically-based recommendations.

More recently, in 1992, Nestlé Waters established an agricultural advisory firm called Agrivair. Its purpose is to help farmers improve their agricultural practices through the application of a seven-point set of guidelines:

- eliminate corn crops,
- rotate cereal, alfalfa and wild grasses crops,
- ban phyto-sanitary products,
- compost all animal waste,
- ensure farm buildings are up to Agrivair standards, exceeding legal obligations,
- limit one livestock unit per hectare of grazing area, and
- balance livestock feed.

Eleven years later, the initial goals have been largely achieved. This sustainable development strategy definitely owes its success to collective awareness and action, involving



Vittel catchment area

and joining forces between farmers, manufacturers, local authorities and residents. Targeted grants and daily technical assistance have also helped farmers to move to more environmentally friendly farming practices.

Today, Agrivair has diversified further, for example, by managing the manufacture and distribution of compost



Agrivair technical assistance

made from manure. This means that farmers can maximise their work time and devote full attention to their livestock. Some farmers – milk producers for the most part – have gone even further, getting involved in organic farming, which has proved profitable for many of them.

Agrivair's activities now extend beyond this single farming issue. They are actively involved in managing the forest as well as green parks and golf courses around the Vittel and Contrex springs. Agrivair has also developed a thermal weed control process for paths, parking lots and railroad tracks.

Agrivair is a unique research lab, often quoted as an example for the preventive reduction of risks linked to farming techniques. And lessons learned in the French Vosges mountains are applicable in other places around the world.

Case study Argentina 24

# Strengthening water resource protection



In Argentina, Nestlé Waters markets Eco de los Andes, a natural mineral water that originates from the Andes mountains at an altitude of 5000 metres.

It is essential to preserve this fragile and valuable resource. So the first step taken by Nestlé Waters was to understand more about how the water resource replenishes itself, and then to determine the necessary protection measures.

With the agreement of the local authorities, Nestlé Waters used its experience to define the borders of the resource protection zone, to set best practices, to determine prohibited activities, and to formulate recommendations.

The protection plan involves a designated zone of about 2500 hectares where the water resource has to be handled in a sustainable way, taking into account natural replenishment.

The use of fertilisers and pesticides has been minimised and is strictly monitored. Agricultural activities are recommended along organic farming principles. Any new activity has to receive prior authorisation in the form of a Water Impact Declaration.

Some significant polluting activities are totally prohibited.

To avoid contamination of surface waters, a second protection zone of about 110 000 hectares has also been defined. Less sensitive than the first zone, the same criteria are applied but with different limits.

Joint efforts between Nestlé Waters and local authorities to preserve this water resource and the local environment demonstrate that sustainable development always has to be a priority, even in a difficult economic situation.

Case study France 25

# Preventing forest fires

At the Perrier spring in Vergèze, France, preventing forest fires in the catchment area is a key component of Nestlé Waters' systematic water resource protection policy. Any significant destruction of the vegetal cover would have an impact on surface water run-off and infiltration patterns. Additionally, chemicals used by fire fighters might affect ground water quality.

Acting jointly with the Institut Méditerranéen du Patrimoine Cynégétique et Faunistique (Mediterranean Institute for Hunting and Wildlife Heritage), Nestlé Waters established a specific research programme aimed



Wildlife pond



Surveillance for forest fires

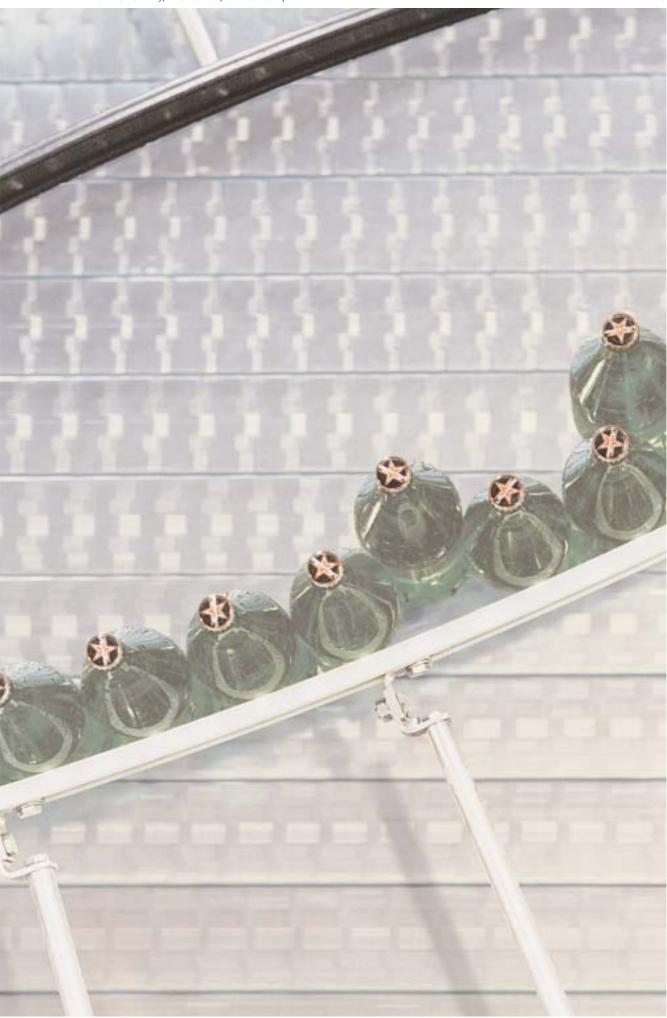
at protecting the water resource, preventing fires, and safeguarding the habitat for wildlife.

The study identified combustible zones – mainly forested areas – and triggering factors, e.g. scattered dwellings, traffic zones, etc. It resulted in a set of recommendations based on three principles:

- creating diversified land-use zones,
- networking combustible zones, and
- setting aside refuges for wildlife reproduction, in particular red-legged partridges and other birds

The recommendations were implemented across a 40 hectare area belonging to Nestlé Waters and to surrounding villages. Acknowledging the project's innovative approach, the French Government supported it financially.

Determined to leave an unspoiled legacy for future generations, Nestlé Waters – together with local partners – has been able to devise the best possible solution to protect a renewable resource, while addressing public safety concerns and supporting wildlife diversity.



# Water in the Nestlé supply chain

Nestlé's primary business is the transformation of perishable raw materials into high quality, safe and wholesome food and drink products that meet the needs of consumers throughout their lives. In this process, Nestlé addresses the environment with an integrated approach throughout the supply chain, from purchasing raw materials to manufacturing, packing, and distributing products, to their end-use by consumers.

This means that at each step in the supply chain, specific measures are taken to preserve water resource and reduce water effluents.

#### Water and raw materials

Nestlé doesn't grow its raw materials, nor does it own or operate farms. It sources its raw materials and ingredients either through trade channels, or directly from producers, or from the primary food processing industry. As a result, its influence on the use of water in agriculture is somewhat indirect.

The major agricultural raw materials used by Nestlé are milk, coffee, cocoa and sugar. Apart from sugar, these require little irrigation compared with rice, vegetables, corn or cotton. Sugar is sourced through the trade, so the Company has little or no influence on its production.

As part of its overall commitment to sustainable development, Nestlé supports and encourages the development of sustainable agriculture defined as a productive, competitive and efficient way to produce agricultural raw materials, while at the same time protecting and improving the natural environment and social/economic conditions of local communities.

Strict quality criteria are applied to all raw materials and ingredients entering the Nestlé supply chain. Where possible, preference is given to raw materials and ingredients that are produced by sustainable farming practices.

When Nestlé sources its raw materials directly from farmers, it can have a larger influence on their implementation of sustainable agricultural practices, including water use. Nestlé provides farmers with technical assistance, and for many years, the Company's agricultural experts have been advising them on sustainable farming methods, related both to agricultural produce and fresh milk production.

On the basis of its experience, Nestlé has participated in the recent launch of the Sustainable Agriculture Initiative (SAI), a food industry initiative that actively supports the worldwide development of sustainable agriculture, including improvement of water usage.

Modern biotechnology or gene technology has the potential to contribute to sustainable agricultural practices. Environmental data from multi-year practical experience with genetically modified crops in the USA has shown that insect-resistant and herbicide-tolerant crops can effectively reduce the use of pesticides. Apart from direct advantages for the environment and for farmers, a decrease in the net amount of agrochemicals used can also help protect the quality of ground water.

