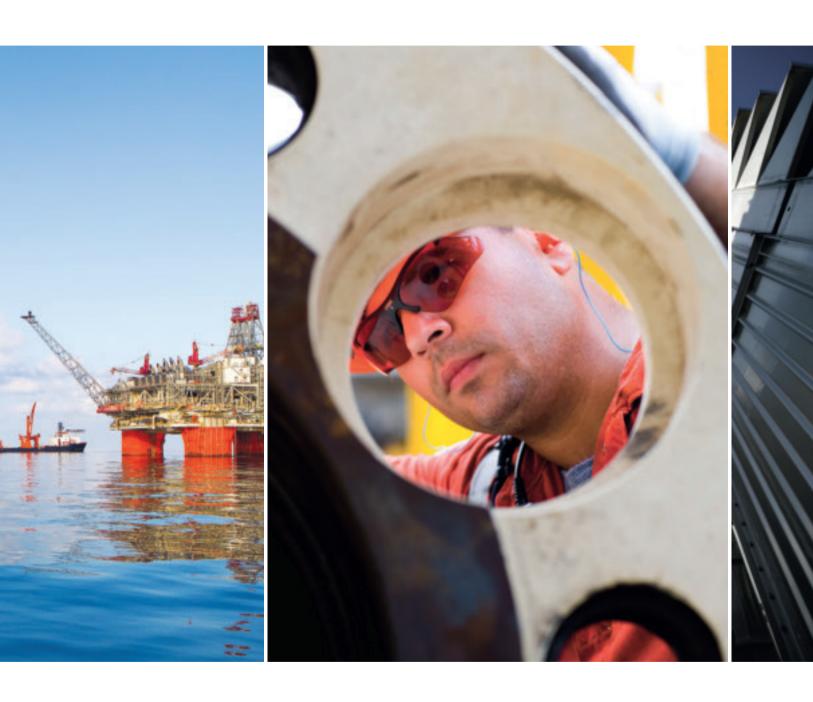
## Sustainability Review 2013

bp.com/sustainability





Building a stronger, safer BP

## Who we are

BP is one of the world's leading integrated oil and gas companies.<sup>a</sup> Through our work we provide customers with fuel for transportation, energy for heat and light, lubricants to keep engines moving and the petrochemicals products used to make everyday items as diverse as paints, clothes and packaging.

Our projects and operations help to

subsidiaries, branches, joint ventures or associates established in – and subject to the laws and regulations of – many different jurisdictions. We have well-established operations in Europe, the US, Canada, Russia, South America,



#### Front cover imagery

BP Sustainability Review 2013 and bp.com/sustainability contain certain forward-looking statements with respect to the financial condition, results of operations and businesses of BP and certain of the plans and objectives of BP with respect to these items. In particular, among other statements, BP's outlook on global energy trends to 2035 and its plans in connection therewith, plans presented under the heading 'What we plan to do next' throughou this document, expectations regarding BP's advanced and proprietary technologies and techniques, expectations regarding the emissions, water use and commercial viability of BP's oil sands projects, expectations regarding the commercialization and sustainable production of biofuels, the timing and composition of planned and future projects, plans regarding opportunities in the Arctic and expectations regarding future regulatory developments, are forward looking in nature.

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Our website is an integral part of our reporting, covering a wide set of issues, data and case studies. It also includes our country and site reports.



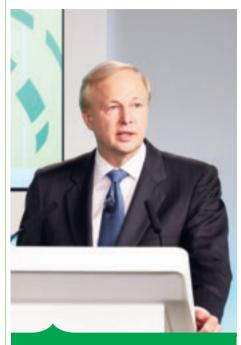








# Introduction from our group chief executive



"

We have an important role to play in finding much needed resources of oil and gas to meet the growing energy demand.

**JJ** Bob Dudley Within BP, 2013 will sadly be remembered for the terrorist attack in Algeria in January, when four staff members and 36 colleagues from other companies were killed. Those who died had many friends in BP and our thoughts remain with their loved ones, as well as with those who survived that terrible ordeal. I was proud of the way that people in BP responded with great compassion, but also with great fortitude.

In Algeria and around the world, we have an important role to play in finding and delivering much needed resources of oil and gas to meet the growing energy demand. It is vital we conduct our operations in a safe and responsible way. But what does 'safe and responsible' mean in practice? Here are a few examples.

In Papua, we are consulting widely with local groups who may be affected by the planned expansion of our gas facilities at Tangguh. We have held public consultation meetings in over 60 villages and have involved elected community leaders in the hearings that will determine how the facilities are developed.

In the Gulf of Mexico, we are supporting environmental restoration efforts after the 2010 oil spill and paying all legitimate claims for compensation, while getting back to work on our 10 offshore rigs and production facilities. We are also representing the interests of our shareholders and staff by rightly challenging claims that we believe to be unfounded.

In China, we are working to reduce the impact of petrochemicals manufacturing on water resources. Our latest PTA plant in Zhuhai uses a recycling technique – developed by BP – that reduces water discharge by 75%. Meanwhile, in the Middle East we are partnering with Harvard University to help better plan how we access and use water at our facilities.

That last example underlines that we don't work alone. In fact, close collaboration with others is becoming ever more important as the scale and complexity of energy challenges multiply.

Take offshore drilling and safety. In 2013 we worked with regulators in Azerbaijan, Brazil and Libya on oil spill response planning. This included sharing what we have learned about dispersants and many forms of logistics.

2013 also saw us enter into a new partnership in Russia with Rosneft, and we can already see enormous potential for collaboration between the two companies. I believe BP's experience,

capabilities and influence will prove valuable over the coming years as Russia looks to develop more of its vast resources safely and securely.

There is one thing that we can rely on about the future – it will surprise us. The shale gas revolution in the US shows just how fast the energy landscape can change. Thanks to technological innovation, access to this lower-carbon resource has not only led to increased gas and oil production, lower energy prices and new jobs, but also to lower greenhouse gas emissions as gas has replaced coal in power generation.

The lower carbon option became the lower cost option – demonstrating the power of market forces to reduce emissions when the conditions are right. This example is instructive as the world seeks to achieve the right balance between the affordability, security and sustainability of energy supplies.

Open and well-informed discussion – between governments, business, academic bodies, non-governmental organizations and the public – is vital as priorities are debated and solutions developed. And BP plays its part in this discussion, particularly in encouraging governments to apply a carbon price. This would level the playing field by incentivizing the production and use of lower-carbon options.

These are just a handful of examples of the actions we are taking to conduct our operations in a safe and responsible way. This Sustainability Review – together with <code>bp.com/sustainability</code> – is part of our commitment to report clearly on what we do and the effect our actions have. I believe it shows that BP aims to make a positive contribution to the world for many years to come.

Bob Indly

**Bob Dudley** Group Chief Executive 19 March 2014

#### Our strategy and sustainability

We believe that the best way for BP to achieve sustainable success as a company is to act in the long-term interests of our shareholders, our partners and society.

BP's objective is to create value for shareholders and supplies of energy for the world in a safe and responsible way. We strive to be a world-class operator, a responsible corporate citizen and a good employer.

Keeping a relentless focus on safety is naturally a top priority for us. Rigorous management of risk helps to protect the people at the frontline, the places in which we operate and the value we create. We understand that operating in politically complex regions and technically demanding geographies, such as deep water and oil sands, requires particular sensitivity to local environments. We continue to enhance our systems, processes and standards, including how we manage the risks that can be created by the actions of our contractors and the operators of joint ventures in which we participate.

We can only operate if we maintain the trust of people inside and outside the company. We must earn people's trust by being fair and responsible in everything we do. We monitor our performance closely and aim to report in a transparent way. We believe good communication and open dialogue are vital if we are to meet the expectations of our employees, customers, shareholders and the local communities in which we operate.

We are working to become a simpler business, focusing on where we can generate the most value, and not necessarily the most volume, through our production. We are strengthening our portfolio of high return and longer life upstream assets, while building high-quality downstream businesses. We are also investing in lower-carbon options that have the potential to contribute to meeting growing energy demand over the long term. All of this is underpinned by our expertise, technology and relationships.

Strong financial performance is vital, because it enables us to make the investments necessary to produce the energy that society requires, while rewarding and maintaining the support of our shareholders.

By supplying energy, we support economic development and help to improve quality of life for millions of people. Our activities also generate jobs, investment, infrastructure and revenues for governments and local communities.

We have reduced emissions at our Valhall facility in the Norwegian North Sea by using power from shore, rather than onsite gas turbines.



#### Our values

We have five values that express our shared understanding of what we believe, how we aim to behave and what we aspire to be as an organization.

#### Safety

Safety is good business. Everything we do relies upon the safety of our workforce and the communities around us. We care about the safe management of the environment. We are committed to safely delivering energy to the world.

#### Respect

We respect the world in which we operate. It begins with compliance with laws and regulations. We hold ourselves to the highest ethical standards and behave in ways that earn the trust of others. We depend on the relationships we have and respect each other and those we work with. We value diversity of people and thought. We care about the consequences of our decisions, large and small, on those around us.

#### Excellence

We are in a hazardous business, and are committed to excellence through the systematic and disciplined management of our operations. We follow and uphold the rules and standards we set for our company. We commit to quality outcomes, have a thirst to learn, and to improve. If something is not right, we correct it.

#### Courage

What we do is rarely easy. Achieving the best outcomes often requires the courage to face difficulty, to speak up and stand by what we believe. We always strive to do the right thing. We explore new ways of thinking and are unafraid to ask for help. We are honest with ourselves and actively seek feedback from others. We aim for an enduring legacy, despite the short-term priorities of our world.

#### One Team

Whatever the strength of the individual, we will accomplish more together. We put the team ahead of our personal success and commit to building its capability. We trust each other to deliver on our respective obligations.

## At a glance

## BP delivers energy products and services to people around the world.

Through our two main operating segments, Upstream and Downstream, we find, develop and produce essential sources of energy, turning them into products that people need. We also buy and sell at each stage of the hydrocarbon value chain.

In renewable energy, our activities are focused on biofuels and wind.



#### **Business model**

For more information on our business model see *bp.com/businessmodel*.

#### **Finding**

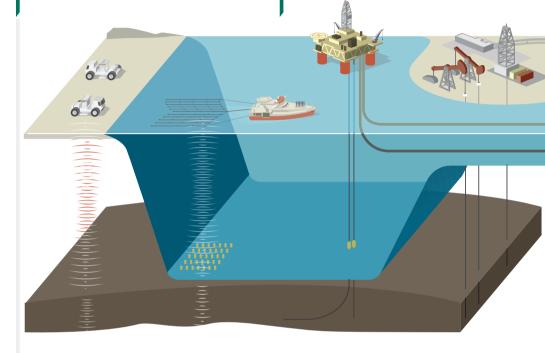
oil and gas

First, we acquire exploration rights, then we search for hydrocarbons beneath the earth's surface.

#### Developing and extracting

oil and gas

Once we have found hydrocarbons, we work to bring them to the surface.



#### **Upstream**

Our Upstream segment manages exploration, development and production activities through global functions with specialist areas of expertise.

## The value we deliver to society

We believe that societies and communities where we work should benefit from our presence.

Our projects and operations create jobs, opportunities for local suppliers and tax revenues for governments.

When we move into a new area we look for opportunities to create a positive impact. This includes supporting communities' efforts to increase income and improve standards of living.

## Economic value generated by BP

\$403.3<sub>bn</sub>

This includes revenue plus interest and dividend receipts, and disposal proceeds.

Economic value

distributed to others

#### **Operating costs**

This includes purchases from suppliers and contractor costs, as well as production and manufacturing expenses.

#### Governments

We contribute to economies around the world through the taxes we pay. We also pay taxes that we collect on our products and services.

\$328.7bn

See page 27.

\$13.9bn



See page 42.

See BP Annual Report and Form 20-F 2013.

#### Transporting and trading

oil and gas

We move hydrocarbons using pipelines, ships, trucks and trains and we capture value across the supply chain.

#### Manufacturing

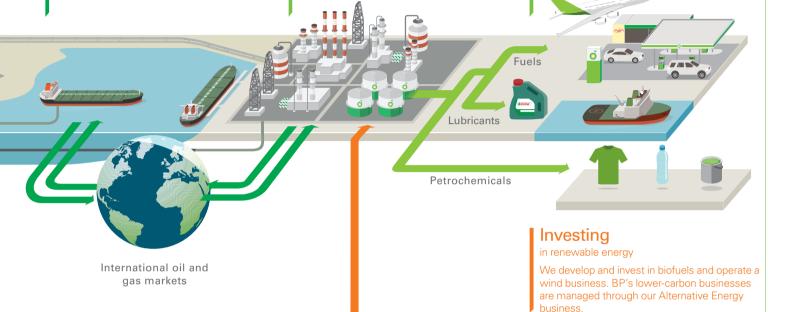
fuels and products

We refine, process and blend hydrocarbons to make fuels, lubricants and petrochemicals.

#### Marketing

fuels and products

We supply our customers with fuel for transportation, energy for heat and light, lubricants to keep engines moving and the petrochemicals required to make a variety of everyday items.



#### **Downstream**

Our Downstream segment operates hydrocarbon value chains covering three main businesses – fuels, lubricants and petrochemicals.

## Economic value retained by BP

#### **Employees**

We provide direct employment to about 83,900 people around the world. Employee costs include salaries and benefits.

\$13.7bn

See page 20.

#### Capital providers

This includes \$5.4 billion in dividends paid to shareholders and \$5.5 billion distributed via our share repurchase programme, as well as finance costs.

\$12.5bn



#### Communities

Biofuels

The social investment figure is in addition to social bonuses paid to governments as part of licence agreements.

\$0.1bn



\$34 4<sub>br</sub>

The majority of this is invested in capital expenditure and acquisitions.



## Our progress in 2013

We aim to meet the world's energy needs by creating long-term value for both our shareholders, and the societies and economies in which we operate. Here we report on where we are today and our plans for the future.

#### The energy future

We seek to meet the growing demand for secure, affordable energy, while addressing climate change and other issues.

#### Assess long-term global and regional patterns of energy demand and supply.

- Investigate the effects of natural resource scarcities on patterns of energy supply and consumption.
- Fulfil the commitment we made in 2005 to invest \$8 billion in alternative energy by 2015.

#### Our people

We value diversity of people and thought, and we aim to treat everyone at BP with respect and dignity.

#### • Work for 25% of our group leaders to be women by 2020.

- Recruit 40% of our graduate intake from outside the UK and US in 2013.
- · Further embed our values throughout the business.

#### How we operate

We strive to be a world-class operator, a responsible corporate citizen and a good employer, with a relentless focus on safety.

#### Issue a policy to provide a consistent framework for identifying and managing BP's exposure to risks associated with non-operated joint ventures.

- Screen for environmental and social impacts in planning major projects.
- Develop deeper, longer-term relationships with selected contractors in our Upstream business.

Where we are today

What we said we would do

> Extended forecasts for world energy markets in BP Energy Outlook 2035.

15

universities took part in our Energy Sustainability Challenge programme.



technologies.

engine oils.

invested in alternative energy since 2005, meeting our commitment two years ahead of schedule.

Help meet the growing energy demand

Further improve fuel efficiency through

through a diverse mix of fuels and

Continue to engage with our

stakeholders on climate change.

the use of our branded fuels and

## 18%

of group leaders are female.

44%

of our graduate intake recruited from outside the UK and US.



percentage point increase in employee understanding of BP values and how they relate to their work.

#### • Further increase the number of women in leadership positions and build on our work to encourage other forms of diversity.

- Focus on global graduates through the development of programmes to achieve a consistent approach around the world.
- Enhance how we manage ethics and compliance risks by targeting priority areas of our business.

Non-operated joint venture policy launched.



projects completed the screening process from April 2010 to the end of 2013.

increase in spend under global agreements with upstream contractors and suppliers.

- Assess how the non-operated joint venture policy is being applied.
- Evaluate our current screening process to help projects identify and assess socio-economic sensitivities and impacts.
- Look for opportunities to continue to support a local supply chain.

What we plan to do next

information

- Read our view on the concept of unburnable carbon on page 14.
- View our programme of action to manage carbon and climate risk on page 15.



View statistics on our workforce profile at bp.com/people.



Read about our code of conduct on page 23.



Read about our approach to working with our contractors and partners on page 27.



View BP's approach to managing risk at bp.com/riskmanagement.

#### Safety

Everything BP aims to do as a company relies upon the safety of our workforce and the communities around us.

- Continue to embed our operating management system (OMS).
- Conduct self and independent assurance that confirms our conduct of operating.
- Appoint an independent expert to provide an objective assessment of our progress in implementing the Bly Report recommendations.

20

Our reported tier 1 process safety events are down from 43 to 20.

Independent expert assessing progress in implementing the Bly Report recommendations.

3

lines of defence to support safe and reliable operations.



- Continue to use the performance improvement cycle to align business practices with our OMS.
- Further develop the self verification capability of operations.
- Maintain our progress towards completing the outstanding recommendations of the Bly Report.
- Read about how we are working to prevent incidents at our operations on page 30.
- See progress updates on implementing the recommendations of the Bly Report at bp.com/internalinvestigation.

#### **Environment**

We work to avoid, minimize and mitigate environmental impacts wherever we do business.

- Assess which operations are in water scarce areas to understand associated risks
- Seek to work collaboratively with government regulators in planning for oil spill response.
- Focus efforts on energy efficiency where it is relevant for local business management.

Around half of our major operations withdraw fresh water in areas of water stress or scarcity.



Lessons shared on oil spill response with regulators in Azerbaijan, Brazil and Libya. improvement in energy intensity at our Toledo refinery in the US from

2010 to 2013.

- Investigate water management approaches taking into account our operations' life cycle water demand and local water resources.
- Continue to develop modelling tools to better predict the consequences of an oil spill to land.
- Share lessons learned at Toledo with our other refineries around the world.
- View the ratios for GHG emissions to upstream production, refining throughput and chemicals produced at bp.com/greenhousegas.
- See how we are using IPIECA's Global Water Tool to manage water risks at bp.com/water.

#### Society

We seek to have a positive impact on the communities and societies in which we operate.

- Update our risk processes to better describe the potential socio-economic consequences from incidents.
- Continue to support community development programmes.
- Develop human rights training, prioritizing specific businesses and functions.

Socio-economic risk criteria developed.

\$78.8m

spent on community investment.



21

human rights training events

- Test the socio-economic risk criteria with our businesses.
- Update our framework for managing social investment.
- Deliver human rights workshops in other priority areas.
- See how we are working to align with the UN Guiding Principles on Business and Human Rights at bp.com/humanrights.
- See how we are working with local suppliers in Azerbaijan on page 42.

