

# Meeting the energy challenge

The Shell Sustainability Report 2006



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## ADDITIONAL WEB CONTENT

This Report is supported on the web with additional environmental, social and financial performance data and more detailed information on our approach to sustainable development and related issues.

Web links on each page show where to find this information.

## “VOICES”

Members of the communities affected by our operations, and staff working at them, have provided their views on our performance at key locations. External experts have done the same on selected environmental and social issues. These uncensored assessments can be found in the “VOICES” boxes.

## KEY PERFORMANCE INDICATORS

We have key performance indicators to enable us to track our performance and help us better manage efforts across our operations for these key global environmental and social impacts.

## DON'T JUST TAKE OUR WORD FOR IT

Again this year, a review committee of external experts on the issues discussed has used the principles of the AA1000 Assurance Standard to evaluate the balance, completeness and responsiveness of this report (pages 38–39).

## GRI

We continue to report in accordance with the Global Reporting Initiative's guidelines. We have made changes to adapt to the new G3 guidelines issued in October 2006. Full information on our use of GRI is available at [www.shell.com/gri](http://www.shell.com/gri).

## EXTERNAL RECOGNITION



SINCE 1999



SINCE 2001

Included in Carbon Disclosure Project's Climate Leadership Index

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SINCE 1999



SINCE 2001

Included in Carbon Disclosure Project's Climate Leadership Index

# About Shell

## WHO WE ARE AND WHAT WE DO

We are a global group of energy and petrochemicals companies, operating in more than 130 countries and employing approximately 108,000 people.

Our business is divided into:

### UPSTREAM

Our two upstream businesses, Exploration & Production and Gas & Power:

- Search for and produce oil and natural gas.
- Liquefy and transport natural gas.
- Market and trade natural gas and electricity.
- Convert natural gas to cleaner transport fuels and other products.
- Develop business opportunities for our proprietary coal gasification technology.

### DOWNSTREAM

Our two downstream businesses, Oil Products and Chemicals:

- Refine crude oil to produce a range of fuels, lubricants and chemical feedstocks.
- Trade and ship crude oil and refined products around the world.
- Supply and distribute petrol, diesel and other refined products through a network of storage facilities, pipelines and road tankers.
- Market petrol, diesel and other fuels and lubricants for domestic, industrial and transportation use.
- Blend, distribute and market transport biofuels.
- Produce and sell petrochemicals to global industrial customers.

### RENEWABLES, HYDROGEN AND CO<sub>2</sub>

- Develops businesses based on renewable sources of energy, including wind and solar power.
- Develops business opportunities in hydrogen technology.
- Co-ordinates research into mitigating carbon dioxide (CO<sub>2</sub>) emissions, including CO<sub>2</sub> capture and storage.

# Introduction from the Chief Executive

Welcome to The Shell Sustainability Report, which describes our efforts in 2006 to help meet the global energy challenge.

As the Report explains, this challenge has three parts: to provide the massive amount of extra energy needed to fuel development and reduce poverty; to keep supplies secure from disruption; and to do this in socially and environmentally responsible ways. Helping meet this challenge, while continuing to provide competitive financial returns, is at the heart of the commitment we made in 1997 to contribute to sustainable development.

Delivery and growth were our priorities for 2006. We delivered strong financial and operational performance, earning more than \$26 billion and adding approximately two billion barrels to our proven oil, gas and mining reserves. Most of these profits are being re-invested in our business. They are being used to develop new projects to meet future energy needs, to improve safety and environmental performance at our facilities, and to develop new energy technologies. For example, we increased our spending on research and development by 50% last year.

Last year showed, once again, how important good environmental and social performance is to our business success. Good performance has to start with personal and process safety. Without a strong safety culture, all other aspects of our culture will erode.

Addressing concerns about climate change is also a critical task. I have said repeatedly that, for us, the debate about CO<sub>2</sub>'s impact on the climate is over. I am pleased at how our people are responding to my call to find ways to mitigate CO<sub>2</sub> impacts from fossil fuels. Our focus is on what we can do to reduce CO<sub>2</sub> emissions. We are determined to find better, lower-cost ways to capture and store CO<sub>2</sub>.

In 2006, wide-ranging efforts to address local concerns and rebuild trust meant we could restart construction at our gas project in Ireland (page 26). In Russia, a protocol to partner with Gazprom helped clear the way for the Sakhalin II project to complete construction and for the joint venture to meet its environmental and social commitments (page 34). In Nigeria, we shut down approximately half our production in the Delta region because of the security situation that made it impossible for us to protect our staff and contractors there (page 32).

We further standardised our approach to managing environmental and social impacts, and did more to learn from our successes and failures. For example, we introduced our first global Code of Conduct (page 21), and increased our focus on sustainable development at the earliest stages of new upstream projects. Our Project Academy, established in 2005 to strengthen the skills of our Project Managers, is making good progress. All our major facilities with communities nearby are using standardised social performance plans.

This year's Sustainability Report includes a strong call for governments to act. That is because, as I discuss in an interview on page 4, leading companies and environmentally conscious consumers cannot meet the energy challenge on their own. Governments must set the framework to encourage the massive investments needed in new energy projects, in cleaner technologies and in conservation.

This Report has benefited significantly from the scrutiny and advice of our independent External Review Committee (pages 38–39). As in any dialogue, there will not always be agreement on all points, but the significant changes we have made as a result of their feedback have strengthened our reporting.

I hope this Report, and the additional information on our website, helps you judge for yourself how well we are acting on our commitment to meet the world's energy needs in environmentally and socially responsible ways.

Jeroen van der Veer  
CHIEF EXECUTIVE



# Shell and the energy challenge

The energy challenge facing the world is formidable. As Shell celebrates its 100th anniversary, we look back to see what the last century of energy can teach us about meeting this century's growing energy needs.



## One hundred years of energy

In a hundred years of providing the energy needed for economic growth, we have learned some useful lessons for meeting today's energy challenge.

### More energy for development

Firstly, increasing supplies of modern energy are needed for economic and social development. The last century showed that societies need much more modern energy to make the transition out of poverty. When populations and living standards rise, demand for modern energy can be expected to grow. Global wealth is now more than 30 times bigger than in 1907 when Shell was formed and in that time, the world's population has quadrupled. As a result, global energy demand has grown more than ten-fold. This trend will likely continue. According to our scenarios and the International Energy Agency (IEA), energy consumption could more than double by 2050, as global population increases by half again, and China and India continue to industrialise.

### Energy security

Secondly, energy is strategic and governments will act to secure supplies. From the first nationalisation of the oil industry, in Mexico in 1938, to the oil embargoes of the 1970s, politics have regularly intervened in energy markets. Energy security in the last century depended on consuming countries securing a range of energy supply options to avoid over-dependence on any one region or source.

## Did you know?

- Shell produces approximately 2.5% of the world's oil and 3% of the world's natural gas.
- We hold the largest equity share of Liquefied Natural Gas (LNG) capacity among international oil companies. Production from this capacity provides enough LNG to generate electricity for more than 31 million homes.
- Every four seconds a plane is filled up with Shell Aviation fuel.
- We have the world's largest retail network (45,000 service stations) refuelling 200 vehicles every second.
- We are one of the leading distributors of transport biofuels.

The strategic importance of energy is unlikely to diminish with so much extra needed and the world's remaining "easy" oil increasingly concentrated in a few countries.

### Cleaner energy

Thirdly, energy gets progressively cleaner. Societies' expectations rise as they get richer. New environmental challenges emerge. Governments respond with new policies and innovative energy companies develop new technologies and better ways of working. Last century, the automobile (the "horseless carriage") solved the manure problem in congested cities. Electricity eliminated smokey and dangerous candles and gas lamps. In the 1970s and 1980s clean air legislation prompted technical solutions to acid rain and smog. Cleaner coal technologies, cleaner transport fuels and engines, and, later, the rapid spread of natural gas use, brought dramatic improvements in air quality in the developed world. New vehicles today emit over 90% less local pollution than they did 30 years ago. It is likely that today's polluted cities of the developing world will become much cleaner as these societies get wealthier and can afford modern factories, vehicles and fuels.

Climate change is the latest challenge and the biggest yet. It will require action on many fronts, from improvements in energy efficiency and increased use of renewable energy, to large-scale CO<sub>2</sub> capture and storage from fossil fuels, and a slowing of deforestation. Change will likely again come from the combination of government policies and new technology, developed and rolled out by companies.

### Fossil fuels and alternatives

Finally, the last century showed that only energy sources that combine high quality, convenience and affordability will spread. Fossil fuels' high energy density and large-scale availability have made them hard to beat. They still meet about 80% of total energy needs, a share largely unchanged for most of the last century. Hydro and nuclear provide most of the rest. To date, affordability has been the main problem for renewable sources like biofuels, wind and solar, which currently meet less than 1% of energy needs.

As demand for energy and environmental concerns continue to rise, Shell's scenarios and the IEA both expect renewable sources to grow quickly from today's low base. Their share of the total energy mix should also increase. However, fossil fuel use will also need to increase because so much extra energy will be needed. We expect fossil fuels to continue to

provide most of the world's energy for many decades to come.

There are more than 100 years of coal reserves. We believe that there is still enough oil and gas to be developed, though new supplies are in increasingly remote and difficult locations. Last century's experience suggests that technology advances and investment will continue to make it economic to develop these resources, and to make more production possible from unconventional sources, like oil sands.

### Our contribution

We have been providing technology, investment and skills to meet society's changing energy needs for a century. Today we are increasing our investment, ploughing most of our profits into finding, producing and refining oil and natural gas. Our investment levels have more than doubled since 2000, to \$25 billion in 2006. Advanced techniques are helping us squeeze more oil out of existing reservoirs and making it cost effective to develop difficult or smaller fields. Developing new ultra-deepwater sources and oil sands (page 14), and increasing liquefied natural gas (LNG) production (page 9) are helping diversify supplies of oil and natural gas.

We are developing substitutes for oil in the transport and power generation sectors. Our proprietary Gas to Liquids (GTL) technology turns natural gas into cleaner-burning transport fuels, increasing supply alternatives (page 9). Shell Hydrogen operated five demonstration refuelling stations in 2006. Shell Renewables is investing in solar and wind, and we are one of the world's leading distributors of biofuels (page 15).

Managing the impacts from the production and use of fossil fuels remains a top priority. Shell's advanced, low-sulphur transport fuels are helping reduce local air pollution and improve vehicle fuel efficiency. Our gasification technology is helping reduce emissions from using coal, and our Exploration & Production business is investing to end continuous flaring and reduce greenhouse gas (GHG) emissions from our operations (page 16).

Shell Trading has become a leader in carbon trading and we are developing and demonstrating technologies to capture and store CO<sub>2</sub> (page 20).

#### Additional web content:

- A History of Shell's first 100 years.
- Our long-term Energy Scenarios.

 [www.shell.com/energychallenge](http://www.shell.com/energychallenge)

The world in 2050:

## 9 billion people

2.5 billion more than today's 6.5 billion people. World population in 1907 was less than 1.7 billion

## 4–5 times richer

than today, with most of the extra wealth coming from rapidly industrialising developing countries

## Double the energy

Using twice as much energy as now, and nearly 25 times more than when Shell was formed in 1907

## Twice as efficient

Using half the energy as now to produce each dollar of wealth

## 6–10 times more energy

from renewable sources like wind, solar, hydro and biofuels, than today

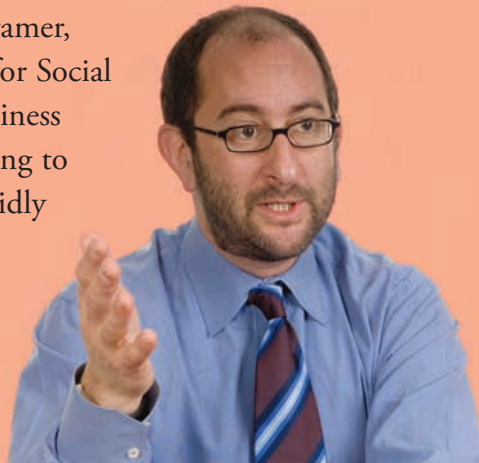
## Meeting the energy challenge

Through our people, investment and technology we are:

- Stepping up our efforts to find and develop more oil and natural gas.
- Helping maintain a wide range of oil and natural gas sources from different regions.
- Developing substitutes for oil in the transport sector.
- Developing alternative sources of electricity.
- Finding new ways to manage the environmental impacts from fossil fuel production and use.

# Sustainability and our business strategy

Jeroen van der Veer and Aron Cramer, President and CEO of Business for Social Responsibility, discuss Shell's business strategy and its role in contributing to sustainable development in a rapidly changing world.



**How do you see Shell's future – as an oil company, an energy company or a sustainable energy company?**

We are a hydrocarbons company, including petro-chemicals and clean coal technology. We are also trying to get at least one alternative energy technology off the ground. That is what I expect us to remain, at least for the coming decades. With so much more energy needed for development – especially in China and India – I am convinced that there is a financially sustainable future for a responsible hydrocarbon company. And responsible includes being a leading company in CO<sub>2</sub> mitigation. Our strategy fits who we are – more upstream investment in oil and gas production and increasing the profitability of our downstream refining and marketing activities.

**That sounds like you still think there is time to avert a climate crisis?**

It is clear that big global reductions in greenhouse gas emissions will be required by society. How big? Scientists and governments are best placed to decide. The scientists determine the climate consequences of different CO<sub>2</sub> levels. Governments must then determine what level is acceptable and propose policies to reach it.

As corporate leaders, we encourage action and use what we know about energy to advise governments. We invest in technologies and projects to provide both the extra energy and the integrated CO<sub>2</sub> solutions societies need. With our experience and expertise, I see a real business opportunity for Shell to find innovative solutions to CO<sub>2</sub> emissions from fossil fuels. Storing it underground, or using it to recover more oil from existing fields are two examples. I am optimistic about this.

**But if big carbon cuts are coming, then why shift investment into the most CO<sub>2</sub> intensive kinds of oil – oil sands and shale? How can this be financially or environmentally sustainable?**

Governments specify their energy mix through royalties, taxation levels and permitting requirements. They decide, for example, whether oil sands will be developed to address concerns about energy security. They also decide how much CO<sub>2</sub> mitigation is needed. Our responsibility is to point out how much CO<sub>2</sub> is emitted, develop technology solutions and indicate which policies or financial incentives are needed to encourage their adoption. Once the government decides, our responsibility is to be one of the lowest CO<sub>2</sub> operators for this source of energy, as Shell Canada is with the Athabasca Oil Sands Project.

**Resource nationalism came roaring back last year. It affected you in Sakhalin and other places. Can you still achieve your strategy in this environment?**

When energy prices are high, some producing governments tend to adjust their royalties and taxes. Big consuming countries try to secure supplies abroad and bid up prices. Costs go up. It makes life more difficult. But then you need to be smarter, and a good listener. You need to stay ahead with better technology and project management and by supporting the priorities of government partners.

We already work with national oil companies in what I call a 'buddy system', where we benefit from each other's strengths. We do this, for example, with Saudi Aramco, and with partners in Oman and in China.

**Life clearly became more difficult on the Sakhalin project last year. Can the joint venture still meet its social and environmental promises with all the recent changes there?**

I believe it can. After some difficult negotiating, we found a way to make Sakhalin work for all parties. Our Russian partner, Gazprom, understands that the project isn't only about pipelines and steel, that it also requires advanced technology, exceptional project management and a world-class approach to environmental and social issues. The fact that under the protocol, Shell continues to provide technical advice, and that the amended development budget is essentially agreed, are all signs of this. Clearly, the project will also benefit significantly from the long-term presence of a strong Russian partner.

“

Overall, I think people really underestimate what we're doing on Sakhalin. Delivering a project this size is like building a city from scratch. A few years down the road, it will be seen as a spectacular integrated project, which respected the environment and helped rejuvenate the Island.”

**People worry about the 'curse of oil' – that revenues from energy production don't benefit the local population. A problem for Shell?**

As Nigeria shows, if people in energy producing areas think their children won't have it better than they do, you have big problems. As a responsible company, we can create jobs, help establish local businesses and set a good

“

With so much more energy needed for development – especially in India and China – I am convinced that there is a financially sustainable future for a responsible hydrocarbon company.”



example. But effective public institutions and services make the real difference. Only governments can and should provide these. So we find indirect ways to help. For example, we strongly support The Extractive Industries Transparency Initiative (EITI), where we make public how much money we pay to governments. I believe this will have a real impact.

#### Nigeria remained a very difficult place to operate last year. Time to leave?

If Shell leaves, it will not do the people of the Delta any good. It will not help the environment or the battle against corruption. The operation would just motor on, possibly with less transparent companies working to lower standards.

And don't forget we have three operations in Nigeria: besides the joint venture we operate in the Delta, there is the offshore production and Nigeria LNG, which are both successfully expanding.

So no, we aren't thinking about leaving. We are focused on keeping our people safe. When our staff – local people and expatriates – are in danger, we temporarily stop operating. That is what we have done in the Delta.

#### There are lots of examples of leading environmental and social performance in Shell, and some poor ones. How are you going to get the consistency you need?

Usually, when we make mistakes, they have happened very early in a project. So we need to focus on the way we do initial designs and early engagement with stakeholders.

Dialogue. Design. Deliver. That is the way we need to work. We do this already on many projects. These are the ones you don't hear about. But we don't yet do it everywhere. Exploration & Production and Gas & Power, for example, are doing good work to improve their project processes so environmental and social issues are consistently identified and addressed earlier.

#### But with more than 100,000 people all over the world, how can you make sure they all understand and live by your principles?

Having the right words on paper is only 5–10% of the battle. The rest is behaviour. So we must follow up with training, coaching and constant reinforcement – saying the same simple things again and again.

It also means having clear consequences for people who do not comply and having compensation tied to people's performance. We have sustainable development in our scorecard. The scorecard is one of the factors determining staff bonuses.

“

If something goes wrong, it is important to be transparent about it. These failures are a learning opportunity. So we need to make it safe for people to speak out when things are going wrong.”

Our whistle-blowing programmes are important for this. Finally, leaders in Shell need to set a personal example, starting with me. If the guy at the top doesn't spend time

with stakeholders or ask about environmental performance when he visits our operations then he has no credibility preaching about sustainable development.

#### In terms of environmental and social performance, what got you really steaming mad in 2006?

Fatalities. Every lost life is one too many. We just can't have that happen.

The antitrust violations are another. They were totally against our values. Even though the employees are long gone, I still get so angry.

#### And priorities or hopes for Shell in 2007?

Reducing fatalities. Absolutely. We need to learn from the industry and improve on process and personal safety. And making real progress on integrated CO<sub>2</sub> solutions.

I hope we can show people that Shell is really serious and proactive on CO<sub>2</sub>. This is not just about being decent, but about being preferred. It is what society needs. It is what our people want as well. With our technical know-how, we can do it.