Feeding an ever-increasing population puts considerable pressure on the available arable land. In the near future, crops that are adjusted to adverse growth conditions, such as saline environments or drought, could help to reduce this pressure.

Case study France 28

# Préférence, a partnership for sustainable milk production

Milk is a major raw material for Nestlé. It is therefore of utmost importance to ensure its quality and long-term availability – in other words, its sustainable production. To this end, Nestlé France has developed the Préférence approach, a quality assurance partnership with dairy farmers. Together with Nestlé experts, farmers review all aspects of milk production and then set up – and implement – best agricultural practices.

A vital part of these Préférence best practices covers the protection and careful use of water, and appropriate field irrigation. For example, all the following requirements are imperative:

 Farm effluents must be stored in water proof installations. Silage fluids must be collected, stored and disposed off according to regulations. Waste water from milking parlours must be recovered.





- Fertiliser and nitrates use are limited to the effective needs of plants.
   Uncovered soil must be planted with crops in order to reduce washing out, and to trap nitrogen.
- Equipment for pesticide application must be serviced every year. After treatment, any small quantities of remaining pesticides and rinsing water must be emptied on the treated field.
- The quality of water used for irrigation must be verified annually. The quantity of water needed must be calculated according to crop needs, then carefully measured and registered. Impact of water withdrawal on ground water level must be controlled. Irrigation must take into account fertilisation plans and pesticide application programmes.

Préférence has led to very constructive dialogue to improve food safety and quality, and has encouraged farmers to engage in a continuous improvement programme to make dairy farming more sustainable.

Préférence has proved to be a concrete answer to how to produce definitive results related to quality, traceability and sustainable agricultural production methods.

Similar programmes supporting sustainable agriculture, including the sustainable usage of water, have also been conducted by Nestlé in other countries such as the UK, The Netherlands, and Australia.

#### Water in manufacturing

Manufacturing is a major element in the Nestlé supply chain. In more than 500 factories around the world, perishable raw materials are transformed into safe, convenient, high quality food and beverage products. About a hundred of these factories are dedicated to bottled water.

In general, Nestlé's manufacturing processes require water for many functions – for example, washing fresh raw materials, reconstituting dried raw materials, extraction, cooking, cooling, and cleaning. As a result, factories not only produce finished goods but also generate liquid effluents. These effluents are treated in the most environmentally-friendly manner possible, a practice that has been in force for many decades. For instance, as long ago as 1929, the Vittel company supported the construction of a municipal waste water treatment plant in Vittel.

In all Nestlé factories, the objective is to maximise eco-efficiency. This means maximising the production of goods while, at the same time, minimising consumption of resources, including water, and reducing waste water as well as other waste or emissions. This not only makes good environmental sense, but it also makes good business sense. In its experience, Nestlé has found that efforts in environmental protection play a big role in achieving operational savings.

#### Factory environmental surveys

As part of its environmental management, Nestlé carries out worldwide factory environmental surveys. Their purpose is to provide a systematic, comprehensive and uniform approach for assessing the environmental performance of all factories. The surveys also cover water conservation and waste water reduction.

The first survey was completed in 1994. Its results indicated that Nestlé had no major environmental problems, and that Nestlé had been proactive in seeking environmental solutions. Nestlé complied with relevant regulations – or in a few exceptional cases was taking action to do so. The data available from this first factory survey was a valuable source of information for prioritising future environmental actions.



Poland Spring bottling plant, USA

The second environmental survey was conducted at all Nestlé manufacturing locations in 1997. It enabled the Company to check results systematically against 1994 action plans, and to establish new objectives, in particular related to water.

#### **Environmental investment**

Nestlé invests an average of CHF 100 million each year for the protection of the environment in its factories, with 30% of it applied in the water area. This amount includes only readily-identifiable environmental investments, and represents more than 3% of the Company's total capital expenditure.

In addition, substantial amounts are also spent on environmental aspects as part of regular capital investment projects (e.g. the construction of a waste water treatment plant at a new factory), as well as on environmental operating costs (e.g. to operate a waste water treatment plant) and on training.

Environmental operating costs, and investments in time and human resources are difficult to measure, primarily because environmental aspects are integrated into so many different activities.

#### **Environmental performance indicators**

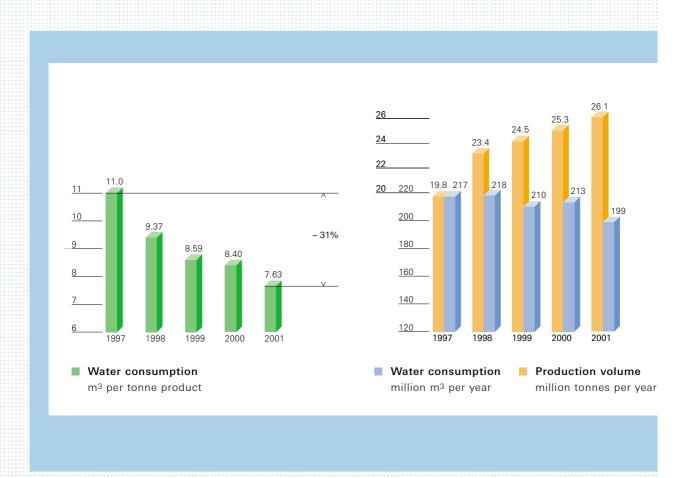
Taking advantage of experience in many of its factories, Nestlé developed a series of environmental performance indicators (EPIs). In 1997, all manufacturing sites were required to report their performance results annually, and since then EPIs have been consolidated on a Company basis. The methodology used to identify, track and report the indicators is consistent with the international standard ISO 14031.

EPIs cover internal manufacturing operations world-wide and measure both process inputs and outputs, including water consumption and waste water generation. Water consumption has been defined as the sum of water consumed from all sources, including purchases from suppliers and surface or ground water sources. Waste water generation has been defined as the sum of all waste water discharged from a factory, primarily industrial waste water.

#### Initiatives to reduce water use

The results that follow cover the period 1997-2001 during which Nestlé's production volume increased by 32%, from 19.8 to 26.1 million tonnes. During the same period, total water consumption per tonne of product was reduced and, thus, water use efficiency improved by 31%. For bottled waters, business growth and water use reduction would seem to go against each other. However, even with considerable growth in Nestlé Waters' business, overall Nestlé water consumption was reduced by 8%.

To achieve this significant improvement, many innovative methods have been put in place to reduce, re-use and recycle water. These range from replacing freshwater intake with water that has evaporated during the production process, to recycling suitable water streams for irrigation purposes around factories.



Case studies Egypt South Africa 31

# Closed loop circuits to reduce water and energy consumption

Baraka, Egypt's leading brand of bottled water, originates from a site northeast of Cairo where the local authorities were concerned to optimise industrial water consumption. To support this initiative, Nestlé Waters analysed its plant's waste water flows. It found that waste water primarily resulted from chilled water used to cool machines manufacturing PET bottles, and from hot water used to sterilise pipes.

Investments were made to combine these two flows into closed loop circuits that incorporated a regenerative heat exchanger. Significant energy savings were realised along with water savings which translated to 20% less underground freshwater withdrawal.

The Nestlé Environmental Management System (NEMS) contributed to the success of this cross-process combination of water and energy management. For Baraka's employees, this was a very satisfying project, enabling them to make a useful contribution to the protection of the local environment.



Baraka bottling plant

# Saving water through employee involvement

Nestlé's Harrismith factory in South Africa formed a special work team comprising both management and employees, to identify and implement projects to reduce water usage and effluent disposal. To date the team has realised average daily water savings of 40%.

Each team member was allocated specific tasks, including project co-ordination, training of employees and contractors, administrative work, tracking and monitoring costs, water flowmeter reading and recordings, supervision of water usage, purchasing, plant inspections, marketing and communication.

Projects implemented so far include the recovery of water generated by milk evaporation (so-called "cows' water"), the optimisation of steam condensate recovery, and the control



Storage tanks for recovered water

of municipal water used in the factory. Cows' water, for example, is now used for washing tankers prior to their entering the factory, in cooling towers and ice plant, for cleaning, and for gardening. To ensure ongoing savings, water consumption is analysed daily, and updated information is made available to employees on a weekly basis.

