Building a stronger, safer BP
About our report

This report covers the activities of BP Angola, focusing on performance in 2011 and 2012 while providing information on developments in 2013. It has been prepared by our business in Angola, based in Luanda. Data is shown for activities where we are the operator, unless indicated otherwise.

In the report, references to ‘BP’ and the ‘BP group’ shall mean BP p.l.c., its subsidiaries and affiliates and, unless otherwise stated, the text does not distinguish between the operations and activities of BP p.l.c. and those of its subsidiaries and affiliates. Unless specified otherwise, references in this report to ‘us’, ‘we’, and ‘our’ shall refer to companies in the BP group operating in Angola.

Unless otherwise indicated all currency amounts are denominated in US dollars. As with our two previous BP in Angola sustainability reports, this report has been independently verified.

Cautionary statement

BP in Angola Sustainability Report 2012 contains certain forward-looking statements concerning the businesses, operations and strategy of BP.

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; political stability and economic growth in relevant areas of the world; changes in laws and governmental regulations; 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 in BP Annual Report and Form 20-F 2012. Material is used within this document to describe issues for voluntary sustainability reporting that are considered to have the potential to significantly affect sustainability in the view of the company and/or are expected to be important in the eyes of internal or external stakeholders. Material for the purposes of this document should not, therefore be read as equating to any use of the word in other BP p.l.c. reporting or filings.

An introduction to Ernst & Young’s assurance process

We have reviewed the BP in Angola Sustainability Report 2012 in order to provide assurance to BP management that the data, statements and assertions made regarding the sustainability performance of BP in Angola are supported by evidence or explanation. Our scope of work and conclusions can be found on page 38.

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

Cover image
Two technicians in the offloading vessel’s electrical room.
## Overview

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We would like to thank the external stakeholders, including non-governmental organizations, academics and government officials who gave us their views on BP in Angola and what they would like us to report on. The key request they made was for us to provide more comprehensive information on our social projects and to describe, as far as possible, the impact these have had or are having. Other feedback focused on how we communicate about our activities in Angola, with suggestions for how we could do more to inform communities, suppliers, and the public about the work we do. We have taken these comments into consideration when preparing this report, and are examining how we might take these recommendations into account in future in our broader communication approach.
We have been present in Angola since the 1970s – and we have developed significantly since those early days, not only in the established acreages of the northern blocks, but especially with our exciting new possibilities in the Kwanza and Benguela basins in the south of the country.

The Angola region is one of the most important parts of BP’s portfolio. It is a proving ground for the newest and most advanced exploration technology – from the seismic techniques deployed, to finding oil many thousands of metres below the ocean, to delivering it with the latest production facilities such as our new floating production storage and offloading vessel, PSVM, in block 31.

We are currently producing around 195,000 barrels per day from block 18 and our partner-operated assets in blocks 15 and 17, but this is set to grow to in excess of 250,000 barrels per day. We also welcomed the start-up of the Angola LNG project in Soyo in June, a flagship onshore project for the industry and the country.

BP has long-term commitments and aspirations for its business in Angola. We have already invested more than $22 billion in Angola’s oil future, and in the next ten years we plan to continue to invest in the exploration and development of our assets in the Congo, Kwanza and Benguela fields.

It is clear, therefore, that there are many opportunities here. But we also recognize we face many challenges. These include making sure that we operate our existing assets safely and reliably while simultaneously pursing new opportunities. We also face the multi-faceted challenge of managing the expectations of our stakeholders in Angola’s changing legal, political and social environment. And of course, we must continue to operate the business efficiently and cost effectively while adapting to the changing context we operate in.

This report provides an insight into the range of these opportunities and challenges in Angola. The feedback we have received on our previous sustainability reports has been valuable and we have listened to your views on what issues we should focus on. The report is just one means, albeit an important one, of engaging with our stakeholders. I hope you find it of interest and value and a further demonstration of our commitment to the country.

Martyn Morris
BP Angola regional president
July 2013
Working in Angola, a developing country with a heritage of conflict, creates an operating context in which a variety of economic, physical and social challenges affect day-to-day activities.

Economic and social capacity
Angola has remained stable and peaceful since the end of civil war in February 2002. The transition from a period of conflict continues, with countrywide infrastructure reconstruction and a private and public economic-social recovery plan. Despite progress, further development of Angola’s human and institutional capacity is needed to tackle a wide range of social challenges, such as poverty alleviation and health. Malaria is the country’s main killer disease and the principal cause of morbidity and mortality among pregnant women and children younger than five. Cholera is still a concern, especially during the rainy season. Vaccination campaigns targeting poliomyelitis have been running throughout the country in a bid to eradicate the disease.

Infrastructure development
The condition of the country’s physical infrastructure – power and water provision, the road and rail network, and health and education systems – poses daily challenges to the Angolan people and to businesses. The need for a larger and better skilled local labour force, and the intense competition for qualified local labour, can also constrain business development.

Economic diversification
According to the International Monetary Fund, Angola’s GDP growth accelerated to approximately 8% in 2012 assisted by higher oil production and robust non-oil sector expansion. Inflation declined to around 9% by year-end, reaching single digits for the first time in a decade. As the second largest oil producer in sub-Saharan Africa after Nigeria, Angola’s oil sector continues to underpin the country’s reconstruction and is the major source of foreign investment. Dependence on oil, however, means that Angola is heavily exposed to the fluctuations of global demand. To address this challenge, the government plans to promote growth in the non-oil sector, with a public sector investment programme that seeks to complete reconstruction and address key infrastructure gaps.

BP Angola recognizes the risk of over-reliance on the oil and gas industry, and the need to manage the high expectations that stakeholders have of the oil and gas industry. While our key contribution lies in maximizing oil and gas production (and hence government revenues), we play a supporting role in helping develop the national economy. For example, we support economic diversification by buying goods and services from local suppliers, developing the skills of the local labour force, and promoting education and enterprise development in our social investment programmes.