#### Additional web content:

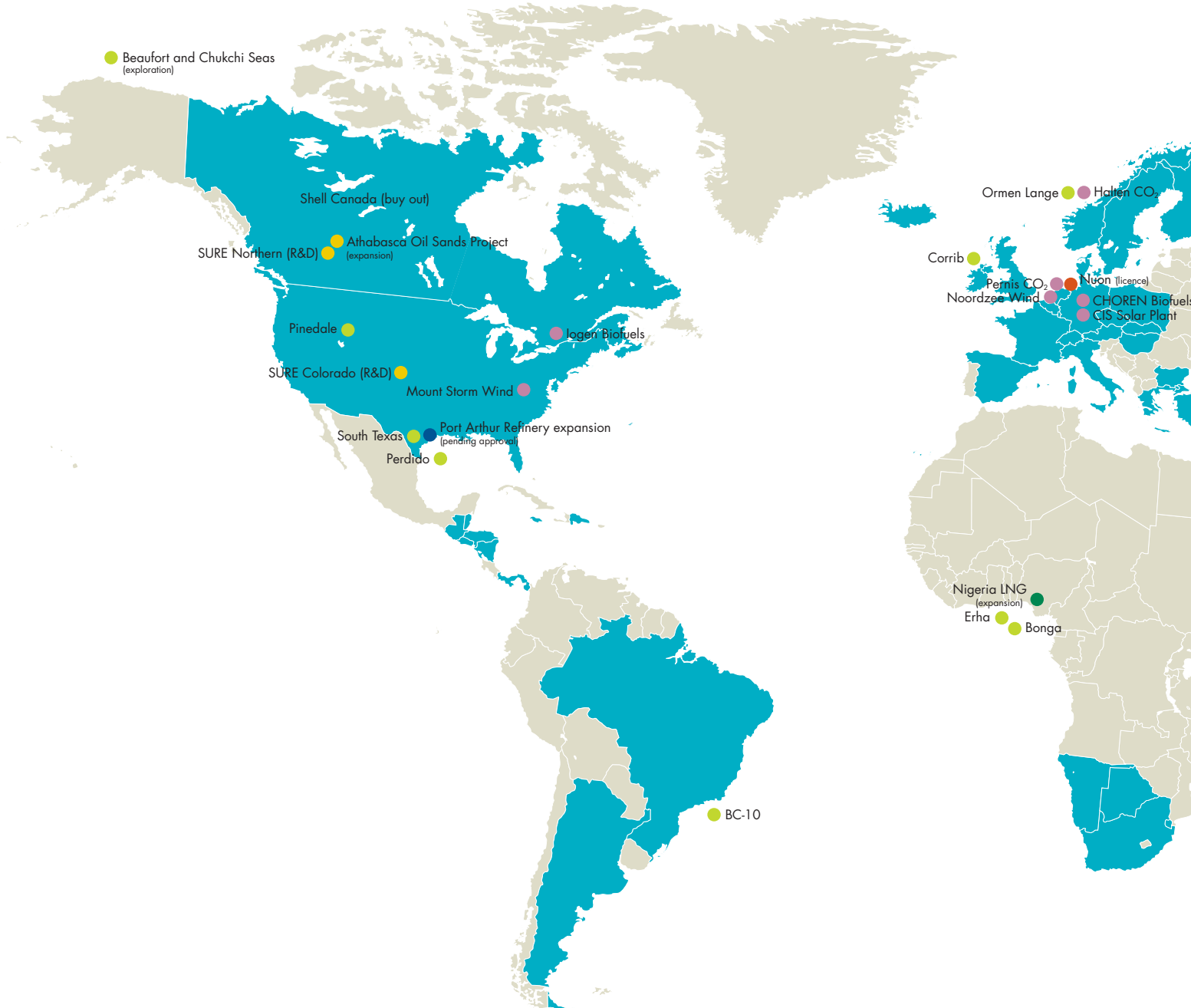
 [www.shell.com/strategy](http://www.shell.com/strategy)

# Our strategy in action

Examples of how we are putting our strategy – more upstream, profitable downstream – into practice.

## WORKING WITH CAR MAKERS

Advanced fuels and engines need to be developed together. We are working with vehicle manufacturers on advanced fuels for the next generation of cleaner, more efficient engines. In June 2006, an Audi R10 car powered by a special blend of Shell GTL and diesel based on Shell V-Power technology won the Le Mans 24 Hours, one of the world's toughest endurance races.





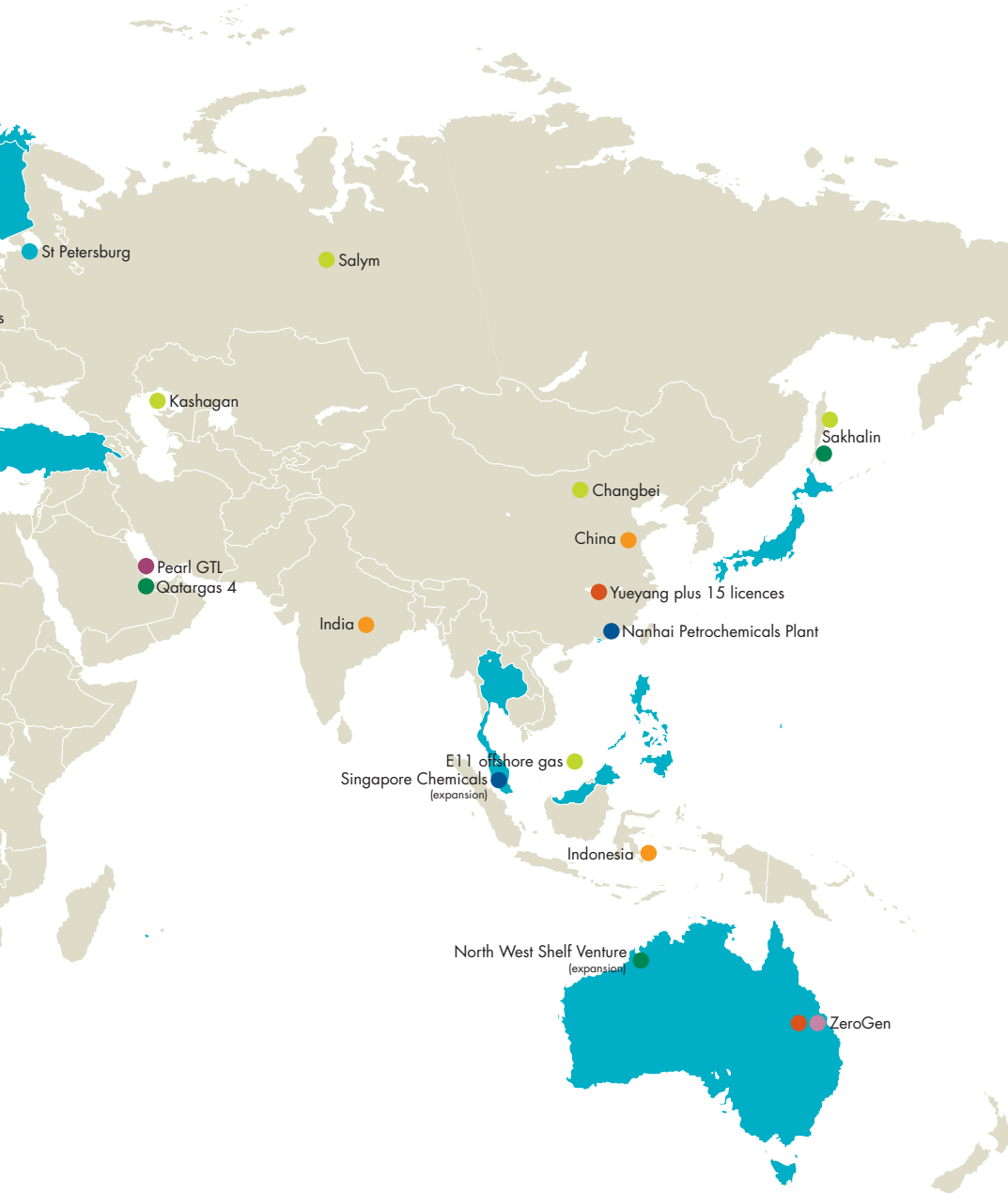
**TECHNOLOGY**

We have stepped up our search for new technologies to provide more energy, secure energy and cleaner energy. In 2006, our investment in research and development, including field tests and involvement in third-party technologies, increased to \$1.2 billion. We recruited over 3,000 technical professionals and opened a major new Technology Centre in Bangalore, India.



**LOW-SULPHUR TRANSPORT FUEL**

We were one of the first companies to produce “zero” sulphur diesel on a commercial scale. These cleaner fuels let car manufacturers introduce engines and exhaust systems that reduce local emissions and improve efficiency (page 16).



KEY:

- **NEW OIL AND GAS**  
Projects being considered or under production.
- **UNCONVENTIONAL OIL**  
Projects underway or being considered to produce oil from oil sands and shales.
- **LIQUEFIED NATURAL GAS**  
LNG production facilities and receiving terminals. Expansions and new projects underway or approved.
- **GAS TO LIQUIDS**  
New facility to turn natural gas into transport fuel and other products.
- DIFFERENTIATED FUELS**  
Markets where our differentiated fuels, like Shell V-Power, are available.
- **REFINERY/CHEMICALS EXPANSION**  
Investments to increase production of gasoline, diesel and chemicals.
- **DOWNSTREAM EXPANSION IN ASIA**  
Expansion of our petrochemical, refining and marketing activities in the rapidly growing markets of Asia.
- **ALTERNATIVE ENERGY AND CO<sub>2</sub> SOLUTIONS**  
New projects being considered or developed to reduce the cost of alternative energy sources and demonstrate the feasibility of technologies to capture and store CO<sub>2</sub>.
- **COAL GASIFICATION**  
Commercial licences, or joint ventures to convert coal into clean-burning gas.

# Secure energy

Diversity is critical for protecting the world from interruptions to energy supplies. We are helping by investing in a wide range of energy options to avoid over-dependence on any one region or energy source.

# Security through diversity

Higher prices and the end of “easy” oil are helping make energy a political lever again. Big energy-consuming countries are increasingly worried about the vulnerability of their supplies.

Energy independence is not realistic for big consuming countries. For example, the USA uses about 25% of the world’s oil but has less than 3% of remaining proved oil reserves. The same is true for the European Union’s consumption and reserves of natural gas. Competitive international markets are the surest way to increase global supplies and promote a wide range of supply alternatives – both from different regions and different energy sources.

Massive investments and stable investment conditions are needed. So are sophisticated technology, the ability to manage complex projects and access to resources for the international oil companies that have this know-how. Energy efficiency measures, encouraged by governments, will also need to play an important role.

We are helping diversify energy options in four main ways: by extending the life of existing oil and natural gas fields; by opening up new fields and regions; by developing new ways to produce transport fuels; and by providing a wide range of options for generating electricity.

## Squeezing more out of existing fields

New technology is helping us extend the life of existing energy resources close to markets. Today, only 30–40% of oil contained in most reservoirs is typically extracted. Boosting recovery rates by just a few per cent can dramatically increase long-term supply. For example, injecting steam, gas or chemicals into reservoirs is slowing the natural decline in production from mature fields where we have an interest in California, Canada and Oman. A Shell team is investigating the possibility of injecting waste CO<sub>2</sub> into oil fields off the coast of Norway, which would boost production and reduce GHG emissions (page 13).

## Developing new fields

With new technology we are also developing new fields near major markets that were once thought too difficult or expensive to exploit. For example, we are developing a new project in water nearly 2.5 km deep in the Gulf of Mexico. With further technology advancement, unconventional oil sands and shales could also significantly increase supplies to some of the world’s biggest energy consuming countries (see box). Unmanned production platforms – like those in the North Sea, powered by renewable

energy from wind turbines and solar panels – are allowing us to tap ever-smaller deposits that were not previously economic (page 13).

### More options for transport fuel

Substitutes that can be blended with petrol or diesel can increase supply options and reduce dependence on oil in the transport sector. We are one of the world's leading distributors of transport fuel from plants (biofuels – page 15). Our Gas to Liquids (GTL) technology turns natural gas into cleaner-burning transport fuel. We operate one GTL plant in Malaysia and are building a second, the world's largest, in Qatar (see box).

Shell Hydrogen is exploring ways to promote hydrogen as a longer-term fuel option and in 2006 operated five demonstration refuelling stations around the world.

More refinery capacity will help avoid bottlenecks in fuel supplies. Subject to a final investment decision, construction could begin in 2007 to more than double production at our Motiva joint venture refinery in Port Arthur, Texas. After the expansion, the refinery would process 600,000 barrels of oil a day, producing enough petrol to fill up more than one million cars per day. The project would make Port Arthur the largest refinery in the USA.

### Electricity choices

Shell Renewables is a major developer of wind power and is investing in next-generation thin-film solar technology (page 15).

Our natural gas production provides customers with an alternative to coal and oil for power generation. Cooling natural gas to liquid form, so that it can be cost-effectively shipped long distances, gives natural gas users a wider choice of suppliers. We are a leader in LNG (see box). LNG operations we participate in supply more than a third of Japan's and Korea's total natural gas needs, as well as customers in Europe, India, North America and Taiwan.

Shell is also a leader in coal gasification technology. Turning coal into gas allows energy-hungry countries like China, India and the USA, to use their abundant coal reserves more cleanly and efficiently (page 13).

#### Additional web content:

- Our efforts to develop new energy technology.
- Shell's LNG business.
- How we are developing new sources of oil and gas.

 [www.shell.com/secureenergy](http://www.shell.com/secureenergy)



### DIVERSIFIED GAS

Today, we participate in operations that supply more than 35% of the world's LNG. Existing facilities in Australia and Nigeria are being expanded and new projects are under construction in Qatar and on Sakhalin Island, Russia (pages 34–35). By 2010, our aim is to have almost doubled our LNG capacity, compared to 2004.

Today, diesel containing GTL fuel from our plant in Malaysia is available in approximately 4,000 Shell retail stations in Europe and

Thailand. The Pearl GTL project in Qatar will produce natural gas from an offshore field and use proprietary Shell technology to turn that gas into transport fuel and other products. Enough transport fuel will be produced by the Pearl GTL plant to fill up more than 265,000 cars a day. Qatar has the third largest reserves of natural gas after Russia and Iran. The project will provide an additional way to bring this gas to energy users and contribute to reducing dependence on oil in the transport sector.



### UNCONVENTIONAL OIL

By 2015, 10–15% of our overall oil and gas production could come from unconventional sources like oil sands and gas-to-liquids (page 16). We are committed to pursuing their development in an environmentally and socially responsible way (page 14).

Canada's vast oil sands – a mix of tar-like heavy oil and sand – are thought to contain as much mineable oil as Saudi Arabia has conventional. Shell Canada's Athabasca Oil Sands Project already produces enough oil to meet the equivalent of approximately 10% of Canada's oil needs. In 2006, the decision was taken to expand the project's production by 65%, to 255,000 barrels of oil a day. Additional oil sands expansions are being considered that could increase production to

more than 500,000 barrels a day. Following a successful offer to buy out Shell Canada's minority shareholders, Shell is proceeding to acquire the remaining shares, a step that will strengthen our position in future oil sands production.

In Colorado, USA, the Shell Unconventional Resources Energy project (SURE) is testing technology to produce oil from oil shale. Heaters lowered into the ground increase the temperature underground to more than 300°C to convert the shale into high-quality light oil – a process that takes millions of years in nature. The USA Government estimates that oil shales contain one trillion barrels of oil in the USA alone – four times Saudi Arabia's proven reserves.

# Responsible energy

How we are addressing the environmental and social concerns about our operations and products that matter most to our stakeholders.





# Climate change



For us, as a company, the debate about whether man-made climate change is happening is over. The debate now is about what we can do about it. Businesses, like ours, need to turn CO<sub>2</sub> management into a business opportunity by leading the search for responsible ways to manage CO<sub>2</sub>, and use energy more efficiently. But that also requires concerted action by governments to create the long-term, market-based policies needed to make it worthwhile for companies to invest. With fossil fuel use and CO<sub>2</sub> levels continuing to grow fast, there is no time to lose.



Jeroen van der Veer  
CHIEF EXECUTIVE

In 2006, concern about man-made climate change reached new heights (and a possible tipping point) in many countries. An influential report for the UK Government by Sir Nicholas Stern, former chief economist at the World Bank, highlighted the financial risks for the global economy of failing to address the climate change threat. Calling climate change “the greatest market failure the world has ever seen”, it appealed for strong, international and co-ordinated government policies to encourage GHG reductions. In early 2007, the scientists of the United Nations’ Intergovernmental Panel on Climate Change re-confirmed the scientific consensus – now with more than 90% certainty – that man-made climate change is underway.

Shell was one of the first energy companies to acknowledge the threat of climate change; to call for action by governments, our industry and energy users; and to take action ourselves.

In 1998, we set ourselves voluntary targets for reducing GHG emissions from our operations. Since then Shell Renewables has built one of the broadest alternative energy portfolios of any major energy company. We have increased the supply of natural gas – the lowest carbon fossil fuel – and of the lower sulphur transport fuels needed by more fuel-efficient modern engines. The expected future costs of emitting CO<sub>2</sub> have been included in our investment decisions since 2000. This helps us design new projects so that they remain profitable in the carbon-constrained world that is now emerging.

Partnerships are being pursued to develop lower carbon technologies. Large-scale demonstration projects to capture and store CO<sub>2</sub> are being given careful consideration. Our retail business runs a series of public campaigns to encourage innovation and promote energy conservation.

We stepped up our appeal to governments in 2006, to lead on this issue and introduce effective policies to combat climate change. The importance of government leadership has become clear. Without policies that reward lower CO<sub>2</sub> technologies and create a predictable, long-term cost for emitting GHGs, individual companies will have no incentive to make the massive investments needed.

Our appeal to governments is fourfold: firstly, to involve all major emitting countries and all sectors – not just industry – to avoid distorting competition; secondly, to develop stable, long-term GHG targets to allow companies to plan and invest; thirdly, to use emissions trading systems more widely as a cost-effective way to manage GHGs from industry and to include reductions from CO<sub>2</sub> capture and storage in these schemes; and finally, to design better-targeted support for alternative energy sources, to help them reach the point where they can compete without further subsidies.

## We are helping by:

- Reducing emissions from our operations.
- Improving technology to capture and store CO<sub>2</sub> from fossil fuels.
- Providing more natural gas, clean coal technology and advanced transport fuels.
- Working to build a substantial business in at least one alternative energy source.
- Calling on governments to introduce the policies needed to manage GHG emissions reductions.

### Managing our GHG emissions

We met our first voluntary target: to reduce GHG emissions from our operations by 10% below 1990 levels in 2002.\* Reductions came mainly from ending the venting of natural gas at oil production facilities. Our focus now is on meeting our second target: to keep these emissions 5% below 1990 levels by 2010.

Finding reductions to offset the rising emissions from our changing portfolio is getting harder. The amount of energy needed for us to produce each unit of oil or natural gas is already more than 50% higher than in 2000. It will continue to rise as our fields age and as more of our production comes from heavier oil and oil sands. Producing more low-sulphur transport fuels will help reduce our customers' CO<sub>2</sub> emissions. However, they increase our direct emissions, since more refining energy is needed to make them.

Up to now, we have succeeded in offsetting these higher emissions. In 2006, facilities we operate emitted 98 million tonnes of GHGs, about seven million lower than the previous year and more than 20% below 1990 levels.

The reduction since 2002 has been achieved mainly by reducing continuous flaring. For

example, since 2000, the SPDC joint venture in Nigeria, has invested more than \$3 billion in equipment to capture and use gas previously flared. SPDC accounts, on average, for two-thirds of our continuous flaring.

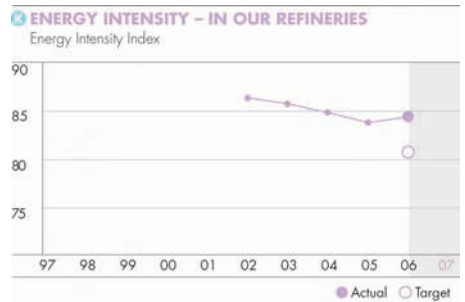
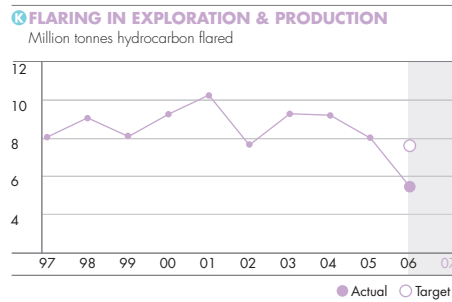
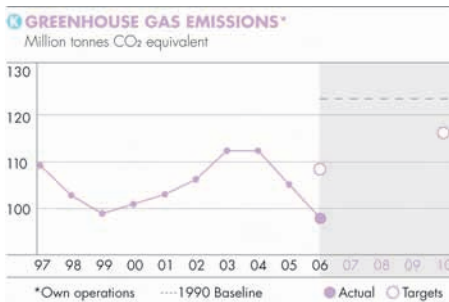
In 2006, our total flaring worldwide dropped. This was mainly because of cuts in production due to major security problems in Nigeria. However, operational changes to increase associated gas recovery in Oman and new equipment installed in 2005 to reduce flaring in Gabon also helped.