The team is still in action, working hard to meet its objective, and has identified several more water saving opportunities which are now being implemented.

Case study Italy 32

# Optimising water use in factories



Levissima bottling plant

Italy provides a good example of how Nestlé Waters is continuously improving its production processes to optimise water use in its factories. Many measures to protect the resource and preserve its quantity and quality for future generations have been implemented in Cepina, which produces Levissima natural mineral water, in Ruspino, which produces S.Pellegrino natural mineral water, and in Scarperia, which produces Acqua Panna natural mineral water.

First of all, the quantity of water withdrawn has been optimised. This has been done by using improved measurement technology, process automation and on-line monitoring of flow and pressure levels.

Secondly, water use efficiency has increased – up to best practice level – by further improvements to bottling machines and ancillary equipment.

All in all, these measures have generated annual savings of natural mineral water in the range of 10% to 20%.

A further efficiency relates to the ground water used to rinse the glass bottles prior to filling. This ground water is different from the natural mineral water that is bottled, and by careful filtering and recycling, more than half of it has been saved.

Finally, the installation of evaporative cooling towers and other new cooling systems to recycle water, has resulted in a 95% industrial water saving.

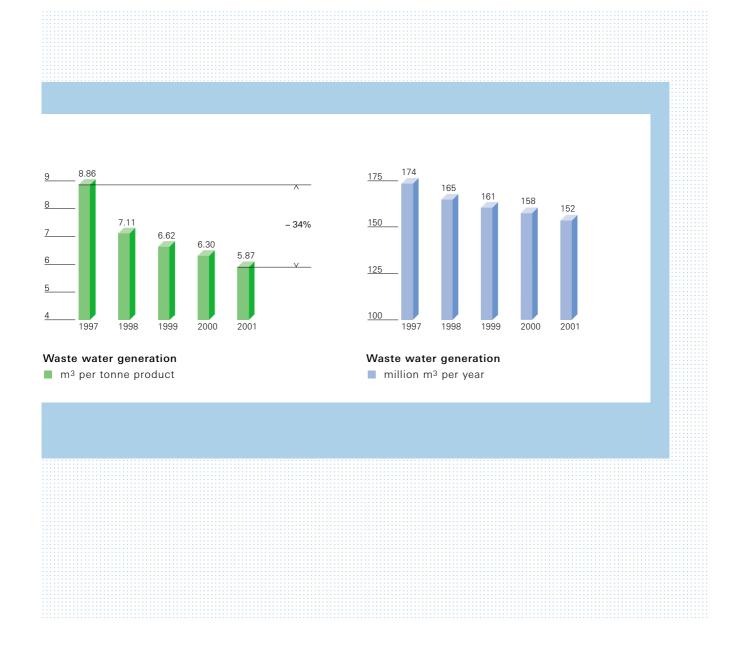
#### Reduction of waste water generation

When water cannot be re-used, either in the manufacturing process or for external factory purposes, it is treated and returned to the environment.

During 1997-2001, waste water discharge per tonne of product was reduced and, thus, eco-efficiency, i.e. the ability to manufacture more with less waste water generated, improved by 34%. The overall waste water volume generated in Nestlé factories was reduced by 12%.

Significant efforts have been made not only to reduce the volume but also the load of waste water generated by manufacturing operations. For example, the implementation of dry cleaning methods prior to wet washing of equipment has resulted in a significant reduction in biochemical oxygen demand (BOD), a measure of waste water load.

To cite another example, the Maggi factory in Lüdinghausen, Germany, modified its instant noodles manufacturing process from water to steam cooking. This generated a considerable reduction of waste water load, decreasing the cost of waste water treatment by 30% and avoiding expansion of the waste water treatment plant.



Case studies India Thailand 34

# Continuously improving waste water management

The long-term viability of the Nestlé Nanjangud factory in India is dependent on a sustainable water supply and effective waste water management. The management team has identified and implemented many projects to conserve water and improve the performance of the factory waste water treatment plant.

#### Examples include:

- Re-using suitable water streams in the cooling tower reduced water use by 120 m<sup>3</sup>/day.
- Adjusting the operating configuration of the waste water treatment plant improved its efficiency.
- Storing particular waste waters, and their release to the waste water

treatment plant according to operational needs, improved its performance.

 Concentrating highly loaded and heavily coloured waste waters prior to their incineration with energy recovery, significantly reduced the load on the waste water treatment plant.

As a result, since 1999, water consumption per tonne of product has been reduced by 29%, and waste water generation per tonne of product reduced by 46%. What is more, all the treated waste water from the Nanjangud factory is used to irrigate 108 000 m² of plantations on the factory premises.



Waste water treatment plant

In spite of these achievements, the Nanjangud factory is committed to realising even better performance, and improvements to the waste water treatment plant are continuously being made to optimise its efficiency.

# Recycling suitable water streams

The Nestlé factory at Chachoengsao in Thailand was opened in 1992. Water availability was known to be a problem as there were only two available sources. One is pumped from an underground supply, which is slightly salty, and the other from an irrigation channel, which is dependent on rainfall.

To address this problem, Nestlé engineers developed processes for the treatment of the raw water, and the re-use and recycling of suitable water streams – all in accordance with Nestlé quality standards. Coupled with these solutions, water conservation has been and still is of highest priority.



Reverse osmosis

Sophisticated methods are used to treat the raw water. They include: silica removal, flocculation and coagulation, cold lime softening,

clarification, sand filtering, reverse osmosis with high recovery and demineralisation. The treated raw water is used for coffee processing and, once re-mineralised, for drinking and for the amenities block.

After appropriate treatment, suitable water streams are recycled in cooling towers or used for irrigation purposes. They can now also be discharged off site.

The benefit from all these processes has been a 20% improvement in water efficiency.



Aquarium utilising treated waste water Shuangcheng, China

### Expansion and improvement of waste water treatment

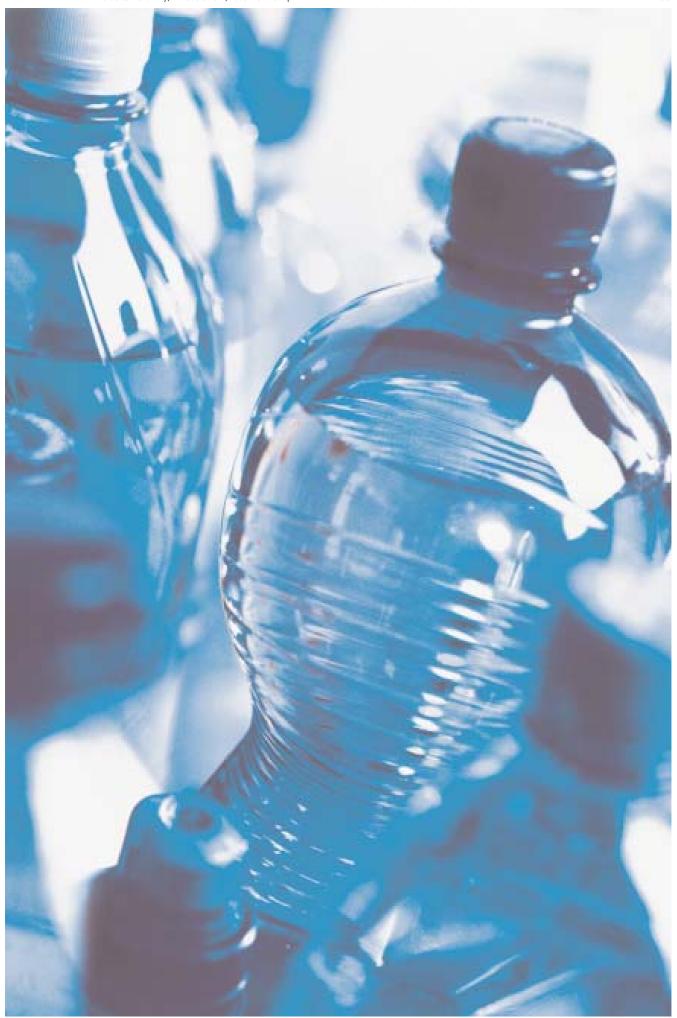
At Nestlé, the provision of waste water treatment began many decades ago and has always been an ongoing process. New technology is incorporated, existing waste water treatment plants are upgraded, and new ones built. Whenever possible, Nestlé seeks out innovative solutions.

