

SUEZ ENVIRONNEMENT'S CONTRIBUTION TO ACTION TO FIGHT CLIMATE CHANGE

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  by Gérard Mestrallet and Jean-Louis Chaussade
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SUEZ ENVIRONNEMENT'S CONTRIBUTION TO ACTION TO FIGHT CLIMATE CHANGE

Our Commitment

As part of the worldwide action against climate change and its consequences, GDF SUEZ and SUEZ ENVIRONNEMENT have a role to play. The knowledge of our staff, our expertise in technologies and industrial solutions and our considerable investment in innovation are making an impact as responses to the eco-environmental equation which we need to solve collectively. To achieve the targets for reducing Greenhouse Gas Emissions set by international agreements, local authorities and industry can count on us.
As well as its own commitments and efforts to reduce emissions, our Group has a responsibility to explain and offer solutions to its partners and customers.
In this publication, SUEZ ENVIRONNEMENT presents its understanding of climate challenges and the solutions it is implementing and proposing, in its particular field, to address them.

Water and waste industries can contribute directly to improving the environmental performance of local authorities and industry, particularly in reducing GHG but also in adapting to the consequences of climate change. Within the GDF SUEZ Group, SUEZ ENVIRONNEMENT has unique experience which needs to be presented and shared.

Gérard Mestrallet

Chairman and Chief Executive Officer of GDF SUEZ
Chairman of the Board of Directors of SUEZ ENVIRONNEMENT



A new model for new challenges

I find it impossible not to draw parallels between the economic and ecological crises that we are experiencing. On both fronts, the time has come to act differently. Post-crisis society will see an economy emerging that is less hungry for natural resources, more frugal and much less brutal to nature. In bringing together the expertise of the water and waste industries, SUEZ ENVIRONNEMENT now has considerable environmental knowledge that naturally confers heavy responsibility upon it as an economic player in society. Our daily business places us at the forefront, shoulder-to-shoulder with local industries and industrialists to help them reduce their environmental impact. Over recent years, this position has led us to renew our vision of our company and its businesses. Mindful of our responsibility and our capacity to act, we intend to participate constructively in the thinking and collective action focused on inventing a different kind of development. Development that is not only quantitative but which takes into account other success criteria such as producing the optimal balance between the exploitation of natural resources, environmental protection, and collective well-being. This implies giving a new meaning to business and joining in a participative and proactive initiative, participating fully in the thinking and fight against climate risk.

This publication presents SUEZ ENVIRONNEMENT's contribution to international action to confront climate change. It presents our vision and our understanding of this phenomenon, our own commitments and the commitments we assume for our customers. It also addresses the progress made in the innovative technological solutions we are developing, which, once deployed, can contribute directly to fighting climate change and contending with its consequences. To act intelligently in one of the greatest crises that has ever threatened humanity, I am convinced that coordinating efforts, discussion and partnership are the best attitudes to adopt.

Jean-Louis Chaussade

Chief Executive Officer of SUEZ ENVIRONNEMENT



MANAGING THE ENTIRE WATER AND WASTE CYCLE

A global standard-setter in environmental activities, SUEZ ENVIRONNEMENT is present throughout the water and waste management cycle and operates for local authorities as well as private sector players. This comprehensive expertise allows it to take a global approach to environmental problems and its customers' problems and to set up efficient and original synergies.

IN WATER, SUEZ ENVIRONNEMENT operates particularly in:

- the catchment, treatment and distribution of drinking water;
- network maintenance and plant operations;
- customer management;
- the catchment and treatment of waste water from municipalities and industries;
- the design and construction, sometimes the financing, and the operation of drinking water production plants and wastewater treatment plants, as well as desalination plants and their associated water re-use treatment plants;
- surveys, guidelines, modelling underground water tables and depletion and overseeing water management infrastructure projects;
- biological and energy recovery from sludge from wastewater treatment.

IN WASTE, SUEZ ENVIRONNEMENT operates particularly in:

- waste collection (from households, local authorities and industries, both hazardous and non-hazardous, excluding radioactive waste) and urban cleaning services;
- sorting and pre-treatment of this waste;
- recycling, biological and energy recovery of the recoverable fractions of materials, elimination of residual fractions by incineration and landfilling;
- integrated management of industrial sites (wastewater treatment, decontamination and rehabilitation of polluted sites and soil);
- treatment and recovery of sludge.