Improvements in the energy efficiency of our refineries and chemicals plants have further reduced our GHG emissions. Our refineries have boosted their energy efficiency by 3% since 2002, as measured by the Solomon Associates Energy Intensity Index (EII). Our chemical plants have become 9% more energy efficient since 2001 based on our Chemicals Energy Index. These gains were made by operating our plants closer to their full production capacity, by having fewer shutdowns, and by running our Energise™ energy efficiency programme and Business Improvement Review process at most sites. Energise and Business Improvement Review have reduced our GHG emissions by nearly

1 million tonnes a year and saved us more than \$70 million annually at our refineries and chemical plants.

In 2006, we missed our annual EII target, partly because we had underestimated how much extra energy would be required to produce more environmentally friendly lower sulphur fuels and partly because of unplanned equipment shutdowns at several facilities that required extra energy to start up again. Our chemical plants made their target despite several unplanned shutdowns.

In early 2007, we launched a new energy efficiency programme in our upstream business. It will make up for part of the increase. We will continue our efforts to end continuous flaring at upstream locations, other than Nigeria, by 2008. In Nigeria, the Shell Petroleum Development Company (SPDC) joint venture expects to end continuous flaring there as planned, during 2009. Achieving this plan depends on funding being secured from our joint venture partners in Nigeria, and on communities allowing us free and safe access to our production sites. Further GHG reductions will come from the energy efficiency drive underway at our refineries and chemicals plants.



\*Petroleum Industry Guidelines for Greenhouse Gas Estimation, December 2003 (API, IPIECA, OGP) indicate that uncertainty in greenhouse gas measurements can be significant. Accordingly, we have assumed that the uncertainty associated with our 1990 CO<sub>2</sub> measurements was the same as that associated with our measurement in 2002.

### ZERGEN: CLIMATE FRIENDLY COAL-FIRED POWER

The Queensland State Government in Australia is working on a project to demonstrate that coal-fired power and low CO<sub>2</sub> emissions can go hand in hand. If it goes ahead, the ZeroGen project would be the world's first demonstration plant to produce low-emission electricity by combining coal gasification with CO<sub>2</sub> capture and storage.

The plan is to turn the coal into a hydrogen-rich gas and high-pressure CO<sub>2</sub>. The gas would then be burned to drive a high-efficiency turbine to produce power. The CO<sub>2</sub> would be piped approximately 220 km and stored away in underground aquifers. Shell is the preferred provider of the gasification technology and is currently providing drilling and CO<sub>2</sub> storage expertise.

Up to 70% of the plant's CO<sub>2</sub> emissions (up to approximately 420,000 tonnes annually) could be captured and stored. Commercial versions would have CO<sub>2</sub> emissions nearly 40% lower than those from a comparable sized gas-fired power plant.

At present, the owners of coal-fired power plants have no economic reason to make the extra investment in CO<sub>2</sub> capture and storage. If this promising technology is to be rolled out more widely, government support in establishing a price signal for emitting CO<sub>2</sub> will be needed.



### CO<sub>2</sub> capture technology

The world is demanding much more energy for development (which currently means more fossil fuels) and a solution to climate change. It cannot have both unless safe and cost-effective ways are found to capture and store CO<sub>2</sub> from coal, oil and natural gas.

There are many technical options for capturing CO<sub>2</sub>. Once it is captured, CO<sub>2</sub> can then be stored underground (in aquifers or in some oil and gas fields). It can also be used in industrial processes. However, capturing and storing CO<sub>2</sub> is energy intensive and expensive. At a medium-sized coal-fired power plant, for example, capture and storage would lower the plant's overall energy efficiency by about 10% and add several hundred million dollars to investment costs. Storage will also require acceptance by planning authorities and by local communities.

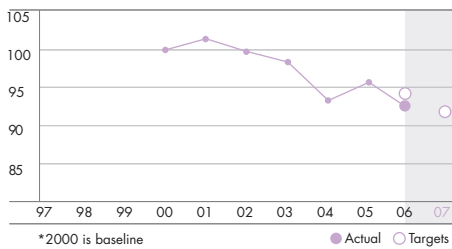
We are involved in large-scale demonstration projects in this area. One of these is ZeroGen, a low CO<sub>2</sub> coal-fired power project being considered in Australia (see box). Another, in Norway, is the largest offshore project to date to store CO<sub>2</sub> and use it to enhance oil recovery. If it were to go ahead, the Halten project, which we are working on together with the Norwegian Government and Statoil, would solve a power

shortage in central Norway and reduce CO<sub>2</sub> emissions by up to 2.5 million tonnes a year. Both projects are at the feasibility stage.

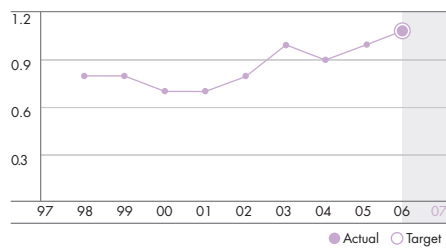
We are also supplying waste CO<sub>2</sub> from our Pernis refinery to greenhouses in the Netherlands and exploring CO<sub>2</sub> management opportunities in the Middle East with Mitsubishi Heavy Industries.

Government policy will play a decisive role in determining the future of CO<sub>2</sub> capture and storage. The significant additional investment involved means it will not be rolled out on a large scale without government action. At the moment, emission reductions achieved through capture and storage do not qualify for emission credits. Our appeal is for more effective project permitting and measures to reduce costs, for example through the European Technology Platform for Zero Emission Fossil Fuel Power Plants. These include granting carbon credits for captured CO<sub>2</sub>, and setting emission targets beyond 2012 to create a stable long-term investment framework.

**ENERGY INTENSITY – IN OUR CHEMICAL PLANTS**  
Chemicals Energy Index\*



**ENERGY INTENSITY – IN EXPLORATION & PRODUCTION**  
Gigajoule/tonne production



### MONOTOWERS: LEARNING FROM OUR ALTERNATIVE ENERGY BUSINESS

In 2006, we began operating the world's first offshore natural gas production platforms powered by wind and solar electricity. This lightweight, low-cost and zero-emission platform – called a monotower because it stands on a single leg – is based on the design used for offshore wind turbines. Monotowers make it possible to tap small natural gas fields in the North Sea that would be uneconomic with traditional equipment. Developing these fields helps increase and diversify energy supplies by extending the production life of mature regions like the North Sea.

We began operating two monotowers in 2006. Each platform uses just 1.2 kilowatts of power per day. That is less than it takes to boil a kettle and much less than the 30 kilowatts needed to operate a traditional unmanned platform or the 40 megawatts that a full-size, manned facility requires.

Winner of the Shell Eco-marathon 2006. A biofuel-powered prototype which won with an energy consumption equivalent to 2,885 km/l of petrol.



### Helping energy users manage their CO<sub>2</sub> emissions

More than 80% of the CO<sub>2</sub> from fossil fuels is emitted when energy products are used. Our customers emit six to seven times more CO<sub>2</sub> using our products than we do making them – more than 750 million tonnes of CO<sub>2</sub> in a typical year. We encourage the efficient use of energy and provide technologies and fuels to help.

### Lower CO<sub>2</sub> electricity

We delivered more than 1.44 million barrels of oil equivalent of natural gas per day in 2006. That was more than 40% of our total upstream production. If all that gas were used to generate electricity, it would be enough to power approximately 180 million homes. Because natural gas contains less carbon than coal and can be turned more efficiently into power, a gas-fired power plant produces about half the CO<sub>2</sub> emissions of a conventional coal-fired station. This is true even if extra energy is needed to liquefy the gas and transport it.

Coal is the world's most abundant fossil fuel. Today it meets nearly 40% of total electricity demand and its use is expected to continue to grow. Shell companies do not produce coal, but we do have a patented technology for gasifying it. When used together with a combined-cycle power plant, our technology increases conversion efficiency. More electricity is produced from every tonne of coal, reducing

CO<sub>2</sub> emissions by up to 15% compared to the latest conventional coal-fired power plants. The process produces relatively pure, high-pressure CO<sub>2</sub> that is easier to capture and store. This technology has been chosen by the ZeroGen project (page 12). It is also an important part of our Clean Coal Energy Alliance, formed in 2006 with Anglo American plc, one of the largest coal producers.

We are actively supporting a European Union (EU)-China dialogue that is trying to make it possible for European companies to use the EU Emissions Trading Scheme to equip new coal-fired Chinese power plants to capture and store CO<sub>2</sub>.

### Lower CO<sub>2</sub> transport

The large-scale rollout of hydrogen-powered vehicles is uncertain and at least 10–20 years away. That means transport will continue to rely mainly on oil for many years to come. In the meantime, reductions in GHG emissions in the transport sector will need to come mainly from blending biofuels into petrol and diesel, from technologies to improve the fuel efficiency of conventional fuels and vehicles, and from efforts to manage people's demand for transportation.

We are one of the world's leading distributors of today's transport biofuels and are developing a new generation of lower CO<sub>2</sub> biofuels with partners (page 15). We continue to upgrade

our refineries to produce lower sulphur petrol and diesel. These fuels not only help reduce local air pollution (page 16), they also allow car makers to roll out more fuel-efficient (hence less CO<sub>2</sub> emitting) engines.

For example, our new Fuel Economy formula, available in 19 countries, reduces fuel consumption at no extra cost for drivers. In 2006, the Shell Fuel Economy World Record Challenge winners set the world record for fuel efficiency, using a version of this fuel and fuel-efficient driving techniques.

Every year we host the Shell Eco-marathon contest in Europe (and in 2007 in the USA) challenging students to design and build the most energy-efficient vehicle possible. In 2006, the contest was won by a car with average fuel efficiency of 2,885 km for the equivalent of one litre of fuel. In 2005–2006 we ran Fuel Stretch Campaigns in 19 countries to help drivers use less fuel and reduce CO<sub>2</sub> by teaching more efficient driving techniques.

#### Additional web content:

- The carbon footprint of our products.
- Our work on CO<sub>2</sub> sequestration and capture.
- How we are participating in the climate change policy debate.
- How we use carbon costs in investment decision-making.
- Help we are giving customers to reduce their emissions.

 [www.shell.com/climate](http://www.shell.com/climate)

### CO<sub>2</sub> AND UNCONVENTIONAL OIL

As the era of “easy” oil ends, producing oil will continue to get more energy and CO<sub>2</sub> intensive. Increasing production from local unconventional sources, like oil sands and, in the future, possibly oil shales, is part of this industry trend. These sources provide a secure long-term supply that is close to major markets. However, the extra energy needed to produce them means higher CO<sub>2</sub> emissions. On a lifecycle basis, petrol from oil sands currently emits approximately 10% more CO<sub>2</sub> than petrol from conventional oil. Producing petrol from oil shales could require more energy still. So finding ways to reduce or offset CO<sub>2</sub> emissions from these sources is a clear priority.

Shell is a leader in unconventional oil. This is part of our strategy for developing a broad range of energy options. We are committed to developing these resources responsibly. For example, Shell Canada's first oil sands mining operation, the Athabasca Oil Sands Project (60% Shell Canada), has a voluntary GHG

reduction target: to make the combined CO<sub>2</sub> emissions from producing and using its petrol lower than those for petrol from the imported oil it replaces by 2010. The reductions are being sought in energy efficiency improvements and CO<sub>2</sub> capture and storage at our oil sands facilities, and in mitigation measures outside the project that offset its emissions. Shell Canada's external Climate Change Panel has provided independent advice on the reduction programme for this project. We are continuing to improve oil sands technology. The first expansion at Athabasca, announced in 2006, will use the new *Shell Enhance* technology. It reduces energy and CO<sub>2</sub> emissions from the step in the production process when the oil is separated from the sand, by 10% compared to previous technology.

A voluntary GHG management plan will be developed for the expansion. We are, for example, working with government and other stakeholders to develop new technologies such as CO<sub>2</sub> capture and storage.





# Alternative energy

Interest in alternatives to fossil fuels is growing fast as concerns over climate change and energy security rise. Our aim is to have a substantial commercial business in at least one alternative energy technology.

We are focusing on the most promising technologies – advanced biofuels and hydrogen for transport, and wind and thin-film solar for electricity – and working hard to lower their costs so they can compete effectively with fossil fuels.

## Transport options

Transport biofuels are typically more expensive than petrol or diesel. However, they reduce dependence on oil and, because the plants absorb CO<sub>2</sub> as they grow, they can also have lower overall carbon emissions, despite the extra energy required to harvest and process them. A number of governments are giving biofuels a big push with subsidies, targets and mandates. For their efforts to succeed more technologically advanced biofuels, based on agricultural waste, will be needed.

Today's first-generation biofuels may compete with food crops for land. The CO<sub>2</sub> reductions they achieve are sometimes limited. We are helping tackle this by continuing to invest in second-generation biofuels, for example through our partnerships with Choren and Iogen (see box) and by developing codes of conduct for the sustainable sourcing of biofuels (page 18).

Hydrogen is a longer-term option. It is a new type of fuel that would require additional infrastructure to distribute it and modified engines to use it. That would take time and require substantial investment. We were the first energy company to build demonstration hydrogen filling stations in Asia, Europe and the USA. Shell Hydrogen is also working on "mini-networks", where hydrogen is offered at a number of regular fuelling stations, so that hydrogen vehicles can operate freely and refuel throughout a city.

## Sources of electricity

Shell Wind is a major wind power developer, with stakes in projects generating 850 megawatts of electricity (415 MW Shell share). It plans to expand its portfolio to nearly 1,000 MW (500 MW Shell share) by the end of 2007. That is enough electricity for more than half a million homes. In Europe, we are developing projects at sea where, despite higher costs and difficulties connecting to onshore transmissions grids, winds are stronger, larger turbines can be used and there is less visual disturbance. In 2006, the Noordzee Wind offshore wind farm started production

(see box) and the 1,000 MW London Array project, which we are partners in, received offshore planning permission. Consent to build the onshore connection depends on the result of a local public inquiry. London Array would be the world's largest wind farm and is being actively supported by the Royal Society for the Preservation of Birds and the World Wildlife Fund. In 2006, construction began on the Mount Storm project (164 MW, 50% Shell share) in West Virginia, USA and efforts continued to develop wind power projects in China.

Like the current wave of venture capitalists investing in solar, we believe thin-film technologies show the most promise for driving down the costs of turning sunlight into electricity. In 2006, we successfully completed our joint venture agreement with glassmaker Saint-Gobain to develop next generation Copper Indium Diselenide (CIS) thin-film technology. CIS uses 100 times less raw material than today's silicon crystalline modules. It is easier and, we expect, cheaper to produce in high volumes. The joint venture – AVANCIS GmbH – began construction of a 20 MW panel manufacturing plant in Germany in November 2006.

### Additional web content:

- Our efforts to build competitive wind, solar and hydrogen businesses.
- The approach we are taking to responsible biofuels.
- Investing in second generation biofuels (Choren GmbH and Iogen).

 [www.shell.com/alternativeenergy](http://www.shell.com/alternativeenergy)



## NOORDZEE WIND: ON TIME AND ON BUDGET

In October 2006, households in the Netherlands began receiving clean electricity from the Egmond aan Zee Offshore Wind Farm in the North Sea. Developed by Shell Wind Energy and power company Nuon, the 108 MW wind farm supplies enough carbon-free power for more than 100,000 Dutch homes, saving around 140,000 tonnes of CO<sub>2</sub> emissions a year.

Our offshore oil and gas experience helped overcome the technical challenges and deliver the project on time and on budget. The focus now is on improving the operational performance of offshore wind by reducing maintenance costs and increasing the amount of time that turbines are available to produce power. Generating wind power offshore is currently about twice as expensive as onshore, so government support remains critical to making it a viable alternative to conventional power generation.



## IOPEN: TURNING STRAW INTO FUEL

The challenge now for biofuels is to make them cheaper, reduce the CO<sub>2</sub> emitted during their production and use sources that do not compete for land with food production. That is why we have invested in Iogen Corporation, whose patented technology uses enzymes to produce ethanol from straw. The resulting "cellulose ethanol" is a fuel with 90% lower GHG emissions than conventional petrol on a lifecycle basis and no need for extra arable land. Iogen's

demonstration plant has been producing fuel from straw since 2004. Iogen's ethanol has the potential to be cheaper to produce than most of today's biofuels. In 2006, Goldman Sachs – the investment bank – invested in Iogen. In early 2007, Iogen was one of six companies selected to receive funding under the USA Department of Energy's \$385 million cellulose ethanol programme – a further vote of confidence in the commercial potential of this exciting technology.

# Air pollution

Climate change may be grabbing the headlines, but the need to reduce local air pollution from burning fossil fuels has not gone away. Real progress has been made over the last 20 years. Companies have responded to regulation with innovative technology. More is needed, particularly in the fast-growing mega-cities of the developing world.

We have 100 years' experience developing innovative fuels and cleaner energy technologies to tackle local air pollution.

## Air emissions from our operations

Our contribution starts with reducing the emissions from our facilities that contribute to smog and acid rain – nitrous oxide (NO<sub>x</sub>), sulphur dioxide (SO<sub>2</sub>) and volatile organic compounds (VOCs). VOC emissions from our operations have dropped more than 50% since 1998 – mainly because we stopped venting associated gas at oil production sites. Our NO<sub>x</sub> emissions are also lower, even though we are now using much more energy to refine cleaner fuels. This was due mainly to investments in pollution control equipment, particularly at our Singapore and USA refineries and chemicals plants. SO<sub>2</sub> emissions at our refineries and chemicals plants are also down by almost 10% since 2001. In our upstream business, SO<sub>2</sub> emissions have been rising, mostly because more sour gas (hydrogen sulphide) is being flared in remote locations in Canada and Oman. As a result, Shell's total SO<sub>2</sub> emissions have risen by 8% since 2001. With our help, people living near some of our sites now take part in monitoring the air quality in their communities.

## Air pollution from electricity generation

Electricity demand is growing fast. China is adding a new coal-fired power plant every 14 days. While power plants in many places have become much cleaner, power generation still accounts for nearly a quarter of global man-made NO<sub>x</sub> emissions and 15% of particulate emissions like soot and smoke. Power from advanced gas-fired plants produces negligible SO<sub>2</sub> and particulates. So increasing our production of natural gas to fuel these plants helps reduce air emissions; so does our advanced coal gasification technology. It dramatically reduces local pollution from coal-fired power plants by converting coal into a synthetic gas that burns as cleanly as natural gas. Driving down the costs of wind and solar power can also help speed the growth of these zero emission electricity sources.

## Air pollution from transport

There could be over two billion vehicles on the road by 2050, more than double the number today. Nearly all the growth is expected to come in mega-cities in today's developing world, where air quality is often already poor.

More transport and better air quality can be combined. Investment in cleaner fuels and engines, together with tougher government regulations, have successfully reduced local air pollution from vehicle transport in the developed world. In the EU, for example, VOCs and NO<sub>x</sub> emissions from road transport have fallen by more than half over the last 10 years even as vehicle use has grown.

Spreading the use of lead-free and lower sulphur fuels is the first step. They make it possible to introduce modern engines with catalytic converters and particulate traps. These engines

reduce emissions of most local pollutants by over 90%. We no longer produce leaded fuels at any of our refineries (see box) and we were one of the first companies to produce "zero" sulphur diesel on a commercial scale.

We are also one of the leading suppliers of liquefied petroleum gas (LPG), also known as Autogas. LPG offers an option for lowering other local emissions, particularly in developing countries where modern vehicles and low-sulphur fuels are not yet widely available.

Once modern engines and fuels are widely used, further improvements will come from continuing to fine tune engine and fuel technologies to improve fuel efficiency and reduce emissions. This requires more co-ordination between fuel producers and vehicle makers. We are working closely with companies like Audi, Ducati and Ferrari, so that the new engine and fuel technologies needed to reduce emissions further can be developed in parallel. Through such partnerships we intend to become the leading provider of the next generation of cleaner fuels.

Longer-term, hydrogen-powered fuel cell vehicles could provide dramatic reductions in air pollution from transport. Their only local emission is pure water. Shell Hydrogen is also working in partnership with car makers to try to make these vehicles a commercially viable option.

### Additional web content:

- Shell's advanced cleaner transport fuels.
- Our coal gasification technology.
- The work we are doing in international partnerships for cleaner fuels in Africa and Asia.

