### Sustainability Review 2011

bp.com/sustainability



Building a stronger, safer BP

# What's inside

2011 was a year of recovery, consolidation and change for BP. Our employees worked hard to make BP a stronger, safer company. We recognize there is more to do, but we believe important progress was achieved during the year, and we are clear on our priorities and responsibilities as we move forward.

In this Sustainability Review, we look at how we are working to enhance safety and risk management, earn back trust and grow value, following the Gulf of Mexico accident.

### Stakeholder voices

External and internal stakeholders have been essential in shaping this report. Many of their insights and opinions are highlighted here and online. We also include observations and a summary statement from our external assurance provider, Ernst & Young.

During our work we interviewed staff responsible for engaging with external stakeholders and reviewed evidence of how information from these dialogues is captured. We have also attended a selection of briefings to investors and two of the roundtable discussions held in 2011 to understand the perspectives of various thought leaders on how BP should evolve its reporting and communications. We noted that stakeholders welcome this dialogue but there remains a desire for more comprehensive reporting on how BP is changing.

Ernst & Young Observation

### Find out more online

This Sustainability Review is a summary of information that is expanded upon online.

Our website, *bp.com/sustainability*, is an integral part of our group sustainability reporting, and covers our sustainability issues in more depth. The website includes detailed information about our environmental, social and safety performance – through additional data, commentary and case studies. Ì

Find out more online **bp.com/sustainability** 



**Cover image** Our Global Refining Research and Commercial Centre in Naperville, US, taken as part of the We are BP programme.

## Sustainability Review 2011 This report aims to answer guestions raised by our stakeholders on our key sustainability issues



2 Group chief executive's letter Bob Dudley sets out the actions being taken to make BP a stronger and safer company



4 How BP is changing Since the Gulf of Mexico accident in 2010, we have been strengthening safety, risk management and compliance across BP



6 Gulf of Mexico

- Restoring the environment
- Restoring the economy
- Back to work in the region
- Claims and legal proceedings



### 12 The energy future

- The energy challenge
- Frontier technology
- Canadian oil sands
- Climate change
- Alternative energy



20 Our people

- Our values
- Our code of conduct
- Our priorities for managing our people



### 30 Safety

- Safety management
- Personal health and safety
- Preventing major accidents and oil spills



34 Safer drilling Since the beginning of 2011, all BP-operated drilling and wells activity has been conducted through a single global wells organization



### 24 Operating responsibly

- Our operating management system
- Risk management and corporate governance
- Working with partners and contractors
- Stakeholder engagement
- Human rights



36 Environment

- Environmental management
- Environmental performance
- Working in sensitive areas



40 Working responsibly in the Arctic The environmental and social sensitivities of the Arctic create some unique challenges for oil and gas operations



42 SocietyManaging our impact

- Socio-economic contribution
- Social investment

46 Assurance statement

Ernst & Young's conclusions about BP's 2011 reporting

### 48 Our approach to reporting

How we identified issues to report on and engaged with stakeholders to develop the report

# This is BP

### **BP in figures**<sup>a</sup>

Safety      Fatalities – employees    3    2    0    0      Fatalities – contractors    4    3    18    14      Days away from work cases – workforce    0.075    0.080    0.069    0.193    0.0      Recordable injuries – workforce    0.075    0.080    0.069    0.193    0.0      Recordable injury frequency* (RIF) – workforce    0.48    0.43    0.34    0.61    0      Hours worked – employees (million hours)    204    195    174    168    1      Hours worked – employees (million hours)    241    245    216    255    2      Number of losses of primary containment (all – not just oil spills)    NA    658    537    418    3      Number of oil spills – to land and water*    213    170    122    142    1      Volume of oil spills – to land and water*    213    170    122    142    1      Volume of oil spills – to land and water*    213    170    122    142    1      Volume of oil spills – to land and water*    213    100    3.4    1.2    1.74	2					
$\begin{array}{ccccc} Fatalities - employees & 3 & 2 & 0 & 0 \\ Fatalities - contractors & 4 & 3 & 18 & 14 \\ Days away from work cases - workforce & 167 & 175 & 134 & 408 & 1 \\ Days away from work case frequency ^{\rm b} (DAFWCF) - workforce & 0.075 & 0.080 & 0.069 & 0.133 & 0.00 \\ Recordable injuris - workforce & 1,060 & 951 & 665 & 1,284 & 6 \\ Recordable injury frequency ^{\rm b} (RIF) - workforce & 0.48 & 0.43 & 0.34 & 0.61 & 0 \\ Hours worked - employees (million hours) & 204 & 195 & 174 & 168 & 1 \\ Hours worked - contractors (million hours) & 241 & 245 & 216 & 255 & 2 \\ Number of losses of primary containment (all - not just oil spills) & NA & 658 & 537 & 418 & 3 \\ Number of oil spills - loss of primary containment ^{\circ} & 340 & 335 & 234 & 261 & 2 \\ Safety and environmental fines ($ million) & 22.5 & 1.1 & 66.6 & 52.5 & 7 \\ \hline Environment & & & & & & & & & & & & & & & & & & &$	For the year ended 31 December	2007	2008	2009	2010	2011
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Days away from work case frequency $^{b}$ (DAFWCF) – workforce0.0750.0800.0690.1930.0Recordable injuries – workforce1,0609516651,2846Recordable injury frequency $^{b}$ (RIF) – workforce0.480.430.340.610Hours worked – employees (million hours)2041951741681Hours worked – contractors (million hours)2412452162552Number of losses of primary containment (all – not just oil spills)NA6585374183Number of oil spills – loss of primary containment c3403352342612Safety and environmental fines (\$ million)22.51.166.652.57EnvironmentNumber of oil spills – to land and water c1.03.41.21.744Volume of oil spills – to land and water c0.30.90.20.844Volume of oil unrecovered (million litres)0.30.90.20.240.220Direct crebon dioxide (CO <sub>2</sub> )* (Million tonnes (Mtel))59.257.060.460.255Direct greenhouse gas (GHG)* (Mte CO <sub>2</sub> equivalent (CO <sub>2</sub> e))63.561.465.064.96Indirect crabon dioxide (CO <sub>2</sub> )* (Mte CO <sub>2</sub> )52153055457355Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)1,1241,7182,1491,6711.8Environmental expenditure (\$ million)3,2932,520 </td <td>Fatalities – contractors</td> <td>4</td> <td></td> <td>18</td> <td>14</td> <td>1</td>	Fatalities – contractors	4		18	14	1
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Direct carbon dioxide $(CO_2)^e$ (million tonnes (Mte))59.257.060.460.2^i57.0Direct methane $^e$ (Mte)0.200.210.220.22^i0.00Direct greenhouse gas (GHG) $^e$ (Mte CO2 equivalent (CO2e))63.561.465.064.9^i6Indirect carbon dioxide (CO2) $^e$ (Mte)10.79.29.610.0^i9Customer emissions $^h$ (MteCO2)5215305545735Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)1,1241,7182,1491,671^i1,8Environmental expenditure (\$ million)3,2932,5202,48318,400^i8,4PeopleiNumber of employees – group $^k$ 98,10092,00080,30079,70083,4Number of employees – group leadership $^k$ (%)1614141414	Volume of oil spilled (million litres)	1.0	3.4	1.2	1.7 <sup>d</sup>	0.6
Direct methane $^{\circ}$ (Mte)0.200.210.220.2210Direct greenhouse gas (GHG) $^{\circ}$ (Mte CO2 equivalent (CO2e))63.561.465.064.916Indirect carbon dioxide (CO2) $^{\circ}$ (Mte)10.79.29.610.019Customer emissions $^{h}$ (MteCO2)5215305545735Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)1,1241,7182,1491,67111,8Environmental expenditure (\$ million)3,2932,5202,48318,40018,4PeopleNumber of employees – group $^{k}$ 98,10092,00080,30079,70083,4Number of employees – group leadership $^{k}$ (%)16141414	Volume of oil unrecovered (million litres)	0.3	0.9	0.2	0.8 <sup>d</sup>	0.3
Direct greenhouse gas (GHG) $^{e}$ (Mte CO2 equivalent (CO2e))63.561.465.064.9 $^{i}$ 6Indirect carbon dioxide (CO2) $^{o}$ (Mte)10.79.29.610.0 $^{i}$ 9Customer emissions $^{h}$ (MteCO2)5215305545735Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)1,1241,7182,1491,671 $^{f}$ 1,8Environmental expenditure (\$ million)3,2932,5202,48318,400 $^{i}$ 8,4PeopleiNumber of employees – group $^{k}$ 98,10092,00080,30079,70083,4Number of employees – group leadership $^{k}$ (%)16141414	Direct carbon dioxide (CO <sub>2</sub> ) <sup>e</sup> (million tonnes (Mte))	59.2	57.0	60.4	60.2 <sup>f</sup>	57.7
Indirect carbon dioxide (CO <sub>2</sub> ) <sup>e</sup> (Mte)    10.7    9.2    9.6    10.0 <sup>i</sup> 9.6      Customer emissions <sup>h</sup> (MteCO <sub>2</sub> )    521    530    554    573    55      Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)    1,124    1,718    2,149    1,671 <sup>f</sup> 1,8      Environmental expenditure (\$ million)    3,293    2,520    2,483    18,400 <sup>i</sup> 8,4      People    Number of employees – group <sup>k</sup> 98,100    92,000    80,300    79,700    83,4      Number of employees – group leadership <sup>k</sup> 624    583    492    482    5      Women in group leadership <sup>k</sup> (%)    16    14    14    14	Direct methane <sup>e</sup> (Mte)	0.20	0.21	0.22	0.22 <sup>f</sup>	0.20
Customer emissions <sup>h</sup> (MteCO <sub>2</sub> )      521      530      554      573      55        Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)      1,124      1,718      2,149      1,671 <sup>f</sup> 1,8        Environmental expenditure (\$ million)      3,293      2,520      2,483      18,400 <sup>i</sup> 8,4        People <sup>i</sup> Number of employees – group <sup>k</sup> 98,100      92,000      80,300      79,700      83,4        Number of employees – group leadership <sup>k</sup> 624      583      492      482      5        Women in group leadership <sup>k</sup> (%)      16      14      14      14      14			61.4	65.0	64.9 <sup>f</sup>	61.8
Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)    1,124    1,718    2,149    1,671 <sup>i</sup> 1,8      Environmental expenditure (\$ million)    3,293    2,520    2,483    18,400 <sup>i</sup> 8,4      People <sup>i</sup> Number of employees – group <sup>k</sup> 98,100    92,000    80,300    79,700    83,4      Number of employees – group leadership <sup>k</sup> 624    583    492    482    5      Women in group leadership <sup>k</sup> (%)    16    14    14    14			9.2	9.6	10.0 <sup>f</sup>	9.0
Environmental expenditure (\$ million)      3,293      2,520      2,483      18,400 <sup>i</sup> 8,4        People <sup>i</sup> Number of employees – group <sup>k</sup> 98,100      92,000      80,300      79,700      83,4        Number of employees – group leadership <sup>k</sup> 624      583      492      482      5        Women in group leadership <sup>k</sup> (%)      16      14      14      14	Customer emissions <sup>h</sup> (MteCO <sub>2</sub> )	521	530	554	573	539
People      98,100      92,000      80,300      79,700      83,4        Number of employees – group leadership <sup>k</sup> 624      583      492      482      5        Women in group leadership <sup>k</sup> (%)      16      14      14      14	Flaring (E&P) (thousand tonnes (kte) of hydrocarbons)	1,124	1,718	2,149	1,671 <sup>f</sup>	1,835
Number of employees – group k      98,100      92,000      80,300      79,700      83,4        Number of employees – group leadership k      624      583      492      482      5        Women in group leadership k (%)      16      14      14      14	Environmental expenditure (\$ million)	3,293	2,520	2,483	18,400	8,430
Number of employees – group leadership <sup>k</sup> 624      583      492      482      583        Women in group leadership <sup>k</sup> (%)      16      14      14      14	People					
Number of employees – group leadership <sup>k</sup> 624      583      492      482      55        Women in group leadership <sup>k</sup> (%)      16      14      14      14	Number of employees – group <sup>k</sup>	98,100	92,000	80,300	79,700	83,400
		624	583	492	482	516
	Women in group leadership <sup>k</sup> (%)	16	14	14	14	15
Women at management level k (%)      22      22      23      24	Women at management level <sup>k</sup> (%)	22	22	23	24	25
People from UK and US racial minorities in group leadership <sup>k</sup> (%) 5 6 6 7		5	6	6	7	6
People from beyond the UK and US in group leadership <sup>k</sup> (%) 19 19 21 19	People from beyond the UK and US in group leadership <sup>k</sup> (%)	19	19	21	19	19
		NA	15	15	15	14
		974	927	874	742	796
					552	529
Benefits to employees – including wages, salaries, share-based payments, benefits 11,511 12,280 12,216 11,772 <b>12,3</b> and pensions (\$ million)		11,511	12,280	12,216	11,772	12,328
Contracts terminated or not renewed due to non-compliance or unethical behaviour 48 22 30 14		48	22	30	14	14

Deepwater Horizon incident: Our data does not include the oil spill volume from the incident.<sup>d</sup> In 2010, we did not report on GHG emissions or flaring associated with the incident or response. We have since estimated the CO<sub>2</sub> equivalent emissions from response activities.<sup>f</sup>

a Quantitative performance indicators have been chosen, with external input, to reflect the most important sustainability issues for BP. Data is reported here only from operations under BP operational control, except for GHG emissions. We use consistent processes that seek to provide acceptable estimates to enable year-to-year comparisons. b DAFWCF and RIF are the annual frequency per 200,000

hours worked.

- c Oil spills are defined as any liquid hydrocarbon release of more than or equal to one barrel (159 litres, equivalent to 42 US gallons).
- d The US government and third parties have announced various estimates of the flow rate or total volume of oil spilled from the Deepwater Horizon incident. The Multi-District Litigation beginning in 2012 will address the amount of oil spilled. See BP Annual Report and Form 20-F 2011 page 233 for information
- about the volume used to determine our estimated liabilities.
  Direct GHG emissions are the physical emissions from
- operations. Emissions represent all consolidated entities and BP's share of equity-accounted entities except TNK-BP. f We have 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. See page 38 for further information. 9 Indirect GHG emissions are a consequence of the import by

- operations of steam, electricity and heat from third-party sources Emissions represent all consolidated entities and BP's share of equity-accounted entities except TNK-BP. h Based on BP's total reported production of natural gas, natural
- gas liquids and refinery throughputs. Includes \$1,753 million (2010 \$14,551 million) environmental expenditure costs relating to the 2010 Gulf of Mexico oil spill and an increase of approximately \$2,791 million over 2010 related to increases in the decommissioning provision.
- Employees are defined as individuals who have a contract of employment with a BP group entity.
  Employee figures as at 31 December.
  These figures relate to non-retail employees only. In 2011,

- voluntary turnover (resignations and retirements) was 5%. mMinor amendments have been made to comparative periods 2007-2008.
- n Combined basis of subsidiaries and equity-accounted entities,

excluding acquisitions and disposals. For 2011, reserves additions for TNK-BP include the effect of moving from life-of-licence measurement to life-of-field measurement, reflecting TNK-BP's track record of successful licence renewal. Excluding this effect, our 2011 reserves replacement ratio excluding acquisitions and disposals would have been 83%. • Petrochemicals production reported within Refining

- and Marketing. 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-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 except for those that are held as a part of a trading position and certain other temporary inventory positions. Replacement cost profit for the group is a non-GAAP measure.

## We are BP We are putting in place strong foundations to make BP a safer, more trusted and more valuable company

### What we do

We deliver energy to the world. We find, develop and produce essential sources of energy. We turn these sources into products that people need everywhere.

The world needs energy and this need is growing. This energy will be in many forms. It is, and will always be, vital for people and progress everywhere.

We expect to be held to high standards in what we do. We strive to be a safety leader in our industry, a world-class operator, a good corporate citizen and a great employer.

### What we stand for

We care deeply about how we deliver energy to the world.

Above everything, that starts with safety and excellence in our operations. This is fundamental to our success. Our approach is built on respect, being consistent and having the courage to do the right thing. We believe success comes from the energy of our people. We have a determination to learn and to do things better. We depend upon developing and deploying the best technology, and building longlasting relationships. We are committed to making a real difference in providing the energy the world needs today, and in the changing world of tomorrow. We work as one team.

Safety	Respect	Excellence	Coura	ge		One Team	
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.	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.	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.	easy. Ac outcome the cour difficulty stand by We alwa right thin ways of unafraid are hone and activ from oth enduring	e do is rarely chieving the be as often requir age to face v, to speak up a v what we belia ays strive to do ng. We explore thinking and a to ask for help est with oursel vely seek feed hers. We aim fo g legacy, despi t-term prioritie d.	st ses and seve. S	Whatever the stri of the individual, ' accomplish more We put the team of our personal su and commit to bu capability. We tru other to deliver on respective obliga	we will together. ahead uccess uilding its ist each n our
For the year ended 31 December			2007	2008	2009	2010	2011
Performance Total hydrocarbons produced (thousand barrels of oil equivalent (mboe) per day) Reserves replacement ratio ° (%) Total refinery throughputs (thousand barrels per day (mb/d)) Total petrochemicals production ° (thousand tonnes (kte)) Replacement cost profit (loss) ° (\$ million) Taxes to governments – comprising income taxes and production taxes paid (\$ million) Dividends paid to shareholders (\$ million) Contribution to communities ° (\$ million)			3,818 112 2,127 14,320 18,370 13,267 8,106 135.8	3,838 121 2,155 12,835 25,593 19,690 10,342 125.6	3,998 129 2,287 12,660 13,955 10,309 10,483 106.8	106 2,426 15,594 (4,914) 12,071 2,627	3,454 103 2,352 14,866 23,900 16,339 4,072 103.7

#### **Cautionary statement**

BP Sustainability Review 2011 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 2030 and beyond, are forward-looking in nature. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that will or may occur in the future. Actual results may differ from those expressed in such statements depending on a variety of factors, including future levels of industry product supply; demand and pricing; operational problems; general economic conditions; colar estrictions; changes in laws and governmental regulations; regulatory action; exchange rate fluctuations; development and use of new technology; changes in public expectations and other changes in business conditions; the actions of competitors; natural disasters and adverse weather conditions; wars and acts of terrorism or sabotage; and other factors discussed elsewhere in this document and under "lisk factors" in our Annual Report and Form 20-F 2011 as filed with the US Securities and Exchange Commission (SEC). Material is used within this document to describe issues for voluntary sustainability reporting that are considered to have the potential to significantly affect sustainability performance in the view of the company and/or are expected to be important in the eyes of internal or external stakeholders. Material for the public. reporting or filings. BP Annual Report and Form 20-F 2011 and BP Summary Review 2011 may be downloaded from bp.com/annualreport. No material in this Sustainability Review forms any part of those documents.