## **BP** in figures

#### Data on our safety, environment, people and performance from 2009 to 2013.

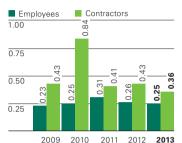
For the year ended 31 December

,					
Safety <sup>a</sup>	2009	2010	2011	2012	2013
Fatalities – employees	0	0	1	1	4
Fatalities – contractors	18	14	1	3	2
Day away from work cases – workforce	134	408	168	152	130
Day away from work case frequency <sup>b</sup> (DAFWCF) – workforce	0.069	0.193	0.090	0.076	0.070
Recordable injuries – workforce	665	1,284	677	710	578
Recordable injury frequency <sup>b</sup> (RIF) – workforce	0.34	0.61	0.36	0.35	0.31
Hours worked – employees (million hours)	174	168	165	182	170
Hours worked – contractors (million hours)	216	255	209	220	203
Losses of primary containment (number)	537	418	361	292	261
Tier 1 process safety events <sup>c</sup> (number)	_	74	74	43	20
Tier 2 process safety events <sup>c</sup> (number)	_	_	_	154	110
Oil spills <sup>d</sup> (≥ one barrel)	234	261	228	204	185
Volume of oil spilled (million litres)	1.2	1.7e	0.6	0.8	0.7
Environment					
Oil spills – to land and water <sup>d</sup> (number)	122	142	102	102	74
Volume of oil unrecovered (million litres)	0.2	0.8e	0.3	0.3	0.3
Direct carbon dioxide (CO <sub>2</sub> ) <sup>f</sup> (million tonnes (mte))	60.4	60.2 <sup>g</sup>	57.7	56.4	46.0
Direct methane <sup>f</sup> (mte)	0.22	0.22 <sup>9</sup>	0.20	0.17	0.15
Direct greenhouse gas (GHG) <sup>f</sup> (mte CO <sub>2</sub> equivalent (CO <sub>2</sub> e))	65.0	64.9 <sup>9</sup>	61.8	59.8	49.2
Indirect carbon dioxide (CO <sub>2</sub> ) <sup>h</sup> (mte)	9.6	10.0 <sup>9</sup>	9.0	8.4	6.6
Customer emissions <sup>i</sup> (mteCO <sub>2</sub> )	554	573	539	517	422
Flaring (Upstream) (thousand tonnes (kte) of hydrocarbons)	2,149	1,6719	1,835	1,548	2,028
Environmental expenditure (\$ million)	2,483	18,400	8,521	7,230	4,288
Environmental and safety fines (\$ million)	66.6	52.5	77.4	22.4	2.5
Environmental and surety miles (§ million)	00.0	02.0	77.4	22.7	2.0
People			0.1.00		
Number of employees – group	80,300	79,700	84,100	86,400	83,900
Number of employees – group leadership	492	482	516	546	530
Women in group leadership (%)	14	14	15	17	18
Women at management level <sup>k</sup> (%)	23	24	25	25	27
People from UK and US racial minorities in group leadership <sup>1</sup> (%)	6	7	6	6	6
People from beyond the UK and US in group leadership <sup>1</sup> (%)	21	19	19	20 <sup>m</sup>	22
Employee turnover <sup>n</sup> (%)	15	15	14	13	15
OpenTalk cases <sup>o</sup>	874	742	796	1,295	1,121
Dismissals for non-compliance and unethical behaviour <sup>p</sup>	524	552	529	424	113 <sup>q</sup>
Benefits to employees – including wages, salaries, share-based payments, benefits and pensions <sup>ir</sup> (\$ million)	12,523	12,256	12,501	13,448	13,654
Performance					
Total hydrocarbons produced (thousand barrels of oil equivalent (mboe) per day)	3,998	3,822	3,454	3,331	3,230
Reserves replacement ratiors (%)	129	106	103	77	129
Total refinery throughputs (thousand barrels per day (mb/d))	2,287	2,426	2,352	2,354	1.791
Total petrochemicals production <sup>t</sup> (thousand tonnes (kte))	12,660	15,594	14,866	14,727	13,943
Replacement cost profit (loss) <sup>iru</sup> (\$ million)	13,740	(5,259)	23,412	11,428	23,681
Taxes to governments – comprising income taxes and production taxes paid (\$ million)	10,309	12,071	16,339	15,033	13,904
Dividends paid to shareholders (\$ million)	10,483	2,627	4,072	5,294	5,441
Contribution to communities (\$ million)	106.8	115.2	103.7	90.6	78.8

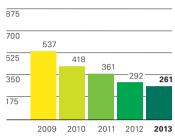
- Notes to figures
  This represents reported incidents occurring with BP's operational HSSE reporting boundary. That boundary includes BP's own operated facilities and certain other locations or situations.
- <sup>b</sup> DAFWCF and RIF are the annual frequency per 200,000 hours worked.
- <sup>c</sup> For tier 1 process safety events see page nine notes to graph three for more details. Tier 2 process safety events are those of lesser
- d Oil spills are defined as any liquid hydrocarbon release of more than, or equal to, one barrel (159 litres, equivalent to 42 US gallons).
- e This data does not include the oil spill volume from the Deepwater Horizon incident. See *BP Annual Report and Form 20-F 2013* page 142 for information about the volume used to determine our estimated liabilities.
- <sup>f</sup> See page nine notes to graph four for more details.
- g In 2010, we did not report on GHG emissions or flaring associated with the Deepwater Horizon incident or response. We have since estimated the gross CO<sub>2</sub> equivalent emissions from response activities to be approximately 481,000 tonnes. We have estimated the gas flared during the response to be approximately 56,000 tonnes. We have not restated our 2010 numbers since our practice is only to restate historical emissions for material inaccuracies.
- <sup>h</sup> Indirect emissions are associated with the purchase of electricity, heat or steam into our operations, and include CO2.
- <sup>i</sup> Based on BP's total reported production of natural gas, natural gas liquids and refinery throughputs.
- information for 2011 and 2012 has been restated to reflect the adoption of the new standard IFRS 11 'Joint arrangements'.
- k Includes employees who are group leaders, senior level leaders or in other management positions
- <sup>1</sup> This excludes our share of those employed by joint operations in legal entities.
- <sup>m</sup> Minor amendments have been made to 2012.

- The symbol indicates those measures that are reflected in the annual bonus element of executive directors' remuneration.
- For the full list of key performance indicators see bp.com/annualreport.

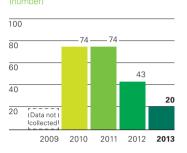
#### 1. Recordable injury frequency (R)



#### 2. Loss of primary containment (R)



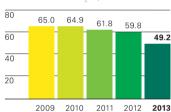
#### 3. Tier 1 process safety events



- <sup>1</sup> This measures the number of reported work-related incidents that result in a fatality or injury (apart from minor first aid cases) per 200,000 hours worked.
- <sup>2</sup> This includes unplanned or uncontrolled releases, excluding non-hazardous releases, such as water from a tank, vessel, pipe, railcar or equipment used for containment or transfer.
- <sup>3</sup> Tier 1 process safety events are losses of primary containment from a process of greatest consequence – causing harm to a member of the workforce or costly damage to equipment or exceeding defined quantities.

#### 4. Greenhouse gas emissions

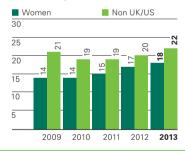
(million tonnes of CO2 equivalent)



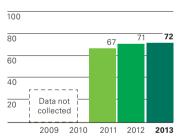
Two divestments account for most of the decrease in direct greenhouse gas emissions.

\* We report greenhouse gas emissions on a carbon dioxide equivalent basis. This includes CO<sub>2</sub> and methane for direct emissions. Our GHG reporting encompasses all BP's consolidated entities as well as our share of equity-accounted entities other than BP's share of TNK-BP and Rosneft. Rosneft's emissions data can be found on its website.

#### 5. Diversity and inclusion (%)



#### 6. Group priorities index (%)



- <sup>5</sup> Each year we record the percentage of women and individuals from countries other than the UK and the US among BP's group leaders. This helps us track progress in building a diverse and well-balanced leadership team. Minor amendments have been made to our 2012 numbers.
- <sup>6</sup> We track how engaged our employees are with our strategic priorities for building long-term value. The measure is derived from answers to 12 questions about BP as a company, and how it is managed in terms of leadership and standards. See page 21 for more information.

#### 129%

Reserves replacement ratio, showing our progress in accessing, exploring and extracting resources.

#### \$21.1bn

in net cash from operating activities.

- $^{\rm n}$  These figures relate to non-retail employees only. In 2013 voluntary turnover (resignations and retirements) was 5%.
- Any employee, contractor or other third party can contact our confidential helpline OpenTalk.
- P This excludes dismissals of staff employed at our retail service stations for incidents such as thefts of small amounts of money.
- q This figure includes employee dismissals and is not directly comparable to data from previous years which grouped employee and contractor dismissals together.
- <sup>r</sup> Information for 2009-2012 has been restated to reflect the adoption of the amended IAS 19 'Employee benefits'.
- Combined basis of subsidiaries and equity-accounted entities, excluding acquisitions and disposals.
- Petrochemicals production reported within our Downstream segment.
- Replacement cost profit or loss reflects the replacement cost of supplies. The replacement cost profit or loss for the year is arrived at by excluding from profit inventory holding gains and losses and their associated tax effect. Inventory holding gains and losses represent the difference between the cost of sales calculated using the average cost to BP of supplies acquired during the year and the cost of sales calculated on the first-in first-out method, after adjusting for any changes in provisions where the net realizable value of the inventory is lower than its cost. Inventory holding gains and losses,

for this purpose, are calculated for all inventories of hydrocarbons except for those that are held as part of a trading position and certain other temporary inventory positions. Replacement cost profit for the group is a non-GAAP measure.

## **Update on the Gulf of Mexico**

We have made significant progress in completing the response to the Deepwater Horizon accident in 2010, and in supporting economic and environmental recovery efforts in affected areas.

Atlantis is one of 10 drilling rigs that we operate in the Gulf of Mexico, where our focus is on deepwater exploration and development.

240+

initial and amended work plans developed since May 2010 to assess injury to natural resources.



#### Restoring the environment

We continue to work with state and federal trustee agencies through the natural resource damage assessment (NRDA) process to evaluate the potential for injury to wildlife and habitat, and the recreational use of these resources.

Since May 2010, more than 240 initial and amended work plans have been developed to study resources and habitat by state and federal trustees and BP. The study data will inform an assessment of injury to natural resources in the Gulf of Mexico and the development of a restoration plan to mitigate the identified injuries.

Environmental data collected by federal and state agencies and BP is being made available at *gulfsciencedata.bp.com*. The website includes various data on oil and water column chemistry, offshore sediments, fish, birds and shoreline – and BP plans to add more in 2014.

While the injury assessment is still ongoing, restoration work has begun. BP is funding early restoration projects designed to accelerate efforts to restore natural resources in the Gulf of Mexico that were injured as a result of the accident. BP and the trustees, as at December 2013, had reached agreement or agreement in principle on a total of 54 early restoration projects. Work under way includes efforts to restore and enhance wildlife, habitats and the services provided by those habitats, as well as to provide additional access for fishing, boating and related recreational uses.

#### Completing the response

At the end of February 2014, fewer than 20 of the approximately 4,440 shoreline miles originally in the area of response remained active, all in Louisiana. The US Coast Guard ended active clean-up operations in Alabama, Florida and Mississippi in mid-2013. Approximately 230 people and 10 vessels were supporting the response effort at the end of 2013.

#### Restoring the economy

Our Gulf Coast economic recovery efforts have focused on paying all legitimate claims stemming from the accident and supporting two of the region's most vital industries – tourism and seafood.

BP is supporting Gulf Coast tourism in Alabama, Florida, Louisiana and Mississippi. Although opinions differ on the stage of Gulf recovery, many areas continue to experience record tourism numbers.

The Gulf Coast is a rich breeding ground for fish, shrimp, oysters and crab, and accounts for about 18% of the US's total commercial seafood landings. Shrimp and oyster supplies, in particular, are heavily concentrated in the Gulf, making the seafood industry an important component of the Gulf Coast economy.

Although research and monitoring continues, many experts believe Gulf of Mexico seafood has made a strong recovery. According to government testing results and commercial landings information, Gulf seafood is safe to consume and available in numbers comparable to pre-accident levels.

#### BP's payments related to Gulf Coast recovery

(as at 31 December 2013)	
Response and clean-up	\$14 billion+
Claims, advances and settlements	\$12.5 billion
Funding for the natural resource damage assessment process	\$1 billion+
Early restoration projects	\$698 million <sup>a</sup>
State-led tourism campaigns	\$178 million
-	\$178 million \$47 million
campaigns State-led seafood	

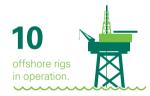
Reflects projects that BP and the trustees have reached agreement or agreement in principle.

#### **James Morris**

Professor of Biology University of South Carolina

"The natural recovery is far greater than what anybody hoped when it happened. The fears of most people – that there would be a catastrophic collapse of the ecosystem in the Gulf – never materialized."





More information online at bp.com/gulfofmexico.

See quarterly updates on legal proceedings.

Read Q&As on the state of the economic recovery in the region.

View information on environmental studies

Read about the accident and the response effort.

Find out about the completion of the clean-up of shorelines.

Since May 2010, more than 10,000 seafood specimens have been collected by the US Food and Drug Administration (FDA), National Oceanic and Atmospheric Administration and state agencies. Levels of residues of oil contamination in seafood have consistently tested 100 to 1,000 times lower than the safety thresholds established by the FDA.

#### Claims

BP began paying compensation for legitimate claims for damages within weeks of the Deepwater Horizon accident. From May 2010 to the end of 2013, BP had paid a total of approximately \$11 billion to individuals and businesses through various claims processes, with \$2.9 billion being paid in 2013. BP had paid almost \$1.5 billion for claims, advances and settlements with government entities.

BP reached settlements in 2012 with the Plaintiffs' Steering Committee (PSC) to resolve the substantial majority of legitimate private economic and property damage claims, and medical claims stemming from the accident and oil spill. The PSC acts on behalf of individual and business plaintiffs in the multi-district litigation proceedings.

As part of its monitoring of payments made by the court-supervised settlement programme for the economic and property damages settlement, BP identified and disputed claims that appeared to result from an incorrect interpretation of the settlement agreement by the claims administrator.

There have been various court rulings on this, including the meaning of the causation requirements of the agreement. In December 2013, the district court in New Orleans ruled that for the purposes of determining business economic loss claims, revenues must be matched with expenses incurred by claimants in conducting their business even where the revenues and expenses were recorded at different times.

The court also ruled that the settlement agreement did not contain a causation requirement beyond the revenue and related tests set out in an exhibit to that agreement. BP appealed the district court's ruling on causation to the court of appeals, but the panel affirmed the district court's ruling in March 2014. BP is considering further appeal options.

#### Independent monitors

The criminal plea agreement reached with the US government in 2012 to resolve all federal criminal claims arising out of the Deepwater Horizon accident and oil spill, provides for the US government to appoint two independent monitors.

The process safety monitor has been retained for a period of up to four years from February 2014, and will review and provide recommendations concerning BP Exploration & Production Inc's (BPXP) process safety and risk management procedures for deepwater drilling in the Gulf of Mexico. BPXP is the BP group company that conducts exploration and production operations in the Gulf of Mexico.

The ethics monitor will review and provide recommendations concerning BP's ethics and compliance programme, and has been retained for a term of up to four years from 2013.

#### Multi-district litigation proceedings

The multi-district litigation trial relating to liability, limitation, exoneration and fault allocation began in the federal district court in New Orleans in February 2013. The first phase of the trial focused on the causes of the accident and the allocation of fault among the defendants. The second phase focused on efforts to stop the flow of oil and the volume of oil spilled. BP is not aware of the timing of the rulings for these phases.

In a subsequent trial phase, the per-barrel penalty rate to be applied in determining applicable penalties under the Clean Water Act will be considered. There is significant uncertainty about the amount of Clean Water Act penalties to be paid, and the timing of payment, as these will depend on the finding as to negligence or gross negligence, the volume of oil spilled and the application of statutory penalty factors.

#### Agreement with EPA

Following the Deepwater Horizon incident, the US Environmental Protection Agency (EPA) suspended or debarred various BP companies from entering into new contracts with the US government or renewing existing ones.

BP entered into an agreement with the EPA in March 2014, resolving all debarment and suspension matters. Under this agreement, which will apply for five years, BP has agreed to a set of safety and operations, ethics and compliance and corporate governance requirements, including those contained in the 2012 criminal plea agreement and settlement with the US Securities and Exchange Commission.

The agreement means that BP is once again eligible to enter into new contracts with the US government, including deepwater drilling leases in the Gulf of Mexico.

## The energy future

Today's challenge is to manage and meet growing worldwide demand for secure, affordable energy while addressing climate change and other socio-economic issues.

## What we said we would do

Assess long-term global and regional patterns of energy demand and supply.

Investigate the effects of natural resource scarcities on patterns of energy supply and demand.

Fulfil the commitment we made in 2005 to invest \$8 billion in alternative energy by 2015.

## Where we are today

Extended forecasts for world energy markets in *BP Energy Outlook 2035*.

15 universities took part in our Energy Sustainability Challenge programme.

\$8.3 billion invested in alternative energy since 2005, meeting our commitment two years ahead of schedule.

## What we plan to do next

Help meet the growing energy demand through a diverse mix of fuels and technologies.

Continue to engage with our stakeholders on climate change.

Further improve fuel efficiency through the use of our branded fuels and engine oils.



## Meeting the energy challenge

With population and income projected to rise, the global energy challenge is to manage and meet demand affordably, sustainably and securely.



41%

increase in demand for energy between 2012 and 2035.

**7**%

of global energy demand will be met by renewable energy in 2035.



Population and economic growth are the main drivers of global energy demand. The world's population is projected to increase by 1.7 billion from 2012 to 2035, with real income likely to more than double over the same period. Therefore the overall trend is likely to be one of increased energy demand, even with new climate policies and a shift towards less energy-intensive activities in fast-growing economies

We expect world demand for energy to increase by as much as 41% between 2012 and 2035, with nearly 95% of the growth to occur in non-OECD countries. While energy is available to meet growing demand, action is needed to limit carbon dioxide and other greenhouse gases emitted through fossil fuel use.

Energy security represents a challenge in its own right. More than 60% of the world's known reserves of natural gas are in just five countries, and more than 80% of global oil reserves are located in nine countries, most of which are distant from the hubs of energy consumption.

Meeting growing demand for energy that is secure and sustainable will also present an affordability challenge. Fossil fuels will become less easily accessible, and many low carbon resources will remain costly to produce at scale.

#### Effective policy

We believe that governments must set a stable and enduring framework for the private sector to invest and for consumers to choose wisely. This includes secure access for the exploration and development of energy resources; mutual benefits for resource owners and development partners; and an appropriate legal and regulatory environment, which includes an economy-wide price on carbon.

#### **Energy efficiency**

Greater efficiency addresses several aspects of the energy challenge. It helps with affordability – because less energy is needed. It helps with security – because it reduces dependence on imports. And it helps with sustainability – because it reduces emissions. Innovation can play a key role in improving technology design, process and use of materials, bringing down cost and increasing efficiency. In transport, for example, we believe that efficient powertrain technologies and combustion engines that use biofuels could offer the most cost-effective pathway to a secure, lower-carbon future.

#### A diverse mix

We believe a diverse mix of fuels and technologies can enhance national and global energy security while supporting the transition to a lower-carbon economy. These are reasons why BP's portfolio includes oil sands, shale gas, deepwater oil and gas, and biofuels.

#### Oil and natural gas

Oil and natural gas are likely to play a significant part in meeting demand for several decades. We believe these energy sources will represent about 54% of total energy consumption in 2035. Even under the International Energy Agency's most ambitious climate policy scenario (the 450 scenario<sup>a</sup>), oil and gas would still make up 47% of the energy mix in 2035.