 [www.shell.com/airpollution](http://www.shell.com/airpollution)



## GETTING THE LEAD OUT

For many years, lead was added to petrol to improve engine performance. It has been phased out in most countries because of health concerns and because lead blocks catalytic converters in modern engines. However, lead phase-out has been a challenge in parts of the developing world. Government-owned refineries sometimes lack the necessary funds to upgrade their facilities. Governments in those countries often have more urgent development priorities. The phase-out of lead at refineries we have a stake in was completed in 2005, when joint venture facilities in South Africa and Kenya ended lead use. We actively support a complete phase-out of lead in fuels through the UN Partnership for Clean Fuels and Vehicles and the World Bank Clean Air Initiative in Africa.

## GAS-TO-LIQUIDS FUEL:

### PERFORMANCE UP. AIR POLLUTION DOWN.

GTL fuel is colourless, odourless and virtually sulphur-free. Made from natural gas using pioneering Shell technology, it can be blended with diesel and used in existing modern engines.

It produces far fewer local pollutants like particulates, nitrous oxides, sulphur and carbon monoxide, than conventional diesel. This fuel is now used in taxis and buses in some of the world's most congested cities, including Bangkok and Shanghai, where the environmental and health benefits are greatest. GTL fuel can also help improve fuel efficiency.



“VOICES”

Clean, highly efficient engines today are inseparably linked to high-quality fuels. A further reduction of emissions and fuel consumption in the future will require both innovative engine technology and advanced fuels.

Volkswagen and Shell are working closely together on such innovative fuels as second-generation biofuels and synthetic fuels. Renowned awards like the ‘Professor Ferdinand Porsche Prize 2005’ and the first overall victory of a diesel-powered car in the long history of the Le Mans race, which we were able to achieve in 2006 with the Audi R10 using Shell GTL fuel, demonstrate the success of the co-operation.

We will continue to pursue rigorously this course and to offer our customers affordable, sustainable mobility in the future as well. Volkswagen AG has found in Shell a competent, innovative partner for this effort.

Professor Dr Martin Winterkorn  
CHAIRMAN OF THE BOARD OF MANAGEMENT OF VOLKSWAGEN AG



# Spills

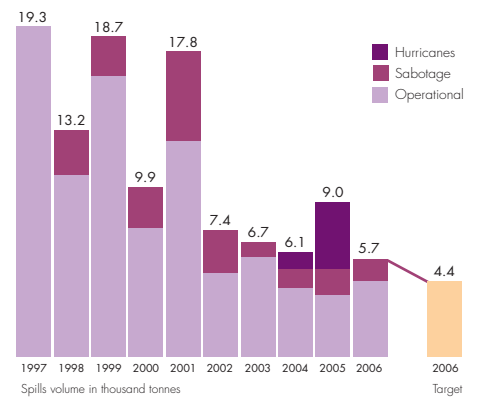
Reducing spills from our operations and ships requires clear procedures, consistent compliance and effective monitoring.

Between 1997 and 2005, the amount of oil and oil products spilled from our operations for reasons we can directly prevent, like corrosion or operational failures, declined gradually. Spills from sabotage or extreme weather, like hurricanes, have fluctuated with events.

Spill volumes from corrosion or operational failures rose slightly in 2006, largely because of two big spills in Nigeria. In the first one, a buried pipeline was damaged while laying another. The second was caused by corrosion. The resulting loss of oil accounted for nearly a quarter of the total amount we spilled in 2006. At sites in Nigeria that were shut down because of the security situation, reliable information about spills will not be available until we return to repair and restart operations. Elsewhere in Nigeria, in areas where we could operate, spills from corrosion and operational failures were at their lowest in seven years as better inspection and repair continued to improve performance.

Outside Nigeria, the number and volume of preventable spills continued to drop last year. In our upstream business, better pipeline inspection and maintenance has reduced preventable spills by almost 60% in Oman, for example, since 2000. In our downstream business, the number and volume of preventable spills were down again in 2006. We are tracking minor leaks more carefully

SPILLS  
Thousand tonnes



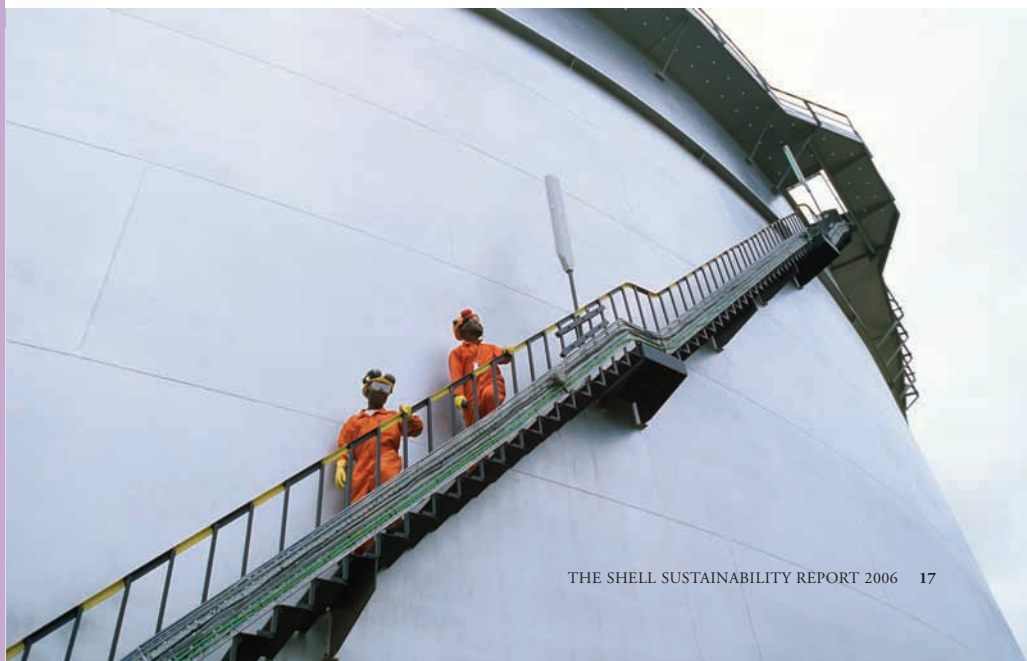
and fixing their underlying causes earlier at our refineries and chemical plants. Our distribution network has also implemented a programme to proactively prevent spills through more focused inspection and maintenance of pipelines and tanks at storage depots, and through efforts to prevent spills from delivery trucks, particularly in Africa.

In 2006, 22 million tonnes of oil were carried on ships we control. Less than two tonnes were spilled, reflecting our strict operating procedures.

Additional web content:

- Our efforts to further improve asset integrity (including spills).
- Spills performance in Nigeria in the Shell in Nigeria Environment and Society Report.

[www.shell.com/spills](http://www.shell.com/spills)



# Biodiversity

Growing populations and rising wealth are putting many sensitive and biodiversity-rich ecosystems under threat. Meeting the world's need for more and increasingly diverse energy supplies risks adding to the pressure. New technologies, partnerships and ways of working are needed. We are committed to helping and are making slow, but steady, progress in turning that commitment into action.

As the 2005 Millennium Ecosystem Assessment made clear, governments urgently need to find the right balance between development and nature conservation. The biggest problem is encroachment by farming and housing. However, energy production also plays a role, from the search for oil and gas in sensitive areas, to the extra land needed for energy infrastructure and, increasingly, for energy crops.

We were the first energy company to adopt a biodiversity standard. It requires us to respect protected sites, work with others to maintain ecosystems and seek partnerships to conserve biodiversity. We committed not to explore or develop for oil and natural gas in natural World Heritage Sites – more than 170 locations recognised by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). We also committed to follow strict operating practices in places designated by the World Conservation Union (IUCN) as Category I–IV protected areas and in other areas of high biodiversity value. We are currently working on standards for sourcing biofuels for transport sustainably (see box).

## Turning commitments into action

Biodiversity checks are now included in the social and environmental impact assessments that are done at an early stage in our projects. Instructions for operating in areas of high biodiversity value are now included in our HSE Management System.

We also require operations in IUCN Category I–IV protected areas to have biodiversity action plans. These plans include measures to conserve or enhance local biodiversity and checks that these measures are implemented and effective. By early 2006, all these operations – in Brunei, the Netherlands, Nigeria (see box) and the USA – had plans in place. We aim to have similar plans in place for operations in other areas of high biodiversity value by the end of 2007.

However, plans are only as good as our ability to execute them. Spreading awareness and skills of biodiversity management to key project staff remains a priority. Our library of case studies, which was updated and expanded in 2006, is helping us do this. So is the biodiversity network, which shares examples of good practice between project teams. We are also developing training programmes on implementing biodiversity action plans.

## Working with others

To support global biodiversity conservation and reduce biodiversity impacts around our operations, we work with (and learn from) more than 100 scientific and conservation organisations in 40 countries. Details of our work with some of these organisations is available on the web.

### Additional web content:

- Our approach to biodiversity in practice (case studies).
- Our work with others to promote conservation.
- Protecting biodiversity at operations in IUCN protected areas.

 [www.shell.com/biodiversity](http://www.shell.com/biodiversity)



## BIODIVERSITY ACTION PLAN: NIGERIAN INDIGENOUS FORESTS

In the Niger Delta, we have concessions to extract oil and gas in two indigenous forest reserves that are IUCN protected areas. We have not produced in these areas for many years, but have dormant oil wells in one and active pipelines across the other. The paths we built when we were producing here may have also provided access to these areas for others and made illegal logging and hunting possible.

In 2005, the SPDC joint venture launched two biodiversity action plans to preserve the forest and develop alternative sources of income for the local community.

The plan was drawn up with farmers, local groups and the [Editor: state] government. Actions include programmes to raise awareness of biodiversity in the local community, and projects to develop alternative sources of revenue from the forests. Under the plan, control over logging has been moved from the government to a community forest management committee. We will fund their delivery. The forest-based communities own the plans and are responsible for implementing them.

Jonathan Amakiri  
PRINCIPAL ENVIRONMENTAL ADVISOR, SHELL NIGERIA



Flying over the Mackenzie Delta, Canadian Arctic, location of Shell Canada's Niglintgak gas project.

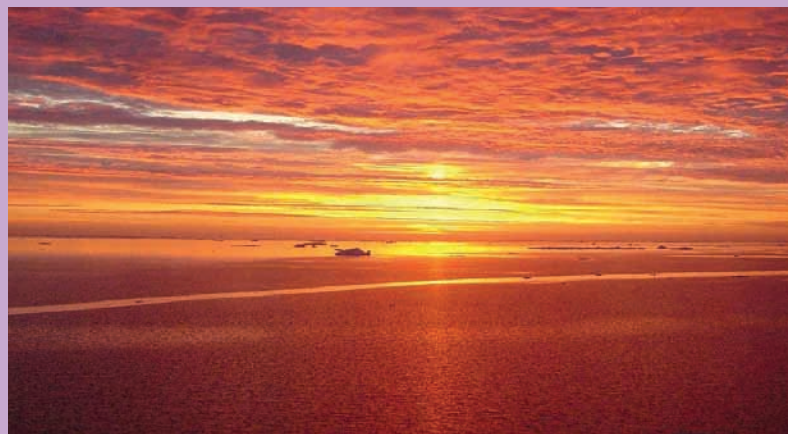


#### BIOFUEL AND BIODIVERSITY

Governments are increasingly turning to fuels from plants and organic waste (biofuel) to help with energy security and climate change. For example, the 2005 USA Energy Bill set aggressive new goals for biofuels. The EU aims to have 5.75% of transport coming from biofuels by 2010.

There are risks however. Making fuel from crops will increasingly compete with food production for water and scarce land. That could lead to rainforests being cut down and fragile wildlife habitats being threatened. The USA goal will likely be met mostly with ethanol from corn that otherwise would have fed cattle. It is estimated that an extra 1.6 million hectares of cropland will need to be found, somewhere, to replace that corn. To meet the EU target, between 10 and 30% of the region's agricultural land could be needed to grow energy crops.

We are working with NGOs, governments, suppliers and industrial consumers on standards for producing energy crops sustainably, for example through the Roundtable on Sustainable Palm Oil. In the meantime, we are monitoring our biofuel suppliers against our biodiversity standard and Shell General Business Principles. We are also investing in advanced second-generation biofuels from wood waste and straw that do not compete with food production (page 15), and could help reduce demand for corn and palm oil.



#### EXPLORING OFF ALASKA'S NORTHERN COAST

We are exploring for oil and natural gas in the Beaufort and Chukchi Seas off Alaska's northern coast. These are not national or IUCN protected areas. There has been oil and gas activity here for many years. They are remote, however, with a harsh and rapidly changing climate, large populations of whales, walrus and seals, and local communities who rely on subsistence hunting. We are committed to moving with great care, following our biodiversity and Health, Safety and Environment (HSE) standards and learning from other Shell projects with experience operating in arctic conditions. We continue to mitigate and monitor the impact of our activities and consult and work with local communities. In 2005, we completed an impact assessment in preparation for seismic exploration. This study highlighted the need to minimise disturbance to the bowhead whales that spend the summer months in this region. In response, we implemented a marine mammal monitoring and impact mitigation programme that employs experienced local people as observers. We completed some seismic exploration in the Chukchi Sea in 2006, but in the Beaufort Sea, no work was done because of heavy sea ice. In 2007, we plan to conduct more seismic tests in the Chukchi and, if conditions allow, in the Beaufort as well. We also plan to start exploratory drilling in the Beaufort Sea in 2007, once we have complied with government requirements and also completed an impact assessment in line with Shell internal requirements for this work.

# Living by our principles

The Shell General Business Principles were created 30 years ago and continue to define what we stand for and how we behave. In 2006, we launched a common, company-wide Code of Conduct to provide more detailed guidance on the behaviour our Principles require.

## Behaving with integrity

Integrity is one of our three core values and a cornerstone of our Business Principles. We translate this value into action with a clear and simple policy: zero tolerance of bribes and fraud.

In some parts of the world our policy banning bribes runs counter to common practice. Getting employees to comply requires extensive training and monitoring.

According to our internal questionnaire of the most senior Shell representative in each country, in 2006, staff in over 100 countries attended sessions on the proper use of intermediaries in business transactions (more on this data page 37).

To help us follow our Business Principles, employees are provided with online and face-to-face training in key areas, including preventing bribery and corruption.

We introduced a global help line and website in 2005, and have rolled it out country by country. In a number of countries, it replaced local help lines that had been in place for many years. The new global facility is available 24 hours a day and allows employees and business partners to seek advice and report concerns (anonymously, if desired) about suspected incidents of bribery and fraud and other violations of our Code of Conduct and Business Principles. We report cases of bribery and fraud to the Audit Committee of the Board of Royal Dutch Shell plc. In 2006, 96 violations were reported. As a result we ended our relationship with 143 staff and contractors.

Every two years, the Shell People Survey (page 25) includes questions to employees about whether their part of Shell is dealing with the outside world with integrity. In the 2006 Survey, 81% of staff said it was. Four per cent said it did not. This is in line with scores since the Survey began in 1999, including in 2004, after the recategorisation of our proved oil and gas reserves.

## Contractors

Contractors are expected to follow our, or equivalent, business principles when working for us. In many locations, we work with contractors to help them understand and apply

these principles. When they cannot, we are required to review the relationship up to and including cancelling the contract. In 2006, we cancelled over 40 contracts because of such concerns, according to our annual internal questionnaire of senior Shell country representatives (more on this data page 37). For example, multiple contracts were cancelled in Brazil, Canada, Nigeria, Trinidad and Tobago and the USA.

## Political activities and public advocacy

Our Business Principles allow and encourage us to contribute to debates on important policy issues that affect our business, our employees or the local communities where we operate (see box). The Principles prohibit payments by Shell companies to political parties. This is to avoid Shell companies buying or being perceived to be buying favours. According to our annual internal questionnaire (see page 37), we made no payments to political parties or campaigns in 2006.

Like many other corporations in the USA, Shell Oil Company administers a political action committee (Shell Oil Company Employees' Political Awareness Committee). It is a voluntary, employee-run and employee-funded organisation, that contributes money to political parties or individual candidates for



## COMPETITION LAWS

In June 2006, Shell Italia and Shell Aviation were fined more than €56 million by the Italian Competition Agency for allegedly exchanging information through airport joint ventures. These fines were reduced later in the year to a total of €37.64 million. In October 2006 in Argentina, we were accused of market sharing in Liquefied Petroleum Gas and fined approximately \$83,000. We are appealing these cases.

In 2006, we were fined €108 million for participating in a cartel in the Dutch bitumen market. The European Commission (EC) found that Shell and 13 other companies fixed prices from the mid 1990s until early 2002. The employee involved retired from Shell before the investigation began.

The EC also fined us €161 million last year for participating in a synthetic rubber cartel between 1996 and 1999. We sold the business involved in 1999. The EC investigation began in 2003.

As the head of our downstream business, Rob Routs, emphasised to all his 73,000 staff last year after the bitumen and rubber cartel decisions were announced: "Infringement of competition law will not be tolerated in Shell. My position on this is unequivocal. If you engage in illegal discussions with competitors, you will face disciplinary action up to and including dismissal".

Since the mid-1990s, we have run an extensive training programme to help employees follow competition laws and are working hard to strengthen the culture of compliance. Obeying competition laws is an essential part of our new Code of Conduct. Our Global Antitrust Compliance Programme has been strengthened. Anyone in contact with competitors, suppliers or business customers is required to take training.

political office, or organisations that support them. The Committee made \$109,000 in donations between 2005 and 2006. All the donations it makes are publicly disclosed to the USA Government's Federal Election Commission. While Shell Oil Company provides administrative support to the Committee, it does not fund the Committee's donations nor does it make any political contributions itself.

### Complying with competition laws

Our Business Principles require us to compete ethically, fairly and in line with applicable competition laws. In 2006, we were painfully reminded of cases in the past where employees did not live by our Principles and we have intensified our efforts to ensure they do so in the future (see box).

#### Additional web content:

- Our approach to dealing with bribery and corruption (including our management primer).
- Shell's work with others to promote business integrity (including the Extractive Industries Transparency Initiative).
- The new Shell-wide Code of Conduct.

[www.shell.com/integrity](http://www.shell.com/integrity)

### RESPONSIBLE PUBLIC ADVOCACY

Our Guidance Note on Responsible Lobbying, distributed to staff in 2006, lays out the do's and don'ts for making our views known to others. Principles include being sensitive to local practices and wherever possible, working with a broad range of stakeholders. The Note is illustrated with real-world examples, like our decision to withdraw from the Global Climate Coalition in the late '90s, when its activities were no longer compatible with our call for action on climate change.

We talk to governments directly, through industry associations and sometimes by joining with other companies and NGOs on specific issues. When engaging in public advocacy through industry groups, our voice is one of many. While we work hard to influence these groups, their positions inevitably fail to reflect our exact views on every topic. In 2006, we published on our website the names of the main trade associations, think-tanks and other organisations that speak on our behalf globally.

Recent public advocacy efforts we have undertaken include participating in the Corporate Leaders Group on Climate Change in the UK. Composed of 19 companies, the group is part of His Royal Highness the Prince of Wales' Cambridge Business and

Environment Programme. It is encouraging the UK Government to take market-based actions to address GHG emissions at home and provide international leadership on climate change.

The president of Shell Oil Company in the USA is calling publicly on behalf of Shell for government measures to set a mandatory limit on GHG emissions and allow firms to trade emission allowances.

In 2006, we advocated opening more of the Gulf of Mexico to oil and gas exploration to increase energy security, because we believe it can be done in environmentally responsible ways.

In December 2006, the president of Shell Nederland BV and other industry leaders published an open letter on behalf of their companies encouraging the Dutch Government to focus more attention on environmental issues.

In January 2007, our Chief Executive called for effective government regulation on climate change in an open letter to the *Financial Times*.

### CODE OF CONDUCT

In late 2006, we launched a Shell-wide Code of Conduct. Shell operations in a number of countries, including the USA, have had codes in place for many years. This is our first company-wide code. It applies to all staff working either in Shell companies, or in joint ventures where we have a controlling interest.