REVENUE 2008

€12.4 billion

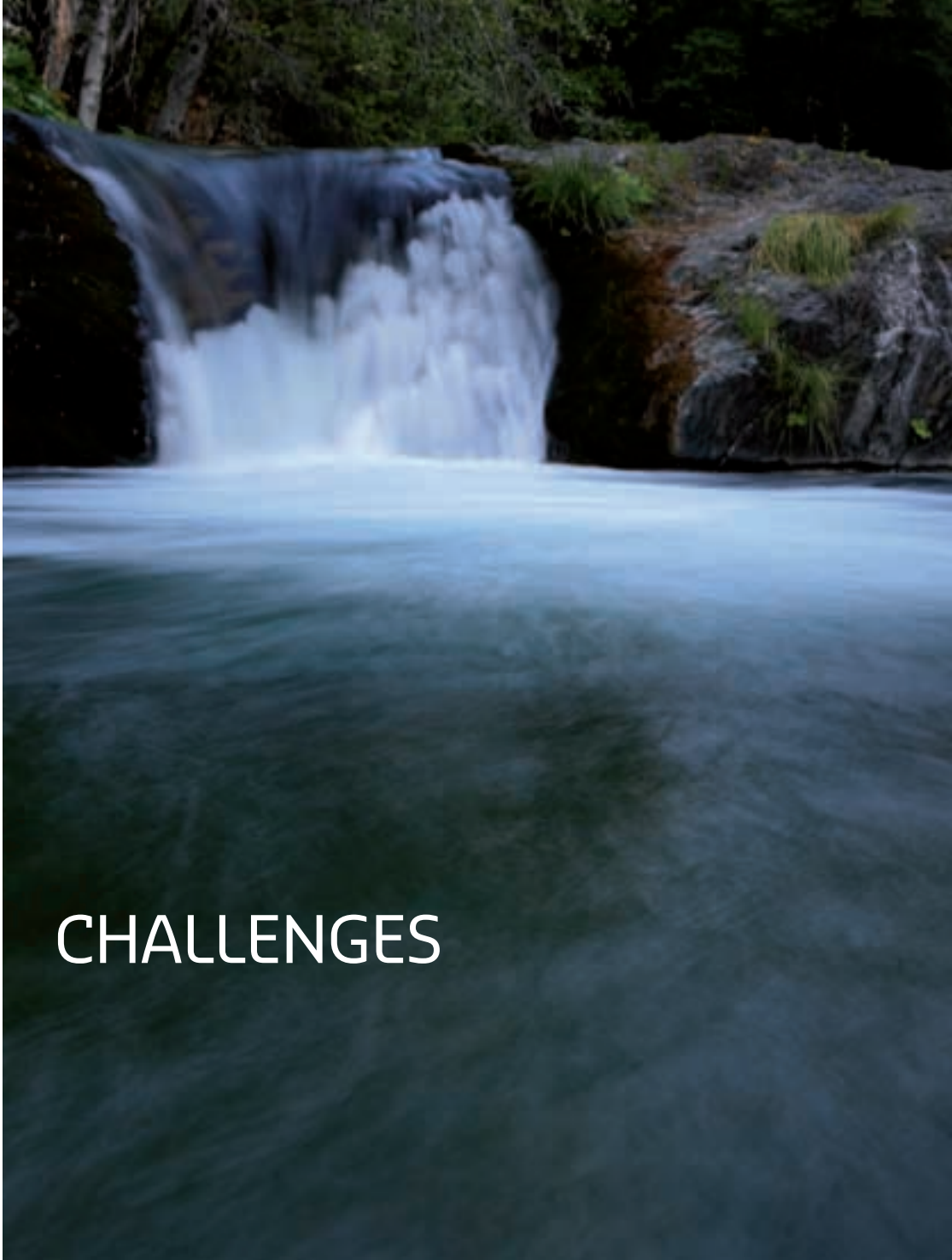
GROSS OPERATING REVENUE 2008

€12.4 billion

76 million people connected to drinking water

44 million people provided with wastewater services

51 million people benefiting from waste collection



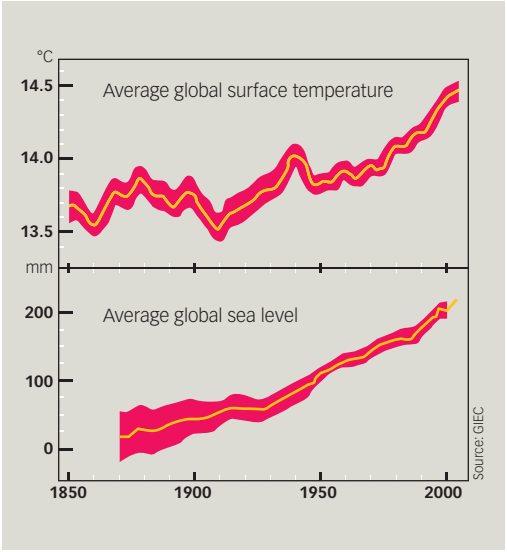
CHALLENGES

The climate change phenomenon and its consequences

The latest report of the Intergovernmental Panel on Climate Change (IPCC)[1] concludes that our climatic disruptions are very probably caused by human activity, which is sharply increasing the concentration of greenhouse gases (GHG) in the atmosphere, due mainly to the combustion of fossil resources. The 2007 report confirmed that concentrations had reached levels not seen for 650,000 years and were the cause of sharp rises in temperature.

The 1990s were the hottest decade since the middle of the 19th century: 11 of the last 12 years are among the hottest since 1860. Average temperatures increased by 0.74% between 1906 and 2005, with the increase more pronounced at higher latitudes. In Alaska and Western Canada, average winter temperatures have risen 3° to 5° C over the last 30 years.

The IPCC estimates that average land temperatures will rise by 1° to 6° C by the end of this century due to climate change, while the OECD predicts that the long-term rise in global temperatures will be 4° to 6° C[2].



Temperature variations in degrees and sea levels in millimetres.

1/ The IPCC is an intergovernmental scientific institution created by the World Meteorological Organisation (WMO) and the United Nations Environment Programme (UNEP).
2/ The OECD Observer, March 2008.

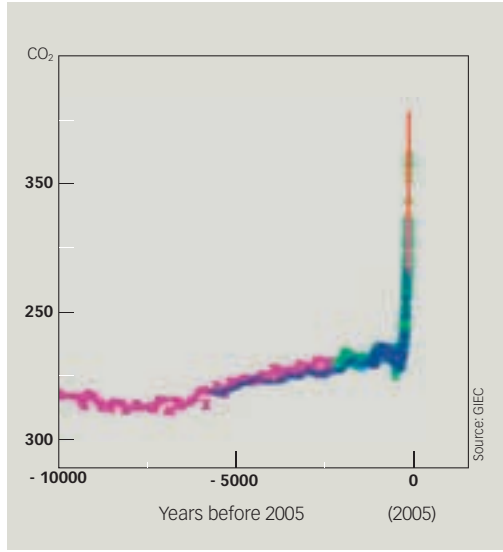
POTENTIALLY DRAMATIC CONSEQUENCES

Four of the hottest seven years since 1980, (2002, 2003, 2005 and 2006) were years when the regions which contribute most to world food production saw their harvests fall despite record temperatures[3]. In fact, a temperature rise of 1°C above the norm at sprouting time reduces rice, wheat and maize yields by 10%[4].

Sea levels have risen by 1.5mm/year since 1961 and this phenomenon has accelerated to 3.1mm/year since 1993, due to thermal expansion as well as glaciers and polar caps melting[5].

The IPCC predicts that sea levels will increase by 18 to 59 centimetres, and even by as much as 90 centimetres in certain regions by 2050. According to the Bangladesh authorities, such a rise in sea levels would reduce the usable land surface in this very densely populated country by 60%.

Other consequences of climate change: 20% to 30% of known species are suffering from an increasing risk of extinction[6]. Systemic risks could be considerable.



Change in CO_2 concentration in the atmosphere in parts per million (PPM).

3/ USDA: Grain World Markets and Trade.
4/ S. Peng "Rice Yields decline with higher night Temperature from Global warming", Proceedings of the National Academy of Sciences, 2004.
5/ http://www.geostrategique.net/viewtopic.php?t=5952&sid=51b5ab8e0fee9818a6ed9dd2c251b8f1.
6/ Latest IPCC report.

Attenuation and adaptation, the two pillars of response to climate change and its consequences

Defining a framework for action to meet the challenges of climate change is absolutely essential. As a global phenomenon, climate change calls for collective mobilisation, but above all for every player to act in its particular field. It means adding together all the individual strategies which will allow progress. The challenge for everyone is, therefore, to provide action frameworks that will be intelligible to all players: individuals, associations, companies, local authorities, governments and international institutions, so they can coordinate their actions and combine their solutions, skills and resources.
This means taking the right actions to influence the cause of climate change and massive GHG emissions, but also to find quick solutions to potentially dramatic consequences: a re-assessment of the planet's thousand-year natural equilibrium and the millions of human lives under threat.

ATTENUATION: BETTER LATE THAN NEVER

When we take action against the causes of climate change, we are talking about the concept of attenuation. Because the fact is that climate change has already happened. It began over a century ago with the industrial revolution and, despite our knowledge of this phenomenon for more than 20 years, we have not succeeded in slowing the growth of global GHG emissions, in particular because many countries have not complied with the commitments made under the Kyoto protocol. The word "attenuation" therefore reflects our realism: we cannot stop climate change, we can at best attenuate it.

This concept brings together initiatives, strategies and commitments aimed at directly combating climate change by reducing GHG emissions, through recycling, energy efficiency solutions, the production of renewable energies, etc.

ADAPTATION: CONFRONTING THE CONSEQUENCES

As climate change cannot be stopped but only slowed, it is absolutely fundamental to anticipate the consequences of a rise in average global temperatures. Adaptation refers to all measures that can confront the various situations that are disastrous for humans and the environment, and the direct and indirect consequences of climate change. These consequences could be enormous: millions of climate refugees, multiple natural catastrophes, etc. Adaptation measures are essential.





POSITIONING

SUEZ ENVIRONNEMENT, *accelerator of environmental possibles*

The climate change challenges that SUEZ ENVIRONNEMENT confronts on a daily basis are also those of its customers. The Group's activities are not subject to "cap and trade" regulations, that is to say, the Group is not subject to ceilings and the exchange of GHG emission quotas (the EU Emission Trading System or ETS), but some of its customers are. SUEZ ENVIRONNEMENT is a service provider that offers solutions for improving environmental performance adapted to its customers' needs and resources.

The Group's room for initiative is understandably reduced where it operates facilities but does not own them. Capital investment and improvement initiatives generally relate to infrastructure owners who are usually local authorities. SUEZ ENVIRONNEMENT promotes solutions with the least ecological impact.

Nevertheless, SUEZ ENVIRONNEMENT is strongly committed to combating climate change by improving its environmental performance in its day-to-day management, but also by driving its own initiatives in technological and commercial innovation.