We expect oil to remain the dominant source for transport fuels, accounting for as much as 87% of demand in 2035.

Natural gas, in particular, is likely to play an increasingly strategic role. Shale gas is expected to contribute 47% of the growth in global natural gas supplies between 2012 and 2035. The shale gas revolution has already had a significant impact on gas prices and demand in the US. It has also had an impact on the US's carbon dioxide emissions, which have fallen below what they were 20 years ago.

New sources of hydrocarbons are more difficult to reach, extract and process. BP, and others in our industry, are working to improve techniques for maximizing recovery from existing and currently inaccessible or undeveloped fields. In many cases, the extraction of these resources might be more energy-intensive, which means operating costs and greenhouse gas emissions from operations may also increase.

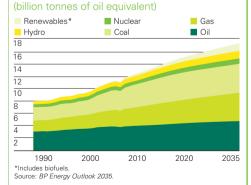
#### Renewables

Renewables will play an increasingly important role in addressing the challenges of energy security and climate change over the long term. Renewables are already the fastest-growing energy source, but they are starting from a low base. By 2035, we estimate renewable energy, excluding large-scale hydroelectricity, is likely to meet around 7% of total global energy demand.

Temporary policy support is needed to help commercialize lower-carbon options and technologies, but they will ultimately need to become commercially self-sustaining, supported only by a carbon price.

From World Energy Outlook 2013. ©OECD/International Energy Agency 2013, page 573. The IEA's 450 policy scenario assumes governments adopt commitments to limit the long-term concentration of greenhouse gases in the atmosphere to 450 parts-per-million of CO<sub>2</sub> equivalent.

#### **Energy consumption by fuel**



A view of an operator looking out at the Mad Dog platform from a support vessel in the Gulf of Mexico.

## Climate change

BP believes that climate change is an important long-term issue that justifies global action.

#### Unburnable carbon

Investors in 2013 raised a concern about unburnable carbon – the argument that the carbon dioxide from burning all known fossil fuel reserves would raise global temperature by more than 2°C – and that potential greenhouse gas regulation to prevent this from happening could reduce the value of some of these reserves and the companies that own them.

We agree that burning all known reserves would probably cause global temperatures to rise by more than 2°C – and that addressing this issue will require the efforts of governments, industry and individuals. However, we believe that the unburnable carbon approach to assessing the impact of potential climate regulation on a company's value oversimplifies the complexity of the issue and overstates the potential financial impact.

BP considers a wide range of factors that may affect the price and demand for our products when making investment decisions including:

- Potential GHG regulation: We assess carbon policy at a regional level, and we apply a carbon price to larger projects and those for which emissions costs would be a material part of the project.
- Changes in demand: We make regional and global assessments of energy supply and demand, and we undertake detailed demand modelling for the transport sector, to assess the risk of shifting demand for our products.
- Fluctuating oil prices: We use a range of oil price sensitivities to manage commodity price risk and we prioritize value over volume for new upstream projects.
- Evolving technology: We undertake deep dives into potential innovation in the 2030-50 timeframe and we collaborate with external technology-focused bodies.

This approach enables us to optimize our portfolio to meet the world's energy needs and to alter our investments to reflect changing policy, market and technology conditions.

#### The science

According to the Intergovernmental Panel on Climate Change (IPCC), warming of the climate system is unequivocal, and is in large part due to an increase in greenhouse gas (GHG) emissions from human activities. The IPCC believes that warming of the climate will probably lead to extreme weather events becoming more frequent and unpredictable. Its latest report makes clear that limiting climate change will require substantial and sustained reductions of GHG emissions.

#### The climate challenge

BP's analysis suggests that global carbon dioxide (CO<sub>2</sub>) emissions from fossil fuels may be 29% higher in 2035 than they were in 2012, partly as a consequence of coal use in rapidly growing economies. This is a projection of what we think is likely to happen, not what we would like to see.

More aggressive energy policies and technologies could lead to slower growth in  $CO_2$  emissions than expected but this would still not be enough to limit warming to no more than 2°C, the threshold recognized by governments as limiting the worst impacts of climate change. The International Energy Agency has acknowledged that its 450 scenario (see footnote on page 13), which would put the world on a lower-carbon trajectory, looks increasingly unlikely.

There are several reasons, in addition to growing energy demand, why achieving substantial and rapid GHG emissions reductions will be challenging. Some potentially important lower-carbon technologies – including nuclear energy, carbon capture and storage, and electric vehicles – still face significant technology, logistical, political and cost challenges. And worries about the cost of renewable technologies have led some governments to reduce their levels of support. In the meantime, the GHG intensity of oil and gas extraction and production looks set to increase, with the move towards resources that are harder to access.

#### Carbon policy

The scale of this challenge is such that governments must act by setting a clear, stable and effective carbon policy framework. A clear framework is necessary if energy companies are to limit GHGs while providing energy competitively. Global economic challenges have reduced the focus of some governments on climate policy, at least in the short term. That said, carbon regulations continue to be introduced and strengthened; and the commitment made in Durban in 2011 by both developed and developing countries to negotiate an agreement by 2015 that requires action from all countries by 2020, suggests that an emphasis on carbon policy may return.

We also believe that putting a price on carbon – one that treats all carbon equally, whether it comes out of a smokestack or a car exhaust – will make energy efficiency and conservation more attractive to businesses and individuals, and lower-carbon energy sources more cost competitive. A global carbon price should be the long-term goal, but regional and national approaches are a good first step, provided temporary financial relief is given to sectors that are exposed to international competition.

#### Carbon capture and storage

BP, in a joint venture partnership with Sonatrach and Statoil, has worked on a large-scale direct carbon abatement technology: carbon capture and storage (CCS). Over a seven-year period, the partners worked alongside scientists from academic institutions to execute and monitor a demonstration project in southern Algeria. In total, we injected 3.9 million tonnes of CO<sub>2</sub> into the deep saline reservoir of the Krechba gas field at the In Salah production facility, instead of releasing this CO<sub>2</sub> into the atmosphere.

Progress on new projects of this kind has been slower than anticipated in recent years amid uncertainty around the policy framework and funding models for CCS. While BP has scaled back its activities in this area, we continue to share the knowledge gained at In Salah with governments, academia and others in our industry.



See page 36 for information on BP's greenhouse gas emissions.

# Our programme of action to manage carbon and climate risk

We are taking steps to understand and address carbon and climate risk.



Our specially formulated advanced *Castrol* engine oils can improve fuel efficiency and reduce carbon dioxide emissions.

#### **Helen Wildsmith**

Head of Ethical & Responsible Investment, CCLA

In the transition to a low-carbon future, oil and gas companies will need to innovate and have portfolios which are resilient to sudden changes in public policy or technological breakthroughs. This is why both companies in this sector, and their long-term investors, are increasingly engaging with policy makers whilst innovating themselves. We encourage these companies to publish information on future energy scenarios which highlight critical uncertainties, while building a coalition of the willing to bring carbon capture from gas to economic scale. BP's focus on value not volume is a welcome strategic discipline in this context."



#### Carbon risk assessment

To assess how carbon policy will affect our businesses in the future, we closely monitor national and international climate and energy policy developments. We factor our conclusions about future carbon policy risk into broader assessments of global and regional patterns of energy demand and supply. *BP Energy Outlook 2035*, for example, summarizes BP's view of what the energy world might look like in the future

We also look at the effects of natural resource scarcities on patterns of energy supply and consumption as part of our Energy Sustainability Challenge programme. This analysis, along with external assessments, such as IEA's World Energy Outlook, helps us to decide what resources we will seek to develop and where, and what technologies we will need to develop them safely and efficiently.

#### Lower-carbon energy

We see natural gas as a key part of the lower-carbon economy, as it is a plentiful resource that releases less CO<sub>2</sub> than other fossil fuels when burned. Most importantly, the technologies needed to produce and use it are widely available today. We are playing a major role in the growth of natural gas with production in Algeria, Azerbaijan, Egypt, Indonesia, Oman, Trinidad & Tobago and the US. We are developing important supply chains to Europe, as well as to China and India, two countries that are likely to account for more than half of the growth in global energy demand between 2012 and 2035

We continue to invest in alternative energy and are working to develop technologies that can reduce the overall carbon impact of oil and gas production.

#### Internal carbon price

We require larger projects, and those for which emissions costs would be a material part of the project, to apply a standard carbon cost to the projected GHG emissions over the life of the project. The standard cost is based on our estimate of the carbon price that might realistically be expected in particular parts of the world. In industrialized countries, this standard cost assumption is currently \$40 per tonne of  $\mathrm{CO}_2$  equivalent. We use this cost as a basis for assessing the economic value of the investment and as one consideration in optimizing the way the project is engineered with respect to emissions.

#### Efficiency in our operations

We seek to increase energy efficiency across BP by requiring our existing operations to incorporate energy use considerations in their business plans and to assess, prioritize and implement technologies and systems to improve energy usage. For example, our Tangguh liquefied natural gas operation in Indonesia uses the heat generated in its liquefaction plant to reduce the amount of power needed to turn the gas into liquid for transportation.

## Efficient fuels and engine oils for our customers

We work in partnership with vehicle and equipment manufacturers to improve the overall efficiency of use of our fuels and engine oils. For example, Ford's ECOnetic cars – including the Fiesta, Focus and Mondeo models – are engineered with specially formulated advanced *Castrol* engine oils, which improve fuel efficiency and reduce CO<sub>2</sub> emissions.

#### Technology and policy research

We deepen our understanding of future energy, technology and climate change trends through in-house research and in partnership with leading academics. For example, we review potential long-term energy and low-carbon technology developments out to 2050 and we invest in the UK Energy Technologies Institute. We support energy and climate-related technology and policy research at universities including Oxford, Cambridge, Princeton, Tsinghua, Berkeley, Illinois, Harvard, San Diego, MIT, Tufts and the University of Texas at Austin.

#### Education and outreach

We engage with governments, nongovernmental organizations, industry organizations, universities and other companies on issues relating to climate change. For example, through BP Target Neutral, we are working with the Glasgow 2014 Commonwealth Games to offset carbon emissions associated with spectator travel and to raise awareness of the impact of carbon from travel.

#### Climate change adaptation

Where climate change impacts are identified as a risk for a new project, our engineers seek to address them in the project design like any other physical and ecological hazard. We periodically review and adjust existing design criteria and engineering technology practices.

We have guidance for existing operations and projects on how to assess potential risks and impacts from a changing climate to enable mitigation steps to be incorporated into project planning, design and operations.

## Deepwater oil and gas

BP's technology is helping to extract oil and gas resources from deepwater environments safely and efficiently.

6%

of global oil production comes from deepwater oil and gas resources.





6,800ft

wells in water depths that can be more than six times the height of the Eiffel Tower.

BP has deepwater drilling interests in Angola, Brazil, Egypt, the Gulf of Mexico, India, the South China Sea and the UK, and we are pursuing further deepwater growth opportunities in Australia, Canada, Libya, Morocco, Trinidad & Tobago and Uruguay.

Producing oil and gas from deepwater reservoirs creates many engineering and technical challenges. The oil and gas reservoir itself can be as much as 35,000 feet (10,660 metres) below sea level, under layers of hard rock, thick salt and tightly-packed sands. Once oil and gas are discovered in a deepwater field, massive production platforms and specially designed systems and pipelines are required to extract and transport the oil and gas to shore.

New techniques can allow safe access to new sources of oil and gas. For example, we are working with industry and universities to develop technology to extract oil and gas from high pressure undersea reservoirs – a resource that is beyond the reach of current deepwater drilling equipment.



Our global wells organization is responsible for planning and executing all our wells operations across the world. We provide training to employees working in our drilling operations through our global wells institute. See page 30.

We use technology to help monitor conditions in our wells. This technology is designed to help us make informed decisions, improving drilling efficiency and enhancing operational safety and integrity. We have monitoring centres in Angola, the North Sea and the Gulf of Mexico.



The Na Kika platform in the Gulf of Mexico acts as a hub, gathering oil and gas from deep under the sea using over 100 miles of subsea pipes.

We are committed to sharing what we have learned from the Deepwater Horizon accident in 2010, to advance safety capabilities and practices across the deepwater industry. For example, we worked with the Subsea Well Response Project to create a new intervention system for industry that aims to enhance international capabilities to respond to subsea well incidents. This equipment was delivered in 2013 to storage locations in Brazil, Norway, Singapore and South Africa.

We are also working with the International Association of Oil & Gas Producers to develop a set of worldwide databases on industry-wide incidents and well releases.

Our deepwater drilling operations and future growth opportunities

- Deepwater drilling operations and opportunities
- Countries where we operate or have interests



# Unconventional gas and hydraulic fracturing

Natural gas resources play an increasingly important role in supplying lower-carbon fuel to meet growing energy demand.

By our estimates, natural gas will meet around 26% of total global energy demand by 2035. Unconventional gas is located in rocks with extremely low permeability, which makes extracting it more difficult. New technology and enhanced applications of existing techniques are making it possible to extract unconventional gas resources safely, responsibly and economically. BP has unconventional gas operations in Algeria, Indonesia, Oman and the US.

Hydraulic fracturing (sometimes referred to as 'fracking') is the process of pumping water underground, mixed with a small proportion of sand and chemicals, at a high enough pressure to create small cracks in the rock. These cracks help to release natural gas that would otherwise not be accessible

Some stakeholders have raised concerns about the potential environmental and community impacts of hydraulic fracturing. BP seeks to apply responsible well design and construction, surface operation and fluid handling practices to mitigate these impacts.

We support regulation that is designed to reduce potential risks to the environment from hydraulic fracturing. We believe that such regulation is most efficiently implemented at the local level and we encourage regulatory and industry efforts in this area.

#### Chemicals

Water and sand constitute on average 99.5% of the injection material. Some of the chemicals that are added to this mix, when used in certain concentrations, are classified as hazardous by the relevant regulatory authorities. We list the chemicals we use in the fracturing process in material safety data sheets at each operational site. We submit data on chemicals used at our hydraulically-fractured wells in the US, to the extent allowed by our suppliers who own the chemical formulas, at *FracFocus.org* or other state-designated websites.

#### Water and other fluids

BP wells and facilities are designed, constructed and operated to mitigate the risk that natural gas and hydraulic fracturing fluids could enter underground aquifers, including drinking water sources.

Large amounts of water are needed to drill and fracture unconventional gas wells. BP is trialling a number of water-saving innovations including technologies that could make it possible for us to treat water used in fracturing for re-use in our operations. For example, we sponsored research by Texas A&M University in 2013 to evaluate various treatment processes for the removal of organic components from produced water.

#### Greenhouse gas emissions

When used in place of coal for power, natural gas can reduce carbon dioxide emissions by about half. However, questions have been raised about the greenhouse gas emissions associated with the life cycle of natural gas, particularly emissions of methane, which traps more heat than carbon dioxide, during development, production and transportation to market.

We have inventoried and managed methane and hydrocarbon emissions from our US onshore natural gas operations for more than a decade and, based on our experience, we believe that some studies overestimate methane emissions from the natural gas supply chain, particularly from the development and production of shale gas.

We aim to minimize air pollutant and greenhouse gas emissions by using responsible practices at our operating sites. For example, at our drilling sites in the US we use a process called green completions, whenever possible, to manage methane emissions associated with well completions following hydraulic fracturing. This process recovers natural gas for sale and minimizes the amount of natural gas either flared or vented from our wells.

#### Seismic activity

Hydraulic fracturing creates very small earth tremors that are almost always too weak to be detected at the surface. There has been only one documented case (near Blackpool in northwest England) and three possible cases

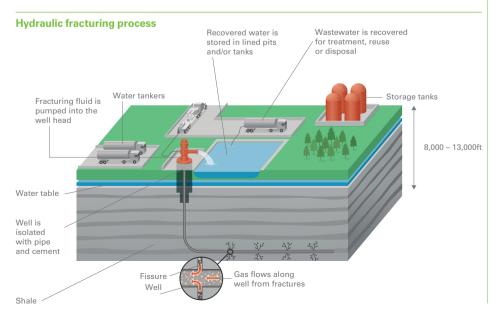
where hydraulic fracturing has caused seismic events that could be detected at the surface. None of these cases resulted in surface damage and none occurred at BP locations. We evaluate industry-recommended guidance for avoiding seismic activity and apply these practices to our operations.

#### Community impacts

The development of unconventional resources is moving energy companies into new and often more populated areas. This may result in increased traffic, noise, dust, light and air pollution, visual impacts, disruption of wildlife and habitat, and increased pressure on the local infrastructure. We assess the potential impacts of our operations on the local communities in the early stages of development and seek to manage them where possible.

#### Land use

To minimize land use and reduce the visibility of our production facilities, we use techniques such as placing multiple wells on a single well site. We minimize the surface footprint of the operations and work to restore the land after construction.



## Oil sands

BP is working with our partners to develop Canada's oil sands responsibly.



Members of BP's safety, ethics and environment assurance committee visited our oil sands lease areas in Canada in 2013.

Oil sands in Canada are the third-largest proven crude oil reserves in the world, after Saudi Arabia and Venezuela. About half of the world's total oil reserves that are open to private sector investment are contained in Canada's oil sands. The oil sands are a natural mix of sand, water, clay and bitumen.

#### Our projects

BP is involved in three oil sands lease areas in Alberta. The Sunrise Energy Project, operated by Husky Energy, is under construction with production expected to start in late-2014. The Pike and Terre de Grace lease areas are under appraisal for development. Pike is operated by Devon Energy Corporation and BP is the operator of Terre de Grace.

#### Impact on the landscape

BP and our partners plan to use a production technology called steam assisted gravity drainage (SAGD), rather than open-cast mining, due to the depth of the oil sands. This production technique involves pumping steam into the oil sand reservoir through a horizontal well to heat and extract the oil. This reduces land disturbance as the operations have a smaller physical footprint and, unlike mining, do not require tailings ponds.

Throughout our exploratory work at the Terre de Grace lease we have promoted the regeneration of habitat at sites where we have completed our activity. This included planting about 13,000 trees in July 2013.

#### Greenhouse gas emissions

'Well-to-wheels' studies measure greenhouse gas emissions from producing the oil (well) through to combustion (wheels). A 2012 study by the independent energy consultant IHS CERA found that crude produced from Canada's oil sands using SAGD technology, as in BP's projects, is between 7% to 17% more greenhouse gas intensive than the average crude refined in the US.

Regulatory agencies in the province of Alberta and the federal government of Canada have set out comprehensive and rigorous requirements for the full life cycle of oil sands developments.

In Alberta new facilities that emit more than 100,000 tonnes of carbon dioxide equivalent direct emissions a year, are required to progressively reduce emissions intensity by 12% once they have established a baseline for their emissions over three years. Facilities can do this, for example, by cutting their own

emissions, buying or generating offsets via a regulated carbon market or by paying into an Alberta emissions management fund at a current rate of \$15 Canadian a tonne of carbon dioxide equivalent emissions.

BP has a technology plan to reduce emissions at our oil sands production facilities, and improve efficiency in both upstream and downstream processes. We are also working with our partners to enhance current practices, or to develop new ones, to reduce emissions. For example, we plan to develop further improvements through additional heat integration and recovery techniques.

#### Water

Oil sands production is water intensive. In planning our SAGD projects, BP is committed to maintaining a high level of water conservation. We plan to draw the water used to make steam primarily from underground aquifers and, where possible, use non-potable water. For the first phase of the Sunrise project, we aim to minimize impact by recycling more than 90% of the water we will use.