Ethics and transparency
Angola presents significant challenges for compliance with anti-corruption laws and promotion of ethical business practices, currently ranking 157th of the 176 countries listed on Transparency International’s 2012 Corruption Perceptions Index. BP Angola provides extensive training to employees and contractors on our code of conduct and applicable laws, as well as an audit programme for present and potential partners and additional scrutiny and management of high risk agents.

Environment
In recent years, the Angolan government has increased its efforts to protect the natural environment through legislation and monitoring of petroleum activities. BP supports the government’s efforts and applies the same rigorous environmental standards in Angola that it does throughout its worldwide operations. Arguably, some environmental regulations lack clarity and have unrealistic ambitions. Environmental licensing fees can also be considered high when compared with other major petroleum producing countries. Thus BP works with the environmental authorities to assure that regulations are reasonable in the Angolan context and consistent with best international practices.

Foreign exchange
In 2012, Angola enacted a new law that fundamentally changed the long-standing foreign exchange regime for the petroleum industry. Previously, oil producers were entitled to retain the proceeds of oil sales abroad, repatriating only funds needed for local needs. Under the new law, oil producers must repatriate through Angolan banks the funds necessary to pay for goods and services provided both in and outside Angola. These changes mean there are financial and administrative costs to oil producers and their service providers and have raised many questions as to the law’s application in various circumstances. In addition, the ability of local banks to effectively deal with the large volume of foreign exchange transactions has been questioned. BP and other oil producers consult periodically with the National Bank of Angola to understand the requirements of the new law and to assure its smooth and cost-effective implementation.
How we operate

BP in Angola operates in accordance with BP’s system of internal control that governs the group’s operations worldwide.

Our goals

We aim to build a successful and enduring business in Angola, staffed and run predominantly by Angolans.

We plan to expand the scale of our activities in Angola.

We will pursue our business goals within a clear management framework.

In this section

7% of total BP group net oil production worldwide came from Angola in 2012.

$22bn More than $22bn invested in Angola up to the end of 2012.

66% Approximately two-thirds of our professional grade employees are Angolan nationals.

Sebastiao Mbongo, Drilling Engineer in Luanda, Angola.
BP’s strategy – Angola and worldwide

We aim to deliver long-term value to our shareholders and to the countries where we operate.

BP Angola in the context of BP worldwide
BP Angola is one of BP’s key centres for hydrocarbon exploration and development and a key part of the BP group’s activity in deepwater exploration and production. Deepwater developments, like those in Angola, can provide good opportunities for companies with the requisite expertise. We have recently brought the major new PSVM deepwater development onstream in block 31, and are planning to use our scale and capability to invest in further deepwater opportunities in new blocks in the south of the country.

Our activities in Angola represent an important part of the group’s portfolio. Net production from BP Angola represented approximately 7% of total BP group net oil production worldwide in 2012.

Our strategy
Our strategy in Angola is to build a material, high-performing and sustainable business that benefits Angola and our shareholders. Our aim is to maximize long-term value through safe and reliable operations, resource recovery, superior wells and project execution and disciplined appraisal of existing discoveries.

This strategy is closely aligned with the BP group position on strategy and sustainability.

To pursue these goals, we aim to align our everyday business activities in Angola with the country’s development. The strategy recognizes that Angola faces challenges in translating its oil wealth to country wealth. The result of this is that the business and country agendas are closely linked. Our vision is for BP Angola to be recognized as a partner of choice, making a difference to the wellbeing and advancement of the Angolan people and their economy.

Who we are
BP is one of the world’s leading integrated oil and gas companies. We aim to create value for shareholders by helping to meet the growing demand for energy in a responsible way.

We have business activities and customers in more than 80 countries and employ approximately 85,700 people. We have exploration, development and production interests in 28 countries, which include our activities in Angola.

In 2012, the BP group produced more than 3.3 million barrels of oil and gas equivalent per day for customers across the world.

We strive to be a safety leader in our industry, a world-class operator, a responsible corporate citizen and a good employer.

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

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

We are working to become a simpler business, with a clear focus on what we do best. Our distinctive capabilities include exploration, operations in deep water, managing 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.
Bob Dudley
BP Group Chief Executive on his visit to Angola

It takes only ten minutes after leaving the airport to see the prosperity of the country. I’m very enthusiastic about BP’s future in Angola. We have a great portfolio, supported by great people, in a great country. We have a long-term commitment to Angola and therefore we want to be partners in Angola’s development. This means efficiently and responsibly developing and operating our assets in Angola, contributing to build the capability of our staff and Angolan institutions, and maximizing local content. Angolanization of staff is going to continue as we recruit and develop Angolans, and promote knowledge transfer. Our aim is to build a material, high-performing and sustainable business in Angola, led and staffed by Angolans. If you are an engineer considering a career in oil and gas, this really is a fascinating place to be.
Governance and management systems

High-level corporate governance policies guide our operations and detailed processes are applied in our day-to-day activities.

BP Angola’s governance and management systems

The BP Angola regional leadership team has responsibility for the direction and oversight of BP Angola activities. It seeks to achieve the business strategy of creating a sustainable Angolan energy company, producing returns that contribute to the success of BP’s exploration and production business.

Our governance principles and management systems provide a framework for determining what we are trying to deliver and how we go about that delivery. In line with the rest of BP, controls include the BP code of conduct (see page 10) and our principles for delegation of authority. These are designed to make sure employees understand what is expected of them.

As part of the control system, the BP Angola leadership team is supported by work that focuses on the development and implementation of our strategy, provides assurance on performance and manages risks to delivery.

OMS implementation in Angola

BP’s operating management system (OMS) integrates our requirements on health, safety, security, the environment, social responsibility and operational reliability, as well as related issues, such as maintenance, contractor relations and organizational learning, into a common management system. It provides us with one systematic and controlled holistic approach for how businesses are managed.

In 2012, we took significant steps to embed OMS in our activities in Angola. We completed a series of assessments to help us understand where we could improve our key systems and processes, and we developed conformance plans to close any identified gaps.