OUR RESPONSIBILITY: TO INNOVATE AND MAKE PROPOSALS

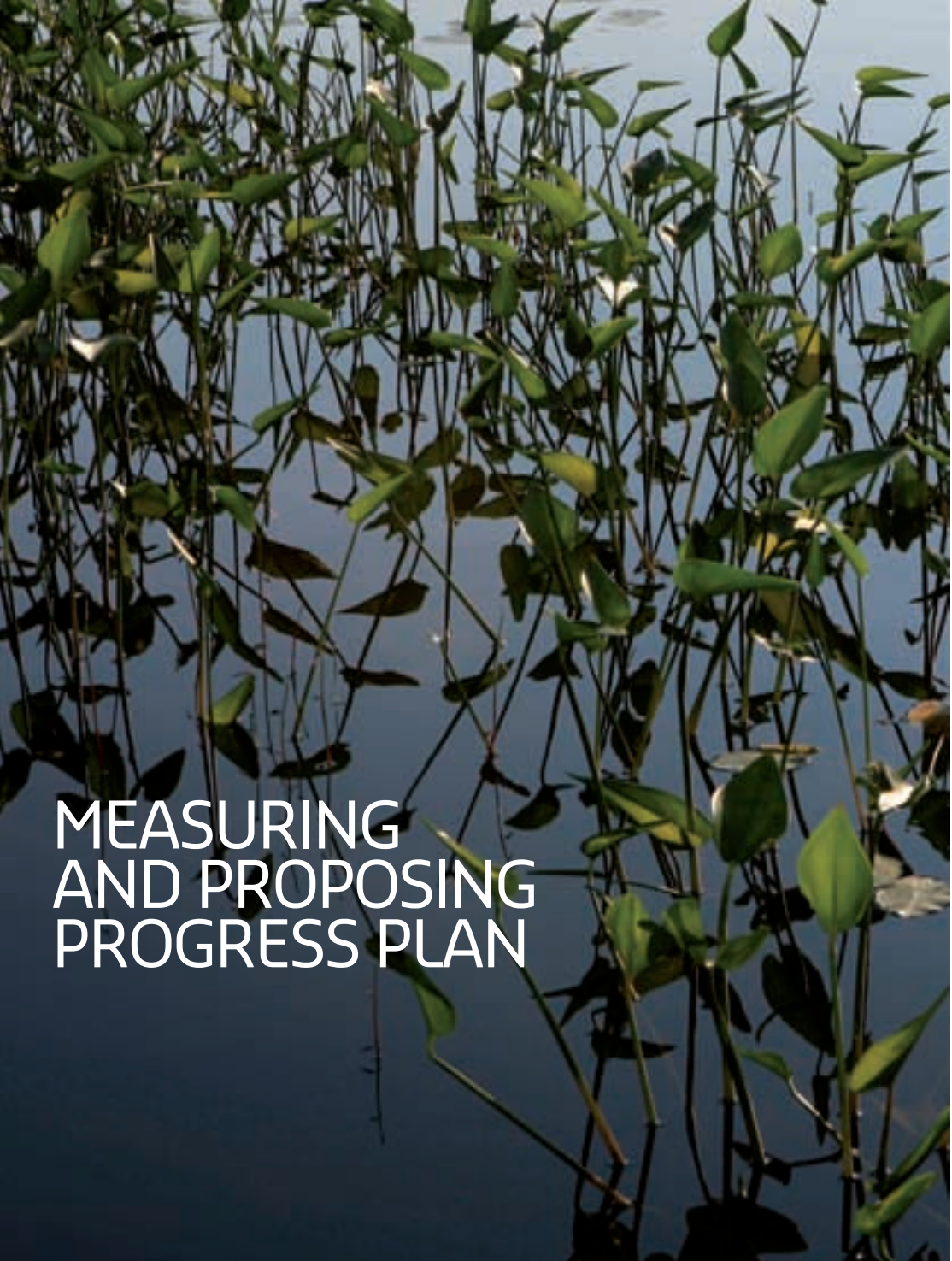
A custodian of valuable knowledge in water and waste, SUEZ ENVIRONNEMENT is a major innovative player in these fields. Its R&D efforts have placed numerous innovative technical solutions on the market, creators of environmental performance. This is the case, for example, with a solution for heating buildings in an urban setting by recovering the heat from wastewater systems.

This ambitious R&D policy demonstrates our company's true commitment, actively participating in the fight against climate change.

Mindful of the considerable improvement possibilities represented by the technologies in its armoury, SUEZ ENVIRONNEMENT has decided to innovate. The Group today offers its customers contracts to improve their environmental performance via its Edelway product (see page 20).

A unique initiative, this environmental-performance product goes well beyond the traditional services for water, wastewater and waste management and has given a new meaning to outsourcing services. This publication intends to present SUEZ ENVIRONNEMENT's initiatives in the fight against climate change, as well as the available technological and organisational solutions.

An accelerator of "environmental possibles", SUEZ ENVIRONNEMENT is a committed player in the fight against climate change and its consequences.



MEASURING AND PROPOSING PROGRESS PLAN

We are evolving today in an international working environment marked by unrelenting monetisation in which numbers have become the language of reference for all economic, political and social intermediaries. The ability to assess and quantify environmental, social and economic impacts has become key. Numbers are essential for any discussion and for committing to precise objectives. Quantifying climate change - counting, itemising and costing it - to integrate this natural and human phenomenon into the strategic thinking of countries, companies and private individuals, is a thorny problem. Some standards have been established, others are awaited, and they need to be respected by everyone so that precise comparisons can be made and used. In the case of climate change, the challenge is unprecedented because quantifying must be global. The difficulty is immense and knowledge must be built up.

SUEZ ENVIRONNEMENT *is investing in producing carbon audits and assessing the ecological footprint of its activities. Various tools have been developed and deployed by the Group since 2006 to confront this new challenge so that it is now in a position to engage contractually to improve its customers' environmental performance. Assessing, measuring and monitoring progress is essential for effective action.*

CityBiose, measuring the environmental performance of local authorities

Developed by SAFEGE, CityBiose is a tool for assessing and visualising the environmental performance of the primary services of local authorities: drinking water, wastewater, cleaning, energy for public buildings, public lighting and public transport. It is easy to use and has a web interface.

Using accessible data, 12 indicators per service allow the impact of a given service to be assessed in terms of three criteria:

- Climate: GHG emissions, energy efficiency, proportion of renewable energy,
- Ecosystems: consumption of primary and secondary resources, avoided resources, reduction of physical and chemical pressure (ecotoxicity) on the environment,
- Service quality: accessibility, cost, compliance and user satisfaction.

CityBiose allows the user to display radar-type graphical representations of the impact of various envisaged management scenarios in relation to the starting point.

CityBiose is thus:

- A decision-making aid for identifying the major priorities in sustainable management solutions within a local area,
- A forum for dialogue with the stakeholders within a local area, such as environmental protection associations, the local population, etc.,
- A monitoring tool to track indicators and provide quantified data of the environmental results of local authority policy for the public services concerned.

Assessing the environmental impact of water and waste management activities

"CARBON AUDIT SERVICE FOR WATER"

Lyonnaise des Eaux is extending carbon audits across all its activities. Since 2006, the development of various diagnostic tools has allowed the Group to gain the necessary knowledge for such rigorous evaluation. In 2007, Lyonnaise des Eaux conducted the first carbon audit for water and wastewater in France, with an impact assessment carried out at the Nord-Ardennes Regional Centre. Thus, Lyonnaise de Eaux has now become an expert in conducting Carbon Audits. Its "Carbon Audit for Water" tool has been developed in line with ADEME recommendations and in collaboration with ASTEE to ensure harmonisation with existing practices and standards. To deploy this tool, Lyonnaise des Eaux is progressively assembling "carbon advisors" in each regional centre and relying on specialised consultants on a case by case basis. The carbon audits are carried out per facility and per service, and they are steadily being deployed throughout Lyonnaise des Eaux' geographical perimeter.