#### Local communities

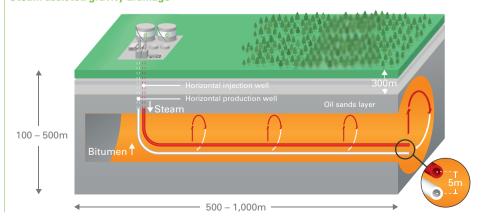
We encourage aboriginal communities to provide feedback on our activities, and have been developing relationships with local people since committing in 2010 to being the operator of the Terre de Grace project. Members of BP's board met with a local First Nation during their visit to Alberta in 2013.

Husky Energy, the operator of Sunrise, maintains a register to capture concerns, track responses and implement mitigation actions to address stakeholder issues. Likewise, Devon Energy, our partner for the Pike project, is committed to meaningful consultation that seeks to address aboriginal community concerns during the planning process of the project.

#### Commercial viability

BP requires oil sands projects, like all of its investments, to be commercially viable over the life of the project. In gauging this, we factor in carbon regulation and potential policy changes by using an estimated carbon cost. We expect the break-even price for oil from Canadian oil sands to be within the range we require from other types of crude oil investments.

#### Steam assisted gravity drainage



## Alternative energy

We invest in alternative energies that complement our core skills as an oil and gas company.

- Q: Will BP set a new alternative energy target now that its \$8 billion commitment has been met?
- A: BP hasn't made a public commitment on future spending for alternative energy. The financial commitment we made in 2005 has allowed us to cast a wide net in search of businesses that could be financially self-sustaining, and a good fit for BP. Our biofuels business fits the bill on both counts. It's an area where we believe BP can make a real impact and will continue to invest where we see high quality opportunities, both in our existing bioethanol activities and in advanced biofuels. We've also built up a profitable wind business in the US and are working to maximize its financial and operating performance.

**Phil New** CEO, BP Alternative Energy







Read more about our sustainable energy developments at bp.com/sustainablesolutions.

Download our hydraulic fracturing and oil sands issue briefings at bp.com/unconventionalgas and bp.com/oilsands. BP is investing in technologies that can make a difference to global energy supplies and help to reduce carbon emissions levels. In 2005 we made a commitment to invest \$8 billion in alternative energy by 2015, and we achieved this two years ahead of schedule in 2013.

#### **Biofuels**

We are focused on investing in and developing low-cost, low-carbon biofuels businesses that are either financially self-sustaining now, or that we believe can be in the future. Biofuels are available today and can be blended into gasoline or diesel without significant engine modifications or major changes to existing fuel delivery systems.

BP is expanding its biofuels operations in Brazil, where in 2013 we produced 492 million litres of sugar cane-based ethanol. By early 2015 we expect to have doubled the processing capacity at our largest mill, Tropical. Additionally, our UK joint venture, Vivergo, ramped up its operations in 2013, moving it towards an annual capacity of 420 million litres of wheat-based ethanol.

We are working towards commercializing advanced biofuels, including cellulosic biofuels, by using alternative feedstocks – such as energy grasses – that grow fast, are high yielding and can be grown on land that is not suitable for traditional agriculture.

#### How sustainable are biofuels?

We believe that biofuels can be produced sustainably and can have positive impacts on carbon emissions, rural development and energy security.

#### Food security

Brazilian sugar cane is one of the most plentiful and land-efficient feedstocks for producing ethanol. Less than 2% of the land used for crops or pasture in Brazil is for ethanol production – totalling around 4.5 million hectares.

The wheat-based biofuel from our UK joint venture Vivergo is made from locally produced feed wheat rather than milling wheat – the kind used to make bread and pasta – which does not grow well in the local region. Vivergo has created a domestic route to market for feed wheat that was previously mostly being exported to continental Europe.

#### Greenhouse gas emissions

The sugar cane ethanol that we produce at our three mills in Brazil generates on average around 72% fewer life cycle GHG emissions than conventional transport fuels. One reason for this is that the mills produce renewable electricity for operating the plants, with excess electricity exported to the local power grid. Vivergo biofuels are expected to have GHG savings of more than 50% compared to conventional fuels.

#### Water

The Goiás region of Brazil is especially well suited to sugar cane agriculture because the patterns of rainy and dry seasons typically match the needs of the growing cycle of the cane. The water intensity of our Brazilian biofuels operations averages at around 19 kilograms of water per kilogram of sugar and ethanol, which compares favourably to the water ratio of many commonly grown agricultural food crops.

#### Wind energy

BP has a profitable wind energy business in the US, with interests in 16 wind farms in nine states. BP's net generating capacity from this portfolio, based on our financial stake, is 1,558 megawatts of electricity. The total generating capacity of these wind farms is enough to power 780,000 American homes.

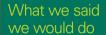
In 2013 we marketed our wind energy business for sale. Despite receiving a number of bids, we determined it was not the right time to sell the business. We did, however, decide to sell the rights to the portfolio of additional wind farms that we had planned to build in the US. Our focus is on optimizing performance at the 16 owned and joint venture wind farms.

## Working with technology entrepreneurs

We keep track of the innovations of smaller, entrepreneurial companies. Our ventures team reviews around 1,000 companies each year, looking for opportunities to invest in technologies that could benefit BP's future success by making our operations more efficient or more sustainable.

## Our people

We value diversity of people and thought, and we aim to treat everyone at BP with respect and dignity.



Work for 25% of our group leaders to be women by 2020.

Recruit 40% of our graduate intake from outside the UK and US in 2013.

Further embed our values throughout the business.

## Where we are today

18% of group leaders are women.

44% of our graduate intake recruited from outside the UK and US.

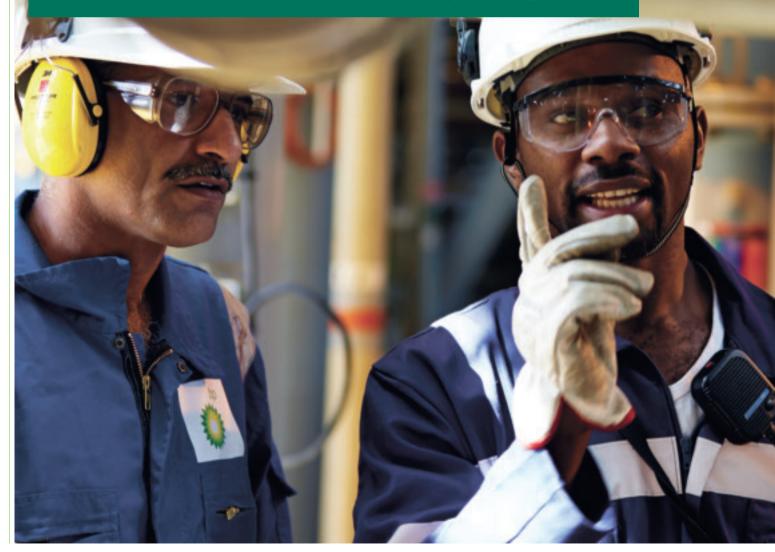
12 percentage point increase in employee understanding of BP values and how they relate to their work.

## What we plan to do next

Further increase the number of women in leadership positions and build on our work to encourage other forms of diversity.

Focus on global graduates through the development of programmes to achieve a consistent approach around the world.

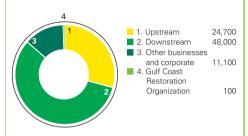
Enhance how we manage ethics and compliance risks by targeting priority areas of our business.



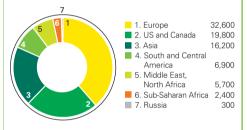
## About our people

BP's performance depends on a highly-skilled, motivated and talented workforce that is representative of the societies in which we operate.

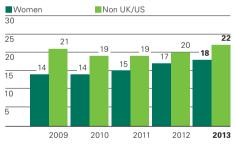
#### BP employees by segment



#### BP employees by region



#### Diversity and inclusion – group leadership<sup>a</sup> (%)



<sup>a</sup> Minor amendments have been made to our 2012 numbers.

#### Diversity and inclusion

For our employees to be motivated and for BP to thrive, our people need to be treated with respect and dignity, and without discrimination. We seek to treat all employees equally, irrespective of gender, age, sexual orientation, ethnicity or disability. Our goal is to create an environment of inclusion and acceptance.

We set diversity targets and policies to drive progress across the company. BP leaders are expected to assess staffing decisions to check that there is no bias getting in the way of BP's long-term diversity and inclusion strategy, and to analyse team composition for balance across different aspects of diversity.

We are working towards our goal for 25% of group leaders and 30% of our senior level leaders to be women by 2020. A total of 22% of group leaders came from countries other than the UK and the US in 2013. This was 14% in 2000. For information abour gender diversity on our board see page 26.

Almost 5,000 group and senior level leaders have attended diversity and inclusion training programmes since we started the training in 2009. This is about three-quarters of the eligible population and is consistent with our plans. We intend to train the remaining senior managers by the end of 2014.

We believe the structures and networks we have to support our employees are just as important as our focus on achieving diversity representation goals. We have established mentoring and sponsorship programmes for women and minorities, and are introducing diversity principles that will help guide our hiring and career development programmes.

We also encourage a number of employee networks that have formed around gender, sexual orientation and ethnicity.

#### Governance

The group people committee, chaired by the group chief executive, has overall responsibility for key policy decisions relating to employees. The committee discussed longer-term people priorities, reward, progress in our diversity and inclusion programme, recruitment priorities (including graduate recruitment), and improvements to our learning and development programmes in 2013. The committee also monitors key people metrics and progress made.

#### Employee engagement

We conduct an annual employee engagement survey. In 2013 approximately 37,000 employees in around 70 countries gave their views on a wide range of business topics and to identify areas where we can improve.

We measure how engaged our employees are with our strategic priorities. The group priorities index is derived from 12 questions about employee perceptions of BP and how it is managed in terms of leadership and standards. We saw continued improvement in 2013 with a score of 72% (2012 71%, 2011 67%).

Business leadership teams review the results of the survey and agree actions to address identified issues. In 2013, safety scores remained strong and there was an increase in understanding of our operating management system, an area of focus identified the previous year. While the survey showed an increase in employee confidence in BP's leadership, work is needed to further strengthen this.

#### **Diversity and inclusion ambitions**

Strategy	Diversity and inclusion are explicit parts of our core values and strategic planning processes.
Leadership	Leaders are accountable for cultivating diversity and inclusion and aim to represent the diversity of the organization.
Capability	We are all responsible for growing, developing and retaining our diverse talent pool.
Culture	Our working culture enables different generational, cultural and personality styles to flourish.
Improvement	Consistent reporting mechanisms track progress toward diversity goals and inform our decision making.

BP employs about 83,900 people in around 70 countries.

## Managing our people

We aim to develop the talents of our workforce and to attract the best people to improve our strengths and skills.



44%

of our graduates were recruited from universities outside the US and UK in 2013.

We are focused on protecting the safety of our employees, engaging with them, and increasing the diversity of our workforce so that it reflects the societies in which we operate.

#### Attracting and retaining our people

BP's businesses worldwide rely heavily on highly-skilled people from diverse backgrounds. Our business is complex, so we need employees with a wide range of specialist skills. These skills range from the capabilities needed to explore for new sources of energy and to develop our expertise in deep water, to transporting and distributing hydrocarbons safely across the world.

#### Strategic recruitment

We aim to develop the skills we need from our existing workforce, complemented by selective external recruitment. Since 2009, we have recruited an average of 10,400 people a year (excluding retail staff).

We run initiatives and awareness days with universities and colleges to attract the next generation of engineers, technicians and scientists. Our graduate recruitment programmes aim to attract skilled candidates from around the world. We recruit a significant proportion of our graduates – with a target of 40% – from outside the UK and US. In 2013, this proportion was 44% (2012 46%, 2011 41%).

Our graduate intake has roughly doubled since 2009, with 814 new graduates in 2013.

#### **Building capability**

We believe a culture of continual professional development meets the needs of our people and our business. We are working to integrate our programmes and have developed a learning management system, which has more than 90,000 users (including employees and selected contractors), to help us deliver consistent and effective development opportunities.

We provide leading education opportunities through our internal academies and institutes that deliver leadership development, technical learning and compliance programmes.

#### Leadership development

We offer leadership development programmes for employees moving into management, including those leading teams, departments and functions. By the end of 2013, these had been attended by employees from 32 countries and were conducted in six different languages.

#### Rewarding performance

Our employees are rewarded not just for what they deliver, but also for how they have demonstrated behaviour that reflects our values. As part of their individual performance review, employees set priorities regarding their contribution to safety, compliance and risk management; what they will deliver for the near and long term; and how they will do their job.

#### **Executive remuneration**

Executive remuneration is directly linked to strategy and performance, with particular emphasis on matching rewards to results over the long term. The structure of pay is designed to reflect the long-term nature of BP's business and the significance of safety and environmental risks. Performance measures for pay include safety measures on recordable injury frequency, tier 1 process safety events (see page 30) and loss of primary containment.

# Our values Safety Respect Excellence Courage One Team

Our values express what we believe, how we aim to behave and what we aspire to be as an organization.

The values are part of our recruitment, promotion and individual performance assessment processes. They define what we expect from our employees and are reinforced by our remuneration structure, which connects how individuals are rewarded with how we work at a group, team and individual level.

Results from our annual employee engagement survey in 2013 showed a 12 percentage point increase from the previous year in employee understanding of BP values and how they relate to their work.



See page 3 for more information on our values.

#### Rita Vanhauwenhuyse

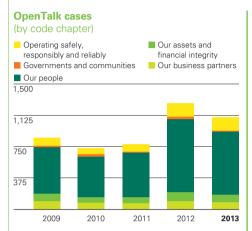
Vice President of Talent and Learning, BP

'At BP we offer our people great opportunities for professional development and we want to provide them with high quality and consistent learning experiences. This year we launched our vision of an integrated learning architecture – a five-year programme that aims to spread best practice across the company in a systematic way. I am confident that we have embarked on a path to drive learning excellence throughout our business as a key means for business success."



## Our code of conduct

BP's code of conduct defines our commitment to high ethical standards throughout our operations.



Our code of conduct is based on our values and clarifies the ethics and compliance expectations for everyone who works at BP.

Our code applies to every employee and officer in every BP wholly-owned entity. In joint ventures and entities over which BP does not have overall control, the code states that we will do everything we reasonably can to make sure our partners follow similar principles.

We want to work with contractors who operate under principles that are similar to those in our code. Where we have the right to do so, we may consider terminating contracts where a contractor has not complied with their obligations, or not renewing a contract where a contractor has acted in a manner that is not consistent with our code.

#### Certifying to the code

We carry out code of conduct training and refresher sessions to explain to employees how the code requirements and its principles apply to their work. Each year, we engage our employees in code of conduct certification.

Code certification reminds individuals of their duty to uphold BP's values, to do the right thing and to create an environment where people can confidently raise concerns.

#### **Dismissals**

We previously reported employee and contractor dismissals and contracts terminated for non-compliance or unethical behaviour in our sustainability reporting. In 2013 we looked at ways to incorporate this information into our human resources and procurement processes. While we have information about our employee dismissals, we are reviewing data collection processes to enable more complete recording of contractor dismissals and contracts terminated.

In 2013, our businesses reported 113 employee dismissals for non-compliance or unethical behaviour. This excludes dismissals of staff employed at our retail service stations for incidents such as thefts of small amounts of money. This figure is not directly comparable to data from previous years, which grouped employee and contractor dismissals together.

#### Speaking up

BP is committed to providing an open environment where our employees, contractors and others with whom we come into contact, are comfortable speaking up whenever they have a question about our code of conduct or think that it, or legal requirements, may have been violated.

Anyone who in good faith seeks advice, raises a concern, reports misconduct or participates in an investigation of an ethics and compliance issue is following our code of conduct. Employees are encouraged to discuss their questions or concerns with their supervisor, their local ethics and compliance leader, our legal, human resources, and ethics and compliance teams, or BP's helpline, OpenTalk.

In 2013, 1,121 cases were raised through OpenTalk (2012 1,295, 2011 796). The increase in OpenTalk cases over the past few years is due, in part, to initiatives to promote our code of conduct and speak-up culture. This is supported by high scores in our employee engagement survey relating to employee understanding of the importance of speaking up.

The most common issues raised in 2013 related to the people section of the code. This includes treating people fairly, with dignity and giving everyone equal opportunity; creating a respectful, harassment-free workplace; and protecting privacy and confidentiality.

#### **Ethics monitor**

Following legal settlements with the US government, BP has retained an ethics monitor for a term of up to four years. See page 11.

#### Anti-corruption training in Turkey

Our code of conduct requires that we work with businesses that operate under similar principles to us. We recognize that when we work with independent parties, such as fuel retailers who sell under the BP brand to our customers, they are seen to represent BP.

In Turkey we have been working to strengthen the awareness of our ethical culture and values among our employees and BP-branded fuel retailers. Over the past two years we have provided anti-bribery and corruption training in sessions for these groups across the country.

Richard Harding, Fuels Value Chain Country Manager in Turkey, said: "Sharing the training with our business partners reduces potential bribery and corruption risks for BP, and enables our partners to protect their businesses better."



Find more online at bp.com/people.



Read our code of conduct.



View our workforce profile – by age, gender and region.

## How we operate

We strive to be a world-class operator, a responsible corporate citizen and a good employer.



## Our operating management system

Our operating management system provides the foundation for a safe and strong BP.

- Q: How do you identify potential environmental and social impacts when assessing new projects?
- A: We look at a wide range of possible impacts as part of our screening process. For example, in screening for the proposed Liberty project located in nearshore waters in Alaska's Arctic, which is in the conceptual planning stage, we identified potential impacts and impacts to the rare Boulder Patch. habitat located near the project. We are looking at mitigation options such as planning seasonal activities to minimize sound and activity during the migration of endangered bowhead whales, working with local indigenous communities to avoid impact on subsistence hunting activities, and planning the location of facilities to avoid impacts to the Boulder Patch habitat.

#### **Liz Rogers**

VP Environment, Social Responsibility and HSSE Compliance, S&OR, BP



BP's OMS is a group-wide framework designed to provide a basis for managing our operations in a systematic way. Conformance to OMS is a dynamic process designed to help manage risk and drive performance improvements.

#### What is it?

OMS integrates BP requirements on health, safety, security, the environment, social responsibility and operational reliability, as well as related issues, such as maintenance, contractor relations and organizational learning, into a common management system.

OMS addresses eight elements of operating, under the areas of people, plant, process and performance.

## Conformance and continuous improvement

All BP businesses covered by the OMS are required to progressively align with this framework through an annual performance improvement cycle.

Recently acquired operations need to transition to the OMS as the initial step in this process. The application of a comprehensive management system such as OMS across a global company is an ongoing process. See page 27 for information about joint ventures.

Conducting assessments on an annual basis as part of the performance improvement cycle is a means to identify opportunities for continuous improvement.

We review and amend our group requirements within OMS where we consider it appropriate to do so, for example to reflect the company's priorities and experience.

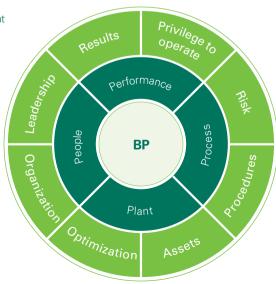
## Our environmental and social practices

Our OMS includes environmental and social practices that set out how our major projects identify and manage environmental and social impacts. The practices also apply to projects that involve new access, projects that could affect an international protected area and some BP acquisition negotiations.