The Code is intended to help staff put our Business Principles into practice by defining the basic rules and standards we expect them to follow and the behaviour required. The Code gives practical advice in more than 20 areas, from antitrust law to substance abuse. The message of the Code is "If you're not sure, ask".

All staff received a copy of the Code of Conduct in 2006. Compulsory awareness programmes and online training are now underway to ensure they understand and follow it.

Our Chief Ethics and Compliance Officer launches the Code of Conduct



# Personal and process safety



## “VOICES”

### HEARTS AND MINDS

I had been reluctant to stop unsafe acts as I did not want to offend my colleagues. Having attended the Hearts and Minds exercise on ‘Understanding Your Culture,’ I am no longer afraid to report my errors or the unsafe acts of others. Intervention is now normal and welcome in most instances at our site. The team is more willing to learn from others’ mistakes knowing that it could happen to us. Lessons learnt from past safety incidents are now shared to the shop-floor level to prevent similar occurrences. We now also apply the STOP WORK policy when necessary to avoid dangerous situations. This is progress, but we have got to be patient to see the real cultural change take place, especially among the contractor staff.

Dana Empading  
SPECIALIST OPERATION TECHNICIAN, MALAYSIA

Safety is our first priority at all times. We are committed to preventing incidents – such as spills, fires and accidents – that place our people, our neighbours and our facilities at risk.

Our goal is zero fatalities. We want all our 108,000 staff and the approximately 300,000 contractors working at our operations to return home from work safely every day.

Making progress towards that goal depends on having safe processes and a strong safety culture. This starts with applying common standards and systems. Our Business Principles require all Shell companies, contractors and the joint ventures we control to operate in line with our HSE standard. This means managing HSE risks in a systematic way, having major facilities certified to an external environmental standard, like ISO 14001, and having emergency response plans in place, and regularly tested, to minimise damage in the event of an incident. We investigate serious incidents and near misses. The lessons we learn from these investigations are shared with other parts of our business to help prevent similar incidents happening again.

### Safety performance

We are deeply saddened that 37 people (two employees and 35 contractors) lost their lives working for Shell in 2006. That is one more than in 2005. Seventeen of these deaths happened in Nigeria, with nine the result of kidnappings or assaults as politically – and criminally – motivated violence rose sharply.

Recently, more fatalities have been occurring away from our operations and outside working hours, where we have less oversight. For example, the number of fatal assaults, drownings and road accidents all rose in 2006. These three causes accounted for more than 75% of lives lost last year.

Mainly as a result of higher fatalities from these causes, our fatal accident rate (the number of fatalities per 100 million working hours), which had improved by more than 50% since 1997, did not significantly change last year. This re-confirmed not only the importance of our measures to protect staff in Nigeria, but also the importance of our efforts to change behaviour and strengthen our safety culture.

These efforts appear to be helping reduce injuries. The injury rate for staff and contractors has improved by approximately 45% since 1997. Injuries at work declined again in 2006, beating our target.

### Changing behaviour

Our award-winning Hearts and Minds programme, introduced company-wide in 2004, drives home the need for employees to stop unsafe behaviour when they spot it. We added our three HSE Golden Rules the following year to clarify our expectations – and increase people’s feeling of being accountable for their and their colleagues’ safe behaviour. The Golden Rules are that “You and I: Comply with the law, standards and procedures; Intervene in unsafe or non-compliant situations, and Respect our neighbours”. Progress was made on our HSE competence



### BRENT BRAVO

In 2003, two contractors were tragically killed in one of the legs that support the Brent Bravo platform in the North Sea. Our internal investigation revealed that we fell short of the safety standards to which we aspire. We pleaded guilty to charges brought following an investigation by the UK Health & Safety Executive and were fined £900,000 in 2005.

After the tragedy we thoroughly reviewed all our North Sea offshore installations. In 2004, we launched a \$1 billion programme to upgrade these operations.

We are working hard to change behaviour. For example, “Taking Responsibility” workshops are now run for staff and contractors, using actors to drive home the tragic consequences of working unsafely. A new “Deep Learning”

programme has been introduced to help us understand the underlying cultural or structural causes of an accident and change the behaviour of key decision makers. “Deep Learning” sessions have been held for people working at Brent Bravo and for 400 staff across Exploration & Production in Europe. It has also been adopted and used by our downstream manufacturing business.

In 2006, the Fatal Accident Inquiry into the 2003 fatalities on Brent Bravo was completed. We accepted its findings, which identified areas where our systems had been ineffective and have taken actions to correct these problems. The Inquiry made no further recommendations for action.



programme in 2006. It checks that the more than 20,000 staff responsible for tasks with a significant HSE risk, including senior managers, have the necessary training and skills.

An online learning package on safe behaviour was rolled out in 2006, and we stepped up our internal communication efforts, with more focus on the need for people in leadership positions. A downstream Safety Week in 2006, reinforced that safety is everyone's responsibility and the top priority for key management. Leaders in our Exploration & Production business are now assessed by their staff every two years on how well they show leadership on safety, using the "Seeing Yourself As Others See You" tool. Leaders are required to follow-up on the feedback they receive.

#### Driver safety programmes

Each year, Shell employees and contractors drive 1.9 billion kilometres on company business, the equivalent of travelling around the equator 130 times a day. Our efforts to improve road safety are starting to show results in some of the world's most dangerous places to drive. Shell Oil Products Africa's "Drive to Live Campaign" spread from Kenya to Ethiopia, Ghana, Morocco and South Africa last year. Although overall road fatalities in our upstream business rose in 2006, there were some clear successes. On Russia's Sakhalin Island, the Sakhalin Energy joint venture's seat belt programme has reduced staff and contractor road fatalities from four in 2004 to zero in 2006. It has been rolled out across the Island to benefit local communities.

#### Process safety

Process safety means making sure our facilities are safely designed, operated within their limits and well-maintained. As the recently released Baker Report into the BP Texas City refinery accident in 2005 underlined, doing this consistently is critical to avoiding major incidents.

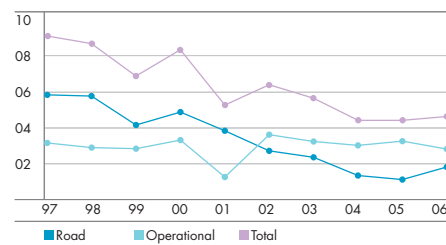
We are always looking for ways to improve process safety. Our Exploration & Production business intends to increase spending on asset integrity. Over the last three years, nearly two-thirds of our investment in the downstream business went to maintaining the reliability and safety of our existing facilities, investment levels we roughly expect to continue. Our businesses are also tightening design standards and reviewing operating limits and maintenance practices. We are currently studying the recommendations and findings from the Baker Report to see what lessons we can learn.

#### Protecting our people

The sharp rise in deaths from assaults in Nigeria last year was a tragic reminder of the importance of security measures for protecting staff and contractors. In 2006, our regional network of security advisers was expanded to provide practical and immediate support to our operations. In 2006, we experienced significant security incidents, such as armed robbery, kidnappings and vandalism, in 19 countries. Armed security was also used in 19 countries. This data is obtained from our internal questionnaire of the most senior Shell representative in each country (more on this data page 37).

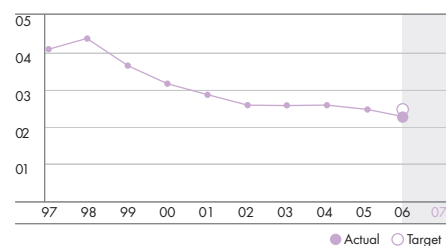
#### FATALITIES – FATAL ACCIDENT RATE

Employees and contractors per 100 million working hours



#### INJURIES – TOTAL RECORDABLE CASE FREQUENCY (TRCF)

Per million exposure hours (employees and contractors)



#### Additional web content:

- Our approach to safety, including our HSE commitment and standard.
- How the Hearts and Minds programme is working to strengthen our safety culture.
- Our approach to protecting our people (including our Security Standard).

[www.shell.com/safety](http://www.shell.com/safety)

Mars platform after repairs, April 2006.



#### PREPARING FOR HURRICANES IN THE GULF OF MEXICO

In 2005, the massive Mars platform was devastated by Hurricane Katrina in the Gulf of Mexico. In May 2006, it returned to production. It was one of the last, and most technically spectacular, parts of our recovery effort after Katrina. We have used the knowledge gained from the Mars recovery to further improve the ability of our offshore equipment to withstand hurricanes and to reduce disruptions when equipment is damaged. Above water, most of the damage to Mars occurred when massive clamps holding part of the rig's structure failed under sustained winds of 270 km per hour. Under water, the pipeline was cracked by the anchor of another company's mobile drilling unit that had gone adrift.

In 2006, we installed re-designed clamp systems that are four times stronger, not only at Mars but, as a precaution, at all our platforms in the Gulf of Mexico. We are part of a joint industry project to tighten specifications for anchoring mobile drilling rigs during the hurricane season. In anticipation of future storms, we are improving our communications systems, increasing the number of helicopters and ships and spare parts we have on call, and working with others to find alternative ways to get oil to refineries safely when part of a pipeline network is damaged.

# Human rights

Support for fundamental human rights is in our General Business Principles and an integral part of how we operate.

We believe that companies have a role to play in upholding and promoting human rights in practical ways directly related to their business activities, and in supporting governments' efforts to improve their human rights performance.

## Security and human rights

Our Group Security Standard defines how we protect our people and facilities while respecting the human rights of others, including local communities. It only permits armed security when required by law or when there is no other acceptable way to manage the risks. When we do rely on armed guards, they are required to follow our Shell guidelines in this area, which are based on United Nations guidelines and conventions on the use of force. Under our guidelines, armed guards are to be issued with pocket-sized cards describing how force may be used. They are expected to first attempt to resolve a security incident without using force. If this fails, then only the minimum force needed can be used and help offered to anyone injured as a result, including offenders. Regular checks are made on whether armed guards understand these rules.

By the end of 2006, several operations in countries with high security risks, including Nigeria and Pakistan, were also implementing the Voluntary Principles on Security and Human Rights. These Principles were developed for the energy sector by companies, governments and leading human rights NGOs.

## Resettlement

In all countries, people sometimes need to be moved to make room for new facilities, including energy infrastructure. Resettlement is usually carried out by governments. On our projects, we encourage the use of international standards, including consulting communities about resettlement plans and providing compensation to at least restore previous living standards. To construct the Nanhai petrochemicals complex in China, for example, more than 2,700 households were resettled to Chinese and World Bank standards. Our joint venture supported the government's programme to provide higher-quality housing for resettled villagers, and is continuing to help to find employment, build skills and create small businesses.

## Managing country risks

The search for oil and gas can take energy companies to places with poor human rights records. This clearly presents challenges and trade-offs. Refusing to operate opens the door for less-principled competitors. Staying in such countries puts a company at risk of being seen as complicit in a government's practices. We decide case by case, based on whether we are able to follow our Business Principles. We work with the Danish Institute for Human Rights to understand and address the human rights risks we face in particular countries. The Institute's Country Risk Assessments compare local laws and practices with the Universal Declaration of Human Rights and more than 80 other international treaties. It identifies the main risk areas in a country – like labour rights for foreign labourers or the behaviour of security forces. We then test our procedures and practices for respecting these rights, and work to close any gaps. In 2006, initial assessments were done for Ukraine and Kazakhstan.

Raising staff awareness and skills on human rights remains a priority for us. With the Danish Institute we reviewed our human rights training effort in Nigeria. As we committed to do in 2005, we trained another 500 field staff there in managing difficult situations, like responding to conflict in local communities.

## Rights of employees

Shell employees can raise grievances through formal procedures, staff forums, confidential advisers and a global helpline available 24 hours a day. Staff are free to join a union wherever permitted by national law. According to our annual internal questionnaire of senior country representatives, an estimated 12% of staff, in countries where that information is legally available, were union members in 2006 (more on this data page 37).

We are committed not to exploit children, through direct employment or indirectly through joint ventures, contractors or suppliers. According to the same internal questionnaire, at the end of 2006, Shell companies in 95% of countries where we operate had procedures to prevent child labour. Of the 5% who didn't, nearly all were in countries with well-enforced laws on child labour. The same questionnaire indicated that Shell companies in around 90% of countries had procedures in place to prevent the use of forced labour.

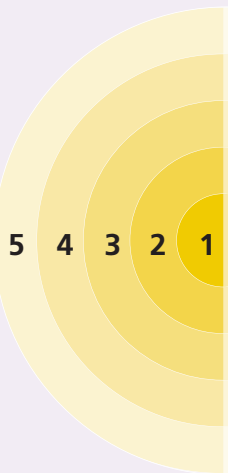
### Additional web content:

- Lessons learned from using our Country Risk Assessments.
- Other Shell human rights tools, guidelines and training.
- Background on Shell's use of the Voluntary Principles on Security and Human Rights.

[www.shell.com/humanrights](http://www.shell.com/humanrights)

## SPHERES OF ACTION AND RESPONSIBILITY

Over the past 20 years, society's expectations of business in this area have grown. Companies have grown uncertain about their role and where responsibility lies when governments do not fulfil their human rights obligations. A United Nations initiative is currently underway to clarify the boundaries between public and private accountabilities. We are participating in this process.



Since 2000, we have been using this diagram to help us define our human rights role:

1. **Employees.** Direct responsibility. Issues include labour rights and working conditions, for example, providing a safe and healthy workplace (page 22) and avoiding discrimination.
2. **Suppliers, contractors (including security personnel).** Significant influence through screening, setting contract standards and providing training. Issues include: safety, respectful treatment of third-country nationals, local hiring.
3. **Communities.** Opportunity to support government efforts. Issues include: use of international standards when relocating people, creating local business opportunities through operations or social investment (page 26).
4. **National governments.** Opportunity to support government efforts by contributing to economic development, and encouraging transparency of revenues, for example through the EITI (page 28).
5. **International efforts.** Opportunity to help, for example by supporting international human rights declarations and voluntary initiatives, providing input on international codes, and developing tools to help businesses comply.

# Our people

## DIVERSITY ON THE FORECOURT

Shell is the only international energy company licensed to build and operate service stations in India. We have brought our environmental and social standards with us, including our commitment to diversity and inclusiveness. Our quickly growing network of service stations has made a special effort to hire women, people with disabilities, and disadvantaged members of society.

It started with listening carefully to ensure we understood their specific needs.

For female employees, this meant installing separate changing and bathroom facilities. They work only the daytime shifts, so they do not have to work or travel after dark. Local NGOs have helped convince families that our service stations are appropriate places for women to work. As a result, there were on average 17 women employed per station by the end of 2006.

For people with disabilities, we made our sites accessible, for example by installing wheelchair ramps. At each station, there is a supervisor who knows sign language. By the end of 2006, on average four disabled people were working at each station.



Implementing our strategy and growing our business depends on recruiting a large number of high-quality professionals to the company and maintaining the full commitment of our staff.

Our Business Principles commit us to providing our people with a safe working environment (page 22); respecting their human rights (page 24); promoting their professional development; and creating an inclusive work environment.

## Recruitment

We are starting to see results from our increased recruitment efforts. In 2006, we hired almost 6,000 people – nearly 50% more than in 2005 and more than double our hiring levels in the late 1990s. Over half were from technical disciplines and, for the first time, we recruited more people in Asia than in any other region.

We strive to recruit locally and in ways that are sensitive to local conditions. For instance, to help build new skills in Algeria, we are hiring and training local graduates, rather than recruiting experienced staff from the national energy company. In 2006, we hired just under 200 local university graduates and 75 experienced Indian professionals to support the establishment of Shell Technology India. In Nigeria, we recruited more than 350 graduates and experienced professionals, record numbers including the largest number of Nigerians returning home from abroad for many years.

## Building skills

To help this wave of new staff understand our values from the start, our introductory training programmes have been improved. New employees are offered a series of training sessions and workshops including courses on the Business Principles.

We provide a balance of on- and off-the-job learning. In 2006, about 10,000 staff participated in our company-wide leadership development courses. Sustainable development issues are integrated into the courses that are run jointly with leading business schools in Asia, Europe and the USA. Our Project Academy, launched in 2005, is a dedicated learning programme including ongoing assessment and support for project managers to help them build skills, learn from Shell and external experts and apply our standards and approaches. In 2006, the Commercial Academy was launched for commercial staff.

## The Shell People Survey

Every two years, we survey all employees on their feelings about Shell and their experiences at work. This helps us to identify problems and assess staff morale. Overall results from the 2006 Survey were generally positive and better than the previous one in 2004, which was conducted soon after the recategorisation of our proved oil and gas reserves.

We have communicated detailed results of the 2006 Survey to staff. Plans are being put in place to address the areas of weakness identified at local, business and company-wide levels.

## Diversity and inclusiveness

We are committed to creating a workplace that values differences. A diverse workforce can better understand customers and stakeholders. An inclusive workforce is more motivated and able to bring their talents to bear. We have three targets in this area:

- Increase the proportion of women in senior management to a minimum of 20%. In 2006, we made good progress, with the proportion of women in top positions rising to 11.6%, up from 9.9% in 2005. We have increased our effort to attract women candidates and introduced development and mentoring programmes targeted at female staff. Nearly 30% of new staff in 2006 were women.
- Have local people fill more than half the senior management positions in every country we operate in. In 2006, 25% of these countries achieved this, compared to 36% the previous year. This decline came mainly from a small number of staff changes in countries with few senior management positions.
- Improve staff perceptions of the inclusiveness of their workplace, as measured by the Shell People Survey. In the 2006 Survey, 64% of employees were positive about inclusiveness in their part of Shell.

We are committed to equal opportunity in recruitment, career development, promotion, training and reward for all employees, including those with disabilities. All job applicants and employees are assessed against clear and objective criteria.

### Additional web content:

- Living up to our commitment to equality and diversity.
- How we are promoting staff diversity in India.
- Careers in Shell.

 [www.shell.com/ourpeople](http://www.shell.com/ourpeople)

# Our neighbours

We aim to be good neighbours in the communities where we operate. This means more than running our operations cleanly and safely. It also means working with local people to address their concerns and help them benefit from our activities.

Earning the trust of our neighbours starts with listening to the different points of view in a community. We typically use inputs from community panels, open days, surveys and local governments to understand what our main impacts are, and what matters most to the community. We then aim to work in partnership with communities to reduce the negative impacts from our operations and produce local economic benefits through our business activities and social investment (page 28).

In the past, some sites built excellent working relationships with their neighbours. Others lost community trust. Much depended on the personal interest and engagement skills of the local managers. In response, we have created a more structured approach and worked to share good practices across our operations.

By the end of 2006, more than 60 sites had social performance plans. These included all our major manufacturing and chemicals facilities and upstream operations where social impacts could be high. The plans are based on the guidelines provided by our social performance advisers. Implementing these plans requires facilities to identify and work with their main local stakeholders and assess and manage their impacts on the community in a systematic way.

There is more to be done. Spreading the needed engagement skills and commitment is a clear priority, especially to teams developing major new projects. To help, our social performance advisers work with external experts to provide coaching and support to existing operations and future projects. Social performance skills are part of our leadership training programmes and are being integrated into the curriculum of our Commercial and Project Academies (page 25).

Three examples of interactions with our neighbours follow. Information on our work with communities in Nigeria and Sakhalin is given on pages 32–35. Updates on other locations are on our website.

**Additional web content:**

- How we work with local communities.
- More on the locations described in this Report.
- Updates on locations described in previous Shell Sustainability Reports.

 [www.shell.com/neighbours](http://www.shell.com/neighbours)



## Corrib, Ireland

**WHAT IS IT?**

- Project to bring natural gas from 80km offshore to the west coast of Ireland, where it is processed and fed into the national gas grid.
- Will meet up to 60% of the country's gas needs at peak production. (Ireland currently imports more than 85% of its natural gas).
- Largest investment ever in County Mayo, creating 700 jobs during construction and over 100 during operation.
- Operated and 45% owned by Shell.

The Corrib natural gas project gained planning permission and government consent in 2004. However, local people have remained worried about the safety of the pipeline and the benefits for them. Regretfully, in June 2005, five local people were jailed after illegally blocking project work. Shortly afterwards, construction was suspended to allow an independent safety review and further dialogue with the community. The safety review was completed in May 2006. We accepted all its findings and agreed to limit the maximum operating pressure of the onshore pipeline.