The safety and operational risk (S&OR) audit team also completed their three-yearly OMS audit which identified further improvement opportunities. We put actions in place to pursue them.

In November 2012, the original local operating management system (LOMS) document was replaced by a new handbook – How We Work in Angola – which describes how Angola works within BP’s organizational model.

In August, a member of the BP Group Safety, Ethics, and Environment Assurance Committee (SEECAC - a board committee) travelled to Angola to meet with the leadership and receive briefings on implementation of OMS and other safety-related issues. SEECAC’s role is to look at the processes adopted by BP's executive management to identify and mitigate significant non-financial risk, including monitoring process safety management, and receive assurance that they are appropriate in design and effective in implementation.

Risk management

Operating and business functions in Angola use group processes to continuously assess and manage any risks which might prevent us from achieving our business goals. These processes include quarterly risk review sessions that focus on safety and operational risks that may result in harm to people or damage to the environment. The reviews also cover a wide range of other technical and non-technical issues, such as strategic or commercial risk related to finance, legal issues, compliance, supply chain and external influences.

The risk management process for safety and operational risks aims to systematically address risks such as loss of primary containment by understanding the strength of the controls we have put in place to prevent a risk event from occurring. Risks associated with deep water drilling in Angola are also managed through these group risk processes.

Implementation of the 26 recommendations in BP’s investigation of the Deepwater Horizon accident (the Bly Report) is improving the strength of the barriers or controls in place to prevent these deep water drilling risks from occurring. These controls are intended to put us in a strong position to respond to the safety and environmental consequences if such an event was to occur. Assurance of implementation of these recommendations is managed at group level. Implementation of the Bly report recommendations in the Angola business is progressing systematically, in accordance with a strategic implementation plan which provides a mechanism to implement multiple process improvements (of which the Bly recommendations form a part) in a consistent managed method.

In the Angola business, a number of tasks have been fully implemented, and many others are in progress.

Performance management

Our performance management approach includes actions to monitor, verify and audit our barriers to risk to seek to ensure they are effective. We systematically manage performance, using key performance measures, by reviewing the actions we have taken so that future performance objectives are based on lessons learned.

To help us manage risk effectively, we apply group practices and procedures, which set out requirements in areas such as safety or environmental protection, and more detailed guidance on issues such as fraud reporting. The way we manage our people (see pages 16-18), is based on setting performance objectives in which individuals are accountable for delivering specific elements of the plan within agreed boundaries. Our performance management system provides for explicit links between safety and reward.

Esperanca Freitas, BP Marine Terminal Coordinator, working on crude oil lifting from the Greater Plutonio FPSO, Block 18.
Our values

Safety
Respect
Excellence
Courage
One Team

To deliver sustained high performance, we recognize that we need to treat ‘how’ we do business as importantly as ‘what’ we do. Our values – safety, respect, excellence, courage and one team – are a core part of the ‘how’. We are working to bring them to life in our people’s day-to-day behaviour, including rewarding people for their interpretation of the values in their own work or that of their team.

These values were set out by BP’s leadership team in 2011 and are now being embedded into our group-wide systems and processes, including our recruitment, remuneration, promotion and development assessments.

Our code of conduct

Our code of conduct is based on our values and clarifies the ethics and compliance expectations for everyone who works at BP. 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 BP’s internal standards related to anti-bribery and corruption, anti-money laundering, competition and anti-trust law, and trade sanctions.

Who the code applies to

Our code applies to every employee and officer in every BP wholly owned entity. In joint ventures and entities over which BP does not have overall control, the code outlines our expectations to influence our partners to follow similar principles. We seek to work with contractors who operate under principles that are similar to those in our code. Where feasible, we seek a contractual commitment from such contractors to comply and work in line with our code. Where we have the right to do so, we will consider terminating contracts where a contractor has not complied with their obligations, or not renewing a contract where a contractor has acted in a manner that is not consistent with our values or our code.

We have put in place a programme of monitoring and reporting in Angola to drive high levels of awareness and compliance with the code.

The code requires that our employees or others working on behalf of BP do not engage in bribery or corruption in any form in both the public and private sectors. We support this requirement by carrying out face-to-face and web-based anti-bribery and corruption training for employees in Angola and have extended this training to core and strategic suppliers, including agents.

The code also forbids employees from making, offering or promising to make a payment or transfer anything of value (including the provision of any service, gift or entertainment) to government personnel or other officials for the intention of improperly obtaining or retaining business, or for any other improper purpose or business advantage. This position also applies to third parties acting on BP’s behalf, including agents. To systematically monitor compliance we regularly analyze the number of gifts accepted and declined and their value.

We take steps to develop a culture of transparent business dealings in our own activities and in the wider business context. For example, at University Agostinho Neto, we have supported an oil and gas Masters of Law programme that includes a module on ethics and social responsibility, designed to demonstrate the benefits of conducting business in an ethical and transparent way.

As in previous years, we completed our internal ethics certification process in BP Angola in 2012. This process involves team leaders certifying the extent to which they and their team members have complied with the code of conduct. It provides an opportunity to reinforce with staff the boundaries within which we do business and to discuss concerns openly while also addressing compliance risk and breaches. Concerns raised are discussed, investigated if necessary, with actions taken to address them. This has included terminating some employee and contractor contracts, and taking action relating to providing a respectful and harassment-free workplace, protecting BP’s assets, and preventing conflicts of interest, where a number of breaches to the code were reported.

Our partners in joint ventures

Where we are partners in activities in Angola operated by others, we seek to influence them through dialogue and constructive engagement to commit to ethical, safe and sustainable working practices. However, we do not control how our co-venturers and their employees address these issues.

More information on BP group
online at bp.com/ourpeople

→ How we bring our code of conduct to life for employees.

→ Case studies on how we develop our people’s capabilities and leadership.

→ Our new programme to deliver improved diversity and inclusion.
Our operations

Since the late 1990s, we have made substantial investments in Angola’s offshore development projects and are now expanding the scale of our activities.