In the early planning stages, projects that are subject to our environmental and social practices complete a screening process to identify the potential environmental and social impacts associated with the project. Following screening, projects are required to carry out impact assessments, identify mitigation measures and implement these in project design, construction and operations. From April 2010 to the end of 2013, 91 projects had completed the screening process and used outputs from the process to implement measures to reduce negative impacts. For more information see page 35.

Our operating management system

BP's OMS is a group-wide framework that addresses eight elements of operating.



A driller on board the Valhall injection platform in the Norwegian North Sea.

# Corporate governance and risk management

BP's risk management system is designed to enable risks to be identified, understood and managed so that we can deliver safe and strong operations.



Members of BP's board discussed how risks are managed with employees at BP's Gelsenkirchen refinery in Germany in 2013.

Our management systems, organizational structures, processes, standards, code of conduct and behaviours, together form a system of internal control that governs how we conduct the business of BP and manage associated risks.

#### Risk management system

BP's risk management system is designed to be a simple, consistent and clear framework for managing and reporting risks from the group's operations to the board.

#### Day-to-day risk management

Management and staff at our facilities, assets and functions identify and manage risk, promoting safe, compliant and reliable operations. For example, our group-wide operating management system (OMS) integrates BP requirements on health, safety, security, environment, social responsibility, operational reliability and related issues. These BP requirements, along with business needs and the applicable legal and regulatory requirements, underpin the practical plans developed to help reduce risk and deliver strong, sustainable performance.

#### **Business and strategic risk management**

Our businesses and functions integrate risk into key business processes such as strategy, planning, performance management, resource and capital allocation, and project appraisal. We do this by collating risk data, assessing risk management activities, making further improvements and planning new activities. By using a standardized risk management report, we aim for a consistent view of risks across BP.

#### Oversight and governance

The board, executive and functional leadership provide oversight to identify and understand significant risks to BP. They also put in place systems of risk management, compliance and control to mitigate these risks. Executive committees set policy and oversee the management of group risks, and dedicated board committees review and monitor certain risks throughout the year.

#### The board

Certain risks are identified as being a high priority for particular oversight by the board. For 2014, this includes risks associated with the Gulf of Mexico oil spill, geopolitical risk, security, ethical misconduct, legal and regulatory non-compliance, trading non-compliance, cybersecurity, delivery of our 10-point plan and incidents associated with the drilling of wells, operating facilities and the transportation of hydrocarbons.

On 1 January 2014 the board was composed of the chairman, three executive directors and 10 non-executive directors.

We set a goal to have three women on the BP board by the end of 2013. We have made some progress, with two women on our board at the end of 2013, but it is taking longer than expected to find a third appropriate candidate. Board diversity remains important to us and we continue to work for a quarter of our board to be female by the end of 2015.

#### **Board committees**

The board delegates some of its oversight and monitoring activities to its committees, composed entirely of non-executive directors. One of the six committees – the safety, ethics and environment assurance committee (SEEAC) monitors the management of non-financial risk.

SEEAC received specific reports in 2013 on the company's management of risks in shipping, wells, pipelines, explosion or release at facilities containing hydrocarbons and non-operated joint ventures. The committee reviewed these risks, and their management and mitigation, in detail with the relevant executive management.

Following the attack on our joint venture natural gas facility in Algeria in January 2013, our group security function presented SEEAC with a number of reports on the security of our facilities, including the consideration of revised security measures.

In 2013, members of SEEAC looked at risks in, and environmental issues arising from, oil sands interests in Alberta, Canada. They also visited operations at the Tangguh LNG facility in Indonesia, the North Slope in Alaska and the Gelsenkirchen refinery in Germany.

The committee monitors BP's global implementation of the measures recommended in BP's investigation after the Deepwater Horizon accident (the Bly Report). See page 30 for more information.

#### International advisory board

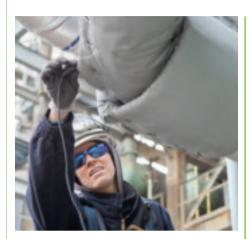
BP's international advisory board advises the chairman, group chief executive and the board on geopolitical and strategic issues relating to the company. In 2013, these included events in the Middle East, the US budget deficit, and BP's activities in Azerbaijan and North Africa.

Chaired by BP's previous chairman, Peter Sutherland, the group's membership in 2013 included Kofi Annan, Lord Patten of Barnes, Josh Bolten, President Romano Prodi, Dr Ernesto Zedillo and Dr Javier Solana.

The group meets twice a year, although its members are on hand to provide advice and counsel when needed.

# Working with our contractors, suppliers and partners

BP, like its industry peers, rarely works in isolation – we need to work with suppliers, contractors and partners to carry out our operations.



A BP contractor measures the thickness of pipes at the Cherry Point refinery in the US.

We seek to identify and manage risks in the supply chain relating to safety, corruption and money laundering, and aim to have sustainability-related provisions in our contracts with suppliers and contractors. For example, our standard upstream contracts include anti-corruption provisions and health, safety, security and environmental requirements.

Bridging documents are necessary in some cases to define how our safety management system and that of our contractors co-exist to manage risk on the work site.

#### Contractor management

In 2013, 54% of the 373 million hours worked by BP were carried out by contractors. Our OMS includes requirements and practices for working with contractors. We expect our contractors to comply with legal and regulatory requirements and operate consistently with the principles of our code of conduct when they work on our behalf.

We have been working to drive deeper, longer-term relationships with selected contractors in our Upstream business. We are working with fewer contractors, establishing global agreements, and actively managing strategic suppliers. We have set up global agreements in areas such as engineered equipment, well services and chemical managed services. These agreements help us manage risks more effectively and leverage economies of scale. We also hold annual business reviews to examine how we can work together to meet our long-term goals.

#### Local suppliers

We run programmes to help build the skills of businesses and to develop the local supply chain. For example, in the Bird's Head region of Papua, we provide one-on-one business consultancy and technical assistance to local businesses during tender processes. This helps businesses to compete to supply goods and services associated with the construction and operation of liquefied natural gas plants. Since 2006, we have held mentoring sessions and workshops for more than 500 local businesses and enterprises. See page 42 for more information on local suppliers.

#### Our joint venture partners

We seek to work with companies that share our commitment to ethical, safe and sustainable working practices. However, we do not control how our co-venturers and their employees approach these issues.

Typically, our level of influence or control over a joint venture is linked to the size of our financial stake compared to other participants. In some joint ventures we act as the operator. Our OMS provides that where we are the operator, and where legal and contractual arrangements allow, OMS applies to the operations of that joint venture.

In other cases, one of our joint venture partners may be the designated operator, or the operator may be an incorporated joint venture company owned by BP and other companies. Around 46% of our upstream production and 13% of our refining capacity in 2013 were from joint ventures where BP is not the operator.

In those cases, our OMS does not apply as the management system to be used by the operator, but is available to our businesses as a reference point for their engagement with operators and co-venturers. Where BP does not have overall control of a joint venture, our code of conduct provides that we will do everything we reasonably can to make sure joint ventures follow similar principles.

We introduced a group policy in 2013 to provide a consistent framework for identifying and managing BP's exposure related to safety and operational risk, as well as bribery and corruption risk, from our participation in new and existing non-operated joint ventures.

A contractor checks a pump in the production module on the Thunder Horse platform in the Gulf of Mexico.



46% of our upstream production is from joint ventures where BP is not the operator.





500+

local businesses and enterprises in Papua have taken part in our mentoring sessions and workshops since 2006.

## **Safety**

Everything BP aims to do as a company relies upon the safety of our operations, our workforce and the communities around us.



consequence - causing harm to a member of the workforce, costly damage to equipment or exceeding defined quantities.

## Managing safety

Safety is our top priority – driven by our leadership and applied through our operating management system.



9,500

attendees take part in our safety capability development programmes each year.

15

sites are taking part in our Exemplar coaching programme.



Bob Fryar, BP's head of safety and operational risk, visits our Whiting refinery in the US.

BP workers using powerful new technology to test pipelines more safely and efficiently at the Sangachal Terminal in Azerbaijan. We strive to create and maintain safe and healthy working environments and to apply robust operating and maintenance practices at our facilities. Safety is one of our five values that guide us to act in a certain way. Additionally our code of conduct clarifies the basic rules that our people must follow including expectations for operating safely, responsibly and reliably. Our leaders reinforce the message that it is not just 'what' we do, but 'how' we do it that is important. Our operating management system (OMS) is a group-wide framework designed to provide a basis for managing our operations in a systematic way. For more information on our OMS see page 25.

Leadership inspections are conducted in all regions with BP-operated rig activity. Leaders monitor, engage with, and listen to frontline employees and contractors to oversee the quality of operations. This is supported by site visits by the board's safety, ethics and environment assurance committee.

#### Developing our leaders

We offer capability development programmes for leaders across all levels on topics including process safety, risk management and OMS. Around 9,500 attendees take part in these each year and 356 have graduated from our Operations Academy at the Massachusetts Institute of Technology since 2007. Over 8,000 employees also participated in our Operating Essentials programme in 2013. Also, through our Exemplar coaching programme, we use facilitators to help sites work towards conformance with our OMS using a performance improvement cycle. This year we extended the pilot of our Exemplar coaching programme to 15 sites.

#### Results, checks and balances

Within BP, our operating businesses are accountable for delivering safe, compliant and reliable operations. They have the responsibility to identify and manage risks and bring together people with the right skills and competencies. They are also required to carry out self verification. They work in collaboration with deployed safety specialists and are subject to independent scrutiny and assurance.

Deployed safety and operational risk (S&OR) experts work alongside the business line. They help businesses manage risk through our OMS, including the application of relevant standards and practices and by providing tools, guidance and support for conformance with OMS. They report to the head of S&OR, independently of the business line.

Members of our group audit teams visit certain sites, selected on a risk-prioritized basis, to provide independent consideration of the management of safety and operational risks. They also carry out certain assessments prior to rig start-up.

#### Learning from incidents

We issue learning alerts to relevant operations to communicate information about safety issues that have arisen inside or outside the company which could highlight potentially unsafe working conditions or practices. These alerts include specific requirements or recommendations for our operations to implement where applicable, which aim to help prevent a similar incident occurring.

#### From self verification to audit - Three lines of defence

#### Third line of defence

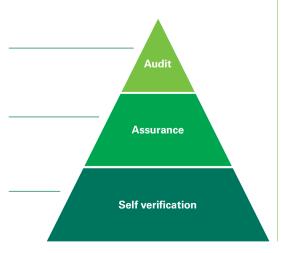
Group audit teams provide independent consideration of the management of safety and operational risks.

#### Second line of defence

S&OR deployed teams provide businesses with tools, guidance and support for conformance with our OMS.

#### First line of defence

Sites work continuously to verify conformance with requirements to drive safe, compliant and reliable operations.

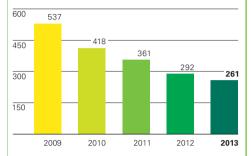


# Process safety: Preventing incidents at our operations

BP works to prevent, mitigate and respond to accidents such as fires, explosions and oil spills.

#### Loss of primary containment

(number of incidents)



technical courses offered by our globa wells institute.



An employee checks a valve at our Toledo



Process safety refers to how we manage the integrity of hazardous operating systems and processes to prevent accidents and spills. Major incidents in process safety are infrequent but can result in serious harm to people and the environment.

#### Tracking performance

To track our progress in process safety management, we use leading indicators that focus on the strength of controls to prevent incidents. These include inspections and tests of equipment critical to process safety. We also measure lagging indicators that record events that have already happened, such as oil spills and other losses of primary containment, and develop lessons learned from these events.

#### **Process safety events**

We track the number of process safety events occurring across our upstream facilities and downstream process plants, including unplanned or uncontrolled releases of materials causing harm to a member of the workforce or the environment, costly damage to equipment or exceeding threshold quantities.

Tier 1 process safety events are those with the greatest consequence. There were 20 tier 1 process safety events reported in BP in 2013 (2012 43, 2011 74).

#### Loss of primary containment

We track loss of primary containment (LOPC), which includes those releases that did not reach the environment. These include unplanned or uncontrolled releases from a tank, vessel, pipe, railcar or equipment used for containment or transfer within our operational boundary, excluding non-hazardous releases such as water. We seek to record all LOPCs regardless of the volume of the release and report on losses over a severity threshold.

#### Safer drilling

Our global wells organization is responsible for planning and executing all our wells operations across the world. It brings wells expertise into a single organization to drive standardization and consistent implementation. We have been developing and finalizing OMS conformance plans for activities that represent our highest risk areas in our wells operations. Our global wells institute offers courses in areas such as applied deepwater well control, drilling engineering and well site leadership, with over 100 sessions delivered in 2013.

## Implementing the Bly Report recommendations

BP's investigation into the accident in the Gulf of Mexico, the Bly Report, made 26

recommendations aimed at further reducing risk across our global drilling activities. By the end of 2013, 15 recommendations had been completed and over 75% of the deliverables that are required to close out all 26 recommendations had been completed. A recommendation is defined as complete when it has been approved by senior management in our global wells organization and submitted for internal verification.

The outstanding recommendations relate to well control and well integrity, drilling and competency, the management of risk and change, and blowout preventers. All 26 recommendations have been worked on in parallel, so progress has been made towards each of them. The board's safety, ethics and environment assurance committee (SEEAC) monitors BP's global implementation of the measures recommended in the Bly Report, and progress is tracked quarterly by executive management.

More information about our progress is available at *bp.com/internalinvestigation*.

#### Independent assessment

The BP board appointed Carl Sandlin as independent expert to provide an objective assessment of BP's global progress in implementing the deliverables from the Bly Report. Mr Sandlin also provides his views on the organizational effectiveness and culture of the global wells organization, and process safety observations.

As part of his work, Mr Sandlin visited the regional wells teams with active operations twice in 2013. During each visit, Mr Sandlin conducted reviews with senior management, and held discussions with key wells personnel and drilling contractors on site. As part of his report to SEEAC in January 2014, Mr Sandlin reported that in every location he visited he found evidence that:

- The desire of BP to have safe operations is well understood by contractors.
- BP practices are understood and are being used, and that the rig personnel understand their roles and responsibilities with respect to both well control and well monitoring.
- Written procedures are being used to test both the blowout preventers and the accumulator system on a regular basis.
- Relief wells are being planned properly and rig audit findings are being closed out promptly.

Mr Sandlin has reported that the deliverables supporting the 15 completed Bly Report recommendations are ingrained within regional wells teams and that much progress has been made on the remaining 11 recommendations.



#### In Amenas

In January 2013, the In Amenas gas plant in Algeria, which is run as a joint venture between BP, Sonatrach (the national oil company of Algeria) and Statoil, came under armed terrorist attack. This was followed by Algerian military action to regain control of the site. A total of 40 people from 10 countries and 10 organizations were killed in the attack. Four BP employees and a former employee lost their lives in the incident. This was a tragic event, and BP continues to support impacted employees and their families. During the incident, BP mobilized our full emergency response system to assist the joint venture and local authorities to evacuate 570 people over the course of two days. Around 300 people across the company helped support the response.

Since the attack, BP and Statoil have jointly carried out an extensive review of security arrangements in Algeria and are working with Sonatrach and the joint venture on implementing a programme of security enhancements. The focus of BP and our partners in the joint venture is to do all we can to prevent any such incident from happening again.

He also identified areas for improvement and has, over the course of his engagement, made a number of recommendations addressing issues including personal safety, safety leader training and clarification of accountabilities. Our global wells and safety and operational risk organizations are reviewing his recommendations. The BP board and Mr Sandlin have agreed, in principle, that his engagement, initially scheduled to finish in June 2014, will be extended to June 2016.

#### **Process safety monitor**

Following the settlement with the US government of all federal criminal claims related to the Deepwater Horizon incident, and consistent with the plea agreement, BP has retained a process safety monitor for a term of up to four years from February 2014. See page 11.

#### Safety in the Downstream business

In our facilities across the Downstream business, we focus on the safe storage, handling and processing of hydrocarbons.

In seeking to manage the risks associated with these activities, BP takes measures to:

- Prevent loss of hydrocarbon containment through well designed, maintained and operated equipment.
- Reduce the likelihood of any hydrocarbon releases and the possibility of ignition.
- Provide safe locations, emergency procedures and other mitigation measures in the event of a release, fire or explosion.

Some areas where we worked to manage risks in our refining and petrochemicals portfolio in 2013 included:

- Corrosion: We are using industry benchmarks and technology to improve the way we detect, measure and monitor corrosion with the aim of reducing the risk of leaks and increasing the reliability of our equipment.
- Coaching: Nine manufacturing facilities participated in the Exemplar programme which aims to help sites apply our OMS using continuous improvement processes.
- Site occupied buildings: We moved workforce further away from higher risk processing areas at our petrochemicals plant in Zhuhai, China and installed an improved evacuation alert system at our chemical plant in Hull in the UK, as part of a multi-year programme.



Construction of our third PTA plant at Zhuhai, China is expected to be completed in late 2014.

#### Process safety expert for our Downstream business

SEEAC appointed Duane Wilson in May 2012 as process safety expert, and assigned him to work in a global capacity with the Downstream business. In his role as process safety expert, Mr Wilson provides an independent perspective on the progress that BP's fuels, lubricants and petrochemicals businesses are making globally toward becoming industry leaders in process safety performance.

This followed his five-year board appointment as independent expert to provide an objective assessment of BP's progress in implementing the recommendations of the BP US Refineries Independent Safety Review Panel, which came to an end in May 2012.

Mr Wilson's contract has been extended to April 2015.

#### Security and crisis management

BP aims to guard against hostile actions that could cause harm to our people or disrupt our operations, and we monitor for emerging threats and vulnerabilities. For example, we assess and monitor potential threats, and maintain a range of cybersecurity defences to prevent and respond to cyberattacks.

Our operating businesses identify potential crises and continuity risks on an annual basis and test how prepared their teams are to respond.

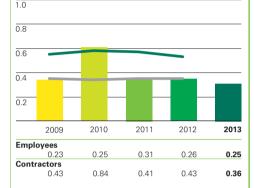
## Health and personal safety

We take the welfare of our staff seriously, and strive to create and maintain safe and healthy working environments.

#### Recordable injury frequency – workforce

(per 200,000 hours worked)

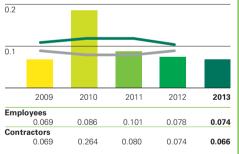
- American Petroleum Institute US benchmark.<sup>a</sup>
- International Association of Oil & Gas Producers benchmark.<sup>a</sup>



## Day away from work case frequency – workforce

(per 200,000 hours worked)

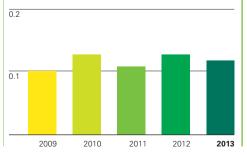
- American Petroleum Institute US benchmark.<sup>a</sup>
- International Association of Oil & Gas Producers benchmark.  $^{\rm a}$

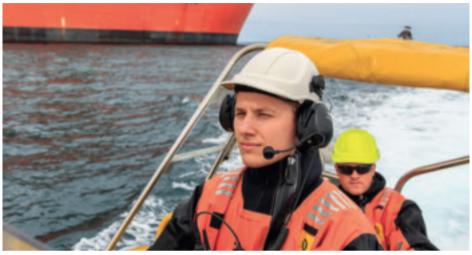


<sup>a</sup> API and OGP data reports for 2013 are not available until May 2014.