THE "ECOLOGICAL FOOTPRINT OF WASTE MANAGEMENT"

For its part, SITA France launched the Waste Management Ecological Footprint programme (Empreinte Écologique Déchets or "EED"), in 2005, in partnership with the Global Footprint Network, the Institut Angénius and Médiation & Environnement, aimed at applying Ecological Footprint calculations to waste management activities. The tools developed under this programme allow the Ecological Footprint of collecting, sorting and treating a tonne of waste to be calculated, based on the composition of the particular tonne and the performance of the particular treatment plant.

In June 2006, the first stage of the programme culminated in an open-source freely accessible tool being placed on the Internet to model the Ecological Footprint of waste collection (www.empreinte.sita.fr).

In 2008, the Ecological Footprint calculations were extended to include sorting and treatment. Sector tools have since been developed to allow an Ecological Footprint audit of a single treatment plant or a system of several treatment plants. The programme is now committed to developing a tool that will allow Ecological Footprint modelling of the waste management of a local area as a whole.

7/ ADEME *(Agence de l'Environnement et de la Maîtrise de l'Energie)* = French Environment and Energy Management Agency;
ASTEE *(Association Scientifique et Technique pour l'Eau et l'Environnement)* = Scientific and Technical Association for Water and the Environment.

Edelway: commitment to improving environmental performance

SUEZ ENVIRONNEMENT cannot commit to improving the environmental performance of the facilities that it operates without the active support of its partner. The challenge is, therefore, to innovate so as to encourage local authorities to commit to investing in environmental performance across the water and waste management services for which they are responsible. In addition to their public service mission, these services can contribute substantially to achieving the environmental targets and commitments of local authorities. To incentivise customers to opt for improvement solutions, in 2008, SUEZ ENVIRONNEMENT launched Edelway, the first commitment to environmental performance. With Edelway, local authorities can act directly on targets for biodiversity, GHG emission reduction and natural resource preservation as part of their ongoing public water, wastewater and waste management services.

In order to make this contractual performance commitment possible, SUEZ ENVIRONNEMENT has put in place efficient diagnostic tools to calculate its customers' environmental impact. These diagnostic tools have been developed over many years at the Group's subsidiaries.

With CityBiose (see page 18) SAFEGE offers an extended and dynamic environmental assessment. These tools allow precise progress targets to be set. Edelway then puts into action innovative technical solutions that enable these targets to be achieved. For example, Degrés Bleus, a Lyonnaise des Eaux innovation, is a model of urban heating that uses renewable energy – the heat from wastewater. Wastewater flows through the sewage system at an average temperature of 11° to 20° C.

The heat in this water can be recovered so as to heat or cool any type of building. In many cases, these technological innovations put an end to the wastage of previously ignored resources. Edelway, along with all the other solutions which have great potential in this commitment, are proof that environmental protection often goes hand in hand with efficiency and cost control.





ATTENUATING CLIMATE CHANGE

To avoid temperatures rising more than 2° C, global GHG emissions must be reduced by 50% by 2050. This target puts into perspective the massive challenge involved in reducing these emissions. Committed to a 20% reduction by 2020, the EU is one of the good students, but that is not enough. A global phenomenon, GHG emissions are no longer a purely local problem. Everyone must take action - with the government, local authorities and companies leading the way.

SUEZ ENVIRONNEMENT *is committed to helping fight GHG emissions. In fact, the Group is one of the economic players capable of providing its customers with solutions for reducing GHG emissions.*
In the long term, the energy used by SUEZ ENVIRONNEMENT will increase. The pollution of water resources, the increasing role of sorting and recycling in waste management, and increasingly stringent regulatory requirements will mean more energy will be needed for treatment.
SUEZ ENVIRONNEMENT intends to offset this increase by its efforts in energy efficiency and by optimising energy recovery, biologically and from materials, in its activities. These types of energy recovery will avoid significant GHG emissions.
The concept of avoided emissions becomes fundamental as it quantifies the positive aspects of wastewater treatment and modern waste management techniques. In 2008, SUEZ ENVIRONNEMENT was able to avoid 5.75 million tons of GHG emissions thanks mainly to energy recovery from materials and waste management activities. But avoiding emissions is not the Group's only contribution. SUEZ ENVIRONNEMENT intends to be an example and is committed to reducing its GHG emissions by turning to energy saving and the production of renewable energy. The Group offers its customers the ability to commit contractually to improving the carbon footprints of their facilities and services.

Avoiding Greenhouse Gas emissions by recycling

In a world whose natural resources are not inexhaustible, a future offering more sustainable development presupposes a rational use of these resources: less wastage during the production cycle and the creation of new resources in the form of materials, waste and end-of-life products from which energy can be extracted. When incinerated, waste can produce alternative and renewable energy by using fuels that are not fossil fuels (see page 26). Another option is to recycle metals and other materials to avoid GHG emissions while preserving resources. The flow of material collected for recycling has a direct impact on the CO_2 performance of SUEZ ENVIRONNEMENT and its customers.

In 2008, SITA France's recycling activity avoided the emission of 1.7 million tons CO_2 equivalent into the atmosphere, the equivalent of the annual emissions of some 250,000 people in France. Using recycled metal reduces emissions on several levels. First of all, the energy needed to produce a tonne of recycled metal is much less than to produce it new: the very high energy costs involved in production are already amortised in recycled metal. Furthermore, metal for recycling can be sourced locally and does not need to be mined. The reduction in distance travelled compared to new metal also creates energy savings.

In addition, waste incineration produces residue called fly ash which can also be recovered.

Recycling these incineration residues after recovering the metals they contain produces high-quality base courses and technical fill for road construction and other public works. They can thereby replace the extraction of raw materials, which is a heavy producer of GHG.

Using fly ash to build one kilometre of road saves 93 tons CO_2 equivalent.

SUEZ ENVIRONNEMENT, with its subsidiary SITA, is among the European leaders in materials recycling. The Group recently inaugurated an ultra-high-efficiency "bottle-to-bottle" plastic recycling plant that produces food grade plastic from used bottles. This recycling-&-production centre in Limay, France, is the largest in the country and recycles 40,000 tons of plastic per year.

SUEZ ENVIRONNEMENT is continuously committed to creating new lines for recycling materials, aimed directly at industrial manufacturers. The PAMELA project, in collaboration with Airbus, is aimed at recycling end-of-life aircraft, with state-of-the-art recovery of all their metal and plastic for re-use. Another project is dismantling fishing boats at the end of their lifetime. SITA has developed a mobile dismantling plant that analyses and dismantles every end-of-life vessel according to the boat's particular characteristics. In the case of a fishing boat with a hull weighing 200 tons, 95% of the hull will be recovered and placed on the metals market, representing very high energy and resource savings.

Increasing the energy efficiency of facilities

Improving the energy efficiency of SUEZ ENVIRONNEMENT's activities and those of its customers is a major challenge with both economic and environmental implications.