BP has been in Angola since the 1970s, and in the 1990s acquired interests in four deepwater offshore blocks some 200 kilometres northwest of Luanda. In 2011, BP acquired interests in five new deep and ultra deepwater blocks in the Kwanza and Benguela basins to the south of the capital making the Angola region one of the most important assets in BP’s exploration and production portfolio. Production sharing agreements (PSAs) for these blocks were signed in December 2011, and initial seismic investigation work has been completed.

BP is one of the largest foreign investors in Angola, having invested more than $22 billion up to the end of 2012 and with plans to invest an additional $13 billion over 2013-2017 period.

We are the operator of blocks 18, 19, 24 and 31 and have non-operated interest in blocks 15, 17, 20, 25 and 26 as well as the Angola LNG plant in Soyo.
### Operated assets

**Block 18 – Operated by BP**  
**Partners:** BP 50%; Sonangol Sinoppec International 50%  
**Area:** 5,000 sq. kilometres  
**Water depth:** 1,200–1,600 metres  
**Fields:** The Greater Plutonio development, some 160 kilometres offshore, consists of five fields: Cobalto, Plutonio, Paladio, Cromio and Galio. Three additional fields (Cesio, Platina and Chumbo) form a future development.  
**Installed capacity:** 225,000 barrels per day (gross)

**Block 19 – Operated by BP**  
**Partners:** BP 50%, Sonangol P&P 40%, China Sonangol 10%  
**Area:** 4,900 square kilometres  
**Water depth:** varies from ~500m – 1,800 metres  
**Fields:** None – exploration phase  
**Daily production:** None

**Block 20 – Operated by Cobalt International Energy**  
**Partners:** Cobalt International Energy 40%, BP 30%, Sonangol P&P 30%  
**Area:** 4,838 sq. kilometres  
**Water depth:** varies from ~200 – 2,600 metres  
**Fields:** None – exploration phase  
**Daily production:** None

**Block 21 – Operated by Total (TEPA)**  
**Partners:** Total 35%, Sonangol P&P 30%, Statoil 20%, BP 15%  
**Area:** 4,842 sq. kilometres  
**Water depth:** varies from –300 – 2,100 metres  
**Fields:** None – exploration phase  
**Daily production:** None

### Non-operated assets

**Block 15 – Operated by Esso Exploration Angola**  
**Partners:** Esso Exploration Angola 40%; BP 26.67%; ENI 20%; Statoil 13.33%  
**Area:** 5,500 sq. kilometres  
**Water depth:** 1,000-1,400 metres  
**Fields:** Block 15 comprises the Xikomba, Kizomba A, Marimba North, Kizomba B, Kizomba C, Mondo, Saxi Batuque, Clochas-Mavacola and Kizomba satellites.  
**Daily production:** 400,000 barrels per day (gross)

**Block 26 – Operated by Petrobras**  
**Partners:** Petrobras 40%, BP 40%, Sonangol P&P 20%  
**Area:** 4,838 sq. kilometres  
**Water depth:** varies from –200 – 2,600 metres  
**Fields:** None – exploration phase  
**Daily production:** None
Production sharing agreements
BP’s operates in Angola under production sharing agreements which set out the terms of engagement with the Angolan government. The PSAs provide the framework for our relationship with Sonangol, the state-owned oil company, and include financial provisions relating to how investment costs are recovered, how profits are shared, and requirements on non-financial matters such as health, safety and the environment, the need to recruit and develop local people and the preferential use of local labour and materials where possible.

Operational performance
Total net production from our major fields in Angola was 149 thousand barrels of oil per day in 2012, an increase of 21% compared with 2011. This reflects increased production from the BP operated Greater Plutonio field as well as continuing ramp up of production from the Total operated Pazflor development.

Block 18: Greater Plutonio
The Greater Plutonio development was the first BP-operated asset in Angola and consists of five distinct fields discovered in 1999-2001. The development uses a floating production storage and offloading vessel (FPSO) to process produced fluids and export crude oil. The FPSO is connected to the wells by a large subsea system.

The Greater Plutonio FPSO
The FPSO is 310 metres long and has oil storage capacity of 1.77 million barrels, oil processing of up to 240,000 barrels of oil per day, produced and treated water injection rate of 450,000 barrels per day and gas handling of up to 400 million standard cubic feet per day. It is held in position by 12 mooring lines connected to anchor piles on the seabed.

In 2012, gross production from the Greater Plutonio FPSO averaged approximately 170 thousand barrels of oil per day, which was in line with our target. The reliability of operations, measured against installed production capacity, increased markedly compared with 2011. In 2013, we are working to add to capacity by drilling new wells and additional injection wells, and improving the reliability of power generation on board.

Safety performance on Greater Plutonio has been very encouraging, with no days away from work cases, no recordable injuries, and just three first aid cases in 2012 – in what is a technically complex work environment where safety risks are inherent. We believe this performance is due to the positive engagement of our workforce in safety, evident not only by the low number of recordable incidents, but also by the efforts made to report ‘near misses’ – events that had the potential, in different circumstances, to result in consequences that would have been recordable. Near miss reporting is valuable because it provides leading information on the likelihood of actual incidents and can contribute to continuous improvement.

Block 31: PSVM
Production from the PSVM development, which consists of four oil fields – Plutão, Saturno, Vénus and Marte, began in December 2012. The PSVM field, discovered in 2002-04, lies in water depths of up to 2,000 metres and is the second BP-operated development in Angola.

PSVM produces hydrocarbons through a converted hull FPSO with 1.6 million barrels of storage capacity. It is the first FPSO in Angola ultra deepwater. A total of 40 production, gas and water injection wells will be connected to the FPSO through 15 subsea manifolds and associated subsea equipment.
Initial production comes from three production wells in Plutão field and is expected to ramp up to around 70,000 barrels of oil per day. PSVM is expected to build towards plateau rates of 150,000 barrels of oil per day over 2013 with additional production from Saturno and Vénus fields in 2013 and Marte in 2014.