BP Annual Report and Form 20-F 2011 and BP Summary Review 2011 may be downloaded from bp.com/annualreport. No material in this Sustainability Review forms any part of those documents. No part of this Sustainability Review or bp.com/sustainability constitutes, or shall be taken to constitute, an invitation or inducement to invest in BP p.l.c. or any other entity and must not be relied upon in any way in connection with any investment decisions. BP p.l.c. is the parent company of the BP group of companies. Unless otherwise stated, the text does not distinguish between the activities and operations of the parent company and those of its subsidiaries.

### A letter from our group chief executive Reviewing

his first full year as group chief executive, Bob Dudley sets out the actions being taken to make BP a stronger, safer company



People have high expectations of BP – from our shareholders, employees and partners to our customers and the communities in which we operate. Expectations have been raised even higher since the Deepwater Horizon accident and oil spill. During 2011, I visited 16 countries in addition to the UK, and had many frank discussions about BP's role and responsibilities. It is clear that what we do matters to people, and that open communication is valued – and expected.

The employees of BP are working with great determination to make BP a stronger, safer company. We have set three clear priorities – safety must be enhanced, trust earned back, and greater value delivered to our shareholders. We know we don't have all the answers, but we will keep learning and striving for continuous improvement. We will do our best to keep you informed.

This Sustainability Review is part of our engagement with the wider world. Inside, we report on the measures we are taking with the aim of meeting our responsibilities.

### Meeting our responsibilities in the Gulf of Mexico

BP has been working closely with local communities and government agencies on the restoration of the Gulf Coast. During the year, we continued to meet our commitments to those affected. All legitimate claims for compensation have been, and will continue to be met. By the end of 2011, \$7.8 billion had been paid for claims, advances and other payments. On 3 March 2012 we announced a settlement with the Plaintiffs' Steering Committee, subject to final written agreement and court approvals, to resolve the substantial majority of legitimate economic loss and medical claims made by individual and business plaintiffs in the Multi-District Litigation proceedings pending in New Orleans (MDL 2179). The legal process continues with other parties.

Throughout the year, BP helped promote two industries vital to the success of the region – tourism and seafood. I am heartened that visitors have returned, with some areas reporting record seasons. And it was a great moment for the region when the final area of previously-closed federal fishing waters in the Gulf was reopened for commercial fishing in April 2011.

As part of our commitment to environmental restoration, BP is providing up to \$1 billion for early restoration projects designed to accelerate efforts to restore natural resources that were injured as a result of the accident.

We are also contributing \$500 million over 10 years to support independent research to create a better understanding of the Gulf ecosystem and help the industry and others prevent and mitigate the potential impacts of oil spills in the region and elsewhere.

We have co-operated with all external investigations into the accident and spill. The official reports to date have supported the core conclusion of our own investigation. Namely, that this was a complex accident that involved multiple parties and had multiple causes. We still have a challenging period ahead of us. The legal processes around the incident are complex. The exact shape, form and timetable are not yet clear.

### Enhancing safety, earning back trust

2011 saw us voluntarily implement enhanced standards on drilling in the Gulf of Mexico and other deepwater operations. We were pleased to receive the go-ahead from the US government to resume drilling and, by year-end, we had five rigs running.

Of course, the changes being made to enhance the way we work are not limited to the Gulf Coast. For example, we strengthened our risk management systems and processes throughout the company. We hired people from high-hazard sectors – including nuclear energy, chemicals and the military – to deepen the expertise of our safety and operational risk function. And we put in place new approaches to oil spill response and containment. Our teams have designed a new type of capping stack, which stands ready for deployment in the event of a leak in deep water anywhere in the world.

As we move forward, we will maintain a relentless focus on safety and risk management, and we will support the adoption of new standards across our industry. In 2011, our teams went to 25 countries and shared with regulators and industry peers the lessons we have learned.

### **Creating value, meeting demand**

We expect the continuation of strong growth in the world's most dynamic economies to drive even greater demand for energy. The *BP Energy Outlook 2030* projects that global energy demand could grow by as much as 40% by 2030.

This is based on expected long-term trends in demand and supply, as well as the potential evolution of economic, political and technological factors. That's the equivalent of adding one more China and one more US to world energy consumption. Energy that is affordable, secure and accessible will be needed to maintain the momentum of growth in developing economies.

While we feel a strong responsibility to help meet this growing demand, we also share widespread concerns about the rising global  $CO_2$  emission levels that it implies. BP supports government action to limit emissions and deliver a sustainable energy mix, including placing a price on carbon, increasing energy efficiency and providing transitional incentives that enable renewable energy to become competitive at scale.

We are contributing towards a lowercarbon future in several ways: by producing natural gas at scale as a cleaner alternative in power generation; by providing fuels and lubricants that improve vehicle efficiency; by driving efficiency in our own operations; by building commercial-scale renewable energy businesses in biofuels and wind; and by supporting a range of small, lower-carbon businesses as part of our venturing activity. However, we are moving out of the solar business as it has become a low-margin commodity market and is no longer aligned with our business strategy.

The search for energy resources will not get any easier. Deepwater drilling; unconventional gas; oil sands; giant fields – there are tough technical, environmental and social challenges ahead in every area. Technology has a particularly helpful role to play in the safe and sustainable development of energy resources. It is also essential to acknowledge that our work will always involve some risk, and that we must keep focused on managing the risks inherent in our business.

#### Looking ahead

We are clear on our responsibilities. We want to be recognized as a good corporate citizen that can be trusted by everyone involved in, or affected by, what we do. The nature of our business demands that we keep working to strengthen safety and risk management. Our refreshed values, code of conduct and strategy are designed to do just that, as well as create value for our shareholders. We will seek to report clearly and be always ready to listen to other points of view. I believe that by helping to meet the world's energy needs in a responsible and sustainable way, a stronger and safer BP will be a powerful contributor to growth and progress.

Bob mally

Bob Dudley Group Chief Executive 21 March 2012

Our strategy and sustainability BP's objective is to create value for shareholders by helping to meet the world's growing energy needs safely and responsibly

We strive to be a safety leader in our industry, a world-class operator, a responsible corporate citizen and a good employer. We are working to enhance safety and risk management, earn back trust and grow value.

Keeping a relentless focus on safety is 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 contractors.

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, with a clear focus on what we do best. Our distinctive capabilities include exploration, operations in deep water, the managing of giant fields and gas value chains, and our world-class downstream business - underpinned by technology and relationships. Strong financial performance is vital, because it enables us to make the investments necessary to produce the energy that society requires, as well as to reward and maintain 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. Our portfolio includes lower-carbon options with the potential to make a significant contribution, now and in the future.

Cassia platform, Trinidad



How BP is changing In response to the Gulf of Mexico accident in 2010, we initiated a wide-ranging programme designed to enhance safety and risk management within the group and earn back trust. Much has been achieved, but there is a great deal more to do



### Safety and operational risk

Our independent safety and operational risk (S&OR) function is now well established. A team that is close to 600 in number, S&OR sets our company-wide requirements for safety and operational risk management and works alongside our businesses to support and scrutinize their efforts towards greater conformance.

### What's next?

We will continue to develop our capabilities in this area and to support our businesses as they continue the ongoing process of conformance with our operating management system.

### **Risk management**

We have initiated a review of our risk management system and begun enhancing the clarity, simplicity and consistency of the way we manage and report risks. We have standardized our reporting processes so that businesses and functions have a consistent way of reporting risk – from our frontline operations to the board.

### What's next?

We will continue to embed the enhancements to our risk management system through greater alignment of risk management activities and business processes.

### **Upstream restructuring**

We have reshaped our upstream business into three divisions – exploration, developments and production – and centralized our drilling wells activity into a single organization. Over the long term, we believe these changes will help foster the development of expertise and reinforce accountability for managing risk.

#### What's next?

We will continue to implement recommendations from the internal investigation into the Deepwater Horizon accident for our drilling operations.



We welcome, and value, BP's open engagement with the Church Investors Group since the Deepwater Horizon oil spill and, specifically, the initial developments in the area of safety and operational risk over this period. We look forward to continuing our engagement with the company as they approach the challenges that lie ahead.

### Richard Nunn Chair, Church Investors Group

Bernard Looney, Executive Vice President, Developments (right), onboard the Deep Ocean Clarion rig in Brazil

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Find out more online **bp.com/safety** 

See page 31 for information on safety management.

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### Find out more online **bp.com/riskmanagement**

See page 26 for information on risk management and corporate governance.



Find out more online **bp.com/saferdrilling** 

See page 34 for information on safer drilling.

### Values and behaviours

Our refreshed values – safety, respect, excellence, courage and one team – reflect the qualities and behaviours that distinguish BP at its best. Our values are explicitly linked to our code of conduct, which reflects the behaviours that are expected of everyone who works for BP.

### What's next?

We will track progress through line manager discussions and performance reviews.

#### **Contractor management**

We have conducted a best-practice review of 21 organizations that use contractors in potentially high-consequence activities. The findings are informing our contractor management approach.

#### What's next?

As a priority, we are reviewing contracts in our upstream supply chain that involve potentially high-consequence activities.

#### Individual performance and reward

We have aligned employee performance and reward with our values and introduced 'safety' and 'taking a long-term perspective' as key indicators of individual performance. In annual performance conversations, staff are now asked to set priorities on their contribution to safety, compliance and risk management.

#### What's next?

We will include BP's overall performance in determining individuals' bonuses.

### **Technology**

We have established four new cross-business science networks within BP. This is one part of our push to use technology more strategically throughout our organization, helping us to develop the sustainable capabilities we need to operate effectively and meet our long-term goals as a company.

### What's next?

We are rolling out new formal requirements to help our businesses be more consistent in the way they manage technology and a new framework for technical career planning and training.

### Non-operated joint ventures

We initiated a review into our approach to the management of our relationships with significant non-operated joint venture operators and partners. This work includes safety and operational risk, as well as bribery and corruption risk.

### What's next?

We intend to enhance the consistency of focus on BP's exposure to these risk areas in our processes for participating in new and existing non-operated joint ventures.



### Find out more online **bp.com/ourvalues**

See inside front cover and page 21 for more information on our values.

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### Find out more online **bp.com/workingwithcontractors**

See page 27 for information on working with partners and contractors.

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### Find out more online **bp.com/ourpeople**

See page 23 for information on our priorities for managing our people.



Find out more online **bp.com/technology** 

See page 14 for information on frontier technology.

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### Find out more online **bp.com/ourjointventurepartners**

See page 27 for information on working with partners and contractors.

# Gulf of Mexico

The economic and environmental restoration of the Gulf Coast is part of our ongoing commitment to the region following the oil spill in 2010

# 150+

Studies to assess injury to Gulf Coast natural resources in progress or completed Making our work stronger and safer while restoring the environment and economy

# \$500m

Over 10 years for independent research to better understand the Gulf ecosystem

### Looking ahead

Through to 2013, BP will provide \$179 million for Alabama, Florida, Louisiana and Mississippi to use to promote tourism, \$33.5 million to test and monitor the safety of seafood, and \$48.5 million to promote Gulf seafood.



### Find out more at bp.com/gulfofmexico

- Environmental and health studies
- Latest on individual, business
- and government claims • The spill and how we responded

### Restoring the environment We are working with state and federal agencies to monitor and evaluate the environmental impacts of the accident and implement restoration plans

### Shoreline clean-up

Throughout 2011, we worked under the direction of the Unified Command to meet our commitments to clean the Gulf Coast shorelines affected by the 2010 oil spill. In November 2011, the US Coast Guard's federal on-scene co-ordinator (FOSC) approved the shoreline clean-up completion plan, which describes the process whereby the various shoreline segments included in the area of response operations can be surveyed and verified as meeting the applicable clean-up standards and moved out of operational activity.

Of more than 4,300 miles of Gulf Coast shoreline surveyed, 635 miles required some measure of cleaning. During 2011, the majority of the mechanical and manual clean-up effort was completed. Patrolling and maintenance activities were initiated and will continue until the shoreline segments meet the applicable clean-up standards for the FOSC to determine that operational removal activity is complete.

In some areas, the US Coast Guard, in consultation with federal, state and private scientists, determined that cleaning efforts would cause more harm to the environment than leaving the heavily weathered oil in place.

#### **Natural Resource Damages**

Under the Natural Resource Damages (NRD) assessment process, BP is working in co-operation with state and federal government agencies to identify the nature and extent of injuries to natural resources resulting from the Deepwater Horizon accident, and from the subsequent response activities.

As at 31 December 2011, BP had paid more than \$600 million for assessment efforts. The NRD process can take several years to complete because it requires the collection and analysis of an enormous amount of data to assess pre-spill conditions, to determine the extent of injury to resources, and identify projects to restore, rehabilitate or replace injured resources.

Trustees from each Gulf Coast state and the federal government held a series of public meetings during 2011 in each of the five states affected by the Deepwater Horizon incident. The meetings focused on the status of the injury assessment and the restoration BP refers to studies that have been undertaken to help understand the impact on habitats. Whilst it is clear that a wide range of activities are under way or have been completed, the full analysis of the various studies is pending and BP should provide updates in due course.

Ernst & Young Observation

process. Public comments were collected to help the trustees plan for environmental restoration. Further reports are expected to be released by the trustees in 2012.

### Understanding impacts on wildlife and recreational uses

Scientists are studying a range of species to understand how wildlife populations may have been affected by the spill. Teams of experts are also studying habitats, such as wetlands and beaches, with the goal of returning them to the condition that they would have been in if the Deepwater Horizon incident had not occurred.

In addition, experts for BP and the trustee agencies are looking at how recreational uses of the natural resources may have been affected by the incident so that lost opportunities to enjoy those activities can be addressed through restoration.

The federal and state trustees have responsibility for the NRD process and BP is a participant. More than 150 NRD studies have been initiated in the Gulf Coast region since April 2010. The data will inform an assessment of injury to the Gulf Coast natural resources.

Workplans for the studies and the resulting data are posted on trustee and BP websites as they are completed. Additional information on the NRD process, including periodic reports that explain progress made and what scientists have learned, is available at *bp.com/nrda*.



Taking sediment samples for the Environmental Protection Agency in the Gulf of Mexico, US

### **Emergency restoration**

Emergency restoration projects are actions needed to address potential irreversible loss of natural resources, or to prevent or reduce any continuing danger to natural resources or similar need for emergency action.

During 2011, emergency restoration projects were completed along the Gulf Coast in support of birds and turtles, and another project is in the planning phase for submerged aquatic vegetation. One of these projects involved increasing the overall wintering capacity for migratory birds by enhancing wetlands in Mississippi, including 2,400 acres of mudflats and shallow water habitats for shorebirds, wading birds and waterfowl.

### **Early restoration**

Early restoration projects are designed to accelerate efforts to restore natural resources in the Gulf that were injured as a result of the oil spill.

BP has committed to provide up to \$1 billion to fund these projects under an agreement signed with federal and state trustees in April 2011. The agreement enables work on restoration projects to begin at the earliest opportunity, before all of the NRD studies are complete and before funding is required by the Oil Pollution Act, which established requirements and procedures for responding to oil spills.

In December 2011, state and federal trustees unveiled the first set of early environmental restoration projects that are proposed for funding under the agreement. Among the eight proposed projects is a project to restore 55 acres of coastal sand dune habitat in Alabama. Wildlife monitoring Data collection and analysis are ongoing, but preliminary analysis indicates that the effects on wildlife by the oil spill appear to be much less than initially feared



NRD early restoration projects will restore over 70 acres of dune habitats, and create more than 150 acres of salt marshes.



Sea turtle nest detection patrols gathered eggs to protect them from harm and to monitor for hatching. Hatchlings were then released.

#### Birds

BP and the trustees conducted more than 12,500 bird observational survey sessions, as part of the Natural Resource Damages (NRD) process. Of the nearly 400,000 birds evaluated in these surveys, approximately 99% had no oil that was visible to the field observation teams.

Birds in the potential area of impact were fitted with transmitters to provide data about survival rates. Of the seven species tested (as at May 2011), three – the brown pelican, American oystercatcher and seaside sparrow – had survival rates equal to or higher than birds in areas not affected by the spill. The results from tests on one species, the clapper rail, were inconclusive. Further studies and analysis are being conducted on the feeding habits of black skimmers, great egrets and eastern willets.

### Sea turtles

Sea turtle experts rescued turtles and took them back to facilities for cleaning, monitoring and rehabilitation. Approximately 450 sea turtles were cared for and released, including several with tracking devices to monitor their progress.



surveys were carried out from May 2010 to August 2011.

Patrols conducted sea turtle nest detection surveys in the 2010 and 2011 nesting seasons.

NRD studies are under way on Kemp's Ridley and loggerheads, two types of sea turtles that live in the Gulf. The studies are assessing the physical condition of nesting females and blood chemistry.

The Florida Fish and Wildlife Commission has found that loggerhead nest counts in Florida in 2011 were close to the average for the preceding five-year period.

### Dolphins

BP is participating in and providing funding for live dolphin health assessments, population assessments, and the collection of environmental and food chain data as part of the NRD process. Other participants in the studies include federal and state agencies and the Chicago Zoological Society.

The National Oceanic and Atmospheric Administration began investigating a series of dolphin deaths – known as unusual mortality events – in February 2010, before the Deepwater Horizon oil spill started. Potential causes could include toxic algal blooms, infectious diseases, persistent organic pollutants, and dolphins being struck by boats. The investigation is ongoing.

#### Whales and manatees

In collaboration with several universities, BP carried out NRD studies of sperm whales and other large oceanic marine mammals in 2010 and 2011. The data from those studies is currently being evaluated. There were also studies of manatees, due to concern about whether manatees were affected by the spill. No manatees were observed in oiled surface waters.

### How much oil was spilled?

Before the well was contained on 15 July 2010, a substantial amount of oil spilled into the Gulf of Mexico. The US government and third parties have announced various estimates of the flow rate or total volume of oil spilled from the Deepwater Horizon incident. The Multi-District Litigation in New Orleans beginning in 2012 will address the amount of oil spilled. While we understand that an estimate of flow rate or total volume spilled is of interest to many of our stakeholders, BP's efforts to address the potential environmental and social impacts have not been limited by the precise volume of the spill.

See BP Annual Report and Form 20-F 2011, page 233 for information about the volume used to determine our estimated liabilities.

### Supporting long-term oil spill research

BP has committed to pay \$500 million over 10 years to support independent 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.

The Gulf of Mexico Research Initiative seeks to engage and utilize the expertise of some of the world's best research scientists. Funding recipients will use the grants to investigate the fate of petroleum released during the spill, the ecological and human health aspects, and the development of tools for responding to future spills and improving mitigation and restoration.

The independent research is being conducted at academic institutions primarily in the Gulf Coast states and is distinct from the NRD studies being conducted. Grant recipients are expected to publish their results in peer-reviewed scientific journals, and there is no requirement for BP to approve any study for publication.

## Restoring the economy BP is supporting the economic recovery of the Gulf through a variety of actions and programmes

We are focusing our efforts on promoting the tourism and seafood industries – two mainstays of the Gulf economy that were adversely affected by the Deepwater Horizon spill. In addition, we are supporting a variety of community organizations and programmes throughout the region, such as seafood events, tourism events, education initiatives and workforce training. And, finally, we remain committed to paying all legitimate claims.