#### Severe vehicle accident rate

(per million kilometres driven)





A fast response vessel undertakes a drill exercise around the Skarv floating production storage and offloading unit in Norway.

Building a strong safety culture where everyone who works for, or on behalf of, BP feels responsible for their own safety as well as for the safety of those around them, is fundamental to keeping our people safe. We track both recordable injuries and the day away from work case frequency, as these are industry-standard measures to help gauge how we are managing our operations to prevent harm to our workforce.

In 2013, BP reported six fatalities. These were four employees in the terrorist attack at In Amenas, Algeria, and two contractors in heavy goods vehicle incidents, one in Brazil and one in South Africa. We deeply regret the loss of these lives

#### Health and wellness

We work to reduce exposure to occupational risks such as noise, fatigue, stress and other health issues. Our health programmes consider local factors affecting people at work, such as the existence of hazardous conditions or substances at certain operating sites, as well as global concerns, such as the possibility of an influenza pandemic or other infectious disease.

A total of 73% of employees who completed our employee engagement survey in 2013 responded positively to the statement that "BP really cares about my health and wellbeing" (2012 71%, 2011 65%). The industry benchmark, based on a selection of industry peers, was 62% in 2013.

We participate in a number of health initiatives across the world and contribute to the development of industry good practice. Our businesses continue to carry out local programmes to aid in the health of the communities where we operate.

#### Transportation safety

Some of the greater risks to our workforce, and in our industry, relate to transportation of people and products. We take action to mitigate transport-associated risks through our operating management system.

We rely on a variety of metrics to monitor our driving safety performance. For example, we track our severe vehicle accident rate, which includes accidents that result in death, injury, a spill, a vehicle rollover or serious vehicle damage. We also track our total vehicle accident rate, which is the sum of all on-road and off-road motor vehicle accidents. In 2013, the total number of reported vehicle accidents was 802 (2012 998, 2011 1,091).

We use a variety of aircraft and helicopters, often in challenging conditions. We have defined roles and accountabilities for aviation management and competencies within BP, and detailed requirements for technical approval of aviation operators, contracting for aviation services, and the safe management of any aircraft operated on behalf of BP. We are committed to working with the industry, the aviation community, and the authorities to respond to helicopter safety incidents.

## Contractor safety

Our ability to be a safe and responsible operator depends in part on the capability and performance of our contractors.

## Q: What is BP doing to prevent road accidents?

A: My role involves managing driving safety risks throughout BP. It's a challenging job - our workforce travels, on average, approximately 800 million kilometres a year. The majority of these kilometres are driven by our Downstream business - in transporting fuel from refineries to petrol stations, for example. Over the past 10 years we have seen a significant decline in the number of vehicle-related However, two countries where we have seen workforce fatalities in recent years, South Africa and Brazil, are places where with road safety awareness campaigns, we run defensive driving courses for our workforce there. These types of initiatives, supported by group-wide requirements on driving safety, aim to prevent road accidents and keep our people safe.

## **Albert Ploeg**Technical Authority Driving Safety, BP



Contractors help us to deliver projects and carry out our operations. This requires rigorous selection processes and performance management systems. We seek to set out clear and consistent expectations of our contractors. Bridging documents are necessary in some cases to define how our safety management system, and that of our contractors, co-exist to manage risk on the work site.

In our Upstream business, we are working with our strategic contractors and suppliers to create standardized technical and quality requirements for certain equipment, initially focused on new projects.

#### Potentially high-consequence activity

Contracts that involve potentially highconsequence activity in our Upstream business, such as for work on our rigs and offshore installations, demand our highest scrutiny:

- Our selection process includes pre-contract quality, technical and health, safety, security and environment audits, which are carried out on a risk-prioritized basis.
- Governance boards review and endorse the sourcing of all significant potentially highconsequence activity contracts.
- We are incorporating standard performance metrics into these contracts covering areas such as safety, quality and continuous improvement. These metrics are tracked and discussed during regular performance review meetings.

#### Developing capability

Our global wells institute includes a world-class well control simulator facility and an applied deepwater well control course in which BP employees and contractor staff can work together and practice a variety of well control situations.

We are keen to learn from the experience of our contractors. For example, one of our key contractors in our shipping operations took part in an exercise to demonstrate how satellite imagery and remote sensing equipment can be used to carry out oil spill simulations. We also bring groups of contractors together to address common issues. In 2013, we hosted a workshop with rig and well service contractor executives on applying safety management systems.

In the US, our petrochemicals operations trialled a driving safety programme with our partners to help third-party freight drivers reduce driving risks. Two carriers have since asked to use the concept as a part of their driver training programmes.



A tanker driver connects a tank to a loading hose at a BP service station in Turkey.

#### Self verification and audit

We engage with key contractors to support their self verification of their safety management systems. This is in addition to any safety, technical and quality pre-contract award audits that we undertake. In certain cases, for instance for subsea blowout preventers, we employ external verification.

#### **Targeted interventions**

Our approach is to work collaboratively with contractors in a way that seeks to avoid the need for intervention. Where contractors do not meet our requirements, they may be put on a performance improvement plan. We may also seek to shut down, pause, or delay contractor operations until our requirements have been met. In one case in 2013, we put a rig on hold for ten days until the contractor strengthened their procedures and retrained their rig team in the use of critical equipment.



More information online at bp.com/safety.



Find out more about the progress we are making to complete the recommendations made in the Bly Report.



Read about our approach to transportation safety.



Filter and analyse data on BP's health and safety performance using our HSE charting tool.

## **Environment**

BP is working to avoid, minimize and mitigate environmental impacts wherever we do business.

## What we said we would do

Assess which operations are in water scarce areas to understand associated risks

Seek to work collaboratively with government regulators in planning for oil spill response.

Focus efforts on energy efficiency where it is relevant for local business management.

## Where we are today

We know around half our major operating sites withdraw fresh water in areas of water stress or scarcity.

Lessons shared on oil spill response with regulators in Azerbaijan, Brazil and Libva.

8% improvement in energy intensity index at our Toledo refinery in the US from 2010 to 2013.

## What we plan to do next

Investigate future water management approaches taking into account our operations' life cycle water demand and local water resources.

Continue to develop modelling tools to better predict the consequences of an oil spill to land.

Share lessons learned at Toledo with our other refineries around the world.



# Managing our impact

Throughout the life cycle of our projects and operations, we aim to manage environmental impacts and address any related impacts on local communities.



New units at our Whiting refinery, US, will improve how we manage wastewater.

We manage the environmental and social impacts of our operations and projects through our operating management system (OMS).

### Material issues

At a group level, we annually review our management of material issues such as greenhouse gas emissions, water, sensitive and protected areas, and oil spill response. Our group operating risk committee, chaired by BP's group chief executive, reviews our performance in each of these areas and examines emerging risks and actions taken to mitigate them. For example, water scarcity is a potential risk for many of our operations, and we are working to develop tools and processes for our local businesses to use to manage this risk.

### Impact assessment

We require that projects subject to our environmental and social practices (see page 25) carry out an early screening to evaluate the potential environmental and socio-economic sensitivities in the area, and how our activities might affect them. For example, before bidding for exploration blocks in the Arafura Sea in Indonesia, we identified areas of potential risk. These included challenges in getting oil spill response teams and equipment to such a remote area in the event of an oil spill, and the presence of up to 27 species of marine mammals, including four classed as threatened or near threatened. We then developed actions to mitigate the risks, such as ways to reduce disturbance to marine mammals during seismic activity.

Our operating sites can have a lifespan of several decades and our operations are expected to work to continually reduce their impacts and risks. In 2013 all of our major operating sites, with the exception of recently-acquired operations, were certified to the environmental management system standard ISO 14001.

Every year businesses review their environmental performance and set local improvement targets. These targets can include measures such as flaring reduction, pollution prevention, or reducing impact on biodiversity. Impacts on the environment vary from site to site, and according to the nature of each operation. We consider environmental sensitivities in determining which issues require the greatest focus for impact reduction. At a site close to populations, for example, the most immediate concern may be air quality, whereas a remote desert site may require greater consideration of water management issues.

### **Environmental remediation**

BP works to restore the environment when remediating a site. Our OMS provides a framework for helping projects to evaluate and select the most appropriate remediation approach. This includes consideration of environmental and social aspects such as the views of local communities, potential energy usage and waste production, biodiversity and employment opportunities.

Remediation can bring both environmental and economic benefits to the local community. For example, a site in New Jersey, US, which once housed a large fuel and specialty chemicals terminal, is being transformed into a port that is expected to generate revenue and jobs for the local community.

### Complying with regulations

With operations in around 80 countries, BP faces diverse and complex environmental laws and regulations. We manage applicable legal and regulatory health, safety, security and environmental requirements through our OMS.

# Managing environmental and social impacts Our operating management system ISO 14001 applies Our environmental and social practices apply New access projects and some acquisition negotiations New access projects and some and projects that plan to affect an international protected area Operations Decommissioning

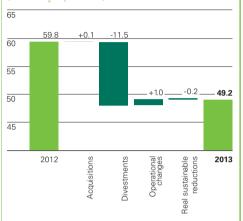
A drilling team working in the desert at the Southern Rumaila oilfield, Iraq.

# **Environmental performance**

We report on key environmental issues such as greenhouse gas emissions, energy use, flaring, water and waste.

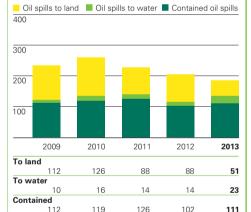
### Greenhouse gas emissions

(Mte CO<sub>2</sub> equivalent)



### Number of oil spills

(≥one barrel)



We provide performance data for each of these areas, as well as more information about the global context and how we manage these issues, at *bp.com/environment*.

### Greenhouse gas emissions

BP aims to manage its operational GHG emissions through operational energy efficiency, reductions in flaring and venting, and by factoring a carbon cost into our investment appraisals and the engineering design of new projects. Our direct GHG emissions were 49.2 million tonnes (Mte) in 2013 (2012 59.8Mte, 2011 61.8Mte).

The decrease in emissions is primarily the result of the sale of two refineries, Texas City and Carson in the US, as part of our divestment programme. Actions taken by our businesses to sustainably reduce their emissions amounted to a reduction of 0.2Mte. We have been measuring such sustainable reductions in our operational GHG emissions every year since 2002, and the running total by the end of 2013 was approximately 8.7Mte.

BP is aware of the growing focus on reducing emissions of substances that have a strong warming effect on the climate but have relatively short lifetimes in the atmosphere (termed short-lived climate forcers), including methane. We are working to better understand our emissions from these substances and the potential for further reductions.

### **Emissions target**

A company's GHG emissions can be influenced by a variety of factors that may result from shifts in business activity, production or assets. This makes it difficult to establish an appropriate company-wide GHG target that can be cascaded throughout the organization with the objective of achieving cost-effective emission reductions. For these reasons, BP – like many of our peers – does not set enterprise-wide GHG targets but instead requires performance management at a local level through our operating management system (OMS).

### **Energy efficiency**

As part of our OMS, we require our operations to incorporate energy use considerations into their business plans and to assess, prioritize and implement technologies and systems to improve energy use. In many of our refineries, we are improving our energy performance. For example, at our Toledo refinery in the US, we improved our Solomon Energy Intensity Index score, the industry measure used to benchmark energy efficiencies, by 8% from 2011 to 2013. A number of factors contributed to this, including updating technologies and improving how we manage and measure energy use in the

refinery's operating units. We are sharing the measures taken to improve energy efficiency at Toledo with our refineries around the world.

### **Flaring**

Our operations seek to minimize flaring wherever possible. At some BP operating sites where there is stranded gas, for example in Alaska, we have re-injected gas into the reservoir, storing it there rather than flaring it. At our unconventional gas production facilities in the US, we recover gas that previously would have been flared or vented when commissioning new wells. These techniques have been shared with industry and regulators to help reduce venting and flaring.

### Oil spill preparedness and response

We issued new group-wide requirements for oil spill preparedness and response planning, and crisis management in July 2012. These incorporate what we have learned from the Deepwater Horizon accident. All of our businesses that have the potential to spill oil have been updating oil spill planning scenarios and response strategies in line with the requirements.

Meeting the requirements is a substantial piece of work and we believe this work has already resulted in a significant increase in our oil spill response capability. For example, this includes using specialized modelling techniques and the provision of response capabilities, such as stockpiles of dispersants and planning for major offshore recovery operations.

### Oil spill modelling

Improving our existing oil spill modelling tools helps BP to better define different oil spill scenarios and associated response plans for both offshore and inland settings. For example, following modelling for exploration in the Omani desert, we modified the planned location of pipeline sites to reduce the impact to groundwater if a spill were to occur.

### Sensitivity mapping

We consider the environmental and socioeconomic sensitivities of a region to help inform oil spill response planning. Sensitivity mapping helps us to identify the various types of habitats, resources and communities that could potentially be impacted by oil spills and develop appropriate response strategies. Sensitivity mapping is conducted around the world and in 2013 we updated sensitivity maps in Angola, Australia, Azerbaijan, Egypt, Libya, Trinidad & Tobago and the UK.

- Q: How do you manage water use given that a high proportion of your operations are in water stressed areas?
- A: Our approach depends upon the location. In areas of water scarcity, such as Oman, Algeria and Libya, we review regional water sources to establish the risks and potential impacts of our work. This includes developing an understanding of how the water is currently used, for example, by local communities. This allows us to design our water withdrawals use and discharge systems in a way that minimizes impacts. Many of the areas of water stress where we operate are in mature regulatory environments - for where we work closely with regulators and other stakeholders to optimize water

### **Alistair Wyness** Safety and Operational Risk Group Water Expert, BP



### **Dispersants**

The use of dispersants is an important option in oil spill response planning. We are examining topics such as the effectiveness of dispersants in the deep ocean and efficiency of naturally-occurring marine microbes to degrade dispersed oil in the Gulf of Mexico and in the seas of Australia, Azerbaijan and Egypt.

### **Sharing lessons**

We seek to work collaboratively with government regulators in planning for oil spill response and sharing lessons learned, with the aim of improving any potential future response. For example, in 2013 we shared lessons on dispersant use, controlled burning response strategies and oil spill modelling with government regulators in Azerbaijan, Brazil and Libya.

### Water management

We use water in our drilling, hydraulic fracturing and oil sands operations. At our refining and petrochemicals facilities, water is used for cooling, steam and manufacturing processes. It is also used in our biofuels business for supplementary irrigation and the refining of biofuel energy crops.

We recognize the importance of access to fresh water and the need to manage water discharges at our operations. We use the Global Water tool developed by oil and gas industry association IPIECA to help us identify potential quantity, quality and regulatory risks related to water use. Based on this tool, around half of our major operating sites withdraw fresh water in areas where the availability of fresh water is considered stressed or scarce. These operations account for about 17% of our total freshwater withdrawal. We are continuing to manage the impacts and risks in these locations.

We are investing in research with several universities in the US to help understand future risks in water management, such as the allocation and use of water in the Middle East and the impact of water policies and regulation around the world.

### Water withdrawal

Our operations are required to identify and manage environmental and social impacts resulting from our water withdrawal or discharges and assess potential ways to manage them. At some locations, such as our Kwinana refinery in Australia, we use water sourced from municipal wastewater treatment plants after it has been specially treated, as an alternative freshwater source for industrial use. In our biofuels operations in Brazil, the nutrient-rich

wastewater from the ethanol refineries is reused as a source of irrigation water and fertilizer for the sugar cane crops.

We continue to look for opportunities to improve efficiencies in water management in our operations. At our purified terephthalic acid (PTA) plant in Zhuhai, China, BP has invested in technology to minimize fresh water and energy use for the past 10 years. The third PTA plant is currently under construction and is expected to be operational by the end of 2014. This uses a water recycling technique developed by BP, which will reduce water discharge by 75%, while reducing GHG emissions by 65% versus other conventional technologies.

### Waste management

We generate a range of waste products during the exploration and production of oil and gas, and the refining, manufacturing and marketing of our products. Hazardous and non-hazardous waste generated at our operating sites is managed through our local operating management systems.

We evaluate opportunities to avoid, reduce, and re-use the amount of waste that is created. For example, at our LNG plant in Tangguh, Indonesia, we are developing a process to recycle waste cooking oil as biodiesel, which has the potential to reduce the volume of the plant's waste cooking oil by up to 90% and reduce diesel usage onsite by up to 30%. We are also looking at how best to manage waste on board the ships that we operate, and are trialling and installing new waste receptacles and pre-treatment technologies.



Find more online at bp.com/environment.



View performance data on energy use, flaring, greenhouse gas emissions, ozone-depleting substances, emissions affecting air quality, waste and water.



Read about science and technology in environmental protection.



Filter and analyse environmental data using our HSE charting tool.

# Biodiversity and sensitive areas

We take steps to understand and manage the potential impacts of our operations on sensitive areas.



We work with local communities and others to understand and manage the potential impacts of our work on Alaska's North Slope.

BP operates in diverse environments around the world, from the desert to the deep sea. Some of these areas are particularly sensitive – they may be home to protected or endangered species, contain an ecosystem with outstanding biological or geographical value, or the landscape may be fragile or unique.

Some of the world's most sensitive areas, both environmentally and socially, have national and international protected area status. The international protected areas classification we use includes those designated as protected by the International Union for Conservation of Nature (IUCN) (categories I-IV), UNESCO World Heritage Sites and sites designated under the Ramsar Convention, as well as areas proposed for international protected status.

We have reported on our operations in protected areas, including IUCN designated areas I-VI, since 2002. In 2013, no new BP projects sought permission for entry into an international protected area

Projects subject to our environmental and social practices (see page 25) are required to screen against a range of indicators and determine whether their activities could potentially affect an international protected area. Where screening indicates that a proposed project's planned activities could affect, or will enter, a protected area, a high-level risk assessment is prepared and executive approval is required before any physical activities take place. We then proceed with a more detailed impact assessment and identify ways to first avoid, or secondly minimize any potential impacts.

### Biodiversity and ecosystem services

BP takes steps to understand and manage the potential impacts of our operations on biodiversity and ecosystem services. This may include consulting with relevant experts and agencies, and compiling a wildlife or biodiversity management plan. We monitor our biodiversity management throughout the life cycle of a project.

For example, at our Cherry Point refinery in Washington state, in the US, we have created 220 acres of wetlands on unused areas of the site, which have become habitats for bird and amphibian species. To help understand the ecological importance of these wetland habitats, we are working with local communities to monitor amphibian species in the area, such as the Northwestern salamander and the Pacific chorus frog, and develop a baseline for further research.

Ecosystems provide many services to humans, from water and food, to pollination, climate regulation and water and air purification. We require applicable projects to assess sensitivities and potential impacts on ecosystem services, including the dependence of local communities on the ecosystem services that could be affected by our operations.

### Marine environments

We continue to deepen our understanding of how our work may affect marine ecosystems – from monitoring the potential effects of sound from our offshore activities on marine life to working with our industry to better understand the potential impacts of oil spills.