For instance, in 2002, Nestlé Waters installed constructed wetlands as enhancements to the waste water disposal systems at its sites in the USA at Mecosta, Michigan and Cabazon, California. Wetlands are nature's own filtration system and are environmentally friendly. Not only are they a natural way to clean used water and return it to the earth, they also create a natural habitat for wildlife. An added benefit is that this innovative method eliminates the need to haul waste water away by trucks, and also reduces the demand on local municipal waste treatment facilities.

The newest Nestlé Waters bottling plants in the USA have been constructed to meet LEED Certification criteria (Leadership in Energy and Environmental Design) which include constructed wetlands.

Another recent example is from the Nestlé El Talar ice cream factory in Argentina. In order to handle increased production and meet tighter legal operational limits, some CHF 4.5 million was spent in modifying its waste water treatment plant. Environmental aspects that could affect the neighbourhood were given special attention. The waste water treatment plant was developed over the smallest surface and partly underground to diminish its visual impact. External noise and odours are strictly controlled and a forest barrier has been placed around the plant. To achieve all this required the use of the most recent technology, in some cases for the first time in the country.

In many cases, Nestlé invested not only in its own infrastructure, but also in that of the local community. The Company works closely with local governments to assess the need for municipal waste water treatment plants and often helps finance the cost of their construction.





Poland Spring bottling plant, USA

### Water and packaging

Since the beginning of time, human beings have designed and created containers for storing and transporting water – from skin pouches and amphora ... to bottles made of clay, earthenware, glass, metal, and more recently plastic.

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

Packaging is, of course, essential both for Nestlé and for the consumer. It ensures the safety and quality of products – from manufacture through to storage, distribution and consumption. In addition, packaging contributes to product appeal, provides convenience and communicates information, e.g. on nutrition and serving instructions. In many cases, packaging includes tamper-evidence features. Packaging also helps prevent or reduce product waste.

As stated in *The Nestlé Policy on the Environment*, Nestlé supports an integrated approach that favours source reduction, re-use, recycling and energy recovery of packaging.

#### Packaging source reduction and innovation

Nestlé Waters has been able to achieve sustainable improvement in the environmental performance of its packaging via its ongoing programme of identifying, testing and applying the best available technologies.

In 1968, after many years' research, Vittel in France revolutionised the bottled water industry by introducing the first plastic bottle. Twenty-four years later, the industry made a further leap forward when it first started to use PET (polyethylene terephtalate), a recyclable plastic material with superior mechanical resistance.

In 1992, Valvert was the first to launch a PET bottle in the French market and, at the same time, Vittel started to use PET for exports to the USA and Japan. Since 1997, all Nestlé Waters' still water brands have been packaged in PET bottles.

This technological transition has brought about reduction of as much as 33% to Nestlé in packaging material. Today, 90 g. of PET yields three 1.5 litres bottles. In 1968 only two bottles of equivalent capacity could have been made with the same quantity of plastic.

Case study France 38

## Innovating the glassmaking process



Molten glass coming from the oven

glassworks. Using recycled glass instead of virgin raw materials, obviously reduces energy consumption and air emissions.

To improve performance even further, Nestlé Waters' glassmakers, in liaison with the French Environment and Energy Control Agency, developed an experimental burner. Instead of heating oxygen to 500°C, as in

traditional burners, the new burner uses oxygen at ambient air temperature.

In 2001, during renovation of one oven, ten of these new burners were installed to replace 28 traditional burners. Results at start-up met expectations: natural gas consumption dropped by 32% and  $NO_x$  emissions by 75%.

Perrier's industrial process in France is unique in the world. At a single site, it combines the age-old mastery of glassmaking with modern bottling techniques.

In order to produce 280 000 tonnes of glass a year, some 760 tonnes of sand and used glass, called cullet, have to be heated to 1500°C in two ovens each day. The used glass comes from the collection of used packaging in the form of bottles and jars, and represents 60% of the raw materials fed to the Perrier



Filling bottle moulds with molten glass



Glass bottles after blowing



PET bottles compacted for recycling

Glass for recycling Perrier glassworks, France

Working closely with key suppliers, Nestlé has also been able to reduce energy consumption along the entire packaging materials supply chain.

Nestlé Waters now manufactures most of its bottles on site. This enhances product quality but also benefits the environment, as it does away with the need for thousands of truckloads of empty bottles.

To keep pace with changing consumer lifestyles, Nestlé Waters continuously innovates, producing bottles in many new shapes and sizes. For example, 50 new PET bottles were introduced in 2001. While weighing considerably less, each of these bottles sports a new look that makes it more attractive and more manageable.

Another example that illustrates Nestlé Waters' spirit of innovation was the launch, in 2001, after extensive research, of the first Perrier PET bottle. This has a highly attractive package that preserves carbonation while responding to the evolving needs of consumers, especially those who are constantly "on-thego" and travel a lot.

#### Packaging recycling

In addition to packaging source reduction and recyclability, systems also need to be put in place for the collection, separation and recovery of used packaging.

In some countries, particularly within the European Union, legislation sets ambitious recycling targets for used packaging. To fulfil these requirements, several European countries have established national recovery schemes. These include for instance DSD in Germany and Eco-Emballages in France. Nestlé has participated actively in the development of these schemes and in their management.

Nestlé Waters is particularly involved in collection and recycling activities for used PET and glass packaging.

The recycling of PET bottles, which started ten years ago, has now reached significant mass. Some 1.2 million tonnes of PET bottles were collected and recycled worldwide in 2001, 15% more than in 2000. Of this, 40% was collected in North America, 30% in Europe, 20% in Asia Pacific, and 10% in Australia, Africa and Middle East.

Case studies Vietnam Saudi Arabia 40

## Packaging renovation improves environmental performance



In Vietnam, Nestlé Waters sells La Vie, a natural mineral water whose source is located in the province of Long An. La Vie is packed in 1.5 litres, 0.5 litre and 0.35 litre PET bottles.

As happens throughout the world, Nestlé Waters decided to renovate the packaging for La Vie with the aim of using its innovative practices to optimise packaging and environmental performance.

Three new computer-generated bottle designs were created, and prototype bottles were produced. They successfully passed the transportation and storage tests, which were carried out under local conditions.

The main design innovation combined two elements: the desire for better brand differentiation, and the aim of optimising manufacturing processes. This resulted in a 20% reduction in bottle weight. In addition to savings in packaging materials, significant reductions were also made in energy consumption, air emissions and waste generation during bottle manufacturing.

This example from Vietnam reinforces, yet again, the fact that environmental improvements go hand in hand with sound business practice and profitability.

# A new life for plastic caps

In the Kingdom of Saudi Arabia, Nestlé Waters distributes a water called Springs in five-gallon (19 litres) bottles from its bottling site at Dammam, near the Persian Gulf. Containers are closed with plastic caps manufactured on site using polyethylene granules.

The containers are re-used. Once returned to the plant, they are carefully cleaned and refilled

The caps are recycled, and themselves contain as much as 15% recycled polyethylene. Safety is guaranteed by careful sorting and cleaning of the

returned caps, and high-temperature recycling of the polyethylene. In this way, the Dammam plant recycles the equivalent of six tonnes of polyethylene a year.



Caps collected for recycling

Recycling of the plastic caps has clearly resulted in reduced environmental impact with savings in packaging materials and less disposal of used caps.



Recycling of plastic

In general, the overall cost of used packaging recovery schemes is high, and the challenge is to find ways to optimise their efficiency. The most environmentally effective and economically efficient approach is based on integrated waste management that combines source reduction, energy recovery and recycling, and also takes local conditions into account

An issue of increasing importance is the need to find new uses for recycled PET. The textile sector continues to absorb large amounts, but its share is declining. Significant new applications have been introduced, for example in the areas of wrapping and insulating foam. Other possible uses of recycled PET are still emerging.

Considerable efforts have been made during the past decade to achieve a sustainable packaging strategy. This is based on:

- a radical reduction in quantities of material and energy used by packaging units,
- co-responsibility of consumers, trade and local authorities in the handling of used packaging,
- provision by public authorities and the business community of a second life for used packaging,
- an increasingly integrated approach to optimising economic, environmental and social impacts of the packaged product throughout its life cycle, and
- increased awareness among younger generations of the actual role of packaging.