BP's investment in the seafood and tourism industries in the Gulf of Mexico (\$ million)

	2010	2011	To be paid in 2012 and 2013
Tourism	87.0	63.5	28.5
Seafood testing	n/a	9.3	24.2
Seafood marketing	n/a	7.1	41.4

### Promoting tourism along the Gulf Coast

In 2011, BP committed \$92 million over a three-year period to Alabama, Florida, Louisiana and Mississippi to use to promote tourism. This was in addition to the \$87 million in tourism grants provided to the states by BP in 2010.

While some parties have concerns about the recovery of tourism along the Gulf Coast, BP is encouraged by local and state reports that indicate tourism in many areas of the region is rebounding.

Each of the states has launched tourism campaigns aimed at attracting visitors to the Gulf Coast. Tourism groups are using the BP funds in part to expand their advertising and marketing efforts and channels to reach potential visitors. They are also using the funding to promote events designed to attract visitors to their areas, including seafood festivals, fishing tournaments and a wide array of music events and concerts.

In addition to the funds provided to the states, BP launched a series of 'My Gulf' advertisements in 2011 to promote tourism along the Gulf Coast.

### Supporting the seafood industry

The Gulf Coast is a rich breeding ground for fish, crab, oysters and shrimp, and accounts for about 18% of the US's total commercial seafood production.

### Signs of recovery

Recreational fishing showed signs of recovery in 2011. During the 2011 red snapper season, the catch quota was estimated to have been exceeded by about a million pounds in weight, according to the Alabama Department of Conservation and Natural Resources.

Preliminary catch data in the northern Gulf indicates the seatrout and the red drum catch in the first half of 2011 were about 10% and 20% higher respectively than the comparable five-year average prior to the spill, according to the National Marine Fisheries Service.

### Seafood monitoring and testing

BP supports ongoing seafood monitoring and testing programmes to reassure consumers that Gulf seafood exceeds the US Food and Drug Administration (FDA) safety guidelines.

Several steps were taken during and following the Deepwater Horizon incident to protect the safety of Gulf seafood, including closing affected fishing grounds and closely monitoring and testing seafood from the Gulf, under the direction of the US National Oceanic and Atmospheric Administration and the FDA.

Federal and state officials continue to collect and test seafood from the Gulf. The results, which are publicly available, have found no evidence of contamination from oil or dispersants that would pose a threat to human health.

### Supporting community development

BP provides support for a variety of community organizations and programmes throughout the region. One such organization is Project Rebound, which provides mental health counselling services, as well as food, clothing, transportation and housing assistance to those impacted by the Deepwater Horizon accident. To date, Project Rebound has provided \$1.8 million in BP funds to 29 south Alabama non-profit organizations.



### Online access to seafood testing results

To provide consumers with up-to-date information on seafood testing, Louisiana officials launched a website with results from the state's seafood testing programme. The website provides consumers with data collected by the Louisiana departments of wildlife and fisheries, environmental quality, health and hospitals, and agriculture and forestry. Shrimp, crab, finfish and oysters are sampled monthly, along with water and sediment. http://gulfsource.org



Not only did we achieve and surpass 2009, we surpassed our previous record year of 2007. In every quarter of 2011 we set a new record in Gulf Shores and Orange Beach.

Herb Malone CEO, Gulf Shores and Orange Beach Tourism Bureau Back to work in the region In 2011, we prepared to restart our drilling operations by implementing voluntary standards, enhancing the monitoring of our operations and working closely with the regulator and our industry peers

### Voluntary drilling standards and enhanced well monitoring

BP began implementing voluntary drilling standards for operations in the Gulf of Mexico in July 2011. These voluntary drilling standards go beyond existing regulatory requirements in the US and strengthen oversight of contractors. They include:

- Enhanced requirements for blowout preventers (BOP) to include both two blind shear rams and a casing shear ram on dynamically-positioned rigs.
- Third-party verification for BOP testing and maintenance.
- Enhanced review standards for cementing procedures and materials.
- Enhanced offshore spill response capabilities.

We also established a collaborative real-time environment facility, which enables wellmonitoring specialists in BP's Houston offices to assist their colleagues located at each offshore drilling rig in the Gulf of Mexico. BP has hosted tours of the facilities for officials from the US Department of the Interior and its offshore regulatory agencies to provide the regulator with a better understanding of the drilling and operations' technologies BP is using. *See page 34 for more on safer drilling.* 

### **Oil spill containment**

We have developed a mobile deepwater well capping package that is maintained in a constant state of readiness in Houston. It is designed to be deployed by air freight and arrive wherever it is needed in just a few days.

We are engaged in a number of countryspecific collaborations on oil spill containment and response. For instance, BP joined the Marine Well Containment Company (MWCC), a non-profit initiative established by oil and gas operators in the Gulf of Mexico, and made available to it almost all of the capping and containment equipment that was created during the Gulf of Mexico incident. The MWCC is designed to quickly deploy effective equipment in case of another underwater blowout in the Gulf of Mexico.

### Sharing the lessons learned

We continue to work with governments, regulators and the industry to share lessons learned from the Deepwater Horizon accident and how they can be applied in deepwater operations around the world. For instance, we are engaging with our peer companies to share what we have learned about oil spill response and work together to implement recommendations for improving oil spill prevention, intervention capabilities and response. BP is active in a number of industry forums related to oil spills, including work groups facilitated by the International Association of Oil and Gas Producers, the American Petroleum Institute and the International Petroleum Industry Environmental Conservation Association, and non-profit oil spill response co-operatives, such as Oil Spill Response Limited.

### Return to work in the Gulf of Mexico

During 2011, we prepared to restart our drilling operations in the Gulf of Mexico by following the voluntary standards that we developed and by working closely with the regulator. In October, BP received a permit to drill an appraisal well in the Kaskida field, as well as permits for additional work on other wells in the Gulf of Mexico. By the end of 2011, BP had five deepwater drilling rigs in operation in the Gulf of Mexico.





- 1 Performing rig checks on Thunder Horse, Gulf of Mexico
- 2 Workers inspect a suction pile before installation, Gulf of Mexico

Find out more online **bp.com/saferdrilling** 

### Claims and legal proceedings BP has compensated

individuals, businesses, government entities and others who have been legitimately impacted by the oil spill

We sought to implement a fair and simple claims process aimed at supplying funds as quickly as possible and provide assurance of available funds.

### Deepwater Horizon Oil Spill Trust – \$20-billion fund

BP, in agreement with the US government, set up a \$20-billion trust to provide confidence that funds would be available. The trust fund was established to satisfy claims adjudicated by the Gulf Coast Claims Facility (GCCF), final judgments in litigation and litigation settlements, state and local response costs and claims, and natural resource damages and related costs.

By the end of 2011, \$15.1 billion had been contributed to the trust. This includes BP's committed payments and cash settlements received for Mitsui, Weatherford and Anadarko. The remaining committed contributions totalling \$4.9 billion are scheduled to be made in 2012.

The trust disbursed \$3.7 billion in 2011 and the total paid out since its establishment amounted to \$6.7 billion by the end of 2011.

### Compensating individuals and local businesses

By early May 2010, we had established a claims operation with a toll-free number and the first claims and community outreach offices. Most claims were from individuals or businesses reporting a loss of income or profit as a result of the spill. With the aim of improving transparency and objectivity, BP and the US government agreed to appoint Kenneth Feinberg to evaluate and manage individual and business claims, operating through the GCCF.

Since May 2010, more than \$6.2 billion had been paid to individuals and businesses through the claims process. In 2011, individuals and businesses received \$3.1 billion in payment through the GCCF.

On 3 March 2012 BP announced a settlement with the Plaintiffs' Steering Committee (PSC), subject to final written agreement and court approvals, to resolve the substantial majority of legitimate economic loss and medical claims stemming from the Deepwater Horizon accident and oil spill. The PSC acts on behalf of individual and business plaintiffs in the Multi-District Litigation proceedings pending in New Orleans (MDL 2179). BP estimates that the cost of the proposed settlement, expected to be paid from the \$20-billion trust, would be approximately \$7.8 billion. This includes a BP commitment of \$2.3 billion to help resolve economic loss claims related to the Gulf seafood industry and a fund to support continued advertising that promotes Gulf Coast tourism.

The proposed economic loss settlement provides for a transition from the GCCF. A court-supervised transitional claims process for economic loss claims will be in operation while the infrastructure for the new settlement claims process is put in place. During this transitional period, the processing of claims that have been submitted to the GCCF will continue, and new claimants may submit their claims. BP has agreed not to wait for final approval of the economic loss settlement before claims are paid.

This proposed settlement does not include claims against BP made by the United States Department of Justice or other federal agencies (including under the Clean Water Act and for Natural Resource Damages under the Oil Pollution Act) or by the states and local governments. The proposed settlement also excludes certain other claims against BP, such as securities and shareholder claims pending in MDL 2185, and claims based solely on the deepwater drilling moratorium and/or the related permitting process.

### Compensating governmental and other agencies

BP is directly managing claims and funding requests for losses or expenses incurred by states, parishes, counties, federally recognized Indian tribes and other government entities. These primarily cover costs associated with response and removal activities, increased public services and loss of revenues due to the incident.

By the end of 2011, BP had resolved over 90% of government claims filed.

### **Rig Worker Assistance Fund**

BP established a \$100-million Rig Worker Assistance Fund through the Baton Rouge Area Foundation to support unemployed rig workers experiencing economic hardship as a result of the moratorium on deepwater drilling imposed by the US federal government. By the end of 2011, the foundation had awarded more than \$10 million to rig workers. With fewer than 2,000 applying for funds, the foundation granted \$18 million of the BP contribution to community-based organizations through its Future for the Gulf Fund. At the end of 2011, the foundation assessed additional funding requests from organizations assisting those impacted by the spill, and has said it hopes to complete the distribution of the BP contribution by the end of 2012.

#### Investigations and legal proceedings

Investigations into the Deepwater Horizon accident will play an important role in understanding its causes, preventing future accidents and improving the safety of deepwater drilling.

#### Internal investigation

In the immediate aftermath of the explosion, BP launched an investigation which concluded that no single cause was responsible for the accident. The investigation team made 26 recommendations specific to drilling which BP has accepted and is implementing across its worldwide drilling operations. For more information see page 34.

#### External investigations and hearings

We continue to co-operate with all official investigations and hearings related to the accident. Several entities have issued reports of their investigations, including the US Coast Guard, the Bureau of Ocean Energy Management, Regulation and Enforcement, the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling and the National Academy of Engineering.

While the reports contain criticisms of BP, we believe the findings of these reports support the conclusion, consistent with our own investigation, that the accident resulted from multiple causes and was due to the actions of multiple parties. Additional US government investigations into the Gulf of Mexico oil spill are taking place.

#### Legal proceedings

Various legal proceedings are under way. These proceedings include complex civil litigation which has largely been consolidated into Multi-District Litigation proceedings. We will provide updates on the legal proceedings online at *bp.com/gulfofmexico/legalproceedings*.

# The energy future

Today's challenge is meeting the growing demand for secure, affordable energy to enable economies to prosper – while addressing environmental issues

Meeting the global energy challenge through a **diverse mix of fuels** and technologies

# \$**6.6**bn

Invested in biofuels, wind and other alternative energies since 2005



Increase in world primary energy consumption projected over the next 20 years

Looking ahead

Within the diverse energy mix that is needed to meet growing world demand, we see a key role for natural gas – a lower-carbon fuel that is increasingly secure and affordable. Find out more at bp.com/energyfuture

- Natural gas and hydraulic fracturing
- Biofuels and wind
- Sustainable energy solutions

12

### The energy challenge With energy demand projected to keep rising, the global energy challenge is becoming increasingly complex



Examining samples at the Fuels and Lubricants Technology Centre in Panabourne, UK

Energy demand is linked to population and economic growth. The world's population is projected to increase by 1.4 billion over the next 20 years, while its real income is likely to grow by 100% over the same period. This combination of factors is expected to increase world primary energy consumption by as much as 40% over the next 20 years1, with non-OECD energy consumption as much as 70% higher by 2030. Energy and climate policies, efficiency gains and a long-term structural shift in fast-growing economies away from industry towards less energyintensive activities may act to restrain consumption and result in lower growth, but the overall trend is likely to be one of strong growth in energy demand.

While energy is available to meet growing demand, action is required to limit the volumes of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases being emitted through energy use. Plus, there are air quality and other local concerns associated with the combustion of hydrocarbons.

Energy security represents a challenge in its own right. More than half of the world's natural gas is located in just three countries, and more than 80% of global oil reserves are in 10 countries, most of which are located well away from the hubs of energy consumption.

### **Energy efficiency**

Saving energy through greater efficiency addresses several issues at once. 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. In transport especially, we believe that efficient combustion engines and power train technologies, including hybridization, combined with use of biofuels, could offer the guickest and most effective pathway to a secure, lower-carbon future, at least in the short to mid-term.

### A diverse mix

We believe the global energy challenge can only be met through a diverse mix of fuels and technologies. A broad mix can help to provide enhanced national and global energy security while supporting the transition to a lowercarbon economy. This is why BP's portfolio includes oil sands, shale gas, deepwater production and alternative energies such as biofuels and wind.

#### Oil and gas

Oil and gas are expected to continue to play a significant part in meeting demand and we project they will represent 53% of total energy consumption in 2030 (compared to 57% in 2010). Even under the International Energy Agency's most challenging climate policy scenario that might with difficulty still be achievable (the 450ppm scenario), oil and gas still make up 49% of the energy mix in 2030<sup>2</sup>. Moreover, we believe the political, technological, logistical, infrastructure and cost challenges presented by the 450ppm scenario make it increasingly unlikely to occur, meaning that demand for fossil fuels would remain at a higher level for longer. We think it is likely that fossil fuels will still account for 80% of the world's energy in 2030.

Gas in particular is likely to play an increasingly strategic role. It is a lower-carbon fuel that is increasingly secure and affordable. Used in place of coal for power, it could reduce CO<sub>2</sub> emissions by half. We also believe that oil will remain the dominant source for transport fuels, accounting for as much as 87% of demand in 2030.

Over time, the available hydrocarbon resources will become increasingly difficult to reach, extract and manage, requiring BP and others in our industry to move into more technically-challenging areas. Greater energy intensity could be required to extract these resources and operating costs and greenhouse gas emissions from operations are likely to increase. On the other hand, advances in technology will lead to more efficient ways to transform base hydrocarbons, including natural gas and coal, into usable forms of energy, petrochemicals and lubricants.

### Renewables

Renewables, such as biofuels and wind, will be essential 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. Sufficient policy support is required to help commercialize renewable technologies, but they will ultimately need to become free from subsidy and commercially self-sustaining.

### **Energy Sustainability Challenge**

Energy production and consumption are linked to the availability of water, land and mineral elements, which are facing increasing pressures. To investigate the issues that could shape future energy supply and demand. BP is partnering with 13 leading research universities in the Energy Sustainability Challenge programme.

One of the early publications resulting from this research is the University of Augsburg's handbook, Materials critical to the energy industry. We anticipate that our findings from this programme will help inform our investment decisions.

Find out more online bp.com/energyoutlook bp.com/energysustainabilitychallenge

<sup>1</sup> BP Energy Outlook 2030. 2 From World Energy Outlook 2011. ©OECD/IEA 2011, page 545. The IEA's 450 policy scenario assumes governments adopt commitments to limit the long-term concentration of greenhouse gases in the atmosphere to 450ppm of  $CO_2$  equivalent.

# Frontier technology Meeting the global energy challenge requires a diverse mix of fuels and technologies such as deepwater production and shale gas

Engineering and technological advances are making it possible to extract unconventional fossil fuels safely and responsibly.

### Deepwater oil and gas

Deepwater oil and gas resources are an important part of the energy mix, especially in the US, where offshore production in the Gulf of Mexico has reversed a 23-year trend of declining domestic oil production. This is one of the reasons why BP chose not to abandon the deep water after the 2010 accident in the Gulf of Mexico.

BP has deepwater drilling operations in the Gulf of Mexico, Angola and Brazil and we are pursuing further deepwater growth opportunities in Australia, Egypt, India, North Africa, the North Sea, Trinidad and Tobago, and the South China Sea.

### Challenges of deepwater exploration

Drilling for and producing oil and gas from deepwater reservoirs create 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 kilometres 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. For example, the topside area of our Thunder Horse platform in the Gulf of Mexico is the size of three football fields. It contains equipment and systems capable of processing a quarter of a million barrels of oil equivalent per day from more than 20 wells. It involves many new technologies and their design, testing and construction required a new generation of subsea equipment.

### Safe operations

We are committed to sharing the lessons learned from the Deepwater Horizon accident and response in the Gulf of Mexico to help develop the enhanced capabilities and practices needed to prevent this type of accident from happening again.

BP has a wide-ranging research and engineering portfolio to deliver technologies for safe, reliable and efficient operations in our current and future deepwater assets. Our technology programmes have delivered breakthroughs in seismic imaging and real-time operations. We also invest in technologies to enable exploration and development of deepwater projects in increasingly higher pressures and temperatures.

Technology plays a key role in helping us manage safety issues in deepwater drilling and production. For example, our Well Advisor programme helps us to monitor conditions in the well using real-time operational data and analytical tools to enable better monitoring of safety-critical operations and equipment.

Performing safety checks at our Thunder Horse platform in the Gulf of Mexico, US



### **Natural gas**

Natural gas resources play an increasingly important role in supplying lower-carbon fuel for a growing energy demand. By our estimates, natural gas will meet around 26% of total global energy demand by 2030.

Gas that comes from porous reservoirs, typically composed of sandstone or limestone, is relatively straightforward to extract as it flows freely in the rock. In contrast, unconventional gas is harder to extract as it is situated in rocks with low permeability. New technology is making it possible for BP to extract natural gas resources safely and responsibly.

BP has natural gas operations in Algeria, Oman, Indonesia and the US. More than 80% of our onshore gas is from unconventional resources. We are using advanced technologies to open up unconventional gas resources, such as shale gas, tight gas and coalbed methane. These technologies include 3D seismic to identify gas reservoirs, as well as horizontal and angled wells and new ways of fracturing rock to allow gas to escape from the tight rock.

### Hydraulic fracturing

Hydraulic fracturing, or 'fracking', is a process of pumping water mixed with a small proportion of sand and chemicals underground at high pressure to fracture the rock and release gas that would otherwise not be accessible. This process has been used since the middle of the twentieth century.

Some stakeholders have expressed concerns about the potential environmental impacts. BP recognizes these concerns and seeks to apply responsible well design and construction, surface operation and fluid-handling practices. We engage constructively with government and industry to promote sound policies and regulation that protect water resources and the environment. Appropriate and responsible fracking techniques are important to the development of secure energy sources.



Find out more online **bp.com/energychallenges** 

## Canadian oil sands With our partners, BP is working to extract this vast resource responsibly

Canada's oil sands have the third-largest proven crude oil reserves in the world, after Saudi Arabia and Venezuela. BP is involved in three oil sands lease areas in Alberta. None of them are yet operational or in production.