As part of our planning efforts related to exploring for oil and gas in the Great Australian Bight, we commissioned studies to understand how sound from our activities might interact with the surrounding marine environment. The marine ecosystems of the Bight support globally important populations of seabirds and marine mammals. The studies helped us to assess what mitigation actions may be required during operational activities to reduce potential risk to marine mammals that may be in the area. We then recorded the actual sound levels of our initial activities, including seismic surveys, and compared this with results from the modelling work. This data was used to inform our planning process for subsequent activities in the area.

We work with the International Association of Oil & Gas Producers' sound and marine life joint industry programme, which aims to develop a better understanding of the potential interactions of sound from oil and gas operations with marine life. We also support research by some of the world's leading academic institutions, such as the University of St Andrews in Scotland, to improve our understanding and knowledge in this area.

### **Gulf of Mexico**

Through the Gulf of Mexico Research Initiative, we are supporting research to improve knowledge of the Gulf ecosystem, and to better understand and mitigate the potential impacts of oil spills in the region and elsewhere. For example, a study of natural hydrocarbon seepage found that active natural seepage is a persistent phenomenon in the region of the Northeast Mississippi Canyon of the Gulf of Mexico, providing the scientific community with more information about the baseline physical and chemical conditions in the region.

# Working in the Arctic

BP operates 13 onshore and nearshore oilfields in Alaska. We have a largely non-operated position in the offshore Arctic.

- Q: How does BP address the challenges of working in the Arctic in Alaska?
- A: We have decades of experience established routine practices and monitoring programmes to help us manage our impacts. For example, we schedule many of our construction projects for the winter season. Working ground is frozen and snow covered limits damage to sensitive tundra. Also, most sensitive bird and mammal species migrate out of the oilfields during winter. Other species, such as polar bears, remain in the area, and we implement additional measures for these species as needed. For example, we locate polar bear dens using infrared scanners and do not work within 1.6 kilometres of these dens. The aim is to protect habitat and wildlife in the North Slope oilfields.

### **Janet Platt**

Director, Regulatory Compliance and Environment, HSE, BP Exploration Alaska



The Arctic offers significant opportunities to help meet the world's growing energy needs, but there are also specific challenges due to its unique nature. These range from environmental, social and political to operational, technological and commercial challenges.

BP has operated in the US Arctic for several decades. Today we operate 13 oilfields on Alaska's North Slope – 11 of these fields are onshore and the other two are located in the nearshore.

In the offshore Arctic, BP has a largely nonoperated position. We currently have investments in areas including the Canadian Beaufort, the Barents seas and Greenland. For the next few years at least, our activity in the Arctic will be largely confined to exploration. We will continue to assess other opportunities in the Arctic, but only where we believe we understand and can manage associated risks.

We share our knowledge and experience in the Arctic with our partners to help deliver safe and responsible operations in this sensitive environment and invest in developing Arctic capability within our industry.

### Rosneft

Through our shareholding in Rosneft, we have an indirect interest in exploration licences in the Russian Arctic. BP does not currently have operations in the Russian Arctic and does not directly partner with Rosneft on any of its Arctic licences. As a responsible shareholder, we seek to support Rosneft in its Arctic licences, including its joint ventures with other partners.

### Working safely

Our operations in Alaska have governmentapproved land, air and water use permits and oil spill response plans that target the risk of a spill and the sensitivity of the Arctic. We continue to carry out research into construction, drilling and oil spill response in ice and cold water settings and share our experience and knowledge with our partners.

We participate in a number of Arctic research programmes with our industry peers. For example, we are a member of the International Association of Oil & Gas Producers' joint industry programme on Arctic oil spill response technology. Research areas for 2013 included the effectiveness of dispersants in Arctic waters, oil spill modelling in ice and the use of remote sensors above and under water.

We are also working with others to deploy consistent safety standards and technologies, such as the International Organization for Standardization's Arctic standards and the Barents 2020 project, which examines standards for safe exploration, production and transportation of oil and gas in the Barents sea in Norway and Russia.

### **Detecting leaks**

Alaska's Northstar oilfield, which we have operated since 2001, is located just offshore. To detect and prevent spills from the subsea pipeline we use three systems that operate independently of each other. They monitor:

- The volume of oil moving through the pipe.
- · Changes in pressure.
- The presence of hydrocarbon molecules in the soil around the pipe, which is buried seven to nine feet below the ocean bottom.

We also carry out annual checks of the ocean floor along the pipeline route looking for evidence of erosion from water currents. If erosion is detected, we add gravel to maintain a protective layer over the pipeline.

### Working with local communities

Most Arctic communities depend on sensitive Arctic natural environments for their subsistence and cultural heritage. We acknowledge the importance of respecting the unique cultures and ways of life in Arctic communities, whether indigenous or non-indigenous.

We work with local communities to understand and manage the potential local impacts from our work. Our emphasis is on open and transparent dialogue, based on sound science and knowledge sharing, and our response plans are enhanced through considering local and traditional knowledge. For example, we have worked with the North Slope Borough and the Alaska Eskimo Whaling Commission to incorporate local environmental knowledge into our mitigation plans for potential impacts to the local community and subsistence whaling activities.

We also look for opportunities for local communities to share in the long-term economic benefits of our presence. For example, BP has worked to support the long-term economic development of our North Slope neighbouring communities by investing in Ilisagvik College. One of the aims of the college is to provide education and training to individuals to meet the needs of North Slope employers.

# **Society**

To BP, working responsibly means seeking to have positive impacts on the communities in which we operate.



consequences from incidents.

Continue to support community development programmes.

Develop human rights training, prioritizing specific businesses and functions.

fresh water availability.

\$78.8m spent on community investment.

21 human rights training events conducted.

Update our framework for managing social investment.

Deliver human rights workshops in other priority areas.

# Managing our impact on society

We believe that societies and communities where we work should benefit from our presence.



62

local community meetings held in Indonesia as part of our Tangguh LNG expansion project. BP's projects and operations have the potential to positively impact local communities by creating jobs, generating tax revenues, providing opportunities for local suppliers and supporting community development initiatives.

### Socio-economic impacts

We require projects that are subject to our environmental and social practices (see page 25) to evaluate the socio-economic sensitivities of the area in which activities will take place and how our operations might affect them.

These may include issues such as corruption and bribery, social tension, human rights, community health and safety, workforce welfare, local employment, cultural heritage, the physical and economic aspects of involuntary resettlement, and potential impacts on indigenous peoples. Some environmental issues, such as freshwater resources and ecosystem goods and services, are also relevant from a socio-economic viewpoint. We have been evaluating how well our current screening process helps projects to identify and assess socio-economic sensitivities and impacts, and plan to introduce additional support or guidance where needed.

The way our industry manages its socioeconomic impacts has consequences for people's health, wellbeing, culture and livelihoods. For examples of what BP is doing to manage potential impacts, see *bp.com/society*.

### Community engagement

Our ability to operate safely and continuously depends not only on obtaining the necessary official permits from the authorities, but also on the informal permission or social licence to operate that communities in the surrounding area can choose to give or withhold. Throughout the life cycle of projects and operations, we consult with communities about potential environmental and socio-economic impacts and develop plans to manage these.

### Community grievances

We believe that open dialogue helps to build strong, mutually beneficial working relationships, and enables both sides to work through any disagreements. Our operating managing system requires our businesses to have a process for receiving communications from key communities and stakeholders, and to document responses. In 2013, most of the complaints raised by communities living near our major operating sites were related to operational impacts such as odour and noise. Our businesses are also required to record and take action on any external commitments they make to key communities and stakeholders.

We are working with oil and gas industry association IPIECA to develop guidance on managing community grievances. This is expected to be finalized in 2014 and we plan to test its suitability for incorporation into our training and capability development.

### Indigenous peoples

Developing robust and mutually beneficial relationships with indigenous peoples requires a shared understanding of their rights and traditions, and where possible, agreement on the respective responsibilities of BP, the indigenous peoples, local and national governments and other stakeholders.

BP projects subject to our environmental and social practices are required to identify, understand and manage potential impacts on indigenous peoples, including developing a consultation plan and impact mitigation measures that take account of local circumstances, customs and culture. The practices include detailed recommendations based on our long experience of indigenous relationships in locations such as Alaska, Australia, Canada and Indonesia.

### Community consultation in Indonesia

In planning the expansion of our Tangguh LNG project, we sought the views of people in the local community. We held public consultation meetings in 62 local villages and received more than 1,000 comments from community members. We aided the attendance of community-elected representatives at meetings where we shared our findings and discussed how community input would be addressed.

For example, some villagers were concerned that a route to a cultural heritage site would be blocked by the construction of a new jetty. As a result, we are creating an alternative route so that villagers can easily walk from their homes to the site. Others asked us about jobs. In our contracts we lay out our preference for employing local people, where possible, and we are building the skills of local people through our workforce development programmes. We also aimed to be clear about the requests and comments that we could not address and why. For example, a request may require a resolution that we do not have the authority to implement or approve.

Welding tubes to be used for the expansion of BP's Tropical sugar cane mill in Brazil, which has achieved the international standard for social accountability and human rights, SA8000.

# Supporting development in societies where we work

When managed properly, our presence in a region has the potential to contribute to local and national economies.

### **Tim Langton**

Group Deputy Ethics and Compliance Officer, BP

"Our anti-bribery and corruption programme applies across BP globally. We have a single programme, which means that it must be flexible and designed to respond to whatever bribery risk has to be managed in any of our businesses, wherever they are based. We work closely with the businesses to gain a good understanding of how the programme is working for them and the challenges they are facing. We also regularly engage with our contractors and counterparts to discuss how they manage the risk and to share good practice."



Demand for trained mechanics is high in India. *Castrol* helps independent motorcycle mechanics update their skills.



When we move into a new area, we look for opportunities to share the benefits of our presence. This includes contributing to economies through our core business activities and community investment.

### Local workforce

A number of our major operating sites are working to improve local and national representation in their workforce. For example, approximately 70% of our total workforce based in Angola are Angolan nationals and we are helping to develop the pool of skilled local labour. Since 2009, 32 people have joined BP in Angola having graduated from our scholarship programme in chemical, electrical, mechanical, structural and petroleum engineering fields from universities in Turkey, South Africa and the UK.

### Local suppliers

In a number of locations, we run programmes to help build the skills of businesses and to develop the local supply chain. For example, we have helped some local companies to reach the standards needed to supply BP and other organizations through training and sharing of our standards in areas such as health and safety.

BP's Enterprise Development and Training Programme in Azerbaijan is designed to support local companies' efforts to achieve international standards, enhance their competitiveness in supplying the oil and gas sector of Azerbaijan and increase the use of local suppliers by BP's contractors. Since 2007, the programme has assisted local companies in securing contracts valued in excess of \$450 million, of which more than \$275 million are with BP in Azerbaijan.

See page 27 for information on mentoring provided to local businesses in Papua.

We seek to promote the use of local suppliers where appropriate. For example, since 2012, BP and its partners have awarded more than \$2.4 billion in contracts to UK-based companies to provide services and equipment for the redevelopment of the Schiehallion and Loyal oilfields to the west of Shetland in Scotland.

### Good governance and transparency

We work with governments, non-governmental organizations (NGOs) and international agencies to foster good governance in the countries where we operate, focusing on improving transparency and eliminating corruption. Where possible, we support host governments in their efforts to introduce good practice and participate in the policy debate at an international level.

### Tax

The taxes that BP pays are a significant part of BP's economic contribution to the countries in which we operate. We believe that tax systems should balance the generation of tax revenues with the encouragement of business investment through simple and efficient systems designed to allow competitiveness, while maintaining transparency and good governance in business and government.

Worldwide, in 2013, BP paid \$13.9 billion in corporate income and production taxes. Since 2012, there has been a decrease in the total amount of taxes we have paid, which reflects lower profits as a consequence of costs relating to the Gulf of Mexico oil spill and the impact of divestments. BP also bears other taxes, such as import and export taxes, employers' taxes, withholding taxes and indirect taxes. In addition, BP collects and then pays to governments VAT and sales taxes, and withholding taxes, which in total are greater than taxes borne by BP.

BP supports the statement of tax principles that was published by the Confederation of British Industry in May 2013, and is intended to promote and affirm responsible business tax management by UK businesses.

### **Extractive Industries Transparency Initiative**

As a member of the Extractive Industries
Transparency Initiative (EITI), we work with
governments, NGOs and international agencies
to improve transparency and disclosure of
payments to governments. BP is supporting
several countries that are working towards
becoming EITI compliant.

For example, BP is an active member of the Trinidad & Tobago EITI steering committee. In countries that have achieved EITI compliance, such as Azerbaijan and Norway, BP submits an annual report on payments to their governments.

### Disclosure requirements

We have taken part in consultations in relation to new or proposed financial transparency reporting requirements in the US and EU for companies in the extractive industries. We are awaiting the publication of the revised rules of the Dodd-Frank legislation from the Securities and Exchange Commission and are preparing to comply with the disclosure requirements.

We are contributing to the consultation process initiated by the UK government in preparation for the adoption of the EU accounting directive into UK law.

# Contribution to communities by region (\$ million)



# Q: Does BP quantify the benefits of its presence to the community?

A: BP does not use a single methodology to quantify overall community benefits for all its sites. We do, however, collect some data globally, for example, on community investment. Each BP location decides the extent to which it will quantify overall benefits of its presence to local communities. Countries where BP has a large upstream or refining presence, such as Australia, Azerbaijan and the US, generally have more data on the overall community benefit of their presence than smaller sites or those remote from communities. Methodologies for quantifying overall community benefits need to be sophisticated to take account of different circumstances and types of impact, and to balance negative and positive impacts. We will follow the development of these methodologies

# **Elizabeth Wild**Social Responsibility Director, BP



### Anti-bribery and corruption

13.7

2.5

29.0

We operate in some of the world's highest risk countries, as measured by Transparency International's Corruption Perceptions Index. Our code of conduct requires that we do not engage in bribery or corruption in any form and our group-wide anti-bribery and corruption standard applies to all BP employees and contractor staff. The standard requires annual bribery and corruption risk assessments; risk-based due diligence on all parties with whom BP does business; appropriate anti-bribery and corruption clauses in contracts; and the training of personnel in anti-bribery and corruption measures. Anyone who has a question or concern about an ethical matter can contact OpenTalk, a helpline operated by an independent company (see page 23).

### **Engaging with governments**

BP engages with governments on many fronts and we aim to maintain dialogue with all relevant government agencies, ministries and regulatory departments at every stage of our presence in a country. Our code of conduct requires that our employees and contractors are honest and responsive in interactions they have with government agencies or regulators. We engage in policy debate on topics that are of legitimate concern to the group, our staff and the communities in which we operate, such as financial transparency, human rights and security, carbon policy, and diversity and inclusion.

### Community investment

BP's community investments aim to create meaningful and sustainable impacts. Community engagement, impact assessments and specific challenges, such as health and safety issues or skills shortages, shape our approach to community investment. We work with local authorities, community groups and specialists to deliver the programmes. Our community investment falls into several categories.

### **Enterprise development**

We contribute to the development of training and employment opportunities and help build capability in institutions and businesses. In India, for example, we developed a training programme to help motorcycle mechanics working in small enterprises to keep up with technological advances. Since it began in 2010, the programme has trained more than 100,000 mechanics.

We help small and medium enterprises (SMEs) in new or emerging sectors, such as tourism or agribusiness. In some countries we help local banks and business associations so that they are in a position to provide capital for loans to local

businesses and for microfinance. For example, in Turkey, we developed a co-funding agreement with Credit Guarantee Fund to help enterprises along the Baku-Tbilisi-Ceyhan pipeline to access bank credits. Since 2008, 74 SMEs have accessed almost \$3.5 million.

### Education

We often contribute to education initiatives in the regions where we work. For example, in India, we are helping to promote science, technology, English and maths skills within secondary schools in and around Hyderabad. In the UK, we partnered with King's College London and the Science Museum to create Enterprising Science, aimed at getting more young people interested in careers as scientists and engineers, and addressing a shortfall in graduate numbers.

### Access to energy

In several locations, we have helped communities to access or conserve energy. For example, in Georgia, we are working with the Energy Efficiency Centre to provide some public buildings, such as schools and hospitals, with energy-efficient solutions, such as replacing single glazed windows and wooden doors with double glazed PVC, insulating roofs and replacing incandescent light bulbs with energy-saving bulbs. The multi-year project aims to raise community awareness of energy efficiency and energy-saving technologies by demonstrating that these measures can reduce both carbon emissions and energy bills.

### Infrastructure and health

In a few locations, we contribute to small community infrastructure programmes that promote local economic development and help people to improve their access to basic resources such as drinking water, education, transport and health. For example, we helped to develop a water sanitation project in the Huambo and Bie provinces in Angola, which supplies clean water for more than 20,000 people and aids efforts to eradicate endemic diseases such as polio, cholera and malaria.

In Indonesia, a BP-initiated community health programme has helped to nearly eradicate malaria in villages around our Tangguh LNG plant. The prevalence of malaria in the affected villages has fallen from an average of 12% in 2003 to an average of 0.08% in 2013.

### Direct spending on community programmes

Our direct spending on community programmes including disaster relief in 2013 was \$78.8 million. This is in addition to \$13.7 billion for employee benefits and wages and \$13.9 billion in taxes paid to governments.

# **Human rights**

Our operations can bring about major changes to societies and communities, which can have significant impacts – both positive and negative – on people's lives.

# Potential human rights impact areas within the oil and gas industry



BP is committed to respecting internationally-recognized human rights, as set out in the International Bill of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. This means carefully managing issues such as workforce welfare, safety and health, and the potential impacts of our activities on local communities.

BP's human rights policy, published in 2013, elaborates on the requirement within our code of conduct to treat everyone at BP and everyone with whom we come into contact, with fairness, respect and dignity. The policy applies to all employees and officers in BP wholly-owned entities and in joint ventures to the extent possible and reasonable given BP's level of participation.

Managing human rights issues has implications for the way we manage our supply chains. We expect our contractors to act consistently with our code of conduct, which outlines our requirements, for example, that no forced or child labour will be used. Non-conformance with this may ultimately result in termination of contract

We are a signatory to two voluntary agreements with implications for specific aspects of human rights: the UN Global Compact, which includes principles on protecting internationally proclaimed human rights; and the Voluntary Principles on Security and Human Rights, which define good practice for security operations in the extractive industry.

### **United Nations Guiding Principles**

The United Nations Guiding Principles on Business and Human Rights outline specific responsibilities for businesses in relation to human rights.

We have created an action plan designed to achieve closer alignment with the Guiding Principles over a number of years using a risk-based approach and plan to monitor the effectiveness of these actions. Senior representatives from key functions including human resources, ethics and compliance, procurement, security and safety and operational risk oversee the implementation. Progress is reported to the group operations risk committee, which is chaired by BP's group chief executive.

## 400+

people attended human rights training events in 2013.



2013

BP's human rights policy published.

### **Human rights action plan**

### Planned actions for 2013

Develop and implement human rights training for high-priority businesses and functions.

### What we did

- Conducted 21 human rights training events for more than 400 people, including workshops for senior leaders in Indonesia and the Middle East, and awareness and sensitization training for people in priority job types and businesses.
- Developed human rights material for use in existing training programmes.

Develop guidance on community grievance processes and integrating human rights into impact assessments.

- Worked with oil and gas industry association IPIECA to help develop industry guidance and tools for community grievance mechanisms, and for integration of human rights into environmental and social impact assessments.
- Included human rights in our impact assessment for the LNG expansion project in Tangguh, Indonesia.