In line with the Company's business principles and its commitment to sustainable development, Nestlé will continue to promote these advances.

### Water and transportation

A key success factor for Nestlé is its capability to distribute its products efficiently and effectively from springs and factories to distribution centres, and to customers and consumers. Most improvements in distribution operations have a direct benefit on the environment by reducing the number of trucks on the road, leading to less road traffic congestion and road wear, and fewer truck air emissions.

#### Maximising vehicle capacity utilisation

Building efficient transport loads and using the appropriate equipment are two of the key conditions for maximising vehicle capacity utilisation and reducing the impact on the environment. Nestlé Waters has developed systemised methods to increase the quantity of products loaded on a vehicle for delivery to its retail customers. Since the beginning of this programme which started in 1999, vehicle utilisation has improved by 8%, resulting in more than 15 million kilometres saved.

In the USA, bottling plants of spring water are not always located at the source. In these cases, either pipelines or tanker trucks are used to transport the spring water from the spring to the bottling plant. With the approval of the local authorities, Nestlé Waters has designed high capacity tanker trucks capable of transporting 20% more water when no pipeline is available. This has led to an annual reduction of 14 000 trips – equivalent to more than 2 million kilometres.



Pure Life bottling plant, China

Nestlé Waters block train, France

As another example, special pallets have been developed to export Perrier natural mineral water from France to North America. These pallets have enabled to increase the quantity shipped in each container by around 20%, saving more than 500 containers a year. In Canada, switching from 48-ft. twin axle trailers to 53-ft. tri-axle trailers resulted in loading 20% more weight on a truck and a similar reduction in the number of shipments. 1430 shipments of Nestlé Waters products were saved in 2002.

### Optimising distribution networks

Optimising a distribution network often means reducing the number of intermediate transport and loading/unloading operations that a product has to perform between its production and consumption locations. Wherever possible, Nestlé Waters transports its products directly from factories to the customers' stores or warehouses. As an example, in North America, there have been significant increases in direct shipments from factory to retail customers, eliminating 120 000 trips annually – equivalent to a total of 3.8 million kilometres.

The Home & Office delivery business in the USA consists of direct deliveries of five-gallon water bottles to consumers at their home or work locations. Rationalisation of delivery routes has reduced their number by 22%, resulting in annual savings of 13 million kilometres and 6 million litres of fuel.

When the recent pan-European launch of Nestlé Aquarel spring water was being planned, environmental concerns played a role in locating the various bottling facilities as close as possible to customers and consumers.

### Switching traffic from road to rail

Switching traffic from road to rail, especially for medium to long distances, has a positive impact on the environment. For many years, Nestlé Waters has used rail transportation for several of its well-known European natural mineral water brands, including Perrier, Vittel, Contrex, Vera and Levissima.

More than 50% of total Vittel and Contrex production in Europe is transported by rail. During 2001, 1600 trains with 40 000 railcars were used, saving 60 000 road trips and 12 million litres of fuel – and corresponding air emissions. Over the years, Nestlé Waters has made significant investments in the Vittel and Contrex factories by installing loading facilities specially designed for automated railcar loading.

Combined rail/road transportation is also used for long distance deliveries to customers who are not directly connected to railways. For example, 500 containers of Perrier natural mineral water are transported by train every year from the South of France to Belgium. On arrival in Belgium, these containers are transferred to the road for final delivery to customers, using local trucks. A similar rail-based solution is used in Spain to deliver bottled water from the Barcelona area to customers in the Madrid area, saving around 1000 truck movements a year on the 600 kilometre highway that links the two cities.

### Quality, a Nestlé priority

Quality is the foundation for Nestlé's success. The Nestlé Quality System (NQS) is the Company's corporate guide to food safety and quality, and its implementation is mandatory throughout the supply chain. By constantly applying the NQS principles, Nestlé provides its consumers with consistently high quality products.

Quality awareness is promoted throughout the Company. Everyone is involved, following the Company's continuous improvement philosophy. An important aspect is listening to customers and consumers. And, as expected, food safety and legal compliance are non-negotiable at Nestlé. The NQS is based on the *Nestlé Quality Policy* and includes 33 quality system elements focusing on food safety and product consistency to achieve consumer preference.



Chembong, Malaysia

This disciplined approach also applies to the Nestlé bottled waters. It ensures their quality and safe packaging through Good Manufacturing and Hygiene Practices, Hazard Analysis Critical Control Points (HACCP) methodology, intensive analytical controls of water from the spring to the bottle, traceability, the Quality Monitoring Scheme (QMS), as well as a strict release system.

Manufacturing hygiene is the number one rule for bottled water. Nestlé Waters' central laboratory establishes control procedures for each of the Company's facilities and monitors their implementation. Each month some 20 000 analyses are conducted on the Company's waters, to monitor compliance with regulations and ensure the absence of contamination. In addition, daily tests at each production site ensure uninterrupted quality monitoring. The Comité Français d'Accréditation (French accreditation committee) and the New York Department of Health have recognised Nestlé Waters central laboratory's expertise by giving it their accreditations.

## The Nestlé Environmental Management System

Nestlé's record of environmental activities, including those related to water resources protection, can be traced back over several decades. In the early 1990s, however, it became clear that a company of Nestlé's size would benefit from a more structured and global environmental management system. Its aim would be to facilitate the effective translation of *The Nestlé Policy on the Environment* into consistent and well co-ordinated actions.

In 1996, the Nestlé Environmental Management System (NEMS) was created, and since then, it has been implemented throughout the Company.

#### NEMS has led to:

- a systematic approach that ensures respect for Company policy and legal requirements,
- the continuous improvement of Nestlé's environmental performance, including water resources management,
- the achievement of compatibility with international standards for environmental management systems, such as ISO 14001 and the eco-management and audit scheme of the European Union, and
- an expansion of mutual trust with consumers, government authorities, and business partners through open communication and an on-going record of environmental improvement, especially in the water protection area.

Sustainable water management is an integral part of NEMS.

Compliance with environmental legislation is a must. When local legislation on water protection is non existent or insufficient to meet the Company's environmental commitments, Nestlé's Environmental Minimum Technical Requirements apply. These set minimum requirements that must be followed in the water area as well as in other environmental areas.

Continuous improvement, as emphasised by NEMS, relies on clear objectives and action programmes at global and local levels. In the water area, both water conservation and waste water reduction are targeted by environmental programmes. Actual progress in meeting objectives is monitored through periodic environmental performance indicators covering water consumption and waste water generation. Appropriate training reinforces employees' awareness and skills, and contributes to their efficiency.

#### Awards related to NEMS

The many awards received by the Company throughout the world are evidence of the public recognition of NEMS efficiency and Nestlé's environmental success, in particular with regard to water resource conservation and protection.

As an example, Nestlé Waters North America received the Environmental Stewardship Award from the Water Resources Association of Pennsylvania as well as two consecutives Gold Medals, in 2000 and 2001, from the Recycling Council of Ontario in recognition of its achievements in environmental stewardship, waste minimisation, community relations and sound water management.

In Mexico, the Santa Maria factory received the National Programme for Naturally Protected Areas, 1995-2000 Recognition from the Department of Environment, Natural Resources and Fishing in recognition of its collaboration with the National Programme for Protected Natural Areas.

In Jordan, Nestlé Jordan Trading Co. received a Certificate of Appreciation from the Minister of Water and Irrigation and the Head of the Jordanian Environment Co-operation for efforts in supporting the water awareness project to conserve the marine environment in Aquaba.

And in Trinidad, the Valsayn factory received the Prime Minister Trade and Environmental Award for advancements made in waste water treatment.

As another example, Nestlé Nigeria received the National Roll of Honour for Environmental Achievement Award from the Federal Environmental Protection Agency for outstanding contributions toward the promotion of environmental protection and natural resource conservation.

## NEMS framework



### Establish environmental targets and plans

- Policies
- Legislation and regulations
- Programmes

### Monitor environmental progress against plans

- Organisational structure
- Training and communication
- Operational control

## Check results and define corrective and preventive actions

- Audits
- Documentation

NEMS is not a closed loop, but a spiral for continuous improvement.

## Appointing "Environmental Guards"

In line with the Nestlé Environmental Management System (NEMS), all Nestlé Waters factories have a designated site environment co-ordinator.