BP recognizes the need to be rigorous and responsible in the way that oil sands projects are managed. We carefully reviewed and approved the decision to invest in Canadian oil sands, as we do for all major investments, taking into consideration environmental, social and financial concerns.

### Impact on the landscape

In all oil sands projects, whether operator or not, BP plans to use steam-assisted gravity drainage (SAGD) technology to recover the resource. This production technique reduces land disturbance and aligns to our strengths, particularly to our expertise with wells and improving large-scale reservoir performance. Unlike mining, in situ processes create a smaller physical footprint and do not involve tailings ponds.

#### **Greenhouse gas emissions**

A key concern around oil sands operations using in situ recovery processes is the amount of greenhouse gas (GHG) emissions produced from steam generation and processing.

A 'well-to-wheels' study conducted in 2009, which measured total GHG emissions from production through to consumption, found the lifecycle emissions for oil sandsbased products to be 5-15% higher than those from products from average crude oils used in the US.

We and our partners are working at a number of levels to enhance processes or create new ones to reduce GHG emissions. For example, one way that they can be reduced is by processing the bitumen at the refinery, eliminating the need for a two-stage refining process.

### Managing the community impact

BP began building relationships with First Nation and Métis communities in the oil sands region in 2010, the year we committed to being the operator of the Terre de Grace project. BP conducts site visits to the Terre de Grace lease with community members and encourages First Nation and Métis communities to provide feedback on our activities.

Lease area	BP's interests	Operator	Status	
Sunrise	50% owner	Husky Energy	Sunrise Energy Project Phase 1: Currently under construction. Expected production date is 2014	
Pike	50% owner	Devon	These lease areas are currently under appraisa for development. Environmental baseline studies are currently being conducted in area including vegetation, wetlands, wildlife, air and water	
Terre de Grace	75% owner, in partnership with Value Creation Incorporated	BP		

#### Steam-assisted gravity drainage

A horizontal well is located near the bottom of the reservoir. Steam, produced using natural gas, is injected into a second horizontal well located approximately five metres above and parallel to the producer. The steam heats the bitumen, allowing it to flow along with condensed steam to the lower well for production.



15

### Climate change Addressing the global challenge of climate change will require the efforts of governments, industry and individuals



Wind turbine at the Swandon Way Connect service station, UK

According to the Intergovernmental Panel on Climate Change (IPCC), warming of the climate system is happening and is caused mainly by the increase in greenhouse gas (GHG) emissions and the increasing concentrations of GHGs in the atmosphere. Results from models assessed by the IPCC suggest that to stand a reasonable chance of limiting warming to no more than 2°C, global emissions should peak before 2020 and be cut by between 50-85% by 2050. We project that with known and probable policy and technology developments, global carbon dioxide (CO<sub>2</sub>) emissions may be 28% higher in 2030 than they are today, partly as a consequence of coal use in rapidly-growing economies. These are projections, and not propositions for a desired outcome.

More aggressive, but still plausible, energy policy and technology deployment could lead to slower growth in  $CO_2$  emissions than expected, with emissions from energy use falling after 2020 – but probably not to a sufficient extent to put the world on a 2°C trajectory. And even these policies would require substantial and concerted multilateral action from governments and a willingness by society to bear a significant cost.

There are several reasons why achieving substantial and rapid emissions reduction will be difficult and expensive. Some potentially important lower-carbon technologies, including electric vehicles and carbon capture and storage, still face significant technology, logistical, infrastructure and cost challenges. Concerns about nuclear power have grown following the Fukushima disaster in Japan. And in the meantime, the GHG intensity of oil and gas extraction and production looks likely to increase, with the move to harder to access and manage resources.

The scale of the challenge is such that it can only be met through governments acting to provide a clear, stable framework for the private sector to invest and for consumers to choose wisely. Global economic challenges have reduced the focus of some governments on climate policy, at least in the short term. But the commitment by both developed and developing countries at the UN's December 2011 climate change conference in Durban, South Africa, to negotiate an agreement by 2015, requiring action from all countries from 2020, suggests that in the medium to long term, an emphasis on carbon policy will return and grow.

### Our view on the policy priorities

We support policies that we believe can address climate change while also making it possible for society to meet growing demand for secure and affordable energy.

We believe the use of a price on carbon – one that applies economy-wide and treats all carbon equally, whether it comes out of an industrial smokestack or a car tailpipe – will make energy efficiency and conservation more attractive to businesses and individuals, and help lower-carbon energy sources become more cost competitive within the energy mix. While a global price would be most economically efficient, regional and national approaches are a necessary first step, provided temporary financial relief is given to domestic industrial sectors that are internationally traded.

We also support:

- Policies that emphasize efficiency in the production and use of energy, because reducing the amount of energy used can have a material impact on GHG emissions.
- Transitional support for lower-carbon, high-potential energy technologies, such as biofuels and wind, to incentivize their development and accelerate their deployment.
- Policies that prioritize and facilitate technology research and innovation, to provide low-carbon options for the future.



London Olympic and Paralympic Games

We are using our role as the official oil and gas partner of the London 2012 Olympic and Paralympic Games as an opportunity to highlight lower-carbon mobility options to a global audience. We have worked with BMW to help make the official games fleet a showcase for lower-carbon options, including our most advanced biofuels, our Ultimate fuels and Castrol engine oils.

We are offsetting CO<sub>2</sub> emissions from travel to the games for ticketholders who register with our BP Target Neutral programme. We are purchasing carbon credits from low-carbon development projects globally and aim to support the ambition of the London 2012 organizers – to be 'the most sustainable games possible'. The programme is designed to raise public awareness of the environmental impact of journeys.

### Our programme of action on climate change

At BP, we are taking practical steps in relation to climate change

### Incorporating carbon pricing into our projects

We factor a carbon cost into our investment appraisals and engineering designs for some new projects. We do this by requiring 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  $CO_2$  equivalent.

### **Stressing efficiency in our operations**

We seek to increase energy efficiency across BP by requiring our existing operations to incorporate energy use in their business plans and implement technologies and systems to improve energy efficiency where it makes business sense. An example is our aromatics and acetyls businesses, which have seen significant improvements in efficiency since 2006. As a result of engineering and technological design choices stressing efficiency, the new Zhuhai 2 purified terephthalic acid (PTA) unit in China has the highest energy efficiency and smallest environmental footprint in its sector, producing around 65% fewer CO<sub>2</sub> emissions than a conventional PTA facility. We are also developing a carbon innovation toolkit to help our businesses understand some of the options that are available for improving their carbon efficiency.

### Investing in lower-carbon energy resources

We continue to increase our production of natural gas and investment in renewable energy. During 2011, we invested \$1.6 billion in alternative energy, more than any previous year since the formation of our Alternative Energy business in 2005.

We see natural gas as a key part of the lower-carbon economy as it is a plentiful resource that releases less  $CO_2$  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 gas – with production in countries such as the US, Trinidad, Indonesia and Egypt – and important supply chains such as those serving China, India and Europe.

BP sets out an overview of its programme of action on climate change but there is limited explanation of the difference that this is making to decisions or practices. For example, BP has incorporated carbon pricing into its projects but it is not clear to what extent this process has impacted project plans; or whether BP can explain how targets set for energy efficiency through the local operating management system can be linked to real sustainable reductions reported.

Ernst & Young Observation

### Developing efficient fuels and lubricants

We work in partnership with vehicle and equipment manufacturers to improve the overall efficiency of use of our fuel and lubricant products. For example, Ford's ECOnetic models – including the Fiesta, Focus and Mondeo – are engineered with specially formulated advanced Castrol lubricants, which improve fuel efficiency and reduce  $CO_2$  emissions. With mining company BHP Billiton and its truck partner, Caterpillar, we have worked to develop an integrated clean fuels programme that enhances engine performance in the company's fleet, improving engine performance and reducing greenhouse gas emissions.

### Supporting technology and policy research

Through in-house research and in partnership with leading academic experts, we are deepening our understanding of probable and possible future energy trends and helping to identify technology and policy pathways to address climate change. For example, we are working with the Tsinghua Clean Energy Research and Education Centre on a five-year study of future energy trends in China, including transport, power, waste and renewables. We also support energy and climate policy research at Harvard, MIT and Tufts universities.

### **Conducting education and outreach**

We engage with governments, nongovernmental organizations, industry organizations, universities and other companies on issues relating to climate change. We attended the Durban Climate Change conference in 2011 and with many other companies signed the 2°C Challenge Communiqué sponsored by the Cambridge Programme for Sustainability Leadership.

### Adapting to climate change impacts

We are taking steps to prepare for the potential physical impacts of climate change on our existing and future operations. Projects implementing our environmental and social practices (*see page 37*) are required to assess the potential impacts to the project from the changing climate and manage any significant impacts identified. In the Beaufort Sea in Canada, where BP is in the early stages of an oil exploration project, we have collaborated with ArcticNet, a local research organization, to help us understand and chart the potential effects of climate change in this environment.

We have also produced a guide on climate change adaptation which is available for all projects and operations. This document sets out guidance to help businesses across BP make appropriate allowance for the potential effects of climate change.

We periodically review and adjust our design criteria and engineering practices to account for a changing climate. For example, we adapt drainage design practices based on the anticipated frequency and severity of storms.

# Alternative energy BP is investing in biofuels and wind, businesses that we believe can play a significant role in meeting the energy needs of the future

In 2011, we invested \$1.6 billion in our Alternative Energy business, which is the most we have invested in this business since it was formed in 2005. Since this time, we have invested a total of \$6.6 billion. Capital expenditure and acquisitions made by our Alternative Energy business represented more than 4% of BP's overall total in 2011.

We align our alternative energy investments to our core capabilities and experience. We have a substantial biofuels business, interests in more than 1,000 wind turbines, and make investments in bio-energy, electrification and carbon solutions.

We anticipate continuing to invest about \$1 billion per annum in our alternative energy businesses, subject to having the right investment opportunities, and in line with the growth of renewables as an increasing proportion of fuel and power demand.

In 2011, BP announced its intention to wind down its remaining solar operations. BP has been involved in solar energy for more than 35 years and, in the past two years, the industry has radically changed into a low-margin commodity market.

### **Biofuels**

Our analysis suggests biofuels could make up as much as 23% of global incremental demand for transport fuels over the period 2010-2030. We are working to produce biofuels that are low cost, low carbon, sustainable and able to fulfil the world's transportation fuel needs on a large scale without compromising food production.

This has led us to three main strands of large-scale investment in biofuels from sugarcane, advanced fuel molecules and cellulosic biofuels. In 2011, we acquired majority ownership in biofuel company Tropical BioEnergia S.A. and ethanol producer Companhia Nacional de Açúcar e Álcool.

### **Biofuels and sustainability concerns**

We believe that biofuels, when done well, can be produced sustainably – they can reduce carbon emissions and increase energy security and rural development. We recognize that sustainability concerns have been raised at local and global levels.



Analyzing samples at our Biofuels Global Technology Centre, San Diego, US

### Greenhouse gas emissions

Biofuels can have a reduced carbon footprint compared with other fuels, because the plant matter from which they are produced absorbs carbon from the air as it grows. They are not yet a carbon-free form of fuel, as emissions result from feedstock cultivation and processing plant matter. We estimate that ethanol produced from sugarcane in Brazil emits up to 90% less CO2 over its full lifecycle than gasoline. This is partly as a result of using by-products of the process to power the refinery, generate electricity to be sold to the grid, and as fertilizer. We are working to create advanced biofuels with significantly lower net greenhouse gas emissions compared to conventional fuels.

### Changes in land use

The UN Food and Agriculture Organization estimates that just 1% of the world's arable land is used to grow biofuel feedstocks. Nonetheless, growth in demand for biofuels could force changes in land use, which can cause a release of  $CO_2$ . There is concern that, in some cases, this could negate the positive  $CO_2$ -reducing impact of using biofuels grown on that land. We believe biofuels can and should be grown without impacting land with high-carbon stocks, such as rainforests or peat soils, and that tillage practices should aim to minimize carbon released from the soil.

### Food security

Commodity price rises have raised concerns about what impact, if any, the increased production of biofuels has on food availability and prices. We believe the world currently has sufficient land to meet demand for food, animal feed and biofuels. However, to maintain this, more biofuel production needs to come from land that is less productive for food crops and from non-food crops. These include perennial energy grasses that require less land to produce each unit of fuel than corn and other conventional crops. We are working to develop and produce such fuels commercially in the US.

### Social impacts

We seek to identify human rights issues before making investments. We have undertaken significant human rights-related impact assessment work in Brazil and have established a grievance process, which includes an ombudsman for receiving and resolving issues raised by workers. Tropical BioEnergia S.A. was certified to the social accountability standard SA8000, which audits labour practices, in December 2011.

### Water

Water availability is an increasing concern in many parts of the world, especially as agriculture is the largest user of water. BP is focusing on perennial biofuel feedstocks, such as sugarcane and energy cane, which grow well in tropical climates, where rainfall is abundant.

### The biofuels supply chain

As well as producing biofuels, BP purchases and blends significant quantities of biocomponents produced by other operators into fuels for markets, including the US and Europe, where policies require that gasoline and diesel sold to motorists include a proportion of biofuels.

In purchasing these biofuels for blended fuels, we search out suppliers who are best able to meet a range of general and feedstock-specific sustainability requirements. In jurisdictions where legal standards for sustainability are being established and implemented, we will seek to require the inclusion of contractual sustainability clauses. In jurisdictions where legal sustainability requirements have yet to be established, we provide guidance to encourage suppliers to adopt sustainable practices based on voluntary principles and criteria.

BP is a member of the board of Bonsucro, formerly the Better Sugarcane Initiative, which is used to certify the sustainable production of sugarcane.

### Wind

BP has interests in 12 wind farms, all in the US. Provided government policies give wind power support to commercialize and expand, we believe wind power production, which is now growing globally at an annual rate of around 30%, can contribute significantly to the twenty-first century energy mix.

Government support is crucial in ensuring the expansion of wind power. We believe such support should be transitional and limited. In the US, there is continuing uncertainty over the renewal of the production tax credit, which provides incentives to invest in wind energy. We are working with other wind energy suppliers to make an effective case for wind energy generation and the renewal of the production tax credit.

### Wind farms and sustainability concerns

In the planning stages for each new wind project, we review the potential social and environmental impacts and take steps to mitigate negative impacts through engineering design changes, technology and other elements.

When selecting sites for wind generation facilities, we seek to assess potential wildlife risks. As appropriate, we then work with relevant government agencies, nongovernmental organizations and other stakeholders to develop wildlife mitigation plans and to monitor the impact on wildlife at each stage of the facility's development and operation.

Wind farms can provide tangible benefits to local communities through royalty payments to landowners and tax payments to local authorities. The wind turbines do not materially affect traditional farming and grazing practices, which means that the land can be used for multiple purposes.

### Developing sustainable energy solutions

We are developing sustainable energy solutions through our venture investments which span three areas: bio-energy, electrification and carbon solutions. These investments are a crucial way in which we harness innovation across the full spectrum of our operations.

One example is our investment in GMZ Energy, which is commercializing materials that allow the efficient conversion of heat to electricity with a thermoelectric device – a building block for a new generation of energy-efficient products. The investment gives us insights into the ability of thermoelectric technology to cost-effectively recover low-grade waste heat sources across the group, and externally to the rapidly-growing energy-efficiency markets.



### Find out more online **bp.com/alternative-energy**

Goshen wind farm, Idaho, US



# Our people

BP's sustainability as a company depends on the skills, commitment and behaviours of our people in every country in which we operate

Our updated values emphasize **how** we do business is as important as **what** we do

# 29%

Of BP's employees are female

Employees in more than 70 countries

83,000+

### Looking ahead

The energy industry is facing a growing skills gap, with large numbers of experienced workers retiring. This means that attracting and retaining skilled and talented people is vital.



Find out more at bp.com/ourpeople

Workforce statisticsRewarding safety

Developing our people

**Our values** BP has set out five values which express our shared understanding of what we believe, how we aim to behave and what we aspire to be as an organization

We are very clear that to deliver sustained high performance, we need to treat 'how' we do business as importantly as 'what' we do. Our values are a core part of the 'how'; they need to be clearly stated and brought to life by employees every day. In 2011, our management team set out refreshed values for BP reflecting their view of the qualities that distinguish BP at its best.

We are integrating our values into our performance management, reward, recognition, training and recruitment processes. We will use key performance indicators to track progress, such as the number and percentage of employees



### Bringing our value of excellence to life

We produce, make, convey and transport hazardous things and society expects us to be excellent at it. It is about the right standards and about pursuing and delivering on those standards. It is about making sure you are prioritizing the mission-critical aspects of what you do and making sure you and your team have the right capabilities to underpin this and deliver consistently every day. I visited our petrochemicals plant in Cooper River recently and the concrete bases of all the pumps I saw are painted and signed by the operator which gives the message that "this is my pump, I am excellent at the way I maintain this and I am contributing to the excellence of this operation". That is a really powerful signal for me of the pride that comes through excellence and knowing what systematic management of an operation is all about.

### lain Conn Chief Executive Refining and Marketing, BP

who have discussed values with their team leader as part of the annual performance management process. The renewed values are also explicitly linked to our code of conduct.

Safety
Respect
Excellence
Courage
One Team

BP's five values

Workers performing rig checks on Discoverer Luanda in Angola

### Safeguarding our employees in Egypt and Libya

BP's crisis management systems are designed to safeguard our people in high-risk situations. These systems were put to the test in 2011 when we supported our local and expatriate staff during the unrest in Egypt and Libya.

In January 2011, we evacuated nearly 400 staff and their families, and contractors from Egypt due to civil unrest in the country. The necessary aircraft and infrastructure were set up within 24 hours and all affected expatriates were evacuated within four days.

Evacuees were taken to south-east England where they were provided with onward travel and counselling. In addition, more than 1,200 local staff and their families were supported during this period. Cash was provided when access to banks was unavailable, as well as other necessities such as medicine and food as needed. Workers were contacted every day and kept up-to-date with BP's ongoing support mission.

All affected people were able to return to Egypt by March. During the unrest, BP's operations – mainly located offshore in the Mediterranean – were not affected.

In Libya, civil unrest broke out in February 2011. The situation was complex as BP's personnel were spread throughout Libya with five remote sites as much as 300 kilometres apart, including drilling and seismic sites in the Sahara Desert. In Tripoli, the teams co-ordinated the evacuation from residences and hotels, operating in an enforced curfew and avoiding armed roadblocks. In less than 90 hours from the decision being taken to evacuate expatriate staff, all of those who requested to leave had departed Libya. A total of 101 people were evacuated, including BP employees, their families and contractors. All evacuation routes, by land, sea and air, were assessed for risk and BP used two charter flights, three commercial flights and two ferries to complete the evacuation.



During the inspiring and challenging events of Egypt's 25 January revolution, the power of BP's dedicated teamwork and exceptional commitment was exhibited. Safely evacuating nearly 400 expats and providing ongoing support to national staff and families remaining in the country were achievements only made possible by working as one team and one family, with assistance from many BP locations all over the world. We felt proud to be part of Egypt, proud to belong to BP, and proud to demonstrate BP at its best.