The PSVM development project was undertaken with more than 20% local content in the manufacture and assembly of key components in Soyo, Dande, Luanda, Porto Ambom and Lobito construction yards.

Martyn Morris  
BP Angola Regional President

The PSVM start-up is the reward for many years of hard work and collaboration both in Angola and overseas to deliver this world-class project. PSVM is expected to make a significant contribution to Angola’s production output and bring additional revenue to the country. This is a further step in the confirmation of Angola’s potential as a global energy player.

Block 15 and 17 developments

Block 15, which started production in 2003, is currently producing approximately 400,000 barrels of oil per day. While the fields in this block are maturing, there were new developments in 2012 including the start up in May of the Kizomba satellite fields, Clochas and Mavacola, which have been tied back to the existing Kizomba A and B FPSOs. Phase 2 of the development of three remaining satellite fields (Bavuca, Kakocha and Mondo S) was also begun. It is anticipated that start-up from these smaller fields will begin in 2016. Infill development drilling, which targets the pockets of remaining oil in existing fields, has also progressed in 2012.

Block 17 began production in 2001 and is currently producing approximately 640,000 barrels of oil per day. The latest development project in the block, Pazflor, successfully started production ahead of schedule in August 2011. As a consequence, block 17 production peaked at more than 700,000 bpd gross in early 2012. A further major project, CLOV, is currently under construction and is scheduled to start up in 2014.

The Girassol infill project continued in 2012, with the development of the Rosa D infill drilling on Girassol and the commencement of the Rosa Multiphase Pump project – all designed to maximize oil recovery from these fields. Development drilling also continues on Dalia and Pazflor, with an additional phase of infill wells on Dalia sanctioned during the last year.

A further feature of 2012 was work on the Girassol FPSO. This was the first production facility in...
How we operate
BP in Angola 2012 Sustainability Report

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Fernando Guitart
Vice President, Operations,
BP Angola

The start-up of PSVM was a great example of ‘One Team’ in action. Our operations, wells, safety and operational risk professionals worked together to ensure that we tested the robustness of PSVM before operations began. We adopted a new formalized start-up and assurance review process that was both systematic and valuable. Our challenge now and in the future is to maintain safe and reliable operations, by using the knowledge we have gained from start-up to address the challenge of maintaining reliable production.

Angola LNG

We are partners in a project to develop an LNG (liquefied natural gas) plant near Soyo in Zaire province in the north of Angola.

The Angola LNG project (ALNG) is an incorporated joint venture involving Sonangol’s subsidiary, Sonagas (22.8%), and affiliates of Chevron (36.4%), Total (13.6%), ENI (13.6%) and BP (13.6%).

There were delays in starting up the plant, but it began operations in June 2013 and is currently under test. It will initially be a one train plant with a capacity of 5.2 million tonnes of LNG production per year, as well as related gas liquids products. Once fully operational, it will receive approximately 1 billion cubic feet of associated gas per day gas from a number of offshore producing blocks, transported through a pipeline infrastructure.

The BP logistics base in Sonils

The BP logistics base, which officially opened in August 2007, is located on reclaimed land in the Sonils Logistics Integrated Services base near the port of Luanda. It is home to the logistics and infrastructure team and to representatives from a number of other functions such as procurement and supply chain management. In Sonils, BP has office space, warehouses, yards and quay side dedicated areas.

The team manages the supply of personnel and equipment to and from both FPSOs (Greater Plutonio and PSVM), three drilling rigs and three sub-sea vessels. It also administers logistics for all equipment used by the Angola business worldwide.

The logistics and infrastructure team’s safety record has been strong. In December 2012, we achieved 10 million man-hours without a lost time injury. This is in a facility of approximately 600 people which operates 24 hours a day. We believe that this performance is driven by a relentless focus on ensuring the safety of every single task undertaken.

Our future challenge is to maintain this level of performance while providing the logistical support for the development of blocks 19 and 24, which will create new challenges to deliver the required equipment and people to where it is needed.

Angola LNG (%)

BP
Chevron
Sonagas
Total
ENI

FPSO PSVM connected to Jascon 31 for personnel transfer during hook-up and commissioning operations.
Developing our people

We recognize the need to build the capability of local people to create a sustainable business in Angola and contribute to national development.

Angolanization

Across BP, we aim to ensure that our workforce reflects the local communities in which we operate.

Within Angola, this goal is reinforced by expectations related to the recruitment, integration and training of Angolan nationals. These expectations are reflected in a number of legal requirements in areas such as local advertising for positions and visa restrictions which seek to control the entrance and permanence of non-Angolan workers in the country. A training decree also defines rules and procedures for the recruitment, integration, training and development of Angolan personnel. In this environment, it is critical for BP and other international oil companies to develop a local workforce.

The majority of the leadership team is now based in Luanda and additional recruitment forecasts in Angola are aligned with the anticipated increase in activity resulting from new operations and projects.

While approximately 69% of our total workforce based in Angola are Angolan nationals, our business needs for qualified and experienced Angolan employees remains a challenge in a market in which the required skills are in short supply. Competition for new and experienced recruits is intense, particularly as the number of oil and gas operators and partners active in Angola has grown.

Similarly, our own business in Angola has grown, which has resulted in higher employee numbers. In addition to starting up PSVM, we have increased to three drilling rigs and have also built a stronger reliability and maintenance team for Greater Plutonio. We have also brought in people in support functions such as finance and procurement in support of the business.

Challenges in recruitment arise not only from the shortage of qualified people in a fast-growing market, but also from the wider range of job opportunities becoming available as the economy diversifies and grows. It is essential for us to attract good quality applicants and offer them an attractive career development path.

Our Angolanization programme focuses on the quality of positions held by local nationals as well as the number of Angolans we employ. At present, approximately two-thirds of our professional grade employees are Angolan nationals.