The site environment co-ordinator effectively acts as the "environmental guard" of the factory, ensuring:

- compliance with applicable local environmental regulations, with The Nestlé Policy on the Environment and The Nestlé Water Policy, and with the Nestlé Waters first-level environmental directives,
- protection and sustainability of ground water sources and surrounding eco-systems,
- conservation of all resources, including water and energy, and waste minimisation,

- expansion of recycling practices in operations and promotion of curb-side recycling, and
- employee environmental training and awareness.



"Environmental guard" monitoring a water resource

Software tools specifically related to Nestlé Waters activity, have been created to help factories implement their environmental programme. Diagensit helps with the setting of action plans against programme objectives over a three year period. Perfensit serves as a report card on resource consumption, waste generation and air emissions in the factory, and aids the close monitoring of environmental performance indicators.

Setting up a system doesn't, in itself, guarantee results. Only the men and women who run the system throughout the Company make it succeed.

## Environmental sponsorship



Korpi reforestation project Pendeli mountains, Greece

Nestlé does not only protect the environment and the water resource at its sites, but also reaches out beyond its own operations. The Company sponsors many public environmental projects related to water throughout the world. In particular, these include a wide range of environmental enhancement initiatives.

As an example, in 1998, in the Pendeli mountains of Greece, the forest suddenly went up in smoke. Nestlé Waters' Korpi brand is sourced at a spring in the mountains of the northern Peloponnese, a region of Greece unaffected by the fire. Nevertheless, Nestlé embarked on a reforestation project in the fire zone, planting more than 4000 trees in a 50 000 m² area.

Under the guidance of local forestry experts, the project went on for four years, making sure that the trees were properly nurtured in their early stages of growth. Local school children are actively encouraged to visit the reforestation site. It all helps to increase environmental awareness among a new generation.

Nestlé also supports many different projects aimed at preserving the environment in natural recreation sites. As an example, every year, up to twelve million people visit the San Bernardino national forest in California, USA. In an effort to ensure that this natural resource will be preserved for the future, Nestlé Waters North America annually contributes money, leadership and volunteers to the San Bernardino National Forest Association, an organisation dedicated to teaching how to care for and wisely manage public lands.

Two of many projects Nestlé Waters funds within the association are the Children's Forest and The Big Bear Discovery Centre. The Children's Forest is an open-space centre where children throughout the Los Angeles basin are taught about environmental stewardship. The Big Bear Discovery Centre provides a spring-board for visitors to learn about the natural features within the San Bernardino forest, and is a focal point for the many environmental activities in the forest.

Case study From Italy to Tibet 48

## Cleaning up "the roof of the world"



The Himalayas

Acqua Levissima, one of the most popular natural mineral waters in Italy, comes from Alta Valtellina in the heart of the central Alps. Its purity is dependent on the natural purity of these high mountains. Acqua Levissima initiated "Levissima Foreverest", a special project founded on respect and care for the environment on the world's highest mountain, Mount Everest.

For every mountain lover, Mount Everest, at almost 9000 metres, has always represented the ultimate mountaineering challenge – an extraordinary test of courage and endurance. It is estimated that only 10% of climbers setting out on the Tibetan side, reach the top.

The low environmental respect shown by these climbers and, more recently by hikers, has transformed certain areas of Mount Everest into open air rubbish sites. Tonnes of waste are degrading the natural beauty and uniqueness of this mountain. Sir Edmund Hillary, the first man to conquer Everest, has publicly declared: "Something must be done for Everest. The most apparent aspect is the damage and rubbish – tonnes of it – that have been left on the mountain".



Base camp

Acqua Levissima decided to take up the challenge of cleaning up the world's highest mountain.

During May-June 2000, over a four week period, a group of ecologists cleaned up the Tibetan face of Everest, including the base (5200 m.), intermediate one, two and three (5500 m., 5800 m. and 6000 m.) and advanced base camps (6200 m.). The Levissima Foreverest team also built an ecological island – the highest in the world – for selective waste disposal.

Throughout the project, and to help lay down the basis for future operations, the Levissima Foreverest team worked with local people and organisations. Sherpas and Tibetan workers used yaks to carry the waste. The operation was fully supported by the Tibetan Mountaineering Association, which is the local organisation responsible for expeditions in the Tibetan Himalayas. This association will also manage the ecological island and disposal of any future waste.

Acqua Levissima set up a special website so that all mountain-lovers could share in the experience.

Connecting to www.levissima.it during the period of the project, made it possible to follow, day by day, the progress of this dream made reality: cleaning up the roof of the world.

Case study Hungary 49

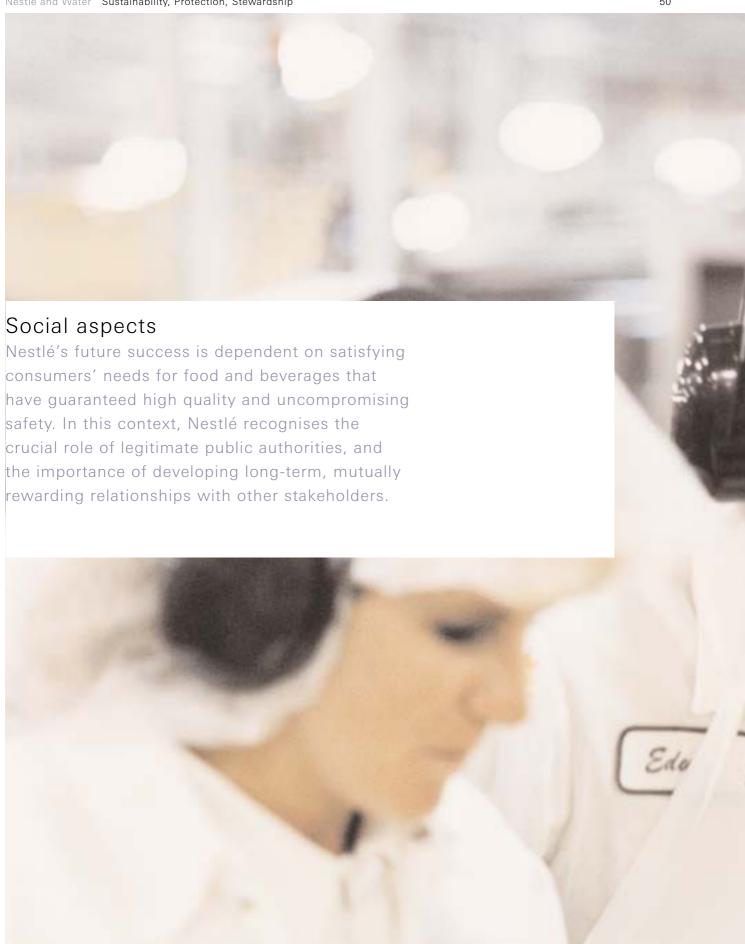
## Preserving Balaton National Park



Nestlé Waters sources the water for its Hungarian Theodora brand from the heart of the Balaton National Park. Lake Balaton is the biggest shallow, freshwater lake in Central Europe and is Hungary's outstanding national

heritage site. It's only possible to preserve a natural park of this scale if the local and visiting population understands and appreciates the ecosystem's inherent fragility and the damage that human activity can cause. With this in mind, Nestlé Waters and the local authorities signed a contract to create a programme of educational activities targeted to various audiences. For example, farmers were made aware of the damage that certain practices can have on the park and its water resources. The advantages of sustainable, environmentally-sound farming methods were presented. A brochure has been produced and is distributed to all park visitors, explaining how to protect and preserve the site for future generations. The park logo is featured on all labels of Theodora water bottles sold in Hungary.







## Relations with employees



Shuangcheng, China

Nestlé's basic social responsibility is to create and sustain a business that can provide jobs and economic development, while following the rules of good corporate practice laid out in the *Nestlé Corporate Business Principles*. It also involves working with local communities to improve social, educational and health conditions at the local and national level.

Nestlé operates in 130 countries, covering many diverse socio-economic conditions. Following the spirit of the *Nestlé Corporate Business Principles*, each local Nestlé operating company commits to social sustainability through labour practices and social programmes.

#### Long-term job creation

Worldwide, Nestlé has over 240 000 multi-cultural and multi-national employees. Employee turnover is relatively low, approximately 5% annually, and the average length of service at retirement in the 20 largest operating companies is 27 years. One of many contributing factors that lead to long-term retention of employees, is Nestlé's policy of continuous on-the-job training.