Hesham Mekawi President and General Manager, BP Egypt Our code of conduct Aligned with our values and group standards, the code sets out the basic rules our people must follow and explains how our values should guide our decisions

BP's code of conduct clarifies the ethics and compliance expectations for everyone who works at BP.

We updated our code in 2011 to incorporate our refreshed values and to align with new external requirements. The code reflects a values-based approach. Where rules are not stated explicitly, our everyday business decisions are guided by our values.

The code includes sections on operating safely, responsibly and reliably; our people; our business partners; the governments and communities we work with; and our assets and financial integrity.

The code takes into account key points from new BP standards related to anti-bribery and corruption, anti-money laundering, competition and anti-trust law, and trade sanctions. The code also takes account of changing external expectations on business and human rights.

To help us reflect best practice, we consulted employees and external subject matter experts and benchmarked the code with more than 40 companies.

### Who the code applies to

Our code is designed to be used by every employee and officer in every BP whollyowned entity, and in joint ventures to the extent possible and reasonable given BP's level of participation. In situations where BP does not have overall control of a joint venture, the code outlines our approach to do everything we reasonably can to make sure our partners follow similar principles.

We seek to work with third parties who operate under principles that are similar to those in our code. This includes making a contractual commitment where it is feasible for the contractors to comply and work in line with our code. We expect all contractors and their employees to act consistently with our code and follow its principles. We will consider terminating contracts where we believe a contractor has not met our standards or their contractual obligations.



Find out more online **bp.com/codeofconduct** 

#### OpenTalk cases (by code chapter)



### Code of conduct

**Operating safely, responsibly and reliably** Rules for a safe and secure workplace and a responsible environmental impact

#### **Our people**

Expectations of our people, from respectful treatment of co-workers to our policy on child and forced labour

#### **Our business partners**

Guidelines on the giving and receiving of gifts, how to avoid conflicts of interest and other topics

### **Governments and communities**

How we interact with governments and communities, from preventing bribery and corruption to our policy on political activity

### **Our assets and financial integrity** Guidance on how to protect the physical,

intellectual property and financial assets of BP

### Speaking up

BP is committed to providing an 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. Everyone who works for BP has a responsibility to ask questions, raise concerns or report any suspected/potential breach of the code or the law. Employees are encouraged to discuss their questions or concerns with their supervisor, their local ethics and compliance leader, legal, human resources, the ethics and compliance team, or OpenTalk, an independent and confidential helpline. OpenTalk is also available to contractors and other third parties who have questions or concerns about the code.

In 2011, 796 cases were raised through OpenTalk, with the most common issues relating to the people section of the code.

### Enforcing code of conduct compliance

In 2011, our businesses reported 529 dismissals for non-compliance or unethical behaviour, compared to 552 dismissals in 2010. This excludes dismissals of staff employed at our retail service station sites, for incidents such as thefts of small amounts of money. Violations of health, safety, security and environmental requirements accounted for about 46% of these dismissals, reflecting our emphasis on holding people accountable for safe operating. In 2011, BP terminated or did not renew 14 suppliers' contracts, mainly due to health, safety, security or environmental breaches; or property theft. This is the same number of contracts that were terminated in 2010, compared to 30 in 2009.

### Our priorities for managing our people We have

been working to enhance the way we recruit, manage and develop our people

With more than 83,000 employees in over 70 countries, we take the job of managing our people seriously. This includes optimizing safety, strengthening capability, developing the potential of our people, increasing diversity and inclusion, and retaining the best people by motivating and engaging them.

### **Prioritizing safety**

Safety and risk management are at the heart of our people policies and safety has been re-emphasized within our values as a top priority. Our performance management and reward systems encourage excellence in safety. Each employee must set objectives and then demonstrate what they are doing to contribute to safety, compliance and risk management.

### **Strengthening capacity**

The energy industry is facing a growing skills gap, with large numbers of experienced workers retiring. This skills gap, alongside the increasing demand for energy products and complexity of projects, means that attracting and retaining skilled and talented people is vital. To satisfy both the short and long-term resource requirements, we are targeting experienced and skilled professionals, as well as increasing our intake of graduates to create an internal talent pipeline for the future.

### **Developing our people**

We provide development opportunities for all our employees, including external and on-the-job training, international assignments, mentoring, team development days, workshops, seminars and online learning. We encourage all employees to take at least five training days a year. Our Managing Essentials programmes help our line managers build their leadership capabilities and encourage the desired behaviours within their teams. Almost 500 sessions were delivered to 10,600 people in 2011.

### **Diversity and inclusion**

We work to attract, motivate, develop and retain the best talent from the diversity the world offers. Our ability to be competitive depends on it. We believe success comes from the energy of our people. Through living our values of safety, respect, excellence, courage and one team, we create an inclusive working environment, where everyone is treated fairly, with dignity, respect and without



Examining the Byford Dolphin rig in the North Sea, UK

discrimination and where everyone can make a difference and give their best.

We supported the UK governmentcommissioned Lord Davies review in 2011, which made recommendations on increasing gender diversity on the boards of listed companies. Our goal is to increase the number of women on our board by two by 2013.

### Meeting the expectations of our people

In 2011, we reviewed our approach to reward. As a result of this, in 2012, we will reward staff not only for what they deliver but also how they demonstrate behaviours that reflect BP's values.

We conduct an annual employee survey to understand and monitor levels of employee engagement and identify areas for improvement. Our 2010 employee survey was delayed to allow for organizational changes to be reflected in the survey construction.

Our 2011 survey found that employees continue to demonstrate a high level of personal commitment, feel well informed and are clear about their roles. Areas for improvement include recognizing and rewarding high levels of effort and being clear about the organization's priorities.

The survey includes 10 questions that make up the employee satisfaction index. The overall employee satisfaction index score for 2011 (62%) was below the score from 2009 (65%) but above that of 2008 (59%). Women in BP (% at each organizational level)

Group leaders

Managers





# Operating responsibly

Conducting our operations in a responsible manner means managing our risks, setting principles and requirements for operating and engaging with our stakeholders

Managing our business in a **rigorous** way through our group-wide operating management system



Of total hours worked in 2011 were by contractors

BP's **human rights** approach reviewed against the UN Guiding Principles

### Looking ahead

We will continue to work towards full conformance to our operating management system, which includes standards for working with contractors. We plan to introduce new company-wide standards on oil spill response and crisis management.



### Find out more at bp.com/sustainability

- Contractor management pilot project
- Our stakeholders
- Our joint venture partners

### Our operating management system The OMS is

designed to drive a rigorous and systematic approach to safety, risk management and operational integrity across the company

Most large organizations have a system for managing activity and outputs. In recent years, we realized that for a number of reasons – including the acquisition of businesses with their own management systems – we had various different ways of getting things done within BP.

In 2008, we launched our group-wide operating management system (OMS). It was designed to progressively replace other management systems, enabling consistent, rigorous and systematic management of BP operational activities.

### What is it?

OMS provides a framework that drives towards excellence in operating. It integrates BP requirements on health, safety, security, environment, social responsibility and operational reliability, as well as related issues, such as maintenance, contractor management and organizational learning, into a common system. At a local level, through application of the OMS annual performance improvement cycle, operations systematically identify and prioritize improvement opportunities, and plan, implement and sustain resulting activities.

### How does it work?

Integrated into the OMS are guiding principles and requirements for safe, reliable and compliant operations. Operations undertake an annual gap assessment, checking their performance against these principles and requirements, and putting plans in place to close any gaps.

Each operating unit – for example, a region like the Gulf of Mexico in our upstream business, or a refinery in our downstream business – has a local OMS which describes how it plans to address site-specific local operating risks and deliver its operating activities. Business needs, applicable legal and regulatory requirements and group-wide requirements are translated into practical plans to reduce risk and deliver strong, sustainable performance.

### Conformance and continuous improvement

All of our operations, with the exception of those recently acquired, are now applying our OMS to govern their BP operations and have begun working to achieve conformance.

We update and enhance our group requirements within OMS as needed to



A distillation unit is checked at our cellulosic ethanol demonstration plant in Jennings, US

reflect the company's priorities and experience. For example, following the Deepwater Horizon incident, we have been working to update a number of group practices, including our procedures around oil spill preparedness and response, as well as crisis and continuity planning.

At a local level, the OMS annual performance improvement cycle helps operations to deliver and sustain conformance to OMS group requirements. The gap assessment process is part of this process. In this way, the OMS cycle is designed to continuously improve our group standards and continuously drive conformance with them at an operational level.

Conformance is an ongoing process; many of our operations are now in their second or third year of the performance improvement cycle.

### Managing environmental and social impacts

Our OMS helps our businesses around the world to understand and manage their environmental and social impacts throughout the entire operational lifecycle, from initial project planning through to the operational phase and the eventual decommissioning.

It lays out the standards and processes required for environmentally and socially responsible operations, including requirements on the way our businesses approach environmental concerns, oil spill preparedness and response, energy efficiency, regulatory compliance, community and stakeholder relations and social responsibility, among other topics. Our environmental and social practices, applicable to certain major projects, are integrated into our OMS. *See page 37*.



The need for BP to identify and manage environmental and social risks is greater now than ever before, and our environmental and social practices provide a rigorous set of tools to help us do that. Identifying possible impacts at the very outset of many of our business acquisitions, exploration and new projects can save money, time and effort, and improve our licence to operate. So, clearly it can add enormous value. The practices also help BP meet external commitments that the company has made.

### Liz Rogers

Vice President for Environment, Social Responsibility and HSSE Compliance, BP

### Risk management and corporate governance

Our governance framework is designed to ensure that risks are identified, understood and managed so that we can deliver safe and strong operations

### Managing risk from site to board

We initiated a review of our risk management system in 2011 to identify what might be done to enhance the clarity, simplicity and consistency of our system, and have begun implementing enhancements. Our system is designed to generate consistent reporting of risks and prioritization of risk mitigation plans by our businesses, including for low-probability, potentially high-consequence scenarios.

Our enhanced risk management system focuses on three levels of activity:

### 1. Day-to-day risk identification and

- management occurs in the group operations and functions, with the approach varying according to the types of risk we face. We assess and manage these day-to-day risks with reference to our operating management system (OMS) and agreed action plans.
- Periodic collation and review of risks and risk management plans happens at the business and functional level, including major accident risk and other potentially high-consequence risks.
- Oversight and governance occurs at board, executive and function levels to help foster effective group-wide oversight, business planning and resource allocation, intervention and knowledge sharing.

### The board

The board is responsible for the direction and oversight of BP, including satisfying itself that the material risks to BP are identified and understood and that systems of risk management, compliance and control are in place to manage such risks.

The board focuses its activities on strategy, the oversight of risk and monitoring BP's performance. It has established a set of board governance principles, which delegate management authority to the group chief executive within defined limits. These include a requirement that the group chief executive will not engage in any activity without regard to health, safety and environmental consequence.

The board reviews group risks and how they are managed as part of its agendas. On 1 January 2012, the board was composed of the chairman, four executive directors and 10 non-executive directors.

### Board committees

The board delegates some of its oversight and monitoring activities to its six committees, composed entirely of nonexecutives. The safety, ethics and environment assurance committee (SEEAC) monitors the management of non-financial risk. SEEAC is also monitoring BP's global implementation of the measures recommended in BP's investigation after the Deepwater Horizon accident. The Gulf of Mexico committee monitors BP's response to the Deepwater Horizon accident through oversight of the Gulf Coast Restoration Organization and BP's activities and responsibilities with regard to resolving claims, the \$20-billion trust, remediation work, community outreach and legal matters.

### Our safety and operational risk function

The group's independent safety and operational risk function (S&OR) supports the business line in delivering safe, reliable and compliant operations across the group's operated businesses. S&OR:

- Sets and updates the requirements, including those in OMS, that are used across the business for safety and operational risk management.
- Provides expert scrutiny of safety and operational risk, independent of line managers – advising, examining and assuring what our operations do.
- Provides deep technical expertise to the operations.
- Has the authority to intervene and escalate issues to cause corrective action to be taken.

S&OR is made up of a central team of around 300 people, as well as nearly 300 more deployed in BP local operations. The central S&OR team serves as the custodian of group requirements, runs safety and operational risk audit and capability programmes and endorses the appointment of individuals for designated safety-critical roles.

Our deployed S&OR teams work with our operating businesses – ranging from upstream oil and gas development and production to refineries, petrochemical plants and retail networks. They help the businesses apply our standards to their operations and they help provide assurance to the group on how operational risks are being managed, business by business.

Operating businesses remain accountable for delivering safe, reliable and compliant operations. They have the responsibility to identify and manage risks and bring together people with the right skills and competencies. Working in collaboration with deployed S&OR subject specialists for guidance, they are subject to new levels of independent scrutiny and assurance. S&OR teams have the authority to intervene if it becomes necessary, but the aim is that all BP operations manage their risks effectively, so that central intervention is not needed.



### Deploying S&OR professionals in local operations

### Working with partners and contractors BP, like

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



Assessing risk at our Central Azeri platform in Azerbaijan

In 2011, more than 55% of the 374 million hours worked by BP were carried out by contractors.

#### How we work with contractors

Our ability to fulfil our corporate responsibility depends in part on the conduct of our suppliers, contractors and partners. We address this in a variety of ways, from training and dialogue to confirming operational standards through legally-binding agreements.

When we select contractors, our due diligence is designed to identify safety, bribery and corruption, money laundering and trade sanctions risks. In the upstream, we use systematic selection processes which include pre-contract quality, technical and health, safety, security and environment audits for certain potentially high-consequence activity.

Within our operating management system we have group-wide and business-specific requirements and practices for working with contractors. We expect our suppliers, contractors and partners to comply with legal requirements and operate consistently with the principles of our code of conduct when they work on our behalf.

The objective is to provide assurance that goods, equipment and services provided by third parties meet contractual and BP requirements and that there is a consistent, shared understanding of responsibilities. For example, in our drilling operations, where we have evaluated differences between our own standards and those of contractors, we require bridging documents to be put in place. These define how two or more safety management systems co-exist to allow co-operation and co-ordination between BP and the contractor.

#### **Contractor management review**

Following the Deepwater Horizon incident, we began an in-depth review of contractor management practices, with the aim of documenting and learning from best practice throughout BP and across a number of sectors and industries that use contractors in potentially dangerous activities. We studied 21 major organizations in six sectors – airlines, mining, construction, pharmaceuticals and chemicals, nuclear and space.

We found that these organizations working in potentially high-risk arenas tend to have fewer and longer-lasting relationships with contractors, supported by shared structures and practices.

BP's relationship with AltairStrickland at our Texas City refinery is a good example of this. Nearing 30 years as a preferred supplier at Texas City, AltairStrickland played an integral part in the refinery's transformation between 2005 and 2008. The company has won awards for its safety leadership work and has cited the longevity of its relationship with BP, mutual respect and teamwork as enabling factors.

Through the review, we identified the need to clearly define responsibilities and decision rights at every stage of each process – and to focus on the operational activities needed to make contractor relationships work, such as training, monitoring and auditing. Rigorous qualification of suppliers, including competency assessments for critical roles, is also important.

The findings of this review are informing our contractor management approach, with initial work focusing on contracts in our upstream supply chain that involve potentially high-consequence activities.

### **Our partners in joint ventures**

We seek to work in partnership with companies that share our commitment to ethical and sustainable working practices. However, in some of the joint ventures, we do not directly control how our partners and their employees approach these issues.

Typically, our level of influence or control over a project is linked to the size of our financial stake compared to other participants. In some joint ventures we act as the operator. Where we are the operator, and where legal and contractual arrangements allow, our policies, standards and operating systems apply.

In other cases, for example where one of our partners is the designated operator or where the operator is a joint venture company owned by BP and other partners, we are not the day-to-day operator. In those cases our OMS provides for our businesses to consider whether the management system used by the operator provides similar levels of risk and performance management to our own. We seek to influence our partners through dialogue and constructive engagement.

In 2011, BP initiated a review into our approach to the management of our relationships with non-operated joint venture operators and partners. This work includes safety and operational risk, as well as bribery and corruption risk.

## Stakeholder engagement Constructive dialogue with stakeholders helps BP to make responsible and sustainable decisions



We talk with stakeholders in many ways and at many levels, from the queries that reach us via our website to face-to-face meetings with investors, governments and regulators, customers, employees, community groups and others. Our online report provides full information on how we interact with each of these stakeholder groups. This page provides a summary of our engagement with select stakeholder groups.

### **Local communities**

Engaging with local communities is a vital element of our work. Talking with local people and other stakeholders helps our businesses to define what a positive or negative impact on the local community means. It also helps us more fully understand the broader potential environmental and social impacts of our work. The engagement process typically begins long before any physical work has started and continues throughout the lifespan of a project.

#### **Shareholders and analysts**

We keep our shareholders and the investment community informed about our progress as a group and provide opportunities for regular dialogue and feedback. We held an investor roadshow to seek feedback on our sustainability reporting in 2011 and hosted investor briefing sessions and webcasts on key topics of interest, such as safety, our progress in implementing the recommendations from BP's internal investigation into the Deepwater Horizon incident, contractor management, board governance, oil sands, alternative energy and operating in sensitive environments.

We have a dedicated area on our website, *bp.com/sri*, where we set out information of interest to socially responsible investors.

### **Governments and regulators**

BP engages with governments on many fronts, from consulting on environmental regulation to understanding our tax liabilities and collaborating on community or entrepreneurial initiatives. In some places, we work in partnership with governments through production-sharing contracts.

### Our approach to lobbying and advocacy

We engage in policy debate on topics that are of legitimate concern to the group, our staff and communities in which we operate. One way we do this is through lobbying, a process that in many countries is strictly regulated by national laws. For example, in the US, we are required to file a quarterly and a semi-annual lobbying disclosure report.

BP engages directly with governments in Europe, the US and elsewhere on issues that we believe are essential to the energy future. These issues include carbon pricing; government support and regulation to stimulate businesses to bring emerging low-carbon fuels and power to market; and the advantages of natural gas as a transition fuel to a lower-carbon economy.

We belong to regional organizations that actively engage in advocacy on behalf of our industry. For example, we belong to the US trade association for the oil and natural gas industry, the American Petroleum Institute, and the European Petroleum Industry Association, which represents the refining and marketing sector of our industry in the legislative processes of European parliaments.



When BP started its activities in our district, I was not a public official, but was working in the private sector. Relations were tense at the very beginning - local people blocked roads, stopped company vehicles, etc. However, attitudes began to change as people saw the goodwill that BP demonstrated towards the local community, a goodwill that has led to many achievements, including employment opportunities for people across the district. When the main village road became damaged, causing problems with dust, noise and traffic, BP repaved it. This was at a time of political transition, when the new administration was finding it difficult to respond to the many issues that were streaming in from all over the country. The company has consistently employed international best practice to resolve local issues.