On the recommendation of the government-appointed mediator, we agreed to change the onshore pipeline route to address concerns that it was too close to some people's houses. We have established a process to decide on an alternative route that involves extensive consultation with landowners and the community.

Having made these public commitments and apologised for the hurt caused to the local community, in October 2006, we restarted work on the terminal. This drew some protestors who blocked the road to the site. Police have kept the road open and work continues.

We are pleased that local people are benefiting from the project. Over 200 local people are currently working on site with a further 500 expected by the end of 2007. The national natural gas distribution company recently announced that 11 towns in County Mayo would be connected to the national gas supply. This means that Corrib's natural gas will eventually flow into towns in the West of Ireland, as well as throughout the country. An independent survey in November 2006, showed that the majority of local residents supported the project.

While we cannot change the past, we have learned from it. We remain committed to the project, which we know can only succeed in partnership with the local community.



**“VOICES”**



We are heartened that Shell has realised the path for this terminal could have been much smoother. It is always most important to gain the support and understanding of the local community in order to achieve project goals. It helps the community to feel at ease, have a sense of ownership for the project and ensures that they benefit from the infrastructure improvements and economic spin-offs that such a project can provide.

Nicholas Whyte and Gerard McDonnell  
COMMUNITY REPRESENTATIVES ON THE PROJECT MONITORING COMMITTEE



## Pinedale, USA

### WHAT IS IT?

- Project producing natural gas in the USA Rocky Mountains.
- Expected peak production equivalent to 3.5% of Shell's total 2006 gas production.
- Up to 1,000 wells required; 175 drilled by the end of 2006.
- 300 permanent and contractor jobs created, 40% of these filled by locals.
- Operated and 33% owned by Shell.

The scenic town of Pinedale, Wyoming (population 1,600) lies next to the Pinedale Anticline natural gas field. We have been developing part of this technically challenging field since we bought the project in 2001. From the start, we have listened to and worked closely with regulators and the community to create local benefits and minimise environmental impacts from the project.

For example, we were told that air pollution and protecting wildlife were important concerns and that improving education and reducing drug and alcohol abuse mattered to people in the town. In response, we are using low-emission engines and have introduced new techniques for completing wells that reduce flaring by at least 95%. We have found ways to access more gas from fewer locations, reducing our impact on the land. We also established two, independent, \$1 million charities run by a foundation from the local community to protect local wildlife and to address social issues such as substance abuse and education.

In 2005, a social performance review was undertaken for the project. It drew on experience from across the company and identified again the importance of conservation to the local people. To protect wildlife, the Government does not allow drilling in the Anticline from mid-November to May. In practice, this has led to social and environmental problems and hampered development of the field. Operators work more intensively in the short drilling season, causing more disturbance than if they could spread their activities throughout the year. The community gets a seasonal wave of work instead of stable, year-round employment.

Working with stakeholders and the other operators in the area, we developed an approach to working responsibly throughout the year and carried out a successful demonstration project in the winter of 2005/06. The Government's decision on year-round working is expected during summer 2007.

### “VOICES”



I have lived in Pinedale for almost 40 years and was the mayor for 10 years from 1996. I worked with our citizens and the energy companies to ensure the benefits of developing the gas field outweigh the disadvantages. Shell supports economic and social programmes in this fast-growing town and it works to protect wildlife. I believe Shell is committed to extract the gas in the best manner using the latest technology.

Rose Skinner  
FORMER MAYOR, TOWN OF PINEDALE, WYOMING



## Geelong, Australia

### WHAT IS IT?

- Fifty-two-year-old refinery, in the state of Victoria, Australia, supplying half that state's transport fuel.
- Contributes \$860 million annually through taxes, procurement and direct and indirect employment.
- Spending approximately \$100 million (2003–2011) to improve reliability and environmental performance.
- Operated and 100% owned by Shell.

Concerns about safety and environmental performance meant we lost the trust of regulators and some of the neighbours at our refinery in Geelong. In 2004, we agreed an environment improvement plan with the community and the regulators. However, it quickly became clear that the plan promised improvements that were impossible to meet fully in the time set, further reducing trust.

In 2005, Shell's central Social Performance Management Unit (SPMU) helped us, bringing experience and best practice from around the company. Together we carried out a social performance review that identified what needed fixing and how to do it.

Research showed that our existing community forum no longer accurately represented the neighbourhood. Helped by the SPMU, we worked with local organisations to create a new Community Advisory Panel. The panel now meets regularly, advising us on community engagement, environmental improvements and our social investment programme.

The panel's first priority was to provide advice on our Environment Improvement Plan. Panel members, together with an independent auditor, now monitor our progress. By the end of 2006, the plan's actions were about 85% complete. We worked hard to restore relationships and, with the panel, are now working on completing the remaining tasks and moving to a new plan to help us go beyond legal compliance.

We also sought the panel's advice on how to improve our communication. Our aim was to hear our neighbours' views and help them better understand our operations and improvement plans. So on the panel's recommendation, in addition to our newsletters and monthly newspaper columns, we established a mobile information booth. Refinery staff use it to listen to the public's concerns, provide information and answer questions.

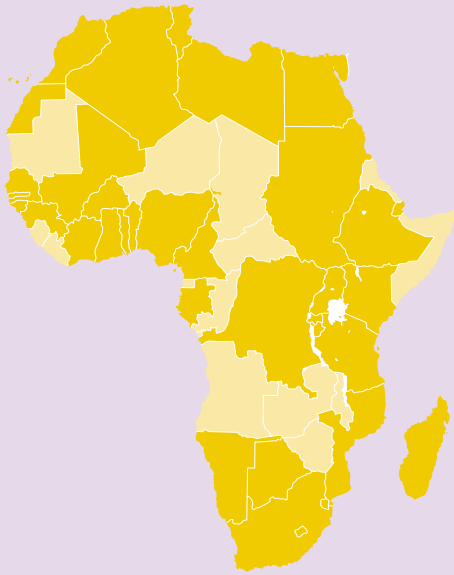
### “VOICES”



As the refinery's Community Advisory Panel Chair and an elected Councillor of the City of Greater Geelong, I am in constant contact with local residents who freely voice their concerns. Many now believe Shell is committed to cut its pollution and is actually doing what it says it will do. I am especially impressed that the refinery has committed to go further than the law requires. This is heartening for the Geelong community.

Lou Brazier  
CHAIR OF THE COMMUNITY ADVISORY PANEL

■ COUNTRIES WHERE SHELL OPERATES IN AFRICA



## Our contribution in Africa<sup>[A]</sup>

**\$500 million**

paid in salaries to over 8,000 employees in Africa

**\$2 billion<sup>[B]</sup>**

spent with African suppliers

**\$6 billion**

paid in corporation and sales taxes, and royalties to African governments

**\$22 million<sup>[B]</sup>**

donated through social investment

# Local development

Our biggest contribution to development is providing the energy and petrochemicals that modern economies need. We also help local development in other ways: by generating revenues for governments and encouraging them to spend these funds wisely; by creating business opportunities for local suppliers and employment for local people; and by supporting social investment programmes, including those of the independent Shell Foundation.

### Turning payments to governments into social benefits

Royalties are often the main source of revenue for energy-producing countries. Managed well, these funds can bring broad economic and social development. Managed poorly, the money can stimulate corruption, social inequality and conflict.

While the responsibility for turning these funds into social benefits lies with host governments, we can and do help.

One way is by setting a good example by following our policy of zero tolerance of bribes (page 20). The other way is by strongly supporting the Extractive Industries Transparency Initiative (EITI). It requires mining and oil companies to publish their payments to host governments and encourages those governments to be open and accountable for how the funds are spent. We see the need for the EITI only growing, as new competitors aggressively pursue business in Africa and Central Asia. In 2006, we again reported payments to the Nigerian Government and stepped up our involvement in the EITI, becoming board members and continuing to support the programmes in Azerbaijan, Cameroon, Gabon and Kazakhstan.

We paid governments over \$17 billion in corporate taxes in 2006, and \$1.6 billion in royalties. We collected \$71 billion in excise duties and sales taxes on their behalf.

### Buying locally

Buying from local suppliers is a particularly effective way for us to encourage development in the places where we operate. It directly contributes to the local economy, creates jobs and builds skills. We actively promote the use of local suppliers and contractors and train local companies to help them meet our standards, so they can compete for contracts. For example, on the Salym oil production project in Siberia, we held a series of meetings for Russian companies that were invited to bid for major construction

contracts. In these sessions, we helped them to understand our tendering and contract requirements as well as the online bidding process. As a result of this and other efforts, Russian companies had won 80% of the contracts (by value) that had been awarded by the end of 2006.

We help local communities set up businesses to sell us goods and services. For example, in the Athabasca Oil Sands Project, Shell Canada helped the neighbouring aboriginal community set up trucking, maintenance, catering and security businesses. They now work for the project and other oil sands operators.

Based on an annual internal questionnaire to our senior country representatives, in 2006, we had programmes in place to promote the use of local suppliers in over 90% of the low and medium income countries where we operate (more on this data page 37). It is estimated that we spent approximately \$10 billion on goods and services from locally owned companies in these countries. Buying locally also helps create opportunities for minorities and women. In South Africa for example, in support of government policies, over 60% of our expenditure is with black economic empowerment companies and we continue to champion minority and female-owned businesses in the USA.

Host governments sometimes set requirements for buying or hiring locally. In 2006, Sakhalin Energy again met the challenging targets of 70% Russian-sourced materials and services on the Sakhalin II project (page 34).

### Social investment

Supporting community development projects is another, smaller, contribution we make to local development. From the same internal questionnaire, our senior country representatives estimate that we spent approximately \$140 million in 2006, on social investment activities. The largest programmes were in Nigeria and the USA. This amount is separate from the activities of the independent Shell Foundation (see box).

#### Additional web content:

- How we are encouraging transparency in payments to governments.
- Examples from our major social investment programmes.
- Our full contribution to the UN Millennium Development Goals.

 [www.shell.com/development](http://www.shell.com/development)

[A] By companies where we have a controlling interest  
[B] From our annual internal questionnaire (more on this data page 37)

# Millennium Development Goals

In 2000, the United Nations set its Millennium Development Goals (MDGs). These are eight targets to be achieved by 2015, including halving extreme poverty, reversing the spread of HIV/AIDS and ensuring environmental sustainability. Achieving these goals depends primarily on governments, since reducing poverty depends on effective public institutions that allow businesses to create jobs and wealth.

We support the MDGs. Our biggest contribution by far is providing the modern energy needed for economic and social development. Getting electricity to the almost 1.6 billion people who also currently live without it is particularly important.

Through our operations, we generate local jobs, contracts and revenues for governments in 50% of the world's 50 poorest countries. We also help via the independent Shell Foundation (see box) and through our own social investment programmes. These include taking action on HIV/AIDS for employees, their families and communities with the Global Business Coalition and combating malaria near our operations in The Philippines (see below).



**BEATING THE BUG: MALARIA IN THE PHILIPPINES**  
Near our Malampaya gas project, Shell Philippines and Pilipinas Shell Foundation are working with local government and communities to eradicate malaria from one of the worst-affected areas of The Philippines. Results from the programme have been dramatic. Deaths from the disease dropped from 85 in 2000 to 20 in 2006. Part of the success came from applying the problem-solving skills we routinely use at work. When we drill for gas, knowing where not to go often shows us where we should drill. The same was true here. Instead of trying to wipe out mosquitoes, the focus was on keeping them off people – especially at night – and providing quick treatment if people developed symptoms. The programme gave bed nets to families in high-risk areas and ensured that every village had a microscope and healthcare workers trained to use it. People now no longer need to travel for days to get accurate diagnosis and treatment.

Ding Roco  
SHELL PHILIPPINES



Shell Foundation supported Metrobus.

## Shell Foundation: enterprise solutions to poverty

Shell Foundation is an independent charity, established in 2000 with an endowment of \$250 million from Shell. It aims to find and develop sustainable solutions to poverty, energy and environment-related problems.

### Putting Africa's entrepreneurs first

In 2004, the Foundation gave a small Ugandan dried fruit company seed-capital for computers and training, and helped it get financing from a local bank to build a new factory. Two years on, hundreds of jobs have been created and the company is selling its fruit in more than 700 supermarket stores in the UK.

The Foundation is investing more than \$50 million to help other African entrepreneurs creating both financial returns and much-needed jobs.

This is an example of the Foundation's "enterprise"-based approach – developing solutions that can quickly finance themselves and be easily copied by others so they spread.

The Foundation applies this approach because it thinks too many programmes in the developing world are reliant on the next aid cheque, which often does not arrive. So, unlike most corporate foundations, it does not hand out cheques to good causes. Instead, it acts like an investor, looking for solutions that can deliver both financial and social returns.

If organisations struggle to become self-financing, the Foundation helps by providing business know-how, discipline and skills training. This is delivered by business experts including, sometimes, Shell company staff.

### Traffic congestion and pollution

The Foundation is working to reduce the traffic congestion and pollution plaguing mega-cities such as Istanbul, Hanoi and Shanghai. In Mexico City, it helped

implement Metrobus – an innovative route served by 97 high-capacity buses. Metrobus carried its 100 millionth passenger after only 18 months in operation. It replaced 350 smaller buses, cut journey times in half and reduced pollution.

### Killer in the kitchen

More than half the world's population still cooks on wood, dung and other biomass. The resulting smoke kills an estimated 1.6 million people a year, making it the fourth largest cause of death in the developing world. The Foundation is applying commercial approaches to tackling the problem. It hopes to supply 20 million cooking stoves that reduce dangerous fumes and use less fuel in the next five years.

### Going organic

By providing organic fertilizers and business support, the Foundation is proving that developing world cotton farmers can move from pesticide-intensive production to organic production despite a daunting three-to-five-year transition process. Going organic helps improve soil fertility and water retention and reduces pollution. It also guarantees farmers a fair price for their produce. One farmer, who has made the transition, said: "The soil is improving, the environment is better and, through crop rotation, we are now getting healthier food for our consumption and our customers".

In India, more than 900 farmers have gained organic certification with help from the programme. Several thousand acres of organic crops are under production and the model is expanding rapidly.

#### Additional web content:

 [www.shellfoundation.org](http://www.shellfoundation.org)

# Standards, governance, controls and incentives

Making sustainable development central to how we work needs the right standards, governance, controls and incentives. These are outlined here and described in detail on our website.

In 2006, we took additional steps to clarify what we expect from staff, increase their skills and share our knowledge better around Shell.

## Standards

All companies and joint ventures where we have a controlling interest – for example as majority shareholder or operator – apply the Shell General Business Principles, the Code of Conduct and the other parts of the Shell Control Framework.

Our Principles require compliance with all applicable laws and support for human rights. They forbid bribery, fraud and anti-competitive behaviour and commit us to contribute to sustainable development, including engaging with external stakeholders.

These companies and joint ventures must also apply Shell-wide environmental and social standards. These include the Group HSE policy and commitment and standards for animal testing, biodiversity, climate change, environmental management, health management, security, ship quality and our relationship with our people.

We require contractors to manage HSE in line with our standards and expect them to follow our Business Principles or equivalent ones when working for us. We also encourage joint ventures where we do not have a controlling interest and suppliers to adopt and follow equivalent principles and HSE standards. If these contractors, suppliers and ventures cannot meet our expectations within a reasonable time, we are required to review the relationship, which can involve actions up to and including ending the relationship.

Our principles and standards are reflected in our business processes. They are included in the criteria used to assess investment proposals and in the planning and design of major new projects. For example, we include the expected future costs of emitting CO<sub>2</sub> when making all major investment decisions. An impact assessment is required before we begin significant work on a project or at an existing facility. The actions the impact assessment identifies must be part of the project's design and operation. All our major refining and chemicals facilities, and upstream operations with potential for high social impact, must also have social performance plans.

These plans set out how the facility will manage its social impacts and generate benefits for the local community (page 26).

In 2006, our Exploration & Production business further tightened its requirements in this area for new projects at the earliest stages of project design. It introduced reviews of our 70 most important new oil and gas prospects by environmental and social experts from the business and central functions. Some of these projects are still in the exploration or early design phases.

We also align our requirements with external principles and standards such as the UN Universal Declaration on Human Rights, UN Global Compact, OECD Guidelines for Multinational Enterprises and the Extractive Industries Transparency Initiative (page 28).

## Governance

The Social Responsibility Committee of our Board reviews our sustainable development policies and performance (see box). The Chief Executive is responsible for sustainable development. On his behalf, the Corporate Affairs Director chairs the Group Sustainable Development and HSE Executive, which reviews performance and sets priorities, key performance indicators and targets. The central Social Performance Management Unit, the Group HSE Function and Group Issues Management challenge, and support our businesses, helping them develop the skills they need, share learning and take a consistent approach to addressing their environmental and social issues.

## New in 2006

- First Shell-wide Code of Conduct launched.
- Guidance for new upstream projects revised to integrate environmental and social considerations earlier into major decisions.
- Guidance issued on responsible public advocacy.
- First Project Academy learning events rolled out to strengthen project management skills and share best practice.





Sustainable development is part of the duties of every manager. Support is provided by HSE, social performance, security, human resources and finance specialists. Each of our businesses is responsible for complying with our requirements and achieving its specific targets in this area.

### Strengthening controls and aligning incentives

We monitor compliance through an annual assurance letter process. It requires the relevant senior manager to report to the Chief Executive on the performance of his or her business or function in following our Business Principles and Group Standards. Results are reported to the Audit Committee of the Board.

We also regularly audit our facilities' HSE management systems. All our major plants are required to be externally certified to international environmental standards, for example ISO 14001. Our Code of Conduct provides detailed guidance on the behaviour required from our staff by our Business Principles (page 21).

In addition, external panels and observers help us monitor environmental and social performance. For example, a panel of scientific experts reviews compliance with our animal testing standard.

Community panels at a number of downstream facilities track and advise us on our social performance (pages 26–27). Independent experts are monitoring Sakhalin Energy's pipeline construction and the joint venture's efforts to avoid harm to the western gray whales (pages 34–35).

Sustainable development also contributes to performance appraisals and pay. In 2006, it again accounted for 20% of the company-wide scorecard.

#### Additional web content:

- More on our company-wide environmental and social commitments and standards.
- How we do environmental, social and health impact assessments.
- More on our corporate governance (including terms of reference for our Social Responsibility Committee).

 [www.shell.com/makingithappen](http://www.shell.com/makingithappen)



Building skills and sharing best practice in Project Academy.

## The Social Responsibility Committee

The Royal Dutch Shell plc Board has four committees. The Social Responsibility Committee is one. It reviews and advises on our policies and performance with respect to our Business Principles, Code of Conduct, HSE policy and other relevant environmental and social standards and major issues of public concern. It is composed of three Non-executive Directors, including its Chairman, Wim Kok, former Prime Minister of the Netherlands.

The Committee takes an active role in assessing and advising on our activities in this area on behalf of the Board. It meets four times a year, receiving reports and interviewing management on our overall HSE and social performance, and on our management of environmental and social impacts at major projects and operations. It provides input on and reviews drafts of this Report, including meeting face to face with our External Review Committee. The Social Responsibility Committee also travels to Shell locations, meeting with local staff and external stakeholders to understand first hand the site's operational performance, what relationships are like with the local community and how our standards are being implemented in practice. In 2006, it went to our natural gas projects in Corrib, Ireland and Pinedale, Wyoming, and the Motiva joint venture refinery in Port Arthur, Texas. It was also in New Orleans, Louisiana to see how the recovery of the city was progressing after the 2005 hurricanes and understand Shell's contribution. In early 2007, the Committee went to our operation on Sakhalin Island and Wim Kok went to Nigeria with the Chairman of the Board. After each visit, the Committee shares its observations with the Board, including the Executive Director responsible for that project or site.

“

As a committee we are serious about getting a first-hand understanding of the company's environmental and social performance, including relationships with local communities. Our site visits are crucial for this, letting us talk directly to local Shell staff and their external stakeholders.”