The creation of jobs occurs through direct employment and also through the multiplier effect all along the food and beverage supply chain. In this regard, it is estimated that in 2002 more than a million paid jobs, or 3.4 million workers and their families, were supported by Nestlé activities.

## The Nestlé Management and Leadership Principles

The fundamental guiding principles for management selection, behaviour, and promotion, are set out in *The Nestlé Management and Leadership Principles*. This document was issued in 1997 and has now been revised and adapted to the needs of today's business environment. In addition to outlining individual and organisational principles of Nestlé management and leadership, the document summarises some of the essential values of the Nestlé corporate culture.

These core values, developed over the 136 year life of Nestlé, help set the framework for the Company's organisational structure, and define the unifying elements of its culture. The six core values are:

- Leadership
- Drive for results
- · Client orientation
- · Continuous improvement
- Team work
- Global mindset

The Nestlé Human Resources Policy is a new policy that builds on the Nestlé Corporate Business Principles and The Nestlé Management and Leadership Principles. People development is the driving force of the policy. It includes clear principles on non-discrimination, the right of collective bargaining as well as the strict prohibition of any form of harassment. It deals with recruitment, remuneration, training and development matters and proposes

Case study Nestlé Waters 53

guidelines, the spirit of which should be respected under all circumstances. Individual responsibility and strong leadership are emphasised in this policy. It focuses also on life-long learning and finding an appropriate work/life balance.

## Accumulated know-how, training, and transfer of technology

The Nestlé business model is based on acquiring knowledge and skills around the globe, and then transferring that cumulated experience to nationals in each operating country. Long before "globalisation" became a popular topic of attention, Nestlé was building factories and investing in training and development at the local level all over the world.

In many developed and developing countries this involves the creation of comprehensive apprenticeship programmes. Through these programmes, and through thousands of internal and external

training programmes, including basic literacy, Nestlé invests substantially in improving the capabilities and skills of its employees.

In 2002, the Nestlé international training centre located in Switzerland, trained 1800 senior managers, covering more than a hundred nationalities. The faculty of the international training centre comprises the senior management of Nestlé itself.

With increasing use of information technology, Nestlé companies have appointed corporate training specialists in "distance e-learning". This helps employees to tailor their learning to their specific needs and time constraints.

Many of Nestlé's most important brands are either global or regional, and these brands are vital conduits for the transfer of technology and know-how across Nestlé companies.

# Alacarte training to improve performance

Alacarte is an in-house, tailor-made, CD-ROM based training programme developed by Nestlé Waters for its employees. It focuses on finance, operations and production – including environmental protection. Four years after its launch, some 1300 people from about 30 countries have benefited from the programme.

Alacarte is unusual in that it comprises a number of individual training modules which last from half a day to a full week. Participants can choose their Alacarte modules according to their specific training needs. Several sessions are held each year, and modules are updated continuously.

An important and valuable aspect of Alacarte is the involvement of senior managers. Their role is to present and share their knowledge on how to do business at Nestlé Waters. For example, the financial modules are developed entirely by Nestlé Waters finance managers who also train the course participants.

Courses usually take place at the headquarters, so that employees from around the world can have the opportunity to meet their colleagues, develop networks and share experiences.

Alacarte makes a significant contribution to improving the overall performance of the Company. While providing training tools adapted to individual needs, it also unites management methods by applying concepts and values that are common across the Company.

## Meeting consumer needs

## Consumption of bottled water on the rise worldwide

Global annual consumption of packaged water was estimated at 126 billion litres in 2002, an average of 20 litres per capita. Between 1997 and 2002, the market expanded by 9% per year, and is expected to continue to show growth of 7% to 9% a year – doubling in size by 2010.

The geographical breakdown of consumption remains extremely uneven. European consumption with 49 billion litres per year far exceeds that of other continents, i.e. Latin America (23 billion litres), North America (21 billion litres), Asia/Oceania (22 billion litres), and Africa/Middle East (11 billion litres).

In line with Nestlé's raison d'être of satisfying consumer needs whenever, wherever and however, Nestlé Waters is intending to extend its presence around the world. To satisfy the steadily growing demand means that the Company must keep on pursuing its policy of innovation.



### Every bottled water has a nutritional benefit

Each bottled water has its own distinctive set of minerals satisfying people's health concerns.

As they meander slowly below the earth's crust, natural mineral waters are enriched with specific minerals from the different geological formations through which they pass.

For example, Hépar is a French natural mineral water that is particularly rich in magnesium. By drinking a litre a day, consumers can increase their magnesium capital in less than four days. Hépar is one of the "stars" of the so-called "anti-fatigue products", and as a result of its magnesium content, contributes to some 300 bodily functions, including regulation of the intestinal tract.

Natural mineral waters such as Vittel and Contrex have a high calcium content. Indispensable for strong bones and teeth, a litre of high-calcium natural mineral water can provide up to half one's daily calcium needs. Several studies found that calcium from natural mineral water was effective in boosting bone mass, and that bone mass loss can be prevented at any age.

Other micro-components in natural mineral waters, such as potassium, sodium, bicarbonates, chlorides, and sulphates, may also have beneficial effects on human health.

Consumers can therefore opt for a water perfectly adapted to their needs. For instance, weight-loss diets often lead to insufficient mineral intake, and in this event, natural mineral water can help to compensate. Regular natural mineral water consumption is also strongly recommended for the elderly, for whom dehydration is often an issue.

In 2002, Vittel distinguished itself in the sports drinks market, launching Vittel Hydratation et Énergie (Vittel Hydration and Energy). Its unique formula combines the beneficial attributes of vitamin and carbohydrate intake with natural benefits from Vittel natural mineral water. Although designed for athletes, the beverage is suitable for anyone who is physically active.



Because water contains no calories, drinking bottled water instead of sugar-containing beverages significantly helps to reduce a person's total daily energy intake. Coupled with a moderate amount of physical activity, this reduction will help in either losing body weight or maintaining it.

#### Pleasure as well as functional benefits

The bottled water market is constantly launching products with new benefits. Recently there has been a surge of flavoured waters which combine naturalness with the pleasure of different taste sensations.

Nestlé Waters has developed several very innovative products to meet new consumer expectations. Some examples are: Vittel Fruits – which is a flavoured natural mineral water; Contrex Eaux Plus Beauté – which combines Contrex natural mineral water that is naturally rich in calcium and magnesium, with fruit juices containing vitamins.

In Germany, Nestlé "Wellness" is the first 100% wellbeing water on the market. It is made from carbonated natural spring water enriched with natural extracts of ginger, plants and fruits.

The new Perrier Fluo range of waters mixes Perrier natural mineral water with different flavours made from natural plant and fruit extracts. It contains less than half the sugar of a regular soft drink.

# Involvement in the community



"Water and Life" permanent exhibition Vittel, France

All Nestlé operations and employees are an integral part of local communities throughout the world.

Water plays a crucial role in every community. However, some developing countries – and even some developed countries – lack the necessary infrastructures for water. To improve water resources and accessibility, Nestlé contributes to the wellbeing of local communities through the personal commitment of its employees, through financial assistance, and through the sharing of know-how. The focus is on water education and capacity building in water resource management, as well as on public environmental projects related to water, as seen previously.

In the case of natural disasters, access to food and water is critical. Nestlé donates products to relief organisations and to victims.

As an example, heavy rain fell two years ago on the northern and south-eastern regions of Poland, causing major floods. Large areas of land were inundated – with devastating effects.

In Poland, Nestlé Waters markets Naleczowianka, a natural mineral water that originates in Naleczow, some 150 kilometres southeast of Warsaw. The floods did not affect the city, but emotions ran high throughout the country.

The Polish people were quick to contribute, sending money and first-aid supplies to victims. For their part, the Naleczowianka plant employees volunteered to carry out a special production run. During an eight-hour work shift, they produced tens of thousands of bottles of water which were donated to charitable organisations, including the Red Cross, for delivery to the disaster zones.

As another example, within hours of the tragedy in the USA on September 11, 2001, Nestlé Waters North America delivered truckloads of Poland Spring and Deer Park bottled water to relief agencies, including AmeriCares, the Red Cross and the National Guard. In total, more than one million bottles were donated for distribution at Ground Zero in New York City and the Pentagon, Washington, DC.