### Levan Shavkani

Representative of Bakuriani Territorial Organ, Borjomi Municipal Council, Georgia

Find out more online **bp.com/stakeholders** 

Human rights BP's code of conduct makes it clear that certain provisions, such as BP's stance on the rights and dignity of communities, relate directly to human rights

BP supports the Universal Declaration of Human Rights, which lays out the rights to which all human beings are entitled. We have also supported recent multi-stakeholder efforts to establish clear, universallyapplicable guidelines on the responsibilities of businesses in relation to human rights issues.

BP is 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 extractive industry companies.

### **The UN Guiding Principles**

The UN Guiding Principles for Business and Human Rights, which the UN Human Rights Council unanimously endorsed in June 2011, establish for the first time an authoritative framework for the human rights responsibilities of businesses. The Guiding Principles implement the 'Protect, Respect and Remedy' framework that Professor John Ruggie developed during six years of multi-stakeholder consultation as the UN Secretary-General's Special Representative on Business and Human Rights.

BP understands that in order to fulfil its responsibility to respect human rights, it must continue to recognize and, where necessary, act on human rights issues within its businesses. We hope that the new framework will help to clarify some of the more challenging human rights issues businesses face, such as respect for human rights in the supply chain and in joint ventures where BP is not the operator.

#### Independent assessment

During 2011, BP commissioned three human rights experts to carry out a detailed review of our current policies and practices and the expectations in the Guiding Principles, to help us identify what work will be needed to achieve alignment with the principles.

These experts provided a summary of strengths and gaps, together with a number of recommendations that we are integrating into our plans.





Workers on the BTC pipeline project, Turkey



As we assessed BP's approach to human rights, we were gratified to see BP's recent efforts to update and reinforce its operating management system (OMS). In concept, OMS has significant similarities with the human rights due diligence process set out in the Guiding Principles. This is the engine that drives a company's ability to know and show that it is respecting human rights under the Guiding Principles - determining how it assesses its human rights risks; how it takes the findings from its assessment and integrates them into its operations; and how it tracks and communicates progress. Since OMS already has elements of that, it could serve as a foundation, at least on paper, for further alignment with the Guiding Principles. In our view, BP should modify the content of OMS by establishing respect for human rights as an explicit and essential goal of OMS and by embedding the policies and processes necessary to achieve that goal.

John Sherman III External expert on

the Guiding Principles

### BTC pipeline project allegations and decision

The Baku-Tbilisi-Ceyhan (BTC) pipeline project was the subject of allegations made in 2003 by several non-governmental organizations (NGOs), who claimed the project had violated the OECD Guidelines for Multinational Enterprises, a set of voluntary standards and principles for business.

The UK Department for Business Innovation and Skills is the government agency tasked with responding to OECD Guidelines-related complaints when they involve UK-based companies. The agency originally found all allegations to be baseless and dismissed them. Following a procedural challenge, however, the matter was reopened, and in 2011 the agency issued a revised final statement.

The agency reiterated that it saw no merit to most of the allegations, but stated its view that in a part of north-east Turkey during the early stages of the BTC project, BP had failed to "identify specific complaints of intimidation against affected communities by local security forces where the information was received outside of the formal grievance and monitoring channels" and had not taken adequate steps to respond to such complaints.

BP co-operated with the agency throughout this eight-year process. We disagree with the agency's conclusion. In addition to formal consultation and grievance processes, observers from NGOs monitored the planning and execution of the BTC project. However, we accepted a recommendation to report back to the agency on some ways in which BP could further strengthen the procedures we use to identify and respond to allegations or incidents related to security and human rights. We submitted this report in mid-2011, and it was summarized in the agency's follow-up to the final statement, bringing the process to a close.

Safety We take a rigorous and systematic approach to safety and place great emphasis on strengthening our safety culture and workforce capability

Delivering **safe** and **strong** operations by instilling a culture where everyone is focused on safety



Independent safety and operational risk audits conducted by the end of 2011

Implementing enhanced drilling standards across the organization Looking ahead

Via our website and other channels, we will continue to provide periodic updates on our progress against the BP internal investigation into the Gulf of Mexico oil spill.



### Find out more at bp.com/safety

- Progress against the recommendations made from our internal investigation of the Deepwater Horizon accident
- Our safety performance

Safety management Safety is at the heart of everything we do – driven by our leaders, applied through our operating management system, the focus of our training, and systematically checked

### **Our safety approach**

Our safety and risk management approach is built on deep experience in the oil and gas industry. This includes learning from the conclusions of investigations into the Deepwater Horizon oil spill in 2010 and the Texas City refinery explosion in 2005, as well as operations audits, annual risk reviews, other incident investigations and from sharing experiences with industry peers.

There are three key principles at the heart of our approach:

- Leadership fostering a culture where everyone is focused on safety, on managing and reducing risk and on safe, reliable and compliant operations.
- Our operating management system (OMS) being the way BP seeks to operate, with clear expectations of conduct and leadership approach.
- Independent, effective checks and balances and self-verification being carried out at all levels of the organization.

While we maintain our focus on processes, practices and protocols, we also place great emphasis on how our workforce applies them, thereby working to strengthen safety culture and workforce capability.

The group's independent safety and operational risk function (S&OR) works alongside the businesses in pursuit of safe, compliant and reliable operations. S&OR personnel can assist, challenge and escalate or intervene as necessary in all safety and operational aspects of BP's technical activities.

### Leadership

BP's leaders are central to instilling a culture where everyone is firmly focused on safety. From site to boardroom, our leaders are responsible for setting expectations and for bringing safety values to the heart of the company. Our operating leaders at site level have been working to embed this culture, helping to make sure our OMS is used consistently and effectively. At every level, leaders are reinforcing and demonstrating that it is not just 'what' we do, but 'how' we do it that is important.

We have also altered the way our leaders are rewarded by building leadership expectations around safety into personal performance targets and assessments.





### A systematic approach

We seek to drive a rigorous and systematic approach to safety, risk management and operational integrity through our OMS. The OMS integrates all BP requirements regarding health, safety, security, environment, social responsibility and operational reliability, as well as related issues, such as maintenance, contractor management and organizational learning, into a common system. We review and develop the practices contained in our OMS as we learn from audits, risk assessments and incident investigations, including Deepwater Horizon. The annual performance improvement cycle helps local operations achieve and sustain conformance.

### Competency and capability development

Having the right people with the right capability and experience in BP's safetycritical roles is essential. We have broadened our definition of what makes a role safetycritical and are moving to a new approach, where all new appointments into these designated roles must be independently endorsed by our S&OR function.



1 Maintenance worker in Whiting refinery, Indiana, US

- 2 Moving heavy drilling equipment, Byford Dolphin rig, North Sea, UK
- 3 Workers carry out routine checks at Texas City refinery, Texas, US

Extensive and focused training programmes help to equip our leaders and operations personnel at all levels with the skills needed to apply our systems and processes and so reinforce our management of risk and process safety. This includes our Operations Academy programmes for senior management, and process safety and management training for our frontline leaders. To date, approximately 22,800 managers, supervisors and technicians have attended workshops as part of the Operations Essentials programme since 2008, and 180,000 e-learning modules have been completed.

### **Independent checks and balances**

We place strong emphasis on checks and balances. Self-audit programmes for operations and health, safety, security and environment are a key tool for delivery of good, sustainable performance in operations. Our central S&OR audit team conducts independent audits, including the testing of those self-audit programmes.

We risk-rank our operations, with higher hazard facilities audited on a riskprioritized frequency. By the end of 2011, the S&OR audit team had completed 150 OMS and process safety management audits. More than 16,000 actions were raised and approximately 12,200 were closed. We have piloted new audit programmes for rig audits and major project audits.

## Personal health and safety Our work relies upon the safety of our people and preventing harm to our workforce

In 2011, the company reported two workforce<sup>3</sup> fatalities, and we regret the loss of these lives. One was a rail-related fatality in the US, the other died as a result of an unauthorized transfer of petrol in South Africa.

We track both recordable injuries and the days 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. The 2010 group recordable injury frequency rate was affected by our Gulf Coast response activities.

### Personal health and safety

We work to reduce exposure to occupational risks, which may include infectious diseases, fatigue or stress and other health issues.

Our group-wide operating management system provides requirements that our operations must follow to help ensure a safe and healthy working environment – with the objective of preventing harm to the health of employees, contractors, visitors and members of local communities who may live or work near our operating sites.

Specifically, we apply a systematic approach to identify hazards, assess risks and maintain programmes to mitigate risks. For example, we may reduce staff exposure to



Maintenance personnel onboard the Chirag platform in Azerbaijan

a given hazard, or require fitness assessments for specific tasks individuals are required to carry out in the course of their work.

We expect all our personnel, whether at our refineries, on our rigs or ships, or at our offices, to demonstrate their personal responsibility for the safety and wellbeing of everyone around them. We do this by continuously reinforcing the importance of safe practices and encouraging reporting of any breaches.

<sup>3</sup>The BP workforce includes all BP employees, BP contractors and BP directors.

#### Recordable injury frequency (per 200,000 hours worked)



### Days away from work case frequency (per 200,000 hours worked)



### **Driving safety**



BP employees and contractors drove 785 million miles in 2011 alone. Vehiclerelated incidents remain one of the key risks facing our industry, and driving safety remains a high priority for us.

We take a risk-based approach to assessing driving issues and identifying areas for focus and improvement. For example, we introduced a new safety standard for our liquefied petroleum gas (LPG) tankers following a gas release involving a road tanker delivering LPG to a retail site in Turkey in 2007. The standard includes requirements relating to driving safety, such as high brake lighting and turn indicators; and to control of product, such as remotely-operated shutdown systems to prevent/stop a gas release in an emergency. We have applied this standard across the 282 vehicles we use to transport and deliver our LPG across our operations.

We rely on a variety of metrics to monitor our driving safety performance. For example, we track our total vehicle accident rate which is the sum of all onroad and offroad motor vehicle accidents per one million kilometres driven. This figure includes any vehicle accident – whether it has resulted in injury or just damage to a vehicle. In 2011, the total number of reported vehicle accidents was 1,064. We also track our severe accident rate which includes accidents that result in death, injury, a spill, a vehicle rollover or serious or disabling vehicle damage.

### Severe vehicle accident rate





Find out more online **bp.com/safetydata**
### Preventing major accidents and oil spills

Through our unrelenting focus on process safety, we are continually working to reduce the risk of accidents and oil spills in our operations

### **BP and process safety**

Process safety involves applying good design principles, along with robust engineering, operating and maintenance practices, to manage operations safely.

For BP, this means the plant is designed, maintained and operated properly to avoid failures, such as spills or explosions, that can result in injuries and impacts on the environment. It also means that employees and contractors have the right training and competencies to carry out work, and are observing the procedures and policies that help to prevent personal injury.

## Sharing and embedding lessons learned from major accidents

BP is committed to sharing the lessons learned from the Deepwater Horizon accident and response in the Gulf of Mexico to help develop the enhanced capabilities and practices needed to help prevent this type of accident from happening again.

We are applying what we learned across BP – this is part of the basis for our change programme to strengthen safety, risk management and compliance.

We are sharing what we learned with industry partners, academics, scientists, governments, regulators and communities across the globe and collaborating with industry and governments on industry-wide prevention enhancements and technological advances.

## Implementing process safety recommendations in our upstream business

In the immediate aftermath of the Deepwater Horizon explosion, BP launched an internal investigation. The Bly Report concluded that no single cause was responsible for the accident, rather that a complex, inter-linked series of mechanical failures, human judgments, engineering design, operational implementation and team interfaces, involving several companies, including BP, contributed to the accident.

As a result, the investigation team made 26 recommendations specific to drilling, which we are working to implement across our worldwide drilling operations. *For more information see page 34.* 

## Implementing process safety recommendations in our refineries

The BP US Refineries Independent Safety Review Panel was chartered in 2005, following process safety accidents at BP's Texas City refinery, to examine safety oversight, culture, and management systems at BP's five US refineries. Following the Panel's report in 2007, Mr L. Duane Wilson, a recognized expert in refinery process safety issues, was appointed by the BP board for a five-year term as Independent Expert to monitor implementation of the Panel's recommendations.

Mr Wilson visited each BP US refinery at least twice in 2011, interviewed personnel at many levels in the organization, and engaged regularly with senior and executive management to gauge implementation progress. He also reviews reports and other documentation prepared by BP.

We remain committed to implementing the findings of the Panel and sharing our progress and experience in this area with industry partners, regulators and other stakeholders. Mr Wilson's fifth annual report will be published in April 2012 and will be made available online at bp.com/independentexpert.

## Tracking BP's process safety performance

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

BP monitors the number of process safety events occurring across our downstream process plants and upstream facilities, including unplanned or uncontrolled releases of materials causing harm to a member of the workforce or costly damage to equipment, or exceeding threshold quantities. Tier 1 process safety events are those with the greatest consequence. It is early days in the reporting of process safety events. Seventy-four tier 1 process safety events were reported in BP in 2011.

## Number of oil spills and other losses of primary containment



2002 2003 2004 2005 2006 2007 2008 2009 2010 201



The Refining and Marketing business has been driving increased rigour and focus on understanding the causes of our incidents and actively learning from them. In 2011 alone, the deployed S&OR team issued five 'high-value learnings', in response to what we learned from some of our incidents and those in other industries, which include actions to be taken across Refining and Marketing.

### Susan Sharp Vice President for HSSE and Investigations for Refining and Marketing, BP

Find out more online bp.com/independentexpert bp.com/internalinvestigation Safer drilling Since the beginning of 2011, all BP-operated drilling and wells activity has been conducted through a single global wells organization



### A more centralized approach

By bringing functional wells expertise into a single organization with common global standards, our global wells organization (GWO), we are working to standardize BP drilling and wells operations with the intent of delivering safe and compliant wells. We have also centralized oversight of our major projects, under our new global projects organization.

GWO works with our safety and operational risk function with a view to reducing risk in drilling and so reducing the likelihood of an oil spill or incident occurring through prevention efforts. We also aim to reduce the consequences should one occur.

### Preventing accidents and oil spills

We are implementing enhanced drilling safety standards across the organization. These requirements are designed to help identify and mitigate risks prior to contractors' drilling rigs being put into service for BP. Interventions to date have included repairs to safety systems, additional training of personnel, modifications to equipment, verification of quality and inspection records, revised and clarified roles and responsibilities and updated training requirements, and enhanced risk management techniques.

### Blowout preventers

We have issued standards for the maintenance, testing, verification and use of subsea blowout preventers (BOPs). For example, we require dynamically-positioned drill rigs contracted by BP to have no fewer than two blind shear rams and a casing shear ram sitting within the subsea BOP to enhance its reliability in cutting the drill pipe and sealing the well in the event of a blowout or other operational emergency. We require third-party verification that testing and maintenance of our subsea BOPs are performed in accordance with industry recommended practice. In addition, BP requires that remotely operated vehicles can activate these BOPs in an emergency.

### Cementing

We are enhancing oversight of cementing services by implementing new standards in cement design and testing. We have also strengthened the technical approval



We don't just want to fix things once. We want to be able to share across regions and projects. The whole principle is that we improve every year, and that those improvements sustain for decades.

### Bernard Looney Executive Vice President of Developments, BP

- 1 Drilling on the Serrette field offshore platform, Tripidad
- 2 Thunder Horse control
- room, Gulf of Mexico, US 3 Workers on the Discoverer
- Luanda drill rig, Angola

process for critical cementing operations, and have brought additional expertise into BP to oversee this. We are implementing quality audits of our cementing contractors' laboratories.

### Well start-up procedure

We have introduced a new well start-up procedure. The checklist covers a range of operational areas and verification of conformance is required by leaders from the business line and S&OR before operations can begin. In one case, as a result of this process, BP rejected a contractor rig put forward by another operator due to it not meeting BP's standards.

## Implementing the investigation team's recommendations

Shortly following the publication of the BP internal investigation report (the Bly Report) into the Deepwater Horizon accident, BP developed interim measures to immediately address eight key findings. This guidance remains in effect across all BP drilling and completions operations while detailed work on the 26 recommendations is carried out.





At the end of 2011, four of the 26 Bly Report recommendations had been completed. We continue to make progress on all of the remaining recommendations largely in line with our planned schedule, with a further 12 recommendations expected to be completed in 2012.

Implementing the 26 recommendations across the group requires detailed work and many activities – from creating new practices and guidance, training and testing appropriate staff, changing requirements and expectations of our contractors, and establishing verification processes to assure the changes are sustainably embedded. We have a team of around 85 people working full-time on this.

A project of this scale takes time; we must work to assure that all actions are delivered to a high standard across all of our well operations, and independently verified by our S&OR audit or internal audit function.

The BP board has identified an independent expert to provide further oversight and assurance regarding the implementation of the Bly Report recommendations. The independent expert's engagement is expected to commence in the latter half of May 2012. We will continue to publish periodic progress updates at *bp.com/internalinvestigation* 

### Readiness in case of an oil spill

We have also been working to reduce the potential consequences of an oil spill should one occur by focusing on containment, relief wells, spill response, and crisis management.

#### Capping and containment

Containment – including the ability to both cap the well and collect oil that has escaped – plays a pivotal role in being prepared to respond to potential incidents. We have developed a mobile deepwater well capping package that includes about 250 pieces of specialized equipment. Maintained in a constant state of readiness in Houston, it is designed to be deployed by air freight and arrive wherever it is needed in just a few days.

We share capping and containment equipment with other operators in the Gulf of Mexico, through the Marine Well Containment Company, and with operators in the UK North Sea. We also participated in industry research and development efforts to develop next-generation containment solutions, now available in Europe, and to enhance the industry's capability to respond to subsea well control events globally.

### Relief wells

Prior to drilling a deepwater well, BP operations now have relief well plans in place with equipment identified that can be moved to the site if needed. This is of particular benefit in areas that do not have the same infrastructure or support as more active basins such as the Gulf of Mexico.

### Spill response

In 2011, as a priority, we incorporated many of the lessons learned from the Gulf of Mexico oil spill response into new technical requirements for BP operations that drill in deepwater. We began implementing these in Angola, the North Sea, Brazil, the US and Egypt, where we have deepwater drilling active or planned for 2012. See page 37 for more on oil spill preparedness and response.

### Crisis management

Crisis management planning is essential to respond effectively to emergencies and to avoid a potentially severe disruption in our business and operations. Our intention is to build on interim requirements introduced in 2011 for deepwater drilling in order to put in place group-wide practices for crisis management.



## Find out more online **bp.com/saferdrilling**



The ultimate aim is to prevent oil spills occurring in the first place by maintaining safe operational activity. For deepwater drilling, enhanced procedures regarding the design of blowout preventers, cementing and well start-up, aim to eliminate the possibility of spills occurring.

How we respond in the event of a spill depends on many factors. Successfully incorporating newlydeveloped response tools such as BP's deployable capping stack device to quickly cap a well; improved relief well drilling technologies to stem the oil flow from a well; the use of dispersants at the seabed to aid biodegradation of oil in the water; or controlled burning of oil at the sea surface – all in conjunction with the more traditional response tools – enhances our ability to successfully respond.