Better energy efficiency means reducing our recourse to fossil resources and thus becomes a valuable lever in lowering our GHG emissions. The water and waste management industries have made efforts in this respect in terms of transport, including waste collection. In the water industry, energy efficiency efforts revolve primarily around production processes for drinking water and wastewater treatment, which are the heaviest users of energy. In the waste industry, the challenge is, above all, to better recover energy, whether renewable or not[8]. In producing electricity, household waste incineration plants recover only a part of the thermal energy which they generate. To increase the yield, SUEZ ENVIRONNEMENT and its subsidiaries have developed the innovative concept of high-performance cogeneration (HPC+). This involves installing special equipment that recovers all or part of low-temperature heat (about 45° to 50°C). The R&D goal was to come up with the best match between the process for recovering the available heat and the process for using the heat for market-garden greenhouses, for example. Greenhouse vegetable production requires a large amount of heat, which can represent over a third of production costs. Transferring heat that would otherwise be wasted avoids substantial GHG emissions.

In the water industry, significant improvements have been made and are possible at all stages of the cycle.

Desalination – which is today indisputably necessary in certain regions of water stress or scarcity (see page 32) – is an energy-hungry solution. SUEZ ENVIRONNEMENT and Degrémont have continuously innovated to drastically reduce the plants' energy consumption. In 10 years, their energy efficiency has improved by a third thanks to reverse-osmosis technology[9], which is less energy-hungry than distillation, and the systematic integration of energy-recovery processes: turbines or pressure exchangers, better efficiency from motors, frequency variation systems which can deliver the exact amount of energy to the membranes and better membrane permeability. At the El Atabal plant in Spain, energy recovery turbines and speed regulators have been installed for the pumps feeding the reverse osmosis membranes. This has allowed for energy savings of 80%.

In wastewater treatment, Lyonnaise des Eaux has launched a major technological initiative, Degrés Bleus, which allows heat to be recovered from waste water on a large scale. This new urban heating model captures the heat from wastewater in the sewage system. The sources of this water (bathrooms, appliances such as dishwashers, washing machines, etc.) mean that it has an average temperature of between 11° and 20° C. The heat is captured and transferred by heat pumps to the areas which need to be heated. Finally, wastewater treatment activities are also a model for the direct reduction of GHG emissions and the production of renewable energy (see page 26).

8/ 50% of the energy in waste is considered renewable. Source: Ademe.
9/ Desalination is achieved by membranes that let water pass through while holding back salt and pollutants.

Producing renewable energy

SUEZ ENVIRONNEMENT operates storage facilities, incinerators, methanisation centres and, in certain cases, wastewater treatment plants, with a view to increasing its renewable energy production. Some 700 active energy-recovery incinerators produce more electricity today worldwide than all the wind and solar sources combined[10].

The European Union estimates that, by 2030, energy recovery from waste could be producing about 6% of the EU's total energy needs[11]. In 2007, 50 million tons of waste incinerated in Europe provided electricity for 21 million people and heat for 37 million[12].

In France, energy recovery from waste is the second largest source of renewable energy[13]. In June 2008, the local authority for Saint-Maximin (France), working with Fairtec, inaugurated an electricity recovery plant using biogas produced by waste from a storage facility. Injected directly into the EDF network, the electricity it produces meets the electricity needs of 3,300 people. Another example is the biogas thermal recovery plant in Clérac (France). Installed by SITA Sud-Ouest and AGS, a baking oven using recovered biogas from the nearby landfill facility will avoid the emission of 6,500 tons CO_2 equivalent and save 2,000 tons oil equivalent per year. The water industry is not sitting idle either. It, too, is contributing to renewable energy production by recovering energy from wastewater sludge, hydro-electricity generation and solar panels and wind turbines on certain appropriate sites.

In August 2008, Degrémont inaugurated a wastewater treatment plant just outside Amman capable of treating wastewater from 2.2 million people. The plant is exceptional in being virtually autonomous in energy terms: hydraulic turbines installed upstream and downstream, combined with gas motors running on biogas from digestion, produce 95% of the electricity needed for water treatment, the remaining 5% coming from the national grid.

In France, Lyonnaise des Eaux offers its customers an original initiative with a wastewater treatment plant as a source of renewable energy for a local authority, minimising energy consumption and maximising the production of renewable energy. Its method consists of analysing the community's energy consumption, then optimising the plant's energy operation (pumping, aeration, agitation, recirculation), reducing its energy consumption and finally producing renewable energy by combining various approaches: heat pump, photovoltaic units, wind, micro-turbines, wood (willow, poplar, bamboo plantations) and biomethanisation.

For certain installations, SUEZ ENVIRONNEMENT can put in place additional solutions for renewable energy production and offset 100% of the plant's energy consumption, as is the case for the future desalination plant in Melbourne, Australia, which is connected to a wind park.

10/ Source: The Economist, 28 February 2009.
11/ Or enough to provide the electricity needs of over a million European homes.
12/ Source: SITA France/Novergie.
13/ The second-largest source of renewable energy after hydro and the second-largest source of renewable heat after wood, according to the French Industry Ministry's General Directorate for Energy and Raw Materials (DGEMP) and its Department for Energy Demand and Energy Markets *(DIDEME)*.

Reducing GHG emissions

SUEZ ENVIRONNEMENT is committed to reducing the GHG emitted by its activities. These emissions can be classified into two groups: emissions from energy consumption (primary or electrical) and emissions from processes that result naturally and directly from the physical-chemical action needed for water and wastewater treatment (combustion in incineration, anaerobic fermentation in storage facilities and wastewater treatment). Reducing SUEZ ENVIRONNEMENT's emissions therefore means, in particular, optimising its industrial processes and technological choices in transportation, water treatment and waste recovery.
SUEZ ENVIRONNEMENT deploys initiatives at many levels to reduce the GHG emitted in collecting and transporting waste, including:

- Reducing waste volumes at source by developing expertise in eco-design to advise local authorities and industrialists;
- Optimising collection routes, reducing the frequency of collections;
- Computerising route management: onboard computers, geo-location, optimisation software, GPS combined with an evolving range of services;
- Training drivers in fuel-saving techniques: set up in 2006, "rational" driving has reduced fuel consumption by up to 20% (average 10%);
- Using three alternative fuels: SITA's target is to run 20% of its heavy vehicle fleet on these types of fuel by 2011. In 2007, 12% of its fleet ran on three types of alternative energy: electricity, biodiesel, and natural gas for vehicles (VNG);
- Pneumatic waste collection;
- Developing alternative modes of transport: river and rail.

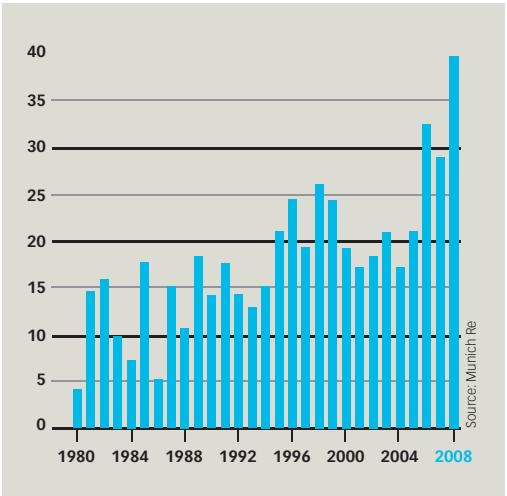
The combination of innovative solutions means that SITA can offer local authorities "sustainable collection and cleaning".
To reduce waste volumes at source and thus reduce the transport needed, SITA France and Michelin have signed a partnership with the joint target of reducing Michelin's carbon footprint by 20% by 2011, to be achieved by reducing the amount of waste placed in storage facilities by 60% by using a valuable sorting device. As for alternative modes of transport, SITA is deploying multiple initiatives at local level. In Ile-de-France, the company has a barge that routed 150,000 tons of waste in 2008. It was so successful that SITA plans to buy five more barges.
SUEZ ENVIRONNEMENT's progress in reducing its emissions also comes from improving the capture of biogas emitted by the waste in storage centres. Of all SUEZ ENVIRONNEMENT's activities, waste storage represents the greatest source of emissions, at 2.1 million tons CO_2 equivalent (or 44% of its direct emissions). But it must be remembered that the actual mode of waste storage, thanks to biogas capture and burning, allows the amount of GHG to be significantly reduced compared to the emissions from waste fermentation in an unequipped centre.
In its water activities, efforts to reduce GHG emissions are evident notably in the optimisation of energy use in aeration processes and in the exploitation of the energy present in wastewater (see page 32).