Beyond water donations, hundreds of employees contributed both directly and indirectly to the relief efforts. These ranged from handing out water to victims, and coordinating extra deliveries and route adjustments to helping co-workers behind on their deliveries because of extra responsibilities.

## Educating the water stewards of the future

To ensure that water culture is understood as widely as possible, Nestlé Waters' primary objective is to create awareness and educate the water stewards of the future, particularly by highlighting the important role of water in health and wellbeing.

The Water Education for Teachers Project (WET) is a broad-based, international water science and education programme for classroom teachers and other educators. It is designed to make children aged 5 to 18 aware of the precious and vital nature of water resources.

The programme was initiated in 1984 in the USA. Nestlé Waters North America has sponsored it for many years.

Over 70 000 teachers have been trained at Project WET workshops, and the programme has reached over 25 million young people and adults.

It is widely respected by educators and scientists for its non-biased approach. WET has received international recognition as a model water resources education programme at the tenth World Water Congress in Melbourne, Australia, at the second World Water Forum in The Hague, Netherlands, and at the United Nations World Summit on Sustainable Development in Johannesburg, South Africa.

Those water issues that are common in the USA are also present in many other countries. For this reason, Nestlé Waters also sponsors Project WET in Mexico and in the Philippines, and more countries are likely to become involved in the future.

The Mineralix school book has been produced by Nestlé Waters, working with the school authorities in France. This book uses multiple aspects of water resource management to teach concepts in mathematics, physics, chemistry, geography and physiology to school children aged 11 to 12. The result is a unique and involving approach to the "basics" of education that instils in children an early respect for protecting water as a vital resource.



Case study South Africa 58

# Capacity building in water resource management

In addition to protecting its own water resources, Nestlé Waters also assists with a whole series of capacity building projects in water resource management. The EcoLink project in South Africa is a good example.

In 1985 Nestlé South Africa helped establish EcoLink, an organisation that



provides under-served rural communities with access to skills, knowledge and resources to improve their living conditions – including water resources.

In areas where as many as 80% of the population have no access to piped water, people have to make use of existing local water sources.

The EcoLink team, with Nestlé's support, helps villagers to identify water sources from underground springs. The springs are then capped with a simple cement mixture of stone and sand and, with a tap at the base, the villagers have a stock of clean, drinkable water.

Another important source is rainwater. This can be collected through gutter



systems on municipal buildings that feed into large storage tanks. Via this simple EcoLink initiative, whole villages can be served with clean water.

In addition, Ecolink helps villagers to develop vegetable gardens.

Case study France, USA, Spain 55

## Water education through guided tours and exhibitions

Touring a bottling plant gives people a clear view of the diversity and significance of the steps taken to preserve water's pristine quality. Exhibitions educate visitors about local geology, environmental protection, and industrial processes.

The Perrier spring is a very popular site. Located in Vergèze, in southern France, it welcomes some 70 000 visitors annually. The tour centres on three themes:

- the carbonated natural mineral water that springs from a particular geological phenomenon,
- the unique Perrier industrial process

   combining the mastery of glass
   creation with modern bottling
   techniques, and



Perrier museum (Le Château)



Perrier spring



Poland Spring museum

 the Perrier brand, its history and advertising legacy.

The Poland Spring bottling plant and spring in the USA were restored to their turn of the century splendour, and converted last year into a museum. It has already attracted many visitors. It tells the story of one of America's oldest and most revered brands of natural spring water. It also includes the artefacts and history of the famous spa that was built to welcome the guests who travelled there "to take the waters". The museum shows many examples of local sustainable development. Each tour covers the different production phases, from quality control to bottling and packaging.

"Water and Life" is a permanent exhibition set up by the Nestlé Water Institute, based in the historical old spa in Vittel, France. It's a unique opportunity to explore the fascinating world of water. The spa itself was built in 1885 by Charles Garnier, famous for the magnificent Opera house in Paris.

The exhibition shows the different aspects of water grouped under four main themes:

- water and health showing the fundamental role of water in the functions essential for life,
- the interaction between geological formations and water that gives it its characteristic mineral composition,
- Nestlé policies regarding protection of surface and ground water, bottled water production, and quality control and analysis, and
- Nestlé Waters' brands.

"El Museo del Agua" was created by Nestlé Waters at its Viladrau site in Spain in 2000. The water museum is part of the European Nature Cultural Centre and shows how two elements, water and the forest, interact with one another. Using state-of-the-art communication techniques and interactive exhibits, visitors can investigate topics such as tree life, water physics and geology.



## Nestlé Research and Development



Nestlé Research and Development (R&D) plays a vital role in strengthening the Company's brands and supporting future growth and competitiveness through innovation and renovation.

Specifically for R&D in its bottled water business, Nestlé benefits from the Nestlé Water Institute and the Product Technology Centre, Water.

The Nestlé Water Institute was created in Vittel, France, in 1995. Its purpose is to further scientific progress related to water consumed by humans, and to gather and promote the widest possible distribution of relevant scientific, medical and technical information.

Studies are carried out in collaboration with laboratories, institutes and universities all over the world. Research focuses on three main areas, water and life, water and nutrition, and water and the environment.

Two examples give an idea of the Institute's activities. It developed the HydraOpt software used by athletes to optimise their hydration balance. And a study into the health impact of calcium and magnesium present in water led to recommendations for the protection of dental health, and demonstrated the positive effect of mineral water consumption on bone, renal and cognitive functions.

In just a few years, through its own work, as well as the research it sponsors and the dialogue it fosters, the Nestlé Water Institute has set world standards in water sciences. Since 1995, its documentation centre has been developing a valuable data base on water and health, minerals and trace elements, the nutritional effects of drinking water, water's physical and chemical properties, organoleptic and microbiological analyses, and packaging and the environment.

The Product Technology Centre, Water was set up at the beginning of 2003 in Vittel, France, to bring together experts from a number of different disciplines: process engineering, water based beverages formulation, packaging development including material recycling, water resources and aquifer protection, water process as well as chemical and microbiological analyses.

The Product Technology Centre, Water works closely with the Nestlé Research Centre located in Lausanne, Switzerland, where world leading research on nutrition science is conducted. It also interacts with the network of Product Technology Centres that are responsible for the innovation and renovation of Nestlé products worldwide.



### The future

The 2002 World Summit on Sustainable Development (WSSD), Johannesburg, placed clear and increasing importance on all aspects of water. The Plan of Implementation that was developed set a 2015 target to decrease by half the number of people without access to safe drinking water or basic sanitation.

To reach this goal, the Plan envisages the development of integrated water resources management and water efficiency measures by 2005. It recommends the use of a wide range of policy instruments, both voluntary and regulatory. Prerequisites include knowledge sharing, capacity building, technology transfer, new technology developments and education.

Protecting water has always been part of Nestlé's daily operation. With its long-term experience in business practices based on the principles of sustainable development, Nestlé is confident that it is well prepared for the future.

Opportunities for improvement and innovation will always be present. Efforts to increase the efficient use of water will continue all along the supply chain. Water management will be further strengthened to optimise what has already been achieved and to fulfil Nestlé's corporate commitment to sustainable water use.

Responsible water use extends beyond Nestlé and also involves its many partners. As part of its efforts to build long-term business relationships, the Company encourages its partners to use water in a sustainable manner.

Millions of consumers are at the end of Nestlé's supply chain. Water use is integral to their daily lives. Nestlé will continue to provide them with information on good water practices and the role of water in health and wellbeing.

Water is a top priority for Nestlé – and always will be.

Previous pages
pp. 8-9 Chocolate tempering using water jackets
Hamburg, Germany
p. 12 International head office
Vevey, Switzerland
pp. 18-19 Calistoga region, USA
p. 26 S.Pellegrino bottling plant, Italy

© 2003, Nestec Ltd., Environmental Affairs

Department, Vevey, Switzerland

Concept: Nestec Ltd., Marketing Communications, Corporate Identity and Design, Vevey, Switzerland

Pictures: Christian Vogt, Maurice Schobinger, Andrea Diglas,

Graham Trott, Stone: Chris Noble

Printed by Genoud, Entreprise d'arts graphiques S.A.,

Le Mont-sur-Lausanne, Switzerland