Peter Collinson Global Environmental Response Expert, BP

## Environment

BP is working to manage environmental sensitivities and the potential impacts on communities wherever we do business

Managing our environmental impacts in areas as diverse as **deep sea**, **deserts** and **the Arctic** 

# 59

Projects screened in early planning for environmental and social impacts

### Sharing lessons

learned about oil spill response with the industry and regulators

### Looking ahead

By 2030, more than 3.9 billion people could be living in areas with severe water stress. With this scarcity in mind, BP is working to better understand water risks and to develop sustainable water management practices.



## Find out more at bp.com/environment

- GHG emissions and other performance data
- Local environmental information
- Interactive tools and
- case studies



### Environmental management Throughout the lifecycle

of our projects and operations, we work to manage environmental issues and address any related impacts on local communities

We manage our environmental impacts at a local level via our operating management system (OMS) and performance targets are set at our major operating sites. At a group level, we review our management of key material issues such as greenhouse gas, water, sensitive and protected areas and human rights.

### Lifecycle approach

Our environmental and social practices set out how our major projects identify and manage environmental and social impacts. They also apply to projects that involve new access, projects that could affect an international protected area and some BP acquisition negotiations. The practices are part of our OMS, which defines our companywide approach to managing potential environmental and social impacts throughout the operational lifecycle.

Early on in the project planning, projects implementing our environmental and social practices, must carry out a screening process to help identify environmental and social impacts that could arise from their activities. By the end of 2011, nearly 60 projects had undertaken the screening process with the support of a trained screening facilitator who, to maintain their independence, has no line of responsibility for the project.

Once our projects are operational, they can have a lifespan of several decades. During this phase, we conduct, at least annually, a formal process to identify and assess risks and issues that are environmentally and socially significant. All our major operating sites with the exception of recently-acquired operations, are certified to ISO 14001.

### **Complying with regulations**

BP is active in more than 80 countries and faces diverse and sometimes complex environmental regulations at international, state, national and local levels. Across the company, we have developed and continue to strengthen enterprise tools, systems and capabilities for managing compliance with applicable regulations.

A significant recent regulation with which we have had to comply is the US Environmental Protection Agency's (EPA) Greenhouse Gas Mandatory Reporting Rule. This requires major emitters of GHGs to report their direct emissions, and producers and suppliers of petroleum products to report volumes and combustion  $CO_2$  from the

### Managing environmental and social impacts

Our operating managem	ient system			
		ISO 14001 applies		
Our environmental and	social practices apply			
New access projects and some acquisition negotiations	Major projects and projects affecting an international protected area	Operations	Decommissioning	

products they produce, import and export. All of BP's affected assets and businesses complied with this new rule during the 2011 cycle, reporting emissions to the EPA on or before the September 2011 deadline.

### **Oil spill preparedness and response**

Our response effort in the Gulf of Mexico oil spill involved applying dispersant onto the oil at the surface, applying dispersant underwater at the source of the leak, skimming oil from the surface, burning oil on the sea, laying hundreds of miles of boom and deploying thousands of people to clear oil from beaches and marshes – at a level never required before. We learned a great deal and made advances in response technology and systems. As a result, we are updating our group requirements and are sharing our knowledge with the industry and regulators.

These enhanced requirements will obligate relevant businesses to follow a planning process to predict how the spilled oil will behave; identify, assess and understand the environmental and social sensitivities at risk; define effective response strategies; and confirm that appropriate response capabilities are in place. This practice will incorporate our deepwater technical requirements, further enabling a single, consistent process across BP.

Across our operating regions, we are also developing improved, higher-resolution sensitivity maps aided by oil spill modelling and the use of technologies such as remote sensing satellites, deep ocean submersibles and autonomous underwater vehicles.

In 2011, BP created significant stockpiles of dispersant and fire boom and contributed to the construction of capping and containment devices in countries, including Angola, the UK and the US.



## Environmental and community impacts of drilling waste in Oman

At BP's Khazzan natural gas project in Oman, the screening process highlighted potential environmental and social impacts associated with drilling waste, produced water, greenhouse gases and road safety, as well as potential impacts on local communities – impacts that the project can address through the remaining planning stages. For example, the screening showed there could be a high salt content in the 140,000 barrels of water produced every day from the reservoir, meaning the water will need to be treated and disposed of appropriately.



## Find out more online **bp.com/environmentalmanagement**

## Environmental performance We report annual data and local information for a wide range of environmental

performance issues

### Local reporting

The diversity of environments in which we operate around the world means we face a variety of environmental issues. To take account of these site-to-site differences, we manage and report on our performance for air emissions, waste, water, and access to protected areas at a local level, where they are most relevant.

bp.com/sustainabilitymappingtool

### **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.

We also participate in voluntary efforts with government and non-governmental organizations. BP is a charter partner of the US EPA's Natural Gas Star programme aimed at reduction of methane emissions from the oil and natural gas sector.

Our direct GHG emissions were 61.8 million tonnes (Mte) in 2011<sup>4</sup>, compared with 64.9Mte in 2010. The diagram above explains the 3.1Mte decrease. The net effect of acquisitions and divestments is a decrease of 1Mte, primarily the result of the sale of assets as part of our disposal programme. Operational changes led to a decrease of 1.8Mte, principally due to temporary reductions in activity from maintenance work. Adjustments to the way businesses calculate emissions resulted in a decrease of 0.1Mte. Actions taken by our businesses to sustainably reduce emissions amounted to 0.2Mte.

In 2010 we did not report on GHG emissions associated with the Deepwater

### Greenhouse gas emissions

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



Horizon incident or response. We have since estimated the gross direct  $CO_2$  equivalent emissions from response activities in 2010 to be approximately 481,000 metric tonnes, which includes drilling ships and major vessels deployed, support vessels, flaring of oil and gas, and in situ burning of oil on the sea. This figure does not include emissions associated with the 'vessels of opportunity' programme, the onshore vehicles and equipment, and the incident itself, which are estimated to be minor.

Over the long term, it is likely that the carbon intensity of parts of our business will increase. In our upstream operations this is because we expect to move farther into technically difficult and potentially more energy-intensive areas. The intensity of certain refining operations may also increase with the trend towards processing heavier crudes, which requires more energy.

### **Building a more efficient PTA plant**

In Zhuhai, China, new technologies have helped make a BP-operated petrochemicals plant become one of the most efficient facilities of its kind. As at the end of 2011, the Zhuhai 2 purified terephthalic acid (PTA) plant was capable of running with around 75% fewer water discharges, 65% fewer GHG emissions and 40% less solid waste than a similar plant equipped with conventional technologies. These efficiencies have also made the plant significantly more economical to operate.



### Water management

In response to increasing pressures on the global water supply, we are taking a more strategic approach to water management. BP uses freshwater primarily for cooling, steam generation and for production processes at our refining and petrochemical facilities. Some of our activities, such as oil and gas extraction and refining, create wastewater, which we treat before discharging it back into the environment.

We are engaging with external organizations to deepen our understanding of water resource risks. Our goal is to develop sustainable water management practices, which will seek to achieve efficiencies in both withdrawals and consumption, while applying new technology to wastewater treatment.

### Air emissions

Air pollution is a major environmental risk to health around the world, especially in locations where there are high levels of pollutants. At our operating sites, we manage emissions to air through our local operating management systems, developing plans to comply with applicable legislation and aiming to minimize any potential impacts. We monitor our emissions to air and ambient air quality to check against our plans and demonstrate our performance.

### Waste management

Across our operations, we introduce measures that aim to avoid, reduce and reuse the amount of waste that is created, and implement a lifecycle approach to its management. We are continually evaluating ways to improve our performance in this area.

At our North Sea operations in Scotland, for example, we are turning a variety of hazardous waste generated during our activities into useful energy. The waste is sent to waste-to-energy plants chosen for their location to reduce transfer costs and also for their effectiveness in minimizing emissions.

 $^4$  We report GHG emissions on a CO\_2-equivalent basis, including CO\_2 and methane. This represents all consolidated entities and BP's share of equity-accounted entities except TNK-BP.

Find out more online bp.com/environmentalperformance bp.com/chartingtool

### Working in sensitive areas We take steps to understand and manage the potential impacts of our operations on environmentally-sensitive areas

BP operates in diverse environments around the world, from Arctic to desert to deep sea. Some of these areas are particularly environmentally sensitive, for example, because they are home to protected or endangered species; because they contain an ecosystem with outstanding biological or geographical value; or because the landscape is fragile, unique or has not previously been disturbed by human activity.

### International protected areas

Many of the world's most sensitive areas, both environmentally and socially, have been given international protected status. Our international protected areas classification includes areas designated as protected by the International Union for Conservation of Nature (categories I-IV), Ramsar and World Heritage sites, as well as areas proposed for protected status.

When evaluating whether a project may access or potentially affect an international protected area, we apply our environmental and social practices. These require screening against a range of environmental and social indicators to determine potential impacts of project activities to international protected areas. For example, a protected area downstream of a project could potentially be affected by freshwater extraction in the project area.

If a project may potentially affect an international protected area, we carry out a high-level risk assessment to better understand the potential impacts. Our safety and operational risk function provides an independent review to inform the risk assessment, and before any physical activity begins permission is sought from senior management, together with appropriate mitigation measures. The Great Australian Bight project completed this process in 2011.

### **Biodiversity**

Working sensitively in relation to diversity of flora and fauna species is core to BP's approach to environmental and social management. Projects implementing our environmental and social practices screen for potential impacts to sensitive or protected areas, endangered species and ecosystem services as part of the screening conducted at the early planning stages prior to accessing an area and beginning work. Where potential impacts to biodiversity are identified, we take steps to further assess and manage these risks. In 2011, BP took part in *Tread Lightly*, a benchmarking study covering 30 major companies working in the oil, natural gas or mining industries. Conducted by the Natural Value Initiative, the study evaluated each company's progress in addressing biodiversity, responding to emerging thinking on ecosystem services and developing systems to manage risks and realize opportunities associated with these issues.

The study highlighted opportunities that BP is working on, including the possibility of improving our policy and strategic approach to biodiversity issues, as well as our use of reporting metrics.

### Training our employees in marine science

Environmental advisers from nine countries where BP has offshore operations in sensitive marine environments participated in a marine science training course in 2011. The aim of the training was to help them assess and manage the potential impacts of our new projects and ongoing operations on valuable ecosystems within marine environments. We have also set up a marine science 'community of practice', so that our employees whose work relates to marine environments can share knowledge, and we have launched online training materials to raise awareness on marine mammals.

### **Ecosystem services**

Ecosystems provide many services to humans, from basic needs, such as water and food, through to more intricate services, such as waste assimilation, pollination, and protection from potential effects of climate change. For companies and other stakeholders, adopting an ecosystem services approach to environmental management requires a shift in thinking. It means considering the inter-relationship and dependencies between different issues, and this may lead to different conclusions from those that might be reached using a more traditional environmental management approach. To help inform our approach, over the past three years BP has been exploring a range of emerging ecosystem services tools to assess our impacts and dependencies locally and regionally. We have piloted such tools in several of our businesses to help us better understand the opportunities and risks that an ecosystem services approach could bring to BP.



## Protecting wildlife around our facilities in Colorado

BP is working with The Nature Conservancy and a state regulatory agency in Colorado, US, to find ways of mitigating the potential wildlife impacts from a proposed BP oil and natural gas project in the state. The proposed project site is in the San Juan basin, which contains valuable natural habitats for mule deer, elk, bald and golden eagles, and other species. The programme includes evaluating the biodiversity of the ecosystems around the project site and devising actions to mitigate potential impacts – with appropriate monitoring and reporting in place.

### Working responsibly in the Arctic The environmental and social sensitivities of Arctic environments create some unique

challenges for oil and gas operations



BP has been finding, producing and transporting oil in Alaska for more than 35 years. We are also the largest holder of oil exploration licences in the Canadian Beaufort Sea, where any drilling activity is still several years in the future.

In our existing Arctic operations and in any new projects we undertake in the region, we work to understand and address the potential impacts on the natural environment and local indigenous communities, many of whom rely on the natural resources found in these environments for subsistence.

We support efforts to create clear industry guidance on new Arctic access by energy companies. For example, we have participated in Barents 2020, an industry working group devoted to setting standards for Arctic operations, including design standards for offshore structures. We are also active within two International Association of Oil and Gas Producers Arctic working groups, including one that is helping to develop updated environmental and social impact management guidance for oil and natural gas companies that work in Arctic locations.

### Protecting the tundra on Alaska's North Slope

Working on the vast tundra plain that is Alaska's North Slope raises some special environmental and safety considerations. In the summer, the North Slope comes alive 1 Aerial view of the Endicott Main Production Island, Alaska, US 2 Checking the pressure

at Estlin Pump Station, Canada





We understood going into the project in the Canadian Beaufort Sea that there would be a focus on our efforts to better understand this remote environment by Inuit communities, environmental NGOs and other stakeholders. By collaborating with ArcticNet on the environmental baseline study, we are working with world-class scientists who have an incredible amount of knowledge about this area and who are able to position the study's findings within the context of their previous research. We are sharing key learnings from the study directly with northern communities and in scientific forums around the world. ArcticNet is also making the data available through the web-based polar data catalogue, which is accessible to the public.

Cynthia Pyć HSSE Team Lead, BP North American Arctic Exploration with millions of migratory animals, including two protected bird species. In the winter, the tundra is a place of sub-zero temperatures and frozen conditions.

To help protect the tundra, we design our facilities to withstand Arctic conditions. We use gravel pads or seasonal ice structures to protect the permafrost – a layer of permanently frozen ground below the tundra vegetation – from melting due to thermal heat from our facilities or disturbance of vegetation. Any new gravel or ice structures require approval from federal, state and local regulators.

Our pipelines are elevated above ground on vertical supports, a technique developed for construction of the Trans-Alaska pipeline in the 1970s. These elevated pipelines avoid adding heat to the permafrost. They are also designed to allow caribou and other large migratory species to pass underneath.

Oil spills can also impact the tundra. Through facility design and risk management processes, we work to prevent spills from occurring at our production facilities and pipelines. When spills have occurred, we have taken steps to restore the environment using re-vegetation and other techniques. We are working hard to maintain the integrity of all our assets on the North Slope, and we believe these efforts have made BP in Alaska safer and more reliable as a result.

## Gathering environmental data in the Beaufort Sea

We have been collecting baseline physical and biological data in the Beaufort Sea to help assess the environmental and social impacts of exploration work. To do this, we teamed up with the academic-led ArcticNet Network of Centres of Excellence of Canada to study the biological, physical and geological environment in and around the exploration areas.

Two years of field study have yielded a large number of environmental insights. In 2010, the research team used state-of-the-art technology developed by Cornell University to document deepwater habitat use by beluga whales for the first time. Further discoveries were made about the use of this deepwater offshore area by seabirds and other marine mammals. In 2011, data gathered via advanced sonar revealed that adult Arctic cod were not present in the area during the summer months. The research also provided new information on ocean circulation, plankton distribution, ice presence and strength, seabed formations and geological processes.

In the years ahead, the seismic, physical and biological data will inform environmental and social impact assessments, as well as the design of drilling and support equipment to meet the unique environmental conditions of this location. The data will also form a valuable baseline against which BP and the scientific community can monitor this environment for changes – including those associated with climate change impacts – in years to come.

## Managing our impact on protected wildlife

Polar bears can sometimes be seen around our operating facilities and routes in Alaska. BP works collaboratively with ConocoPhillips and ExxonMobil on a programme that includes training on bear awareness and the implementation of bear encounter and avoidance plans.

Female bears and their cubs den in the winter months, making them vulnerable to disturbance. To help address this risk, each year at the start of winter, BP conducts an aerial thermal infrared survey of the areas around our operations, identifying the locations of dens from the heat the bears inside them give off. We then plan our winter activities around these locations, so that a safe distance is kept.

We have procedures in place that are designed to protect both the bears and our workforce in instances where there is unexpected contact with a polar bear. If this happens, BP's security procedures call for the use of 'hazing' techniques, which are authorized by the regulator, to frighten the bear away without harming it.

In 2011, a security contractor protecting a camp at our Endicott field inadvertently used a different type of ammunition than intended while carrying out this procedure, and a bear was wounded and later died. In response to the accident, we further tightened the security procedures that we use when a bear is spotted near one of our facilities.

We have also taken steps that seek to reduce the impact of our operations on birds. For example, at two of our facilities on the North Slope, we have installed flashing lights with the intent of reducing collisions that can



Equipped with cutting-edge sampling equipment, the Canadian research ice breaker, *CCGS Amundsen*, at work in the Beaufort Sea

injure or kill birds. To better understand bird use of the North Slope, we continue to work with the Wildlife Conservation Society in its efforts to monitor nesting at 12 permanent plots, and we are working together on new research aimed at better understanding the pressures on Arctic birds from natural predators and the role of birds in tundra restoration sites.

### Working with local indigenous people

Engaging with indigenous people – sharing our plans and listening to any concerns – is an important part of the way we work in the Arctic. We also look for ways to learn from traditional knowledge in relation to local wildlife and habitats and to involve Inuit people directly in our activities.

On both the Canadian and Alaskan sides of the Beaufort Sea, BP works with Inuit observers trained in marine mammal and bird survey techniques and safety measures. The Inuit observers work alongside biologists to record details of wildlife sightings, including marine mammals, such as seals, as well as bowhead and beluga whales, which the Inuit people have become skilled at sighting with techniques handed down over thousands of years. Sightings provide valuable scientific information, while also warning of the presence of sensitive species so that certain kinds of operations can be altered, to avoid negative impacts.



For more than 15 years, we have considered BP Alaska to be the industry leader in Arctic Alaska. The company is diligent in working with our subsistence hunters and community leadership to ensure that BP's development work is carried out in an environmentally-sound manner. BP's representatives take great care to manage the company's development activities so that they remain consistent with our subsistence uses in the marine environment.

### Johnny Aiken

Executive Director, Alaska Eskimo Whaling Commission

### **Society** BP has far-reaching impacts on local societies and economies and aims to build enduring relationships with the communities in which we operate

Maintaining **open communication** with local communities



Of our major sites train or provide assistance to local suppliers

## Community investments

that build skills and benefit communities host governments and BP

### Looking ahead

We are preparing to comply with new and proposed revenue transparency reporting requirements in Europe and the US. This will build upon our existing detailed reporting for specific countries where we operate.

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Find out more at bp.com/society

- Our approach to anti-bribery and corruption
- Human rights
- Site-level management
- information and case studies

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## Managing our impact Throughout the lifecycle of our operations, we work to make our community impact a positive one

### Our approach to social issues

We require major projects, as well as those projects that involve new access and projects that could affect an international protected area, to screen for a range of potential social and environmental impacts.

We provide these projects with recommendations on how to approach sensitive socio-economic issues, such as community disturbance, impacts on cultural heritage and indigenous peoples, involuntary resettlement and workforce welfare.

Engaging with local communities is a vital element of our work. At our local sites, we aim to establish and maintain open communication with local communities. Where appropriate, this includes setting up formal grievance channels and using a variety of engagement techniques, from workshops and meetings to distributing literature.