Wim Kok



Maarten van den Bergh

Wim Kok

Nina Henderson

# Working in challenging locations

How we are addressing environmental and social concerns at two of our most important and challenging locations.

## Nigeria

Interview with Basil Omiyi by Roger Hammond



Basil Omiyi  
SPDC MANAGING DIRECTOR, COUNTRY CHAIR, SHELL IN NIGERIA



Roger Hammond  
DEVELOPMENT DIRECTOR, LIVING EARTH

**2006 saw an alarming escalation of violence in the Niger Delta. What is going on?**

There are three issues. The first is poverty in the Delta. It is being addressed, but too slowly. The second is the way the Delta is represented in national politics. The third is the rise of organised crime, fuelled by large-scale thefts of crude oil. Think of these as overlapping circles – the bigger the overlap, the bigger the crisis.

The approach of the presidential election [Editor: April 2007] has made the current crisis so big.

The politically motivated militia groups continue to demand, among other things, the release of a former state Governor and of a militia leader held on treason charges, and a greater share of oil revenue for the Delta States.

The rise in violence is bad for the Delta and Nigeria. We have had to shut down most facilities in the Western Niger Delta, reducing production in 2006 by 50%. Militants have sabotaged flow stations and pipelines and made it impossible for us to get to many of these facilities to repair the damage or do normal maintenance. The Finance Ministry has estimated that the crisis cost the Government \$4.4 billion in lost revenue.

Fifty-four of our staff and contractors were kidnapped last year. Nine were killed in assaults or kidnappings. That is a terrible loss that I feel very deeply.

**Isn't there a major risk that the Government will take a military approach that violates human rights?**

I don't think so. It knows that being heavy-handed risks causing further incidents and losing local support. The Government's approach has been to lead with development, continue with dialogue and ultimately improve law and order.

Our role, as a company, is to support this effort and encourage government to respect human rights. I am proud of the way we are doing that with the two groups providing security in the Delta. One is the Supernumerary Police, seconded by the Nigeria Police Force. They

protect our facilities and are usually unarmed. We agree their terms of engagement, making sure they are in line with our security guidelines. We also run human rights training programmes for them and report any violations of our security standards.

The second group is the Joint Task Force. Its military personnel guard the handful of our facilities that are designated as national strategic assets. We make clear our stand on human rights to the Joint Task Force, including our commitment to the Voluntary Principles on Security and Human Rights and our guidelines on the use of arms. All our frontline staff also do human rights training to help them follow our procedures and monitor the security staff guarding our facilities.

**What are the chances for reconciliation with the Ogoni people?**

Overall, I am cautiously optimistic. We left Ogoniland in 1993 and haven't produced oil there since. We still hold the concession including oil wells, which are still occasionally sabotaged or set on fire.

We have consistently said that we will only go back with community acceptance. To that end we continue to support the President's reconciliation initiative that is trying to find lasting peace and reconciliation in Ogoniland.

Government and the traditional rulers both tell us they want us to come back. In my meetings with Ogoni leaders they have talked about putting the past behind us and sitting around



## WHAT IS IT?

The Shell Petroleum Development Company of Nigeria (SPDC):

- Operator of Nigeria's largest oil and gas joint venture (Nigerian National Petroleum Company 55%, Shell 30%, EPNL 10%, Agip 5%).
- In a typical year produces approximately 40% of the country's oil from over 1,000 onshore wells in the Niger Delta.
- Generates more than \$40 for the Government for every barrel produced (and \$1.46 for Shell) at oil prices of \$50 a barrel.

Shell Nigeria Exploration and Production Company (SNEPCo):

- Operator and 55% shareholder in the offshore Bonga oil field, Nigeria's first deepwater project.

Nigeria Liquefied Natural Gas Company (NLNG):

- Joint venture (Shell 26%) producing 8% of the world's LNG.

Shell-run operations in Nigeria paid \$3.5 billion in taxes and royalties to the Government in 2006.

the table to talk. It will take patience and understanding, but I think we will get there.

### You have made tackling corruption in Shell in Nigeria a priority. An impossible task?

In 2006, we kept the spotlight on this problem in SPDC and our other operations in Nigeria, despite the security crisis. Integrity is part of staff assessments. SPDC publicises proven corruption cases on its website so people are aware of what happens if they cross the line.

### Shell has been accused of using lower environmental standards in Nigeria. True?

Absolutely not. We apply the same Shell standards worldwide and all our assets in Nigeria are certified to ISO 14001 standard by external assessors. We do, however, have a substantial backlog of asset integrity work to reduce spills and flaring. That backlog is caused by under-funding by partners over many years, operational problems and, more recently, the lack of safe access to facilities.

In 2006, we kept moving forward with asset integrity work, despite the security crisis. For example, of the 253 old spill sites that were scheduled for clean up in 2006, we successfully restored all the 179 sites where we could get access. We completed the pipeline inspection work we had planned for 2006 wherever we had access – about half the total originally planned. We're currently discussing different ways of funding this work with the Government that would allow it to go much faster in the future.

### You mentioned flaring – will you meet your commitment to end continuous flaring?

Already today, there is no continuous flaring of natural gas at our offshore operations and NLNG. We remain committed to ending continuous flaring at the SPDC joint venture's more than 1,000 wells during 2009. We believe this can still be achieved, provided we get access in time and the needed funding. I'm afraid I can't be any more definite. The security situation means we don't know exactly when we will get back to specific locations. However, when we get access, we plan to accelerate the remaining gas-gathering projects, doing many of them as part of the repairs needed to get shut in facilities running again. Ending continuous flaring is a massive effort. We have already invested over \$3 billion in it since 2000, reducing our flaring by 30% by 2005. In 2006, we did manage to install gas-gathering equipment at one site.

### So much clearly depends on the security situation. So what is the way out of the current crisis?

The three overlapping circles of the crisis must be pulled apart. Development is the most important. Making progress on it will help tackle the violence. It would undermine the support that criminals enjoy because they pretend to be the voice of the oppressed. There is enough money going to the state governments for development in the Delta now. The four Delta states where we operate now typically get more than \$3.5 billion a year from the federal government. However, the money is not being properly used, because of corruption and a lack of local capacity to invest it.

### A problem for government then, not for Shell?

No. We are part of life in the Delta and Nigeria. Our success depends on peace and prosperity here. And we are deeply committed to helping make this happen. We do this not only by generating oil and gas revenues for the Government; we help the Government strengthen public institutions, for example through the Extractive Industries Transparency Initiative, and through our relationships with international development experts. We also help through our own development programmes. Shell-run operations spent over \$59 million [Shell-share \$18 million] in 2006 on these programmes, and contributed a further \$114 million [Shell-share \$61.5 million] to the Government's Niger Delta Development Commission.

### Overall, how do you see the future for the Delta and Shell's operations there?

This is a very challenging time for all Nigerians. I am pleased that our offshore operations and the NLNG joint venture have been able to expand so successfully through this period. My main concern though is safety – of our staff, contractors and the local communities. We are wholly committed to working with the Government to promote peace and security in the Delta and bring the development that the region so desperately needs.

#### Additional web content:

 [www.shell.com/nigeria](http://www.shell.com/nigeria)

## Sakhalin

Sakhalin II emerged from a tumultuous 2006 with a new shareholder – Gazprom – in sight and an agreement in principle with the Russian Government on an amended development budget for Phase 2. These are important steps forward, helping position the project to finish construction, deliver its first LNG to customers in 2008, and meet its environmental commitments and create lasting community benefits.

Sakhalin II is typical of the projects needed to meet the energy challenge – large, complex and often in environmentally sensitive frontier locations. It will add 6% to the world's current LNG capacity, helping meet rapidly growing natural gas demand in Japan, Korea and North America. Completing it successfully will also help Russia demonstrate its continuing ability to host world-class energy projects with foreign partners. At an oil price of \$34 a barrel, federal and local governments will earn an estimated \$50 billion from Sakhalin II over its lifetime.

With the entry of Gazprom, which Shell welcomes, Sakhalin II is expected to continue to provide significant long-term value for our shareholders. Under the terms of the protocol, Sakhalin II will add nearly 100,000 barrels of oil equivalent a day (two-thirds of this natural gas) to Shell's production at its peak and create

the possibility of expanding activities with Gazprom in Sakhalin.

With construction approximately 80% complete, the first priority now is to get the project up and running – on time, safely, and responsibly. All shareholders are fully committed to delivering a world-class project in all respects, including environmental and social performance.

### River crossings

A novel and transparent approach has been adopted to protect wild salmon during the construction of the project's onshore pipelines. The pipelines cross about 180 sensitive salmon spawning rivers. Sakhalin Energy requires contractors to use low-impact techniques for these crossings, including working in winter when the rivers are frozen or at low flow. When some contractors failed to do so during the winter of 2004/05, Sakhalin Energy stopped work, improved its controls and sought help from outside experts. Independent observers and environment agency representatives were invited to monitor, first-hand, how each sensitive crossing was made during the winters of 2005/06 and 2006/07. This was a first for the industry. The observers' findings are published on Sakhalin Energy's website.

Most of the sensitive crossings were done in the winter of 2005/06. In addition to the precautions taken during construction, temporary erosion controls were put in place

and grass replanted on steep river banks along the pipeline route to prevent sediment run-off into rivers during the spring thaw. A few rivers had more sedimentation than planned.

However, the likely impact on the salmon spawning grounds is limited and temporary, with the rivers expected to return to normal in two to three years. By the end of April 2007, all sensitive crossings had been completed.

### Western gray whales

Most of what scientists know about the critically endangered western gray whales, which spend the summer months off Sakhalin Island, comes from the \$1 million a year research and monitoring programme that Sakhalin Energy and Exxon Neftegas Ltd have sponsored for many years.

Sakhalin Energy has taken advice from independent experts on protecting the whales during offshore construction. The project re-routed the offshore pipeline 20 km further away from the whales' feeding ground, and used advanced acoustics and strict speed limits on vessels to minimise disturbance. Impacts on the whales have been carefully monitored and their population has grown.

In 2006, a long-term western gray whale advisory panel was established. Convened by the World Conservation Union (IUCN), its scientific experts will study the whales' habits and monitor the project's impacts during final construction and operation.

### WHAT IS IT?

- The largest and most complex oil and LNG project currently under construction.
- Phase 1 of Sakhalin II began producing oil from Russia's first offshore platform in 1999.
- The \$20 billion Phase 2 includes two more offshore platforms, more than 1,800 km of pipelines and Russia's first LNG plant.
- Construction was approximately 80% complete at end 2006. LNG production is due to start in 2008.
- A joint venture operated by Sakhalin Energy Investment Company Ltd (SEIC).
- Protocol was signed in December 2006 to sell 50% plus one share of Sakhalin II to Gazprom for \$7.45 billion. This will reduce Shell's share of SEIC from 55% to 27.5%, Mitsui's from 25% to 12.5% and Mitsubishi's from 20% to 10%.



### Environmental permitting

In October 2006, the Russian environment agency threatened to suspend crucial licences, citing violations of environmental permits. These alleged violations would not have caused long-term environmental damage. Sakhalin Energy developed an Environmental Action Plan which, after further refinement, was re-submitted to the authorities in March 2007 for further review.

### Sustainable benefits for local people

Sakhalin Energy is actively helping islanders benefit from oil and gas development. In addition to the \$100 million it contributed to the regional government's Sakhalin Development Fund, \$390 million is being spent upgrading and building new infrastructure on the Island.

By the end of 2006, 17,000 staff and contractors, nearly 7,000 of them local, were working on Sakhalin II. Once construction ends, employment and business activities from the project will be lower.

Nonetheless, Sakhalin II is expected to employ about 2,400 permanent staff and create work for approximately 7,000 local contractors and suppliers. Managing the transition is a priority for the Island and for Sakhalin Energy.

### Indigenous people

Large-scale energy developments pose challenges for the Island's 3,500 indigenous people. Sakhalin Energy was the first company to support and work with the democratically elected Sakhalin Indigenous Minorities Council that was formed in 2005 to represent this group. In 2006, the Council, regional government and Sakhalin Energy launched the first five-year Indigenous Minorities Development Plan. Developed with advice from the World Bank, the plan identifies practical ways to mitigate impacts from oil and gas development on indigenous people and promote traditional livelihoods and sustainable businesses. Sakhalin Energy is providing the funding (\$1.5 million) and is a member of the supervisory groups charged with making sure the plan is carried out.

### Project financing

Gazprom's entry and the change of shareholdings may alter the way the project is financed. As a result, the European Bank for Reconstruction and Development (EBRD) ended its review of the current funding proposal in early 2007.

[Editor: text finalised 2007, while the joint ventures' negotiations with Gazprom were still underway].

#### Additional web content:

 [www.sakhalinenergy.com](http://www.sakhalinenergy.com)



### RIVER CROSSING OBSERVER

For the last two winters, I have worked as one of the independent observers for Sakhalin Energy's river crossing programme. We have monitored the pipeline construction where it crosses ecologically sensitive rivers, have publicly reported on construction practices, and have provided advice to the project's pipeline engineers. We have had unrestricted access to the crossings we are monitoring and freedom to report honestly on what we saw. In my opinion, Sakhalin Energy has taken the challenge of getting its contractors to comply with its standards seriously. Compliance has steadily improved, reducing environmental impacts.

Mark Dunnigan  
AQUATIC BIOLOGIST  
GOLDER ASSOCIATES LTD



# Performance data

Reporting environmental and social data differs from reporting financial data in a number of important ways. There are inherent limitations to the accuracy, precision and completeness of environmental and social data. These limitations stem from the nature of these data. Certain parameters rely on human behaviour and so are affected by culture and personal perception. Other parameters rely on complex measurements that require constant tuning. Still others rely on estimation and modelling. Shell accepts that our published environmental and social data will be affected by these inherent limitations. We continue to improve data integrity by strengthening internal controls. In this regard, techniques for measuring CO<sub>2</sub> levels have advanced significantly since we established our 1990 CO<sub>2</sub> base level. Recently, our internal audit function found that certain

controls on our 1990 measurement do not meet current Shell standards. As a result, we are strengthening the controls on our 1990 baseline and on all CO<sub>2</sub> measurements.

Safety and environmental data are collected from companies and joint ventures where we have a controlling interest and certain companies to which we provide operational services. These data are reported on a 100% basis, regardless of our equity share in the company. Operations that were acquired or disposed of during the year are included only for the period of time we had ownership. Other data is collected from external sources, staff surveys and other internal sources as indicated and reported.

ENVIRONMENTAL	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>K</b> Greenhouse gas emissions million tonnes CO <sub>2</sub> equivalent	109	103	99	101	103	106	112	112	105	<b>98</b>
<b>Methane (CH<sub>4</sub>)</b> thousand tonnes	N/C	522	456	398	315	241	234	243	211	<b>154</b>
<b>Carbon dioxide (CO<sub>2</sub>)</b> million tonnes	95	92	90	92	95	100	106	106	100	<b>94</b>
<b>K</b> Flaring (Exploration & Production only) million tonnes	8.9	9.1	8.1	9.3	10.3	7.6	9.3	9.2	8.0	<b>5.7</b>
<b>Sulphur dioxide (SO<sub>2</sub>)</b> thousand tonnes	343	337	304	277	274	270	292	304	300 <sup>[A]</sup>	<b>296</b>
<b>Nitrogen oxides (NO<sub>x</sub>)</b> thousand tonnes	230	252	218	202	213	213	219	197	184	<b>180</b>
<b>CFCs/halons/trichloroethane</b> tonnes	N/C	11	12	6.0	5.0	8.0	3.3	2.6	1.0	<b>0.6</b>
<b>Volatile organic compounds (VOCs)</b> tonnes	N/C	584	499	538	372	379	294	265	244 <sup>[B]</sup>	<b>224</b>
<b>K</b> Spills thousand tonnes	19.3	13.2	18.7	9.9	17.8	7.4	6.7	6.1	9.0	<b>5.7</b>
<b>Oil in effluents to surface environment</b> thousand tonnes	5.6	5.2	3.3	2.8	2.9	2.5	2.4	2.3	2.5	<b>2.1</b>
<b>Freshwater use</b> <sup>[C]</sup> million cubic metres	N/C	N/C	N/C	681	683	679	667	657	638	<b>560</b>
<b>Waste</b> thousand tonnes										
Hazardous	N/C	240	272	400	445	504	554	455	451 <sup>[B]</sup>	<b>522</b>
Non-hazardous	N/C	521	468	490	452	524	510	470	668 <sup>[B]</sup>	<b>1,060</b>
Total waste	N/C	761	740	890	897	1,028	1,064	925	1,119 <sup>[B]</sup>	<b>1,582<sup>[D]</sup></b>
<b>Energy intensity</b>										
<b>K</b> In our refineries: Energy Intensity Index	N/C	N/C	N/C	N/C	N/C	86.5	85.9	85.0	83.9	<b>84.0</b>
<b>K</b> In our chemicals plant: Chemicals Energy Index	N/C	N/C	N/C	100	101.4	99.7	98.3	93.3	95.8	<b>92.5</b>
<b>K</b> Exploration & Production (gigajoule per tonne production)	N/C	0.8	0.8	0.7	0.7	0.8	1.0	0.9	1.0	<b>1.1</b>
<b>K</b> External perception of environmental performance <sup>[E]</sup>										
Special publics – % saying the best/one of the best										
Shell	N/C	N/C	N/C	N/C	N/C	31	39	31	32	<b>28</b>
Nearest competitor	N/C	N/C	N/C	N/C	N/C	19	31	24	28	<b>25</b>
General public – % saying the best/one of the best										
Shell	N/C	N/C	N/C	N/C	N/C	25	26	24	26	<b>20</b>
Nearest competitor	N/C	N/C	N/C	N/C	N/C	17	17	14	18	<b>16</b>

**K** = key performance indicators

N/C = not calculated

[A] Restated down from 323 to 300 thousand tonnes due to calculation error in one of our operations in Nigeria.

[B] Data error in 2005 Report.

[C] Restated for all years to exclude cooling water that travels only once through the plant and is returned to the environment.

[D] Increase in 2006 mainly due to disposal of non-hazardous waste after the 2005 hurricanes in the Gulf of Mexico. Also due to the inclusion of hazardous and non-hazardous soil into these categories by some downstream operations.

[E] We continue to score highest in our industry for "environmental responsibility" in the Reputation Tracker survey conducted on our behalf in 13 of our major markets, by the polling agency Ipsos MORI. However, in the 7 markets we have in common with our nearest international competitor, special publics score us marginally lower – 3% – and the general public rate us on a par.

[F] Data reflects the changed scope of senior leader and management positions in 2005. Data for previous years has been restated.

[G] Prior to 2003 we asked if procedures existed, not if they were actively enforced.

[H] Country income level as defined by the UNDP human development index.

[I] Incidents of bribery and fraud, gathered by our internal audit system.

[J] Minor data error corrected to avoid previous double-counting between bribery and fraud.

[K] We have received higher scores than competitors from the general public since the Reputation Tracker survey began. We retained that position in 2006 although among the general public, the gap with our nearest competitor narrowed significantly. We believe this is a result of a general deterioration of sentiment towards all oil companies in 2006. We have a high market profile in the countries selected for measurement and as a market leader have suffered more from the downturn in general public opinion than some of our competitors.

Data marked **S** in the social data table is obtained from an internal survey completed by the senior Shell representative in each country. The degree of accuracy for this is significantly lower than for data obtained through our financial systems. This year, we have carried out additional checks on the figures obtained via this survey, to provide us with more confidence in its reliability and continue to tighten our internal controls on this data to improve its quality.

We set internal improvement targets for our key safety and environmental parameters and have longer-term public targets for energy efficiency in our chemicals plants, for eliminating the disposal of gas by continuous flaring, and for reducing GHG emissions from our operations.

Unless otherwise noted, the number of homes served by our activities are estimated throughout this Report on the average electricity consumption of a household in Europe and the fuel efficiency and petrol tank size of a typical small car (Ford Fiesta).

See our Group Performance Monitoring and Reporting Guide for more information.