Embed human rights requirements into our procurement and supply chain management processes.

- Developed a pre-qualification questionnaire for suppliers in our Downstream business that included aspects of human rights.
- Participated in IPIECA's supply chain taskforce on developing shared industry approaches to managing human rights risks in the supply chain.
- Developed minimum standards for workforce welfare for our Oman Khazzan project that set requirements for our contractors to follow with respect to working and living conditions.

# Q: How is BP approaching the UN Guiding Principles?

A: As a multinational oil and gas company, human rights are relevant to aspects of our business activities, so we are using a risk-based approach to achieve closer alignment with the UN Guiding Principles. We are working with key functions and selected priority businesses to raise awareness of potential human rights impacts and risks and our responsibility to address these, as outlined in BP's human rights policy. At our training sessions this year, we found that discussing human rights in practical terms, such as workforce welfare, land acquisition and security, and analysing specific examples or scenarios from business, helped participants to better understand the relationship between business and

**Nili Safavi** Human Rights Expert, BP



Find more online at bp.com/society.

View more examples of what BP is doing to manage potential socio-economic impacts.

Read BP's human rights policy.

Download BP's Annual Report on the Voluntary Principles on Security and Human Rights. We work with industry groups to help develop and drive good practice guidance. For example, we have helped lead the development of IPIECA's guidance on integrating human rights into environmental and social impact assessments. While BP has previously conducted dedicated human rights impact assessments and has considered human rights as part of other impact assessments, this is a complex topic and we hope that the new guidance will make it easier for practitioners to bring a human rights lens to the process.

### Security and human rights

Since 2000, BP and other companies from our industry have worked alongside non-governmental organizations and the US and UK governments on the Voluntary Principles on Security and Human Rights. The Voluntary Principles provide a framework for companies to assess whether human rights issues are likely to arise as a result of security activities within local operations, and to allow appropriate precautionary steps to be taken.

BP is working with several other Voluntary Principles member companies to develop measurable key performance indicators for Voluntary Principles implementation. We expect to test the indicators in 2014.

We also participate in the IPIECA working group on responsible security, sharing experience and best practice on implementing security and human rights programmes. In Iraq, we work with other oil companies on implementation of the Voluntary Principles within the Basra region.

We provide those employees accountable for the assessment and management of security risks with guidance explaining BP's approach to implementing the Voluntary Principles, including the mechanisms we use for identifying and mitigating risk, interaction with public security forces, engagement with private security providers and evaluating progress.

In 2013, using BP's Voluntary Principles guidelines, we conducted an internal assurance review of our LNG plant at Tangguh, Indonesia, and found that it has a mature programme in implementing the Voluntary Principles. The review suggested a few adjustments, including regular testing of the human rights response procedure.

We are addressing suggestions made in previous internal assurance reviews, including introducing formal protocols to use horse patrols in Azerbaijan, and working with our security contractor in Georgia to audit security personnel training on human rights principles and standards.

BP reports on its progress in relation to security and human rights issues in an annual report to the Voluntary Principles plenary. Our report is available at *bp.com/humanrights*.

### Worker welfare in Brazil

As BP prepared to expand its Tropical sugar cane-to-biofuels mill in Brazil, doubling its processing capacity, a question arose: where to house the 600 construction workers that will be working on the project. Accommodation options around the work site are limited, and BP was concerned about the potential strain such a large temporary workforce might have on local resources. Transportation safety was also a concern, with the construction site located at least 16 kilometres away from the nearest town.

BP decided to build a temporary housing complex near the site, aiming to achieve a higher standard than is typical of such facilities in Brazil. The complex, built in 2013, was designed to provide comfort while minimizing the environmental footprint. It comprises dormitories, 24-hour medical care, recreation areas including an outdoor movie theatre, a cafeteria and a restaurant, and other facilities.

We have been working to raise standards in relation to other aspects of worker welfare. For example, we implemented new grievance mechanisms for employees wishing to voice concerns and designed a mechanized harvesting process to replace manual harvesting where possible. The operation has achieved SA8000 certification, the international standard for social accountability and human rights.

# Our stakeholders and our reporting

We engage with a wide range of stakeholders to understand society's expectations of us.

Our stakeholders are the many individuals and organizations who are affected in some way by BP's activities, whether it is in our role as an energy provider, an employer, or as a company that generates revenues and helps to boost local economies. The primary audiences for this report are employees, shareholders and analysts, governments and regulators, business partners, non-governmental organizations (NGOs), the local communities in which we operate and industry associations.

### How we engage our stakeholders

### **Employees**

BP uses a range of internal communications channels to keep our employees informed about the context within which they work. We maintain regular communication with unions at many BP sites around the world.

### **Shareholders and analysts**

We engage with shareholders and analysts through our annual general meeting and other events. We communicate via roadshows, webcasts and one-to-one meetings. In 2013, this included a presentation on *BP Energy Outlook*, an upstream exploration day and briefings on oil sands and our progress against safety enhancements recommended in the Bly Report.

### **Governments and regulators**

We engage with governments on many fronts, from consultation responses to direct engagement with government representatives. Our code of conduct requires that we are honest and responsive in any interactions we have with governments. In many countries where we operate, lobbying activity is strictly regulated.

### **Our industry**

BP is working through business and industry groups to help establish standards and address complex energy challenges. For example, BP is a member of the global oil and gas association for environmental and social issues, IPIECA, and the American Petroleum Institute. We are also involved in industry partnerships on specific issues such as deepwater drilling and oil sands.

### **Contractors and partners**

Like our industry peers, BP rarely works in isolation. Safe and responsible operations depend on the capability and performance of our suppliers, contractors and partners. To this end, we set operational standards through legally-binding agreements. Training and dialogue also help build the capability of our contractors. See page 27.

### Local communities

We engage with local communities through public consultations, as well as regular and ad hoc meetings with community representatives. Our relationships with communities are important for all our activities, but particularly for major new projects, where our presence may bring about changes in the local area, such as jobs and support for community development, but also increased road traffic, changes in landscapes and increased demand for fresh water.

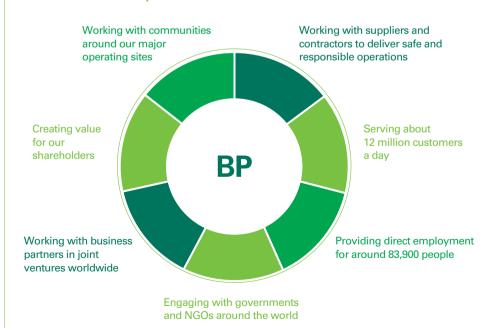
### **NGOs**

For our new projects, we often consult with relevant local and international NGOs, who may provide specialized expertise on managing impacts. We also engage with NGOs at a group level. In 2013, we discussed biodiversity, climate change and energy policy, financial transparency, human rights and operating in sensitive areas in these meetings.

### Customers

About 90,000 consumers in more than 15 countries participated in our global tracking research programmes in 2013, answering questions ranging from how they rate BP on customer satisfaction in relation to its competitors, to the degree to which they recognize our brand and use our products. Social media, focus groups and in-depth interviews with customers are rich sources of feedback for us.

### Our stakeholder relationships



Investors visit BP's well capping and tooling package in Houston.



### What we heard from stakeholders

We talked with a range of stakeholders in preparing for our 2013 sustainability reporting, including representatives from industry associations, government, investors, NGOs and trade unions. These conversations took place in one-to-one meetings in London and Washington DC, and in roundtable discussions in Berlin and Brussels.

# "Articulate BP's value to society more clearly."

We detail the economic value generated and distributed to society in our At a glance section, and include information on how we support the communities in which we work. See pages 4-5 and page 43.

# "Provide information on how you are managing human rights issues."

We provide information on how we are working towards aligning with the UN Guiding Principles on Business and Human Rights and outcomes of this work. See page 44.

# "Describe how BP is managing issues at a local level."

We include case studies from around the world to show how our policies are working on the ground. See *bp.com/casestudies*.

# "Explain how you assess what issues to report on."

We provide information on our process for identifying issues to report as well as detail on which issues are most important to our stakeholders and our business.

### "Show data trends."

We include five-year data and key performance indicators for non-financial performance. See page 8.

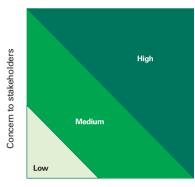
### "Report back on what you said you would do last year and where you see the company going."

We are introducing a summary of what we said we would do, what we have done and what we plan to do next in Our progress in 2013. See page 6.

### Identifying the issues

We develop our reporting around the issues that we believe have the highest level of importance for our stakeholders and the greatest potential impact on BP's ability to deliver its strategy.

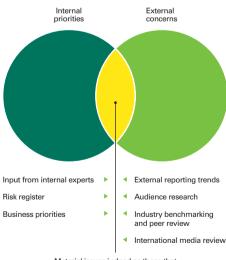
### **Materiality matrix**



Significance to BP strategy

We take account of external developments and examine issues in their wider context.

### Our approach to materiality



Material issues judged as those that represent significant external concerns that also match internal priorities

In addition to the conversations we had with stakeholders about our reporting, around 200 people took part in an online survey about *BP Sustainability Review 2012*. They commented on how they thought the report and our online content measured up against their expectations.

As our reporting takes shape each year, we seek feedback from a number of external stakeholders, whose input helps identify any gaps in our reporting of material issues. Before our reporting is published, BP's senior leaders review the content to check there are no significant omissions.

In 2013, issues assessed as being of high concern to stakeholders and of high significance for our company included:

### The Gulf of Mexico

- Environmental and economic restoration.
- · Legal proceedings.
- · Independent safety and ethics monitors.

### The energy future

- · Climate change and carbon risk.
- The transition to a lower-carbon economy, including the role of renewables.
- Operating at the frontiers: deepwater drilling, oil sands and hydraulic fracturing.

### How we operate

- Board/executive governance and oversight.
- Risk management.
- Financial sustainability of BP.

### Our people and safety

- Employee and contractor safety.
- · Recruitment and retention.
- Performance and reward.
- Diversity and inclusion.

### **Environment and society**

- GHG emissions, water and other environmental performance.
- Our contribution to society.
- · Human rights.
- Transparency of payments.
- · Geopolitical context.

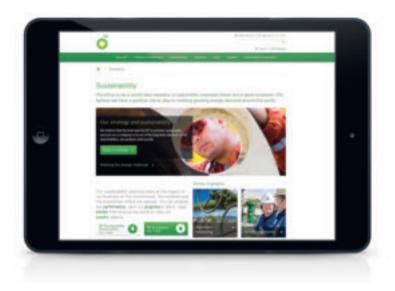
We have attempted to cover these topics in our *Sustainability Review 2013* as well as on our website, and to address them within our *Annual Report and Form 20-F.* 

### Scope of this report

This Sustainability Review and bp.com/sustainability concentrate on performance and activities from 1 January to 31 December 2013. We aim to report on all aspects of our business, including joint ventures where we are the operator. Where appropriate, we also seek to provide an overview of joint venture activities where we are not the operator, but where we have significant influence on our partners.

# Find more online

Our website, *bp.com/sustainability*, is an integral part of our sustainability reporting, covering a wide set of issues, data and case studies.





### **Case studies**

View examples of how we are managing issues locally from around the world.



bp.com/casestudies



### **HSE** charting tool

Filter and analyse information on the group's health, safety and environmental performance. Data for the past decade is available, and can be viewed in a variety of chart formats.



bp.com/hsechartingtool

### The energy future

- Our energy projections in BP Energy Outlook 2035.
- bp.com/energyoutlook
- Effects of natural resource scarcities on patterns of energy supply and demand.
- bp.com/energysustainabilitychallenge

### Our people

 Employee numbers by gender and what we are doing to create a diverse and inclusive workplace.



bp.com/people

### Society

- Examples of potential human rights challenges and BP's approach to managing these risks.
- Our approach to anti-bribery and corruption.



bp.com/society

### Safety

- Progress updates on the implementation of the internal investigation into the Deepwater Horizon accident.
- Sharing lessons learned with the industry on deepwater drilling.



bp.com/safety

### **Environment**

 Greenhouse gas intensity data, as well as energy use, flaring, water and waste performance data.



bp.com/environment

### Reporting standards

- We apply the Global Reporting Initiative's G3.1 guidelines and we use guidance from our industry association IPIECA.
- We report against the UN Global Compact's 10 principles on human rights, labour, environment and anti-corruption.



bp.com/aboutourreporting

### **Translations**

Summaries of *BP Sustainability Review 2013* are available in Arabic, German, Mandarin Chinese, Portuguese, Russian and Spanish.



bp.com/srtranslations

### **Country and site reporting**

We publish country reports on our operations in Angola, Australia, Azerbaijan and Georgia. We also maintain a library of site reports.



bp.com/countryreports and bp.com/sitereports

# Independent assurance statement

BP's Sustainability Review 2013 (the Report) has been prepared by the management of BP p.l.c., who are responsible for the collection and presentation of information within it. Our responsibility, in accordance with BP management's instructions, is to carry out a 'limited level' assurance engagement on the Report. We do not accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance any such third party may place on the Report is entirely at its own risk.

### What we did to form our conclusions

Our assurance engagement has been planned and performed in accordance with ISAE3000.1

The Report has been evaluated against the following criteria:

- Whether the Report covers the key sustainability issues relevant to BP in 2013 which were raised in the media, BP's own review of material sustainability issues, and selected internal documentation.
- Whether the health, safety and environment (HSE) data presented in the Report are consistent with BP's Environmental Performance Group Reporting Requirements and HSE Reporting Definitions.
- Whether sustainability claims made in the Report are consistent with the explanation and evidence provided by relevant BP managers.

In order to form our conclusions we undertook the steps outlined below:

- Interviewed a selection of BP's senior managers to understand the current status of safety, social, ethical and environmental activities, and progress made during the reporting period.
- Reviewed selected group level documents relating to safety, social, ethical and environmental aspects of BP's performance to understand progress made across the organisation and test the coverage of topics within the Report.
- 3. Carried out the following activities to review HSE data samples and processes:
  - Reviewed disaggregated HSE data reported by a sample of five businesses to assess whether the data had been collected, consolidated and reported accurately.
  - b. Reviewed and challenged supporting evidence from the sample of businesses.
  - Tested whether HSE data had been collected, consolidated and reported appropriately at group level.
- Reviewed the coverage of material issues within the Report against the key sustainability issues raised in external media reports and the outputs from BP's processes for determining material sustainability issues.
- Reviewed information or explanations about selected data, statements and assertions within the Report regarding BP's sustainability performance.

### Level of assurance

Our evidence gathering procedures were designed to obtain a 'limited level' of assurance (as set out in ISAE3000) on which to base our conclusions. The extent of evidence gathering procedures performed is less than that of a reasonable assurance engagement (such as a financial audit) and therefore a lower level of assurance is provided.

### The limitations of our review

Our work did not include physical inspections of any of BP's operating assets.

### Our conclusions

Based on the scope of our review our conclusions are outlined below:

### Materiality

Has BP provided a balanced representation of material issues concerning BP's sustainability performance?

- We are not aware of any material aspects concerning BP's sustainability performance which have been excluded from the Report.
- Nothing has come to our attention that causes us to believe that BP management has not applied its processes for determining material issues to be included in the Report.

# Completeness and accuracy of performance information

How complete and accurate is the HSE data in the Report?

- With the exception of the limitations identified in the report on pages 8-9 we are not aware of any material reporting units that have been excluded from the group-wide HSE data.
- Nothing has come to our attention that causes us to believe that the data relating to the above topics has not been collated properly from group-wide systems.
- We are not aware of any errors that would materially affect the data as presented in the Report

How plausible are the statements and claims within the Report?

 We have reviewed information or explanation on selected statements on BP's sustainability activities presented in the Report and we are not aware of any misstatements in the assertions made.

### Observations and areas for improvement

Our observations and areas for improvement will be raised in a report to BP management. Selected observations are provided below. These observations do not affect our conclusions on the Report set out above.

The ongoing increase in demand for energy continues to take BP and its partners into challenging environments. This includes both operated and non-operated positions in the Arctic. The specific challenges of operating in this environment are of increasing concern to stakeholders and serve to re-emphasise the importance of effectively influencing partners and reporting on progress, particularly in regions where regulation may be perceived to be less stringent.

- BP discusses the processes in place to help manage the impacts from water withdrawal and discharge but does not quantify the impact that this is having. For example, BP has unconventional gas operations in both Algeria and Oman and acknowledges the large amounts of water required in these types of operation; however, it is not clear from BP's reporting whether businesses are successfully reducing the impacts in these water stressed areas.
- BP participates across the group in joint ventures in which it is not the operator, including nearly half of upstream production. Successful adoption of the new group policy, covering the assessment and management of certain risks to BP posed by those joint ventures, will be of particular interest to stakeholder groups. It will be helpful for BP to report in future on the extent to which the policy has been implemented.
- The Report provides commentary from BP, in the form of a series of seven Q&As. This has been used within the Report by BP to respond to several of the challenging topics that have been raised during BP's wide stakeholder engagement programme. This approach has helped BP to address some of these issues more explicitly than in previous reporting.
- BP has sought to report more clearly on what it said
  it would do, what has been done and its future plans.
  The updates on 2013 include quantification of the
  progress made but 'what we plan to do next' is
  phrased in fairly broad terms and does not set out
  specific improvements. This helps to provide
  stakeholders with an indication of the future direction
  but does not provide targets against which progress
  can be measured.
- BP includes reference to the multiple studies that are continuing to investigate potential impacts on resources and habitat in the Gulf of Mexico.
  However, the analysis of many studies is pending and it remains difficult to gain a clear understanding of what the results have revealed to date.

### Our independence

As auditors to BP p.l.c., Ernst & Young are required to comply with the requirements set out in the Auditing Practices Board's (APB) Ethical Standards for Auditors. Ernst & Young's independence policies apply to the firm, partners and professional staff. These policies prohibit any financial interests in our clients that would or might be seen to impair independence. Each year, partners and staff are required to confirm their compliance with the firm's policies.

We confirm annually to BP whether there have been any events including the provision of prohibited services that could impair our independence or objectivity. There were no such events or services in 2013.

### Our assurance team

Our assurance team has been drawn from our global Climate Change and Sustainability Services Practice, which undertakes engagements similar to this with a number of significant UK and international businesses.

Ernst & Young LLP, London 19 March 2014

<sup>1</sup> International Federation of the Accountants' International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE3000).



BP's corporate reporting suite includes information about our financial and operating performance, sustainability performance and also on global energy trends and projections.



**Annual Report and** Form 20-F 2013 Details of our financial and operating performance in print or online. Published in March. bp.com/annualreport



Strategic Report 2013 A summary of our financial and operating performance in print or online. Published in March. bp.com/annualreport



**Energy Outlook 2035** Proiections for world energy markets, considering the potential evolution of global economy, population, policy and technology. Published in January. bp.com/energyoutlook



**Sustainability Review 2013** A summary of our sustainability reporting with additional information online. Published in March. bp.com/sustainability



**Financial and Operating** Information 2009-2013 Five-year financial and operating data in PDF or Excel format. Published in April. bp.com/financialandoperating



**Statistical Review of** World Energy 2014 An objective review of key global energy trends. Published in June. bp.com/statisticalreview

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### **Feedback**

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