Learning and development

Despite progress, the pool of labour in Angola contains insufficient technically-skilled people for work in the disciplines required of the oil and gas industry, particularly as the majority of our employees work in operational environments where petro-technical skills are essential.

Our learning and development programmes enable Angolans and others to gain the experience we require of individuals before they assume operational and leadership positions. Programmes

Carl-Henric Svanberg
BP Chairman, during his visit to Angola

BP is fully committed to its future in Angola. In the decades to come we intend to play our part not just in producing oil, but in fully engaging with the wider community. As the business grows in the decades ahead, it will provide opportunities for employment and training for young Angolans in the leading technologies of our exciting industry.

BP Angola workforce: Angolanization

<table>
<thead>
<tr>
<th>Year</th>
<th>Angolan nationals</th>
<th>Non-Angolan nationals based in Angola</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>337 (81%)</td>
<td>133 (29%)</td>
</tr>
<tr>
<td>2007</td>
<td>367 (89%)</td>
<td>172 (38%)</td>
</tr>
<tr>
<td>2008</td>
<td>473 (74%)</td>
<td>168 (26%)</td>
</tr>
<tr>
<td>2009</td>
<td>461 (76%)</td>
<td>142 (24%)</td>
</tr>
<tr>
<td>2010</td>
<td>507 (82%)</td>
<td>113 (18%)</td>
</tr>
<tr>
<td>2011</td>
<td>575 (79%)</td>
<td>156 (21%)</td>
</tr>
<tr>
<td>2012</td>
<td>680 (69%)</td>
<td>302 (31%)</td>
</tr>
</tbody>
</table>

1 This number includes both Angolan nationals based at BP’s operations in Angola and those on overseas assignments.
Noe Mateus: an accelerated development programme in geophysical operations

Noe Mateus joined the geophysical operations accelerated development programme in 2012 and moved from Luanda to Sunbury to be part of the Angola region seismic delivery team.

The programme is building the competence of the next generation of staff who will be responsible for safely and effectively managing BP’s geophysical operations. It is a personalized course of training, mentoring and on-the-job learning, supported by experienced coaches.

In a programme tailored by his line manager Walter Rietveld, and Dave Foster, the Geophysical Operations programme manager, Noe has benefited from the experience of senior colleagues in the seismic delivery team.

His managers arranged for him to participate in WesternGeco’s ‘FAST’ training initiative, which allowed Noe to gain offshore operational experience. He says: “Their training was a great opportunity to build on my previous experience of seismic acquisition. I spent time with all onboard departments, gaining hands-on experience of their daily activities.”

Recently, Noe attended a seismic acquisition simulator course in Western Geco’s Middle East and Asia training centre, with colleagues from the UK, US, Azerbaijan and France.

“I am glad the accelerated development programme has been implemented. The on-the-job training with my team in Sunbury has been vital. This is just the beginning and I look forward to the training and experience I will gain over the next few years. I will keep doing my best to get as much as possible out of it.”

provide participants with a foundation of technical skills and development opportunities tailored to their needs. The schemes are an important part of how the knowledge transfer required by our agreements with the Angolan government is achieved.

The scholarship programme

To develop the pool of skilled labour, we run a scholarship programme which supports students through university, typically in engineering disciplines. We support students during their studies, carrying out regular visits by the early development team and tracking and monitoring progress. Between 2009-12, 39 people graduated from the scholarship programme in chemical, electrical, mechanical, structural and petroleum engineering fields – from universities in Turkey, South Africa and the UK. Between 2006-12, BP also sponsored 13 engineering students to study at University Agostinho Neto (UAN) in Luanda.

We require successful engineering graduates to undertake a final assessment which includes psychometric tests as well as technical and behavioural interviews. Once this stage is successfully passed they are employed by BP and enter the Challenge programme, described on page 18.

Miguel Bruno Figueiredo: the first Angolan national to achieve the position of ‘responsible electrical person’

Miguel has worked on the Greater Plutonio FPSO for more than four years since joining the commissioning team in Korea. Prior to that, he spent three years gaining electrical experience on the Miller platform in the North Sea and at the Sapref refinery in South Africa. In 2012, he achieved the position of ‘responsible electrical person’.

The number of different systems on Greater Plutonio, ranging from domestic equipment through to main power generation and control, makes for a complex and sizeable installation to manage, and Miguel’s competence in all these areas underscores his achievement.

The role requires knowledge and competence in all areas of the plant including the high voltage distribution suite, emergency back up systems and power generation. Continuous progress through his authorization levels and targeted competency assurance modules were followed by an in-depth practical and written assessment which secured Miguel his REP status.

Miguel is also an electrical discipline technician coach, helping to develop his Angolan colleagues to follow in his footsteps.
The offshore technicians programme

We continue to run our offshore technician programme, which began in 2001. It offers routes for study and vocational training to young nationals looking to develop a career in the oil and gas industry. Trainees attend a 12-month intensive English language course followed by two to three years vocational training at BP facilities in the UK, South Africa, or on BP ships. The graduates provide a pool of qualified people to help meet future BP demands. We estimate that nearly 86% of the current Angolan technician population came from the technician programme pool. A total of 173 trainees have graduated from the programme since 2001.

The Challenge programme

BP’s Challenge programme for graduate entrants to the company provides a competence-based framework that enables participants to acquire BP’s common foundation skills. The programme typically lasts three years during which participants are given stimulating work placements with guidance from technical coaches who help them gain competencies and development opportunities. We welcomed a group of new ‘Challengers’ to the business in 2012, and now have 108 challenge graduates working for BP Angola, 59 of whom are based in Angola.

Core training

In addition to these development programmes, core training is provided within technical disciplines such as human resources, finance, subsurface, drilling and completions, health, safety, security and the environment. In our procurement and supply chain management function, for example, we are continuing to support an internationally recognized education and certification programme that gives BP Angola’s supply chain professionals an opportunity to gain professional qualifications.