ADAPTING TO THE CONSEQUENCES OF CLIMATE CHANGE

The greenhouse gases emitted in the 19th century early in the industrial revolution are still active today, and even with a substantial global effort, we will not escape some of the expected consequences of climate change. There can be no development and no energy industry without water. Water is the principal vector through which climate change will impact populations, societies and ecosystems, due to the foreseeable changes in its availability and quality.
The way in which water is managed by each country and between countries will be an essential factor in the success of adaptation policies.
SUEZ ENVIRONNEMENT thus has a significant role to play, as the water industry is in the front line facing the consequences of climate change.
According to the reinsurer Munich Re, the number of major climate events causing more than 500 deaths has doubled since the 1980s, with an average of 20 events per year since the turn of the millennium, compared with 10 per year before then (see diagram page 30).
Climate events systematically impact water and wastewater services. Droughts, floods and storms are phenomena that threaten water supplies and require efficient wastewater systems to limit damage to the natural environment.
Water is abundant but unequally distributed over the surface of the planet, and is already a major human, environmental and economic challenge. According to the IPCC, global warming is increasing this inequality of distribution, and existing water-stressed situations will intensify while new ones will appear (90% of the world's three billion additional population by 2050 will be living in emerging countries, many of them in water-stressed regions).
Adapting to climate change is not just a national policy issue.
Over 75% of the countries in the world share catchment areas. Regional cooperation on adaptation to climate change is necessary in order to manage the consequences, invest in ecosystems, and help preserve water resources. In fact, the health of ecosystems is a key factor in the resilience of societies confronting climate change.

Faced with these adaptation challenges, it is political and social cooperation, public-private partnerships and funding mechanisms that will be decisive in putting in place the technical solutions that already exist and which we are already deploying across the globe in the integrated management of water resources, production and management of alternative water resources, and our expertise in continuity of service in crisis situations.
On the more specific problem of adaptation in developing countries, a company like SUEZ ENVIRONNEMENT must be able to work in a politically and economically stable environment so as not to have the durability of its economic model threatened.
More than the financial commitment needed from these countries and financial backers, we need above all to invent a new culture of "working together". In addition to solidarity and assistance, the means must be found to successfully drive long-term projects that are based on implementing modern technological solutions and the transfer of the necessary knowledge.



Annual number of class 5 catastrophes*

*Causing more than 500 deaths and more than US$500 million damage.

Intelligent management of water resources, anticipating the consequences of climate change

Faced with the many pressures on water resources resulting from climate change, among the most important attitudes to adopt are anticipation and planning. This involves understanding very precisely the terrain, the water resources, and the present and future needs of the population and the natural environment. This knowledge and diagnosis stage is important for setting up systems to manage and protect water resources that can anticipate future stress situations. The objective is to put in place alternative long-term solutions such as water-table replenishment, for example.

SUEZ ENVIRONNEMENT has comprehensive expertise in water resource management and protection.

Its Resource Management Service offers local authorities and industry expertise in managing underground and surface water resources, including diagnostic techniques, sustainable exploitation strategies, energy audits, practical operational guides, and technical training. This service is being used in various applications in France and internationally.

The Drilling Toolbox allows rapid diagnosis of the state of the catchment system and the characteristics of the surrounding aquifer. It also allows the storage and management of technical and administrative data about the boreholes (drill holes, wells, piezometer, sensors). In this respect, it is a tool for managing resource assets. The Drilling Toolbox identifies performance losses (clogging and rehabilitation), provides diagnostic support if there are incidents (data history, water-table status, decision-aid) and optimises operating costs (pumping strategy, forecasting of pump replacement). This product was developed with the participation of Lyonnaise de Eaux and is in use in various countries such as France, England, Algeria, Turkey, Lebanon and Jordan. Other major anticipation and planning challenges are rainwater management, flood control, limiting pollution from discharges, and wastewater treatment performance.

REPLENISHING WATER TABLES

SUEZ ENVIRONNEMENT offers various means of water-resource replenishment once the diagnosis stage is completed. The "Bi'eau" process allows the resource to be ecologically purified and replenishes the water table using surface water. In the Bassin Parisien, this is how water from the Seine is treated then filtered through ancient sands. New reinfiltration methods implemented in this project use the soil's natural treatment ability to reduce the nitrates introduced into the water table by replenishment, without adding any chemical reactant, sustainably improving its quality. The natural treatment process for nitrates means that the treatment plant does not need to have an extension built, thereby reducing expense and the need for public funding.

In water resource diagnosis, two subsidiaries, Lyonnaise des Eaux and SAFEGE, in partnership with the Artois Picardie Water Agency, have perfected a tool for managing underground water resources based on the quantitative and qualitative modelling of the water table. The model is used to understand and minimise the impact of current pumping on the water table, optimise the various catchment works, track the source of the pumped water, and simulate the evolution of the water table based on extraction and replenishment assumptions (pluviometry). It was implemented operationally to forecast drought risks during the summers of 2005 and 2006.

Production of alternative water resources, confronting various water stress situations

Water stress situations can turn into water shortages caused by various climatic events. They can be brutal, such as storms that can block the production of drinking water and pollute water resources, or long-term such as drought and even desertification. But apart from its urgency, guaranteeing water resources means providing people wherever they are with the means to access sufficient water resources. Here, too, SUEZ ENVIRONNEMENT has expertise in a whole range of technologies that allow efficient responses to the various types of water stress situations.

SUEZ ENVIRONNEMENT has developed solutions to guarantee access to water, manage water stress situations and avoid wastage. These responses are complementary and adaptable to the particular context.
Desalination now allows water to be transformed from seawater to drinking water. With its subsidiary Degrémont, SUEZ ENVIRONNEMENT is the world leader in desalination by reverse osmosis. With some 40% of the world's population living less than 100km from the sea, desalination is a future solution for countries that have inexpensive energy resources or that have solvent economies. Using energy generated from renewable resources can attenuate the GHG emissions associated with desalination. SUEZ ENVIRONNEMENT is supporting its customers in taking this route, particularly in Perth and Melbourne.

Artificial replenishment of water tables is a solution for many regions whose water tables are suffering from overextraction or salt intrusion. To replenish aquifers, good-quality water is injected via ditches or boreholes. The water resources used can be natural (watercourses excluding flood periods) or artificial (regenerated water from wastewater treatment plants). This solution presents no health risk, as the water reintroduced into water tables is subject to very strict criteria and regular controls (see, e.g. West Basin on page 34).

The re-use of regenerated wastewater is also a potential solution for the future. Today, of the 165 billion m^3 of wastewater collected and treated worldwide, only 2% is reused. The development of processes that use ultrafiltration membranes now allows water to be produced that is of good enough quality for urban irrigation and agricultural and industrial applications. Such a process reduces direct extractions from the water resource, reserving it for human consumption.
Tracking water leaks in the network saves non-negligible volumes of water and thereby also optimises extraction from the source. SUEZ ENVIRONNEMENT's subsidiaries use various techniques based on ultrasound or helium gas sensors, as well as continuous acoustic monitoring and GSM alerts for leak detection. These measures can increase the technical yield of the system, reducing wastage and protecting water resources in the long term.