When we leave a location because an operation has run its course, we aim to do so in a responsible manner, by fulfilling any commitments we made and by supporting socio-economic development programmes that can have a life of their own after we have gone.

### Social responsibility in Indonesia

Our Tangguh liquefied natural gas (LNG) plant in the Papua Barat province lies in a remote area where livelihoods depend on fishing and farming. The local ecosystem is both beautiful and fragile, and there is almost no infrastructure or industry.

We are working with the government, oil and gas regulator BPMIGAS and local villagers to manage the sustainability impacts of the operation. This includes employing local



Our Tangguh liquefied natural gas plant lies in a remote area where livelihoods depend on fishing and farming.

people as security personnel, training local businesses and supporting capacity building of local government officials. We are also supporting education and health programmes.

### **Independent advisers**

Two independent advisory panels have helped BP in recent years to navigate social complexities and challenging socio-economic circumstances. Since 2002, the Tangguh Independent Advisory Panel has provided independent advice to BP in Indonesia, assessing and suggesting areas for progress at our Tangguh LNG facility. The panel publishes an annual report, which BP includes, along with our response, on our Indonesia website.

The Azerbaijan Social Review Commission has helped us to recognize and address challenges and long-term issues associated with our presence in the country – with a focus on the social performance activities that BP is undertaking on behalf of its joint venture partners.



One of the areas where stakeholders continue to request increased transparency in BP's sustainability reporting is the value that is delivered to society as a whole. Different stakeholder groups take an interest in different elements of the value chain, and economic impacts may either be direct or indirect. This report has attempted to capture these explicitly but BP will need to seek feedback on how it has described the contribution that it is making and consider incorporating additional socio-economic metrics in future.

Ernst & Young Observation

## Potential socio-economic impacts from oil and gas companies

Oil and gas companies can have extensive impacts on local communities. These can include positive impacts, with the industry bringing significant revenue to the national economy, sharing skills and expertise, and providing local employment. They can also include negative impacts if risks are not mitigated. The table to the right provides examples of both the potential positive and negative impacts that companies can have on local communities.

	Potential positive impact	Potential negative impact	
Security arrangements	Training of public security forces on human rights	Abuses committed by private or public security while protecting facilities or people	
Indigenous people	Economic benefits such as employment opportunities	Disruption to traditional ways of life and subsistence economy	
Cultural heritage	Cultural heritage secured and preserved with support from the company	Destruction or damage to heritage sites during construction or operations	
Communities adjacent to project area	Communities consulted at each stage for likely impacts, and economic benefits, such as employment opportunities	Communities ignored or unexpectedly affected in negative ways	
National and local governments	Through constructive relationships with the company, governments gain technical knowledge and support in their efforts to establish revenue transparency	Without proper awareness and training on anti-bribery and corruption policies, employees or contractors unwittingly perpetuate local corruption	

# Socio-economic contribution BP supports local communities by creating jobs, using local suppliers and supporting community development

Our direct socio-economic contribution includes revenues brought in by our activities. Beyond the direct economic impact, BP's presence in a country or location can also bring indirect economic benefits, which help to develop the local economy. When our employees spend their wages locally, for example, they are helping to support local businesses, while the infrastructure BP develops to achieve its business goals may also help to attract and support new local business development – benefiting the society at large.

### Local workforce and suppliers

A number of our major operating sites are working to improve representation from their host country in their workforce. At 86% of major operating sites surveyed in 2011, national employees are now represented on the senior management team.

We run programmes to develop local supply chains and build business skills locally to help companies meet the standards needed to supply us and other clients. At the same time, BP benefits from the local sourcing of goods and services.

A number of our sites are working towards increasing the amount of goods and services sourced from local or national suppliers. About 72% of our major operating sites train or provide assistance to national suppliers in order to help them meet BP standards and requirements so that they are eligible to provide goods, services or human resources to BP.

In Angola, BP spent more than \$350 million gross with third-party suppliers in 2011, including companies working in air, marine, tubular goods, supply base, fabrication yards and fuel distribution.

### **Revenue transparency**

As a founding member of the Extractive Industries Transparency Initiative (EITI) and an alternate member of the initiative's board, BP works with governments, non-governmental organizations and international agencies on increasing transparency of revenue flows. We have been active in our support of the country-level efforts towards EITI certification in countries where we operate. For example, we are on the Trinidad and Tobago EITI steering committee, which is helping the country achieve EITI certification.

In countries that are already certified, we report our payments to governments on an

### Direct economic value generated<sup>1</sup>

Sales and o	ther operating revenues	Revenues – \$384 billio , dividends from equity e, and proceeds from d	accounted entities,	interest and other
	Ec	onomic value distrib	uted	
Employee wages and benefits <sup>3</sup>	Other costs	Payments to providers of capital	Payments to governments	Community investments
Cost of employees' salaries and benefits	Includes purchases, production and manufacturing expenses, exploration expenses, distribution and administration expenses	Includes finance costs and dividends paid	Income taxes and production and similar taxes paid	Voluntary contributions and investment of funds in the broader community <sup>4</sup>
\$12 billion	\$313 billion	\$6 billion	\$16 billion	\$0.1 billion

(of which \$32 billion has been invested in capital expenditure and acquisitions)

This table is based on data contained within the BP Annual Report and Form 20-F 2011.
Cash proceeds for fixed asset and business disposals.

3. Includes pension and other post-employment benefit costs.

annual basis. In 2011, we submitted our 14th EITI report for Azerbaijan and our first report for Indonesia.

### New tax disclosure regulations

Tax systems should balance generation of tax revenues with encouragement of business investment through simple and efficient systems designed to allow competitiveness, while maintaining transparency and good governance in business and government. The quality of tax policy and the tax administration are of equal importance.

We are committed to complying with tax laws in a responsible manner both to shareholders and governments, effectively managing tax risk and engaging in honest and constructive relationships.

Economic development in Iraq

In Iraq, where the economy has suffered as a result of sanctions and war, BP is working to increase production from the Rumaila oilfield from one to nearly three million barrels per day. Not only does this have the potential to benefit the companies involved but this also has the potential to create significant new wealth for the people of Iraq, providing jobs and building the capability of the Iraqi workforce. 4. Excludes social bonuses paid by BP to governments, capitalized as part of licence acquisition costs. Excludes expenditure related to the Deepwater Horizon incident.

BP is participating in consultations on new and proposed revenue transparency reporting requirements in the US and Europe for companies in the extractive industries. BP will fully comply with the applicable mandatory disclosure regulations when they come into effect.



Find out more online **bp.com/revenuetransparency** 

### Local hiring in Oman

In Oman, where our operations initially consisted of a few expatriate employees, more than 60% of the 100 employees are now Omani nationals, and we aim to increase this percentage as our hiring increases to support planned growth from three production wells today to up to 300 in the future. BP has already surpassed its initial government target for the proportion of national staff within the organization. Social investment We invest in programmes that we believe can make a sustainable local impact – even after we've gone

BP's social investment includes support for education, arts and culture, and enterprise development.

In some locations, we also support public health improvement or other community needs and programmes that promote capacity-building and knowledge-sharing with host governments.

We look to invest in programmes that will create a meaningful impact – ones that are relevant to local needs, aligned with BP's business and undertaken in partnership with local organizations.

### BP's 2011 community investment spend



- Enterprise development
- Education
- Access to energy
- Infrastructure development
- Arts and cultureOther spending

## Agricultural development project in Azerbaijan

In 2011, BP and our commercial partners in Azerbaijan launched an initiative aimed at providing agricultural development opportunities for communities around our facilities and project areas in Azerbaijan. With greenhouses, a community bakery and beekeeping activities, the project is expected to create new job opportunities for people in the communities while opening up additional markets and building new technical skills. The project is being implemented by the Ganja Agribusiness Association, and while BP and our partners are providing most of the funding, the communities will invest around \$230,000 - giving them an economic stake in the programme's success from the outset.

### **Employee-supported causes**

When BP employees choose to support charitable activities, the BP Foundation's Employee Matching Fund matches their personal donations, volunteer time or, under specific circumstances, fundraising. In 2011, employees gave over \$7.6 million, volunteered their time and raised funds to benefit charitable organizations worldwide. The BP Foundation matched these activities with grants of approximately \$9.7 million.

### **Supporting young leaders**

As part of our role as the official oil and gas partner of the London 2012 Olympic and Paralympic Games, BP has supported the London 2012 Young Leaders Programme. This UK-wide initiative is building the leadership skills of 100 young people from communities near BP facilities, with oneon-one coaching by BP employees.

## Direct spending on community programmes

In financial terms, our direct spending on community programmes in 2011 was \$103.7 million, which included contributions of \$37.5 million in the US, \$27.0 million in the UK, \$2.6 million in other European countries, and \$36.6 million in the rest of the world, including disaster relief.



We work with local authorities and community organizations to support education programmes matched to local interests and needs.

### **Enterprise development in Angola**

In Angola, BP has been part of the industrywide drive to build up capabilities in the aftermath of the civil war. For example, we supported the Enterprise Development Centre in Luanda for five years before handing over management of the project to the local chamber of commerce in 2011. With a goal of building the capacity of Angolan businesses to participate more actively in the local economy as suppliers of goods and services, the centre has led to the development of more than 300 contracts between local small to mediumsized enterprises and the oil and gas industry, creating an estimated 4,200 jobs.



### Independent assurance statement

BP's Sustainability Review 2011 (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 assurance engagement on the Report and to include specific observations from our work in relevant sections of 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 ISAE30001 and to meet the requirements of a Type 2 assurance engagement as defined by AA1000AS (2008)<sup>2</sup>. The AA1000AS (2008) assurance principles of Inclusivity, Materiality and Responsiveness have been used as criteria against which to evaluate the Report.

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

- 1. Interviewed a selection of BP executives and senior managers to understand the current status of safety, social, ethical and environmental activities, and progress made during the reporting period.
- 2. 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. Reviewed BP's approach to stakeholder engagement through interviews with employees at group and four local businesses, and reviewed selected associated documentation.
- 4. Carried out the following activities to review health, safety and environment (HSE), community investment, leadership diversity and ethics dismissals data samples and processes:

- a. 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.
- c. Tested whether HSE data had been collected, consolidated and reported appropriately at group level.
- d. Reviewed leadership diversity, community investment and ethics dismissal data at group level.
- 5. Reviewed BP's processes for determining material issues to be included in the Report. As part of our work, we attended two independently facilitated Roundtables on Transparency and Reporting held in London and Washington (the Roundtables) and reviewed BP's processes for responding to material issues raised through its reporting.
- 6. Reviewed the coverage of material issues within the Report against the key issues raised in the Roundtables, material issues and areas of performance covered in external media reports and the environmental and social reports of BP's peers and the topics discussed by BP's board level committee on sustainability.
- 7. Reviewed information or explanations about selected data, statements and assertions regarding BP's sustainability performance.
- 8. Reviewed whether BP's reporting has applied the GRI G3 Guidelines to a level consistent with the A+ application level.

### 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:

### Inclusivity

Has BP been engaging with stakeholders across the business to develop its approach to sustainability?

- We are not aware of any key stakeholder groups that have been excluded from dialogue.
- We are not aware of any matters that would lead us to conclude that BP has not applied the inclusivity principle in developing its approach to sustainability.

### Materiality

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

- With the exception of the subject area listed below, we are not aware of any material aspects concerning BP's sustainability performance which have been excluded from the Report.
- We consider that BP could have covered the following subject area in more depth in the Report:
  - Future environmental performance 0 targets.
  - o Additional results of studies gathering data on the impacts on natural resources in the Gulf of Mexico.
- Nothing has come to our attention that ٠ causes us to believe that BP management has not applied its processes for determining material issues to be included in the Report.

### Responsiveness

Has BP responded to stakeholder concerns?

We are not aware of any matters that would lead us to conclude that BP has not applied the responsiveness principle in considering the matters to be reported.

<sup>&</sup>lt;sup>1</sup>International Federation of the Accountants' International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE3000). <sup>2</sup>AA1000AS (2008) – The second edition of the AA1000 assurance standard from the Institute of

Social and Ethical Accountability.

### Completeness and accuracy of performance information

How complete and accurate is the HSE, community investment, leadership diversity data and ethics dismissals data in the Report?

- With the exception of TNK-BP's GHG emissions and the volume of oil spilled as a result of the Deepwater Horizon accident, we are not aware of any material reporting units that have been excluded from the group-wide data relating to HSE, community investment, leadership diversity data and ethics dismissals 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.

### **Global Reporting Initiative**

Does the Report meet the requirements of the A+ application level of the GRI G3 Guidelines?

Based on our review, including consideration of the Report, BP's sustainability web content and elements of the *BP Annual Report and Form 20-F 2011*, nothing has come to our attention that causes us to believe that BP management's assertion that their sustainability reporting meets the requirements of the A+ application level of the Guidelines is not fairly stated.

## 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.

- During our interviews we discussed activities to support diversity within BP. Although there has been some success in increasing female representation in recent years, women remain under-represented at executive management and board level. We note that the BP board wrote in October to Lord Davies (in response to his report on gender diversity) setting out a goal to increase the number of women on the board by two by 2013. BP will need to provide an update on progress made in future reporting.
- BP reports five-year performance data for total GHG emissions. During our interviews we discussed the requirements for businesses to report on forecast GHG emissions for the year ahead and new developments to model emissions over the life of the project. As BP faces calls for greater transparency in its sustainability reporting, there is an opportunity to highlight projected trends for its GHG emissions, for example by explaining the impact that investments in Canadian oil sands are likely to have and projected changes from operational efficiency.
- During our work we interviewed staff responsible for engaging with external stakeholders and reviewed evidence of how information from these dialogues is captured. We have also attended a selection of briefings to investors and two of the roundtable discussions held in 2011 to understand the perspectives of various thought leaders on how BP should evolve its reporting and communications. We noted that stakeholders welcome this dialogue but there remains a desire for more comprehensive reporting on how BP is changing.
- BP refers to studies that have been undertaken to help understand the impact on habitats in the Gulf of Mexico. Whilst it is clear that a wide range of activities are under way or have been completed, the full analysis of the various studies is pending and BP should provide updates in due course.
- BP sets out an overview of its programme of action on climate change but there is limited explanation of the difference that this is making to decisions or practices.

For example, BP has incorporated carbon pricing into its projects but it is not clear to what extent this process has impacted plans; or whether BP can explain how targets set for energy efficiency through the local OMS can be linked to real sustainable reductions reported.

 One of the areas where stakeholders continue to request increased transparency in BP's sustainability reporting is the value that is delivered to society as a whole. Different stakeholder groups take an interest in different elements of the value chain, and economic impacts may either be direct or indirect. This report has attempted to capture these explicitly but BP will need to seek feedback on how it has described the contribution that it is making and consider incorporating additional socioeconomic metrics in future.

### **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 2011.

### 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. The work has been led and reviewed by Lead Sustainability Assurance Practitioners.

## **I ERNST & YOUNG**

Ernst & Young LLP, London 21 March 2012

### Our approach to reporting BP reports on sustainability at group, country and site levels, as well as providing interactive tools on our local issues and group performance data

In this Sustainability Review, we outline our position and strategy around key sustainability topics of relevance to BP and the industry. Online, we examine these topics in more depth, as well as report on a wider set of issues. We present our local environmental and social performance information using an interactive mapping tool to help our stakeholders understand our local impacts in context. We also provide our global health, safety and environmental data in an interactive charting tool so that stakeholders can customize the information to their needs.

### **Identifying issues**

We identify issues via input from external stakeholders, internal subject matter experts, research and the media. We then weigh each issue in terms of its likely importance to our stakeholders and its potential impact on BP's ability to deliver its strategy. Finally, we validate our issue identification and prioritization with senior management, external stakeholders and our external auditor. All issues deemed to be of higher importance at a global level are included in our group sustainability reporting.

### **Stakeholder feedback**

BP engaged a wide variety of stakeholders in a series of independently facilitated sustainability roundtables in London, Washington, D.C., New Orleans and Rio de Janeiro in 2011. The roundtables provided us with external advice, insights and challenges regarding how we report and communicate on our sustainability performance and critical issues.

Stakeholders included representatives from international institutions, academic and research bodies, and non-governmental organizations.

The roundtable conversations addressed wide-ranging concerns, including:

- How BP could engage more effectively with a variety of stakeholders – particularly at a grassroots level – to better understand needs and rebuild trust.
- Stakeholders' desire for insight into specific sustainability performance on particular issues and in specific countries, while also providing the company's global context.
- BP's approach to reporting on the Deepwater Horizon accident and the challenge of delivering transparency in light of the ongoing legal situation.

- Recommendations on how reporting can help support BP in demonstrating leadership within its sector.
- Stakeholders' expectations that BP reporting will demonstrate best practice in transparency, by enabling benchmarking, focusing on material issues, using the most robust assurance processes and focusing on performance.

Participants said that they expected BP to show responsible leadership in operations, in contracting chains, and in the sector. They recognized that the process of change is long and complex, and were keen to find ways to support this.

The roundtables built on a foundation of ongoing conversations and research that we have undertaken in 2011 with investors, sustainability experts, local communities and social media.

The feedback from the roundtable discussions has helped us to identify and prioritize issues to include in our 2011 report.

### Scope

This Sustainability Review and *bp.com/sustainability* concentrate on performance and activities from 1 January to 31 December 2011. In addition to our group sustainability reporting, we also publish country reports. We also maintain a library of site reports for more than 30 of our major operations.

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.

### Accuracy

We aim to ensure that the information we publish is accurate, complete and material and therefore contributes to building trust and credibility with key stakeholders. To help achieve this, we have an established internal process for verifying our sustainability information, as well as using external auditors.

### Frameworks and guidelines

We continue to report against the Global Reporting Initiative's (GRI) G3 sustainability reporting guidelines to an A+ level. We are actively involved in the development of the GRI *Oil and Gas Sector Supplement* and welcome its introduction. We also report in line with the second edition *Oil and Gas Voluntary Guidance on Sustainability Reporting* (2010) from the oil and gas industry association IPIECA, the American Petroleum Institute and the International Association of Oil and Gas Producers. In addition, we report against the UN Global Compact's 10 principles.

Find out more online bp.com/gri bp.com/ipieca



The stakeholder roundtables were welcomed by participants as a worthwhile chance to build a dialogue with BP and to inform and shape the company's approach to sustainability reporting. It was notable that the views of stakeholders differed greatly from location to location. Managing these diverse requirements is one of the big challenges for BP in its sustainability management. Nevertheless, while all stakeholders realized the profound challenges for BP of Deepwater Horizon, the majority now want to see BP stand tall again as a more powerful and thoughtful force for progress in the industry.

### Mark Line

Executive Chairman, Two Tomorrows

# **Reports and publications** This report is part of BP's corporate reporting suite. We also report on our financial and operating performance and produce an annual statistical review of world energy

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Financial and Operating Information BP Financial and Operating Information 2007-2011 includes five-year financial and operating data. bp.com/financialandoperating

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