Retention

Our staff voluntary turnover rate was approximately 4% in 2011, and 7% in 2012. To retain our people and enhance engagement, we are working to improve career progression for Angolans and on managing lifestyle changes for expatriate staff.

Development story: Antonio Bebecas

In November 2012, FPSO PSVM Instrument Technician Antonio Bebecas was awarded the Tallow Chandler Award for Excellence while studying at Hull College as a trainee technician on the FPSO PSVM Technician Programme.

Aged 22, Antonio was the youngest member of the PSVM project team. “I feel truly honoured and overwhelmed,” he said on being selected. “The Tallow Chandler Award has great prestige, and from the moment I was called for the interview I felt I could win it.”

Antonio, from Huila province in southern Angola, joined the BP Angola offshore technician recruitment programme in 2009, and started his studies following a year of English language training at the Essa training school in Luanda. In 2010, he joined the National Vocational Qualification (NVQ) level 2 class at Hull College to study and develop the fundamental competences required. He completed the BTEC National Certificate within six months.

In 2011, Antonio was deployed at BP Saltend plant where he undertook the advanced modern apprenticeship, NVQ level 3, and learned how to operate with ‘live’ plant, but with safety systems that would allow for safe operation. Describing his training days at Saltend, he says: “I was part of a group where I could participate, give ideas and show my points of view. During and after my training I realized that I was doing things the right way to contribute to BP operations in Angola and demonstrating my commitment to the environment and society. Here on block 31, this is my first job and I am enjoying it because I am well supported by my peers and our coach. Everyone here is concerned with what I don’t know – so they teach me to do it. The work environment is fantastic.”

Antonio is one of four Angolan technicians who have received the coveted award in the 12 years of the BP Angola technician programme at Hull College. “I needed to prove to the Tallow Chandler Award panel that I deserved it,” says Antonio. “All I needed was the chance. I believe there are many skilled people in Angola, and all they need is the same opportunity, so we must stay focused and together.”
BP is developing and implementing a comprehensive programme to strengthen safety, risk management and compliance.

**Our goals**

We will put safety and operational risk management at the heart of our operations.

We will continue to strive for improvements in process and personal safety.

We will seek to protect the health and wellbeing of our people, and to build capacity in the management of health.

**In this section**

**Zero**

Fatalities in our operations in 2011 and 2012.

**10**

BP Angola staff gained internationally recognized safety and health qualifications.

How we support health in the community.

Moises Capemba, BP Offshore Marine Technician FPSO PSVM shows the way the turret works.
Safety management and performance

We seek to deliver strong safety performance by taking a rigorous approach to the management of risk.

Safety and operational risk management
As part of our longer-term response to the Gulf of Mexico incident in 2010, we introduced a more powerful safety and operational risk (S&OR) function across BP. We have put this structure in place in Angola, deploying representatives of the function within the business. The business line is accountable for delivering safe operations, but independent S&OR professionals hold the authority to guide and, if needed, intervene in technical and operational activities. S&OR staff also monitor operations with the aim of making sure that operations comply with the group’s operating management system.

Day-to-day risk identification and management occurs in all our operations and functions. We assess and manage the range of operating risks we face with reference to our management systems. Actions to improve the management of risk are put in place where necessary. Periodic review of risks and risk management plans are carried out which include major accident risk and other potentially high-consequence risks.

Safety performance
Our recordable injury frequency (RIF), which measures the number of injuries to the workforce per 200,000 hours worked, was 0.32 in 2012. This was a deterioration on our performance in 2011, when our RIF was 0.27. There were no fatalities in our operations in 2011 or 2012.

Driving in Angola is a high-risk activity, with many roads in poor condition and low awareness of road safety. Road traffic accidents are a significant cause of death and injury. The risk is particularly high for us because our workforce has travelled, on average, approximately 2.7 million kilometres per year over the past five years. Our total vehicle accident rate, which measures vehicle accidents per one million kilometres driven, was lower in 2012 than in 2011, but there is still room for improvement.

We continued to run initiatives promoting road safety in 2012. For our own workforce, we train our drivers and maintain our vehicles which helps us to manage the road safety risks for our employees and their families. In the community, we have run high-profile road safety campaigns, with advertising on television and radio. Our drivers carry out defensive driving training and we use an automated driving information system to monitor our drivers’ behaviour.

Process safety
We continue to concentrate on process safety, which involves applying good design principles along with robust engineering, operating and maintenance practices. In our risk assessment process, we identify and develop mitigation plans for process and major accident risks. This covers enduring risk areas that arise from drilling and completions activities, such as loss of hydrocarbon containment, and other production risks inherent in aviation and marine activities and oil spill response.

There were a total of seven losses of primary containment in our operations in 2012, one of which was classified as a ‘tier 2’ process safety event. There were six ‘high potential’ incidents, which are incidents that might have but did not result in serious consequences. All high potential incidents are investigated by senior level leaders who are certified competent in BP investigation process. In all cases, immediate and
management system causes and findings were established. Actions to close point and systems gaps are placed in BP’s tracking system and are complemented by a lessons learned review with the accountable executive vice president in the relevant function, outside the region.

Oil spill preparedness
We operate in deepwater and are therefore very aware of the technical and engineering challenges that arise in drilling for hydrocarbons in deepwater reservoirs. Across the BP group, we have been working to centralize and standardize our approach to drilling standards and projects oversight, with the establishment of a global wells organization and the global projects organization in 2011. We have developed deepwater well-capping and tooling packages that can be deployed rapidly in the event of a deepwater well blowout. We also use a number of technologies to help us monitor safety and environmental issues in our deepwater drilling operations.

We have also considered oil spill response preparedness, and collaborate with government and industry bodies to ensure we are as well prepared as possible in the event of an incident. We carry out emergency response exercises to ensure our incident management team is prepared to respond in the event of an incident.

Contractor oversight
Well over half of BP’s global workforce hours are provided by contractors. The need to be rigorous and consistent in the way we engage and manage contractors is critical to our goal of ensuring our activities cause no accidents, no harm to people and no damage to the environment.