SUEZ ENVIRONNEMENT's expertise in the various processes applicable throughout the water cycle allows virtually all water stress situations to be addressed. The main obstacle is therefore economic and political. The countries most at risk are generally also the poorest and they are unable to fund and organise such capital investment by themselves. SUEZ ENVIRONNEMENT is working to change this situation (see page 37).

Desalination, reutilising wastewater, and fighting wastage

BUILDING THE LARGEST DESALINATION PLANT IN EUROPE, IN BARCELONA

Designed, built and operated by two SUEZ ENVIRONNEMENT subsidiaries, Degrémont and Aguas de Barcelona, the plant produces 200,000 m^3 of drinking water a day. It provides drinking water for 20% of the agglomeration's population of 600,000. Extracted 2.2km offshore, the water first undergoes a series of treatments to eliminate the largest impurities (plankton, colloids, bacteria and viruses). Desalination is by reverse osmosis, a filtration system that uses microporous polyamide membranes to eliminate 99.9% of salt. Water passes through minuscule pores in these filters (less than a nanometre in diameter) at a pressure of 60-70 bars (which is the pressure exerted by a 600-700 metre column of water) to ensure that only water molecules can pass through. The brine – i.e. water with a high concentration of salt – that is produced by the desalination process is not expelled directly into the environment. It is diluted into the treated water of a nearby wastewater treatment plant, to ensure that the water returned to the sea has a salinity close to that of the receiving environment.

IN CALIFORNIA, UNITED WATER RECYCLES 34 MILLION M^3 OF WATER PER YEAR

In California, the Central and West Basin Intercommunity Network's wastewater reuse programme (representing 2,300,000 people) includes a tertiary urban-effluent treatment plant in El Segundo, California, and a wide distribution system in the County of Los Angeles. With the largest treatment plant of its type in the United States, and an extensive distribution system of over 110 km, the Network saves more than 34 million m^3 of drinking water in the region each year. After secondary treatment at the Hyperion plant in Los Angeles, a third effluent treatment produces five different types of water for various uses (irrigation of green spaces and other urban uses, aquifer replenishment and industrial uses). Replenishing the aquifer with high-quality water prevents the intrusion of seawater and thus preserves the drinking water resource from the risk of salination. The Network has forged partnerships with neighbouring municipalities to deliver treated water outside its own territory.

REDUCING WATER CONSUMPTION IN DIJON, A CITY OF 200,000 PEOPLE, BY COMBATING WATER LEAKS

Lyonnaise des Eaux has, for the first time, put in place a large-scale leak-detection system called Avertir (French for "alert"), in Dijon. Since April 2006, the city's entire network has been equipped with 180 sensors that provide real-time monitoring. By deploying these devices, average leak detection time has been reduced from several months to three days. Dijon's network yield, operated by Lyonnaise des Eaux, was 81% before putting in place the Permanent Pre-Location system. The target set jointly with the local authority was to increase this figure to 85%. In 2006, water savings already amounted to some 1 million m^3. This new method of permanent leak location relies on acoustic sensors equipped with GSM transmitters (telephone alert transmitters) installed in fixed locations. They transmit any detected leaks in real time by SMS. The noise generated by the leak is recorded and analysed by bespoke software.

Service continuity in the event of a crisis, managing climate emergencies

In crisis situations caused by a major climate catastrophe such as a hurricane or cyclone, the top priority is to re-establish or ensure the supply of drinking water and to treat wastewater. Even more than power, drinking water is vital to avoid humanitarian disaster. Aquassistance, an NGO staffed by volunteers who work at SUEZ ENVIRONNEMENT, regularly deploys emergency equipment around the world to cope with these types of situations.
In September 2008, after several cyclones hit Haiti, Aquassistance was mobilised as part of the "Action Against Hunger" programme in the Gonaive region of the island. Five tons of treatment equipment were sent to the region and an Aquassistance team set about installing and training personnel in its use. The basic plant (5m^3/hr) operated until June 2009, supplying water to 21 food canteens that provided a meal a day to some 12,000 children. Water continuity is absolutely basic, the health challenges are considerable and the greatest care must be taken to anticipate and prepare for all possible crisis situations.

TECHNICAL SOLUTIONS

The Group offers its customers technical and organisational solutions to allow them to guarantee water service continuity regardless of circumstances. Where drinking water is concerned, the SIROCC'EAU Service has been developed to satisfy emergency needs. The service offers an emergency unit to treat and supply drinking water. This unit can be combined with a bagging machine that can distribute water in bags, if necessary. Thanks to its water self-sufficiency, automation, and the modular nature of its units, this service is suitable for small communities, large local authorities and isolated locations. It can be deployed rapidly and easily at any site.
Torrential rains can seriously pollute the natural environment, endangering biodiversity, human health and eventually the supply of drinking water. In fact, in built-up areas, rainwater runoff from impermeable surfaces fills watercourses with various pollutants, the more so when there is heavy rain, so that wastewater collection systems and treatment plants can be overwhelmed and some of the polluted water can flow directly into the natural environment.
To deal with such situations, SUEZ ENVIRONNEMENT offers a dynamic rainwater management service which develops various scenarios, case by case, based on the availability of facilities and the quantity of water circulating in the system during heavy rain, thereby limiting the discharge of untreated wastewater into the natural environment. The Toulouse-Blagnac airport has partnered with Lyonnaise des Eaux to design, build and operate a rainwater treatment plant that will prevent polluted water from escaping in heavy rain. Now it can all be recovered and treated.

ORGANISATIONAL SOLUTIONS

Another guarantee of water service continuity in the case of crisis is organising water services and preparing all personnel for natural catastrophes. In fact, in an emergency, only proven organisations with action plans, well-defined responsibilities and competent trained personnel can meet the challenge effectively. Lyonnaise des Eaux has over a hundred years' experience of emergency situations and regularly prepares its personnel to respond

properly thanks to training and experience feedback. Stand-by schedules and special procedures such as telephone trees are defined and applied throughout, as they were during the storm which hit southwest France on January 2008. Despite considerable damage, impassable roads, power cuts and telephone lines down, 500 local personnel from Lyonnaise des Eaux succeeded in re-establishing water supplies to 155,000 people in record time. As another example, when hurricane Wilma swept through Cancun in 2006, winds of over 250km/hr and heavy floods buffeted the centre of the city for 36 hours, interrupting water and wastewater services, a prevention and crisis management procedure, implemented jointly with the public authorities, allowed 60% of the water distribution system to be re-established on the fourth day, and 100% from the seventh.

Inventing new partnership models with developing countries

SUEZ ENVIRONNEMENT regularly brings together all its stakeholders to better take into account their expectations. These exchanges have been key in developing the Group's sustainable development policy (see page 40). In addition, in 2008, SUEZ ENVIRONNEMENT created a Department of Social Engineering charged with professionalising and deploying local dialogue in its subsidiaries. A new product segmentation also grew out of its work. SUEZ ENVIRONNEMENT now differentiates three types of situations: the first is a classic commercial schema which primarily covers the developed economies and certain projects in emerging countries, such as China and Morocco. The second applies to very poor regions or to dispersed habitats and responds to situations by providing sponsorship and emergency humanitarian aid, which the Group manages through Aquassistance. The third covers a whole range of situations between these two models. These "intermediate regions" are, for example, minor towns in developing countries, in particular Africa.

Characterised by funding difficulties and, often, by weak sectoral and institutional management, this segment demands close and transparent collaboration between the operator, public authorities, financial backers and civil society. It is possible to build sustainable solutions in these situations. However, the social and economic realities in this market mean that the country cannot afford the real cost of the service. The Group therefore has to construct an offer that is accessible with the help of financial backers. To meet the needs of "intermediate regions", SUEZ ENVIRONNEMENT has incorporated the notion of participation into the classic public-private partnership model.