Additional web content:

[www.shell.com/performance](http://www.shell.com/performance)

<b>SOCIAL</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Fatalities</b>										
Employees	7	6	3	5	3	8	5	2	3	<b>2</b>
Contractors	60	57	44	55	37	45	42	35	33	<b>35</b>
Total number	67	63	47	60	40	53	47	37	36	<b>37</b>
<b>K Fatal accident rate</b>										
Number of fatalities per 100 million exposure hours (employees and contractors)	9.0	8.6	6.9	8.2	5.2	6.3	5.6	4.4	4.4	<b>4.6</b>
<b>K Injuries – total reported case frequency (TRCF)</b>										
Per million exposure hours (employees and contractors)	4.1	4.4	3.7	3.2	2.9	2.6	2.6	2.6	2.5	<b>2.3</b>
<b>Lost time injury frequency (LTIF)</b>										
Injury hours per million exposure hours (employees and contractors)	1.6	1.6	1.4	1.3	1.2	1.1	1.0	1.0	0.9	<b>0.8</b>
<b>Total reportable occupational illness frequency</b>										
Illnesses per million exposure hours (employees only)	N/C	3.2	3.5	2.2	2.3	2.0	2.0	2.1	2.0	<b>1.8</b>
<b>S Security</b> % of countries										
Using armed security	N/C	24	26	22	18	16	22	18	19	<b>15</b>
Using armed company security	N/C	4	2	2	2	1	2	2	2	<b>2</b>
Using armed contractor security	N/C	16	15	12	12	12	22	11	11	<b>9</b>
<b>Gender diversity</b> % women <sup>[1]</sup>										
In supervisory/professional positions	N/C	N/C	15.4	17.1	17.7	18.9	19.5	20.7	21.8	<b>23.2</b>
In management positions	N/C	N/C	N/C	8.9	9.3	9.2	11.3	12.2	12.9	<b>16.2</b>
<b>K</b> In senior leadership positions	N/C	N/C	N/C	7.2	7.9	8.8	9.6	9.6	9.9	<b>11.6</b>
<b>S Unions and staff forums</b>										
Estimated % employees members of unions	N/C	N/C	N/C	N/C	19	19	13	12	13	<b>12</b>
<b>S Staff forums and grievance procedures</b>										
% staff with access to staff forum, grievance procedure or other support system	N/C	N/C	N/C	N/C	99.9	99.9	99.9	100	100	<b>99.2</b>
<b>S Child labour</b> % countries checking to ensure procedures <sup>[2]</sup> in place										
In own operations	N/C	64	82	84	89	86	78	83	88	<b>95</b>
Contractors	N/C	39	46	51	57	56	57	61	69	<b>89</b>
Suppliers	N/C	21	30	31	41	42	50	53	62	<b>82</b>
<b>S Contracting and procurements</b>										
Estimated spend on goods and services from locally owned companies in low and medium countries <sup>[3]</sup> \$ billion	N/C	N/C	N/C	N/C	N/C	N/C	5.2	6.3	9.2	<b>10</b>
<b>S Contracts cancelled due to incompatibility with Business Principles</b>	N/C	69	62	106	100	54	49	64	63	<b>41</b>
<b>S Joint ventures divested due to incompatibility with Business Principles</b>	N/C	N/C	1	2	0	0	1	0	0	<b>0</b>
<b>Business integrity</b> <sup>[1]</sup>	N/C	N/C	N/C	N/C	N/C	N/C	N/C	123 <sup>[1]</sup>	102 <sup>[1]</sup>	<b>96</b>
<b>S Social investment (equity share)</b> \$ million	N/C	N/C	N/C	85	85	96	102	106	127	<b>140</b>
<b>K Favourability</b> <sup>[4]</sup>										
Special public										
Shell	N/C	N/C	N/C	N/C	N/C	43	59	43	47	<b>49</b>
Nearest competitor	N/C	N/C	N/C	N/C	N/C	39	52	46	45	<b>47</b>
General public										
Shell	N/C	N/C	N/C	N/C	N/C	44	46	44	41	<b>29</b>
Nearest competitor	N/C	N/C	N/C	N/C	N/C	40	37	35	33	<b>25</b>

# Our reporting

How we are meeting our stakeholders' needs for honest and transparent reporting on our environmental and social performance.

## The findings of our External Review Committee



Jermyn Brooks

DIRECTOR OF PRIVATE SECTOR PROGRAMMES  
TRANSPARENCY INTERNATIONAL

Aron Cramer NEW MEMBER

PRESIDENT AND CEO  
BUSINESS FOR SOCIAL RESPONSIBILITY  
REVIEW COMMITTEE CHAIRMAN

Roger Hammond

DEVELOPMENT DIRECTOR  
LIVING EARTH

### What we did

For the second successive year, Shell has invited an External Review Committee to review its Sustainability Report. We concentrated on three main questions.

1. Has the company selected the most important topics for the Report?
2. How well has the Report dealt with these topics and responded to stakeholder interest?
3. Did Shell give us sufficient information and access to do our job effectively?

### How we worked

We provided input into issue selection in 2006, and reviewed the Report outline late in 2006. Successive drafts of the Report were reviewed between December 2006 and March 2007. The Committee met in person twice; interviewed senior executives, including the Chief Executive and the head of Exploration & Production, and provided direct feedback to the Chief Executive and the Board's Social Responsibility Committee. The Committee's access to senior Shell decision-makers was exemplary, and Shell responded well to our questions and concerns.

Our review is limited to the printed Report. We welcome the additional links to supplementary information published on the web, but we have not reviewed them.

This is our own assessment of Shell's 2006 Sustainability Report. We express our views as individuals, not on behalf of our organisations. In addition to our comments on the company's reporting, we offered during our discussions with Shell staff our observations about how the company deals with key sustainability challenges.

In recognition of our time and expertise, an honorarium was offered, payable to us

individually or to the organisation of our choice, and Shell reimbursed us for the expense of our travel and accommodation.

### Shell's reporting

Shell remains a leading reporter in this area and its 2006 Sustainability Report makes a valuable contribution to the welcome evolution of sustainability reporting.

We believe the Report includes the topics of greatest interest to Shell's stakeholders, and those with the greatest material impact on the company. The focus on the "energy challenge," particularly as it relates to climate change, prioritizes the most significant sustainability question facing Shell.

We are pleased that Shell has been responsive in the current Report to most of the comments provided in the Committee's letter reviewing the 2005 Sustainability Report. This applies particularly to Shell's clearer statement on the importance of meeting the energy challenge, and how it intends to do so. We refer again this year to the transfer of learning between projects, and the investment in renewables, which have not been addressed as fully as we would have hoped.

### Dealing with the energy challenge

Shell's Report spells out the energy challenge very clearly, and explicitly acknowledges the need for concerted action to tackle climate change.

We welcome Shell's assertion that the debate on the science of climate change is over. The company has reported clearly on the emissions reductions achieved in its own activities in recent years, as well as the challenges that lie ahead. And it has said what types of government actions are needed to establish policy frameworks supporting effective action on climate. These are very important statements.





Karin Ireton **NEW MEMBER**

HEAD OF SUSTAINABLE DEVELOPMENT MARKETS AND ECONOMICS  
ANGLO AMERICAN PLC

Dr Li Lailai

NATIONAL PROGRAMME DIRECTOR  
LEADERSHIP FOR ENVIRONMENT AND DEVELOPMENT (LEAD) – CHINA

DIRECTOR INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT, BEIJING

Jonathan Lash

PRESIDENT  
WORLD RESOURCES INSTITUTE

However, in our view, the Report does not provide readers with enough information to judge whether the speed with which Shell is acting to tackle climate change is consistent with the challenge, which the company itself rightly describes as urgent. This is reflected in:

- Insufficient explanation of how the expected future rise in absolute annual emissions from Shell's operations is consistent with tackling climate change.
- The fact that no targets have been published for emissions reductions after 2010.
- Acknowledgement that an important part of the reductions to date have come from the ending of gas flaring, without telling readers enough about where future reductions will come once continuous flaring has stopped.
- Increased reliance on unconventional energy sources such as oil shale and oil sands, with high levels of CO<sub>2</sub> intensity, without sufficient explanation of how these higher emissions will be managed.
- Absence of sufficient information about the balance of spending in Shell's research and development activities to enable readers to assess Shell's commitment to develop renewable energy sources and greenhouse gas mitigation.
- Failure to set a target date for having one commercial scale alternative energy business in place. We also would like to see the company report more in the future on progress in the development of the three technologies it is targeting: biofuels, wind, thin-film solar.
- Finally, while Shell calls for more government action on climate change, it does not speak fully enough here about what it will do to help move policy frameworks in the desired direction.

### Working in difficult conditions

The Report states that Shell's operations will

increasingly occur in complex locations, involving ever-more sophisticated technology, partnerships with other enterprises, and difficult social conditions. We are pleased that the Report focuses on two such locations, Sakhalin and Nigeria, which illustrate this trend well. We note that conditions in both locations were changing rapidly as the Report was being finalized.

We welcome Shell's commitment to uphold social and environmental performance across all its operations. But the Report does not provide sufficient insight into how this will be accomplished in complex or fast-changing environments.

Only brief mention is made of how Shell will implement its standards effectively in joint ventures where partners have significant influence over operations, as in Sakhalin. This question is particularly important where Shell holds a minority share in a project, and where it is dealing with partners that may not apply equivalent business principles concerning social and environmental performance. We would have liked to see more information on what sort of governance structures and operational controls Shell believes will help it deal with such situations.

Shell could have offered more perspective in the Report on how it transfers the experience of applying its social and environmental principles between projects throughout its operations.

Shell speaks with welcome candour about the overarching security concerns that aggravate interlocking human rights, development and governance challenges. These continue to have a serious impact on operations in the Niger Delta. Shell reports that there is a chance that it may not be able to meet its target to end flaring in Nigeria by 2009 because of

continuing unrest and lack of access to funding. We would have liked the Report to say more clearly how it will deal with the funding question, and in what way it will respond if civil conflict disrupts plans.

### Safety

We would like to understand better how the company intends to refine its safety strategy in light of increased casualties this past year. This is particularly so in view of the Chief Executive's interview in this Report, in which he says that safety is a top priority for the coming year.

### Human rights

In response to the Committee's feedback, Shell successfully shifted its human rights reporting to focus on the questions of greatest interest to stakeholders. This was a welcome and important change. We believe that readers also want to know how Shell selects guidelines on human rights issues, a question which applies especially to the company's approach to resettlement.

### Conclusion

We thank Shell both for its commitment to reporting and its rare willingness to engage in this external review. The company has prepared its 2006 Report with seriousness of purpose and openness to our questions and concerns. Our critical comments are presented with the sole intention to enable further improvements in Shell's strong approach to reporting, and we are pleased to have had this opportunity to help the company advance in this direction.

#### Additional web content:

- More on our approach to environmental and social reporting.
- More about External Review Committee members (including the Committee Terms of Reference).

 [www.shell.com/reviewcommittee](http://www.shell.com/reviewcommittee)

# Our approach to reporting

We continue to fine-tune our reporting to meet the rising, and increasingly different, needs of our many stakeholders.

We have voluntarily reported on our environmental and social performance since 1997.

We do it because of our commitment to being transparent and honest; and because this performance matters to our stakeholders and to our business performance.

## One size fits none

Stakeholders have very different reporting needs. For investors, our approach to managing environmental and social risks and opportunities is described in our 2006 Annual Report/Form 20-F. We co-operate with many groups that provide investors with information and analysis about the environmental and social performance of companies, including the producers of the Dow Jones Sustainability Indexes, FTSE4Good, Goldman Sachs Global Energy Environmental, Social and Governance Index, and the Carbon Disclosure Project. For staff, we provide a separate Sustainability Review. It is part of a wider internal communication effort to illustrate what our commitment to sustainability means for their day-to-day work.

Our Sustainability Report is targeted at external stakeholders, often specialists. Our Environment and Society website lets this audience explore our response to their particular environmental and social issues in

greater depth, as well as introducing a wider public to our approach to sustainability.

## What assures?

There is still much to learn about assuring sustainability reporting. We were pleased to see the Global Reporting Initiative's new G3 guidelines giving companies room to experiment with different assurance models. We continue to improve on the approach we launched in 2005 – using an External Review Committee of experts to check that our reporting is balanced, relevant and responsive to stakeholders. Reactions from readers to the 2005 Committee were strongly positive. We benefited from the Committee's wide-ranging challenges and advice, which were based on their deep knowledge of the issues and their first-hand experience working with us. In 2006, the Committee was expanded, involved earlier in the selection of topics for the Report, and provided with greater access to senior management.

Between 1998 and 2004, with the advice of external auditors, we developed a range of internal controls to help assure accuracy of the facts in our Sustainability Reports. These controls include audit trails for all the data and statements included in the Report, signed off by senior managers and available for internal audit. In 2006, our internal controls were improved further.

For example, senior business leaders now sign-off on the quality of their HSE data. Extensive

statistical checks have been introduced to detect errors in these data. In Nigeria, KPMG provided external assurance on the accuracy and completeness of the HSE and social investment data. Work is underway to strengthen controls on the information received from the internal questionnaire we send to our senior representatives in each country where we operate. The aim is to improve the reliability of that data.

## Alignment with emerging guidelines

The Global Reporting Initiative released its new G3 guidelines for sustainability reports in late 2006. In response, we have made a number of changes, mainly on the web, to align with these guidelines. According to our own assessment, we achieved an A+ level of application of the guidelines. We also report in line with the guidelines of the International Petroleum Industry Environmental Conservation Association and describe on the web our contribution to the UN Global Compact and to the Millennium Development Goals.

### Additional web content:

- How we are reporting in line with The Global Reporting Initiative.
- Our approach to assuring our reporting.
- The process we use to select the content for our reporting.
- Our previous Sustainability Reports.
- Sustainability Reports from our local operations.

 [www.shell.com/sdreporting](http://www.shell.com/sdreporting)

## New in 2006

We listened to our External Review Committee and:

- Expanded and refined its role in assessing the Report.
- Improved the process for selecting Report content.
- Increased coverage of human rights, public advocacy and our contribution to the Millennium Development Goals.

Listened to reader and expert feedback and:

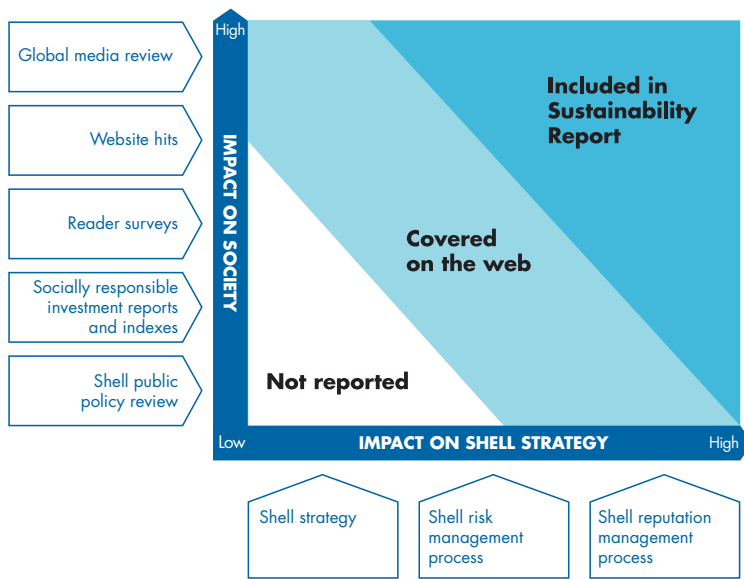
- Strengthened the link between the printed Report and more in-depth information on our website.
- Made changes to align with the Global Reporting Initiative's new G3 guidelines.



Workshop with reporting experts  
London, October 2006.

## REPORTING ON WHAT MATTERS MOST

Sustainability reporting must focus on the environmental and social issues that matter most to a company and its stakeholders. That is why we have again selected “Meeting the Energy Challenge” as our theme; why we use key performance indicators that were developed with our stakeholders to report on our biggest environmental and social impacts; and why we use a well-established and auditable process to select the issues to cover.



- Step 1. Ask readers what matters most to them, using surveys, interviews, media reviews and workshops with reporting experts.
- Step 2. Use our internal risk management systems to determine which environmental and social issues most affect our business strategy.
- Step 3. Combine the results (see figure). Allowing for legal restrictions, we include all the highest-priority topics in our Report. Those at the next level of importance are covered on our website.
- Step 4. Check with stakeholders, and our External Review Committee, that our coverage of these topics is balanced and complete.

The Committee helped us refine this process in 2006. The weightings used in Step 1 now take more account of topics that are important for society but attract less media attention.

## Share your opinion

Please let us know your views on this Report, or any issues it raises, by e-mail to [sustainabilityreport@shell.com](mailto:sustainabilityreport@shell.com).

## LEGAL DISCLAIMER

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this Report, the expressions “Shell”, “Group” and “Shell Group” and references to Shell as a “company” are sometimes used for convenience where references are made to Group companies in general. Likewise, the words “we”, “us” and “our” are also used to refer to Group companies in general or those who work for them. These expressions are also used where there is no purpose in identifying specific companies. Terms such as “Shell Trading”, “Shell Hydrogen”, “Shell Wind Energy” and “Shell Solar” refer to the various companies engaged in trading, hydrogen, wind and solar businesses, respectively.

This Report contains forward-looking statements concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management’s current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management’s expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as “anticipate”, “believe”, “could”, “estimate”, “expect”, “intend”, “may”, “plan”, “objectives”, “outlook”, “probably”, “project”, “will”, “seek”, “target”, “risks”, “goals”, “should” and similar terms and phrases. There are a number of factors that could affect the future operations of Royal Dutch Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this Report, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for the Group’s products; (c) currency fluctuations; (d) drilling and production results; (e) reserve estimates; (f) loss of market and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including potential litigation and regulatory effects arising from recategorisation of reserves; (k) economic and financial market conditions in various countries and regions; (l) political risks, project delay or advancement, approvals and cost estimates; and (m) changes in trading conditions. All forward-looking statements contained in this Report are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Additional factors that may affect future results are contained in Royal Dutch Shell’s Form 20-F for the year ended December 31, 2006 (available at [www.shell.com/investor](http://www.shell.com/investor) and [www.sec.gov](http://www.sec.gov)). These factors also should be considered by the reader. Each forward-looking statement speaks only as of the date of this Report, 8 May 2007. Neither Royal Dutch Shell nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this Report.

## CREDIT

Design: Flag  
 Editing: Context  
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## PAPER SPECIFICATION

The paper used is made from 25% de-inked post-consumer waste, 25% pre-consumer waste and 50% virgin fibre under ISO 14001. All pulps are Elemental Chlorine Free. The use of the FSC logo identifies products which contain wood from well-managed forests certified in accordance with the rules of the Forest Stewardship Council.

#### **PUBLICATION REQUESTS**

Copies of all publications of the Group are available from:

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More information about the Group is available at [www.shell.com](http://www.shell.com)

#### **PUBLICATIONS**

##### **Annual Report and Form 20-F for the year ended December 31, 2006**

A comprehensive overview of the Group.  
Available at [www.shell.com/annualreport](http://www.shell.com/annualreport)

##### **Annual Review and Summary Financial Statements 2006**

A summarised overview and the operational and financial performance of the business.  
Available at [www.shell.com/annualreport](http://www.shell.com/annualreport)

##### **Jaaroverzicht en verkorte jaarrekening 2006**

Dutch language version.  
Available at [www.shell.com/annualreport](http://www.shell.com/annualreport)

##### **Financial and Operational Information 2002-2006 (available May 2007)**

Five years' financial and operational information, including maps of exploration and production activities.  
Available at [www.shell.com/faoi](http://www.shell.com/faoi)

##### **The Shell Sustainability Report 2006**

Report on progress in contributing to sustainable development.  
Available at [www.shell.com/envandsociety](http://www.shell.com/envandsociety)

##### **Shell Technology Report**

An overview of 27 advanced technologies.  
Available at [www.shell.com/technology](http://www.shell.com/technology)

##### **Shell General Business Principles**

Fundamental principles that govern how each Shell company conducts its affairs.  
Available at [www.shell.com/sgbp](http://www.shell.com/sgbp)

##### **Shell Code of Conduct**

Provides standards of behaviour expected from employees.  
Available at [www.shell.com/codeofconduct](http://www.shell.com/codeofconduct)