A new framework of intervention has thus been developed: the 4P model (Participative Public Private Partnership). From preparing calls for tender and throughout the contract, collaboration with the local authorities and civil society is institutionalised. This dimension of "Formalised and Professionalised Dialogue" is fundamental to the success of any project of this type, as it guarantees the adequacy and appropriateness of the jointly defined solutions.

Transferring the knowledge that is at the core of SUEZ ENVIRONNEMENT

SUEZ ENVIRONNEMENT has a unique wealth of expertise in water and waste management. To capitalise on this, the company makes knowledge-transfer a key element of its commercial offer, particularly in emerging countries. In these countries, water and wastewater management plays a driving role in local development. SUEZ ENVIRONNEMENT can thus respond to international calls-for-tender for contracts that provide an investment programme supported by the local authority and a joint commitment to improving the quality of service by training local teams. For this, the Group relies on the WIKTI tool developed to diagnose service quality and standardise and effectively transfer knowledge in water services. WIKTI (Water International Knowledge Transfer Initiative) is a very precise ISO 9001 certified methodology which relies on mapping 36 industry processes. For each process, an industry consultant diagnoses the necessary level of expertise and effects the transfer with the help of a kit composed of adapted informational tools.

WIKTI thus provides our customers with the expertise of a world leader, tailored solutions and a reliable tracking system based on sound indicators. The tool also relies on a system for delegating responsibility at local level. Incorporating WIKTI into tenders in Algeria, Indonesia, China and the United Arab Emirates demonstrates the commercial attractiveness of this offer. In Algeria, where the Group has been operating for five years, the results have been spectacular. All the water service's progress targets have been achieved.

Supporting developing countries, water for all

SUEZ ENVIRONNEMENT has a unique wealth of expertise in water and waste management. To capitalise on this, the company makes knowledge-transfer a key element of its commercial offer, particularly in emerging countries. In these countries, water and wastewater management plays a driving role in local development. nder the aegis of the Institut de France, the SUEZ ENVIRONNEMENT – Water For All Foundation supports action for sustainable development. It operates in two complementary fields. It aims first of all to support charitable actions, whether initiated in France or abroad, favouring access to water, wastewater treatment and public hygiene in developing countries, particularly in urban settings.
This support also extends to promoting knowledge and skills in water and wastewater management.

In 2008, the SUEZ ENVIRONNEMENT – Water For All Foundation supported, for example, the action taken by the French Red Cross on the outskirts of Mondou in Chad (2007-2010): The project aims to provide more than 20,000 people on the outskirts of the town with access to drinking water and wastewater treatment. This large-scale project provides for the creation of 30 community boreholes and 60 latrines in schools and public places.





COMMITMENT TO SUSTAINABLE DEVELOPMENT

Sustainable development policies have become governance tools in their own right. True strategic plans in every way, they are also becoming an indispensable communication vector for positioning the company in its markets and giving its stakeholders extra-financial indicators for evaluating qualitative as well as quantitative performance.

SUEZ ENVIRONNEMENT *formally presented its sustainable development policy in 2008, based on several years' work. Its commitments are shown with quantified progress targets and tracking indicators[14].*

14/ For a detailed presentation of SUEZ ENVIRONNEMENT's sustainable development policy, its priorities, commitments, objectives and indicators, see the document "Sustainable Development: Commitments and Performance 2008" *(Développement Durable: Engagements et Performances 2008)* downloadable from the Group's website.

The group's 4 priorities broken down into 12 commitments

1 CONSERVE RESOURCES AND ENGAGE IN THE "CIRCULAR ECONOMY"

- Optimise the waste recycling and recovery rates.
- Increase the yield of drinking water networks.

2 INNOVATE TO RESPOND TO ENVIRONMENTAL CHALLENGES

- Reduce greenhouse gas emissions.
- Improve energy efficiency through all operations.
- Increase and promote renewable energy generation.
- Incorporate biodiversity in site management.

3 EMPOWER OUR EMPLOYEES AS ACTORS OF SUSTAINABLE DEVELOPMENT

- Foster professional knowledge.
- Improve safety and health in the workplace.
- Support diversity.

4 BUILD OUR DEVELOPMENT WITH ALL STAKEHOLDERS

- Maintain an active dialogue with our stakeholders.
- Be a key actor of local sustainable development.
- Provide regular and easily accessible information about our Sustainable Development actions.

Five commitments to confront climate change

Priorities 1 and 2 describe commitments to fighting climate change. SUEZ ENVIRONNEMENT intends to meet this challenge with progress. Greenhouse gas emissions are a problem which must be resolved at multiple levels. The Group is committed to a coherent energy/climate package, impacting all its fields of activity.

COMMITMENT 1

OPTIMISE THE WASTE RECYCLING AND RECOVERY RATES

In order to contribute to the rational management of non-renewable raw materials, SUEZ ENVIRONNEMENT is striving to increase the proportion of waste that is reused, recycled or recovered in form of new materials, in the waste centres which it manages, so as to minimise the impact of product life cycle.

> TARGET 2012

Raise the global recovery rate of household and non-hazardous industrial waste to 36 %.

> TRACKING INDICATORS

Global recovery rate of household and non-hazardous waste (%).

Amount of recycled material put on the market (in tons).

COMMITMENT 2

INCREASE THE YIELD OF DRINKING WATER NETWORKS

SUEZ ENVIRONNEMENT is committed to fighting wastage of a valuable resource that is increasingly expensive to produce – drinking water – by combating network losses.

> TARGET 2012

Save the equivalent of the consumption of a French town of 700,000 inhabitants within four years (Lyonnaise des Eaux scope)

> TRACKING INDICATOR

Linear loss index for the network (m^3/km/day).

COMMITMENT 3

REDUCE GREENHOUSE GAS EMISSIONS (tons CO_2e)

SUEZ ENVIRONNEMENT's contribution to fighting climate change is a combination of actions designed to reduce GHG – in like-for-like equivalents – through operational excellence (capturing and recovering biogas, etc.), to increase the energy efficiency of the facilities that the company operates and to increase the proportion of avoided emissions in the Group's activities.

> TARGET 2012

95% of the waste landfilled by SUEZ ENVIRONNEMENT is send to landfills equipped with biogas collection and treatment systems.

> TRACKING INDICATORS

Direct and indirect GHG emissions (millions of tons CO_2 equivalent).

Contribution to avoided emissions (millions of tons CO_2 equivalent).

Alternative fuels from waste, provided by SUEZ ENVIRONNEMENT (kilo ton of oil equivalent [KTOE]).

COMMITMENT 4

IMPROVE ENERGY EFFICIENCY THROUGH ALL OPERATIONS (Wh/€ Turnover)

By making our operations less energy-intensive (reducing the use of fossil fuels, electricity, etc).

> TARGET 2012

Improve energy efficiency by 5%.

> TRACKING INDICATOR

SUEZ ENVIRONNEMENT's energy consumption proportional to turnover (Wh/€) per relevant area of activity.

COMMITMENT 5

INCREASE AND PROMOTE RENEWABLE ENERGY GENERATION

Energy from waste recovery and from treatment plant sludges, biogas from storage centres.

> TARGET 2012

Increase the production of renewable energy by 10%.

> TRACKING INDICATORS

Useful renewable energy production (GWh).

Installed capacity for energy recovery (MW).

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DESIGN, CREATION AND CONCEPTION
LES ÉDITIONS STRATÉGIQUES

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Listening, discussing and transparency are essential for collective coordination, locally and globally, to meet the challenges of attenuating and adapting to climate change effectively.

In this publication, **SUEZ ENVIRONNEMENT** presents its role, its actions and the innovative solutions it is offering and implementing to play its own part in international action.

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