In Angola, many of our operations, including deepwater drilling, rely on the expertise of contractors. Contractors that provide services critical to managing safety on BP facilities have been identified. Specific emphasis has been placed on establishing clear definitions of required and monitored safety performance for each contractor, with an accountable BP senior level leader assigned to manage the relationship as well as the specific safety performance of the contractor. We hold meetings with our contractors to ensure our efforts are aligned and to continuously identify, manage and mitigate risk associated with our operations. With Oceaneering, for example, a contractor providing topsides and subsea inspection services for our offshore developments, we use a performance scorecard to monitor a number of key performance indicators such as lost time incidents, risk assessments carried out, near miss and first aid incidents.
These meetings enable our contractor community to come together to review and discuss performance and future plans. We focus on key performance trends, areas for improvement and recognition of good HSE practices observed within our operations.

**Protecting health**

We manage health in accordance with our operating management system, which includes requirements for our organizational structure, how we identify, assess and manage health and industrial hygiene risks, and how we improve performance.

A number of management and planning tools help us to manage health systematically. Our health plan, which we update annually, addresses gaps or assurance needs, improves the barriers that mitigate risks to health, and addresses key areas for legal compliance. We use a self-assessment tool called Health Map, which provides a basis for developing an action plan so that we address key risks.

**Building capacity**

An important part of our effort in Angola involves building the capacity of local staff in occupational health and industrial hygiene. We develop individual training and development plans for all the members of our health team to enable them to gain accreditation to international standards. The plans outline the courses they will take for the three years ahead. These include internal and external courses, and can incorporate training in the field or working to achieve certification in a given discipline, such as occupational medicine or food hygiene.

**Health and wellness initiatives**

We have put in place a range of initiatives to monitor, protect, and enhance the health and wellbeing of our people.

In 2011, for example, the health team implemented an ergonomic programme at our Luanda headquarters. The framework, called Remedy Interactive, provides a suite of tools to help reduce the risk of musculoskeletal disorders, giving guidance on best working practices and offering self-administered solutions for those who use computers.

Our resources and procurement and supply chain management departments undertook the ‘10,000 step’ initiative in 2012 – which encourages people to take 10,000 steps every day in a four to six-week programme to get individuals and teams active and experience the benefits of increased fitness.

We have also run awareness sessions, for example on malaria prevention, and in response to an outbreak of cholera in the Soyo region in 2012. As part of our annual plan for promoting health, we have implemented policies and procedures covering the main health risks for our employees such as fitness for task, malaria, HIV/AIDS and substance misuse.

**Reducing the risk of malaria**

Malaria remains one of Africa’s biggest killers and represents a significant health risk to BP employees working in Angola. BP commits to providing a safe and healthy working environment by raising awareness, providing education and taking measures to minimize risks.

In late 2011, through the risk assessment process and using BP’s internal risk prioritization, we assessed and mapped the malaria risk in Angola on our entity regional risk register. This confirmed the need to have a specific risk action plan in place to set out how we will manage and where possible, reduce the risk.

The diagram below details the barriers identified in our risk action plan. Part of our risk action plan involves testing our barriers, picking up on any weak barriers as early as possible and strengthening barriers where necessary. For example, sleeping under a net and using repellents can reduce the likelihood of being bitten by a mosquito. We have put in place a monitoring programme which checks the provision of nets and repellents in expatriate residences on a monthly basis.

**The malaria management policy**

Our policy sets out clear roles and responsibilities in the management of malaria, provides information on the risk itself and addresses specific concerns, such as the risk of malaria during pregnancy. The policy applies to all BP Angola employees in the region and their dependents, and contractors and
business visitors working at our sites in Angola. It also covers the planning stage prior to departure, as well as time spent in Angola.

One focus of the malaria management policy concerns the anti-malaria drug malaria chemoprophylaxis. This prevents the development and replication of Plasmodium protozoa after it has been introduced into the bloodstream by a mosquito. Although we do not mandate taking the drug, it is strongly recommended for all travellers to Angola and for all non-immune personnel.

By clarifying how we manage the risk of malaria and putting in place a clear plan of actions, we have managed to reduce the number of confirmed cases of malaria among expatriates in Angola from eight in 2011 to one in 2012.

Health in the community

We also support community health and safety. In April 2012, for example, a BP delegation travelled to Malanje to participate in medical student workshops and a public screening for high blood pressure and diabetes at Lueji a Nkonde University. BP was the leading sponsor of this event, which included a motorcycle safety campaign with medical student volunteers assisting the Malanje traffic police.

The high blood pressure and diabetes screenings were conducted by third and fourth-year students from the medical faculty, providing them with the opportunity to gain hands-on experience in organizing public health screening events.

The screenings detected advanced stages of both diseases in some of those tested, and those at risk were evacuated by ambulance for further medical care.

Our support also includes funding for training and equipment. In April 2012, we made a corporate contribution of $90,000 to the Mission Clinic in Cubal which will enable it to purchase much needed equipment and make other improvements. The clinic is well known in the region for the high quality of its service, especially as a malnourishment and tuberculosis treatment centre, and as a place where many Angola health professionals receive quality training.

Security

We provide for the security of our plant and people and have reviewed our arrangements following the attack on the In-Amenas gas plant in Algeria in January 2013. We provide guidance to travellers and local employees on issues of personal security, such as the prevalence of street crime.

We also ensure that our contracted security providers are mindful of their impact on all those they come into contact with when carrying out their work. This involves training on the Voluntary Principles on Security and Human Rights, which guide companies in maintaining the safety and security of operations within an operating framework that ensures respect for human rights and fundamental freedoms.
Environment

We seek continuous improvement in our environmental performance and are committed to continual reduction of our risks.

Our goals

We will manage our impact, as set out in our HSSE policy.

We set annual targets to help drive improvements in our environmental performance.

We will measure and report transparently on our environmental performance.

In this section

By taking a systematic approach to environmental management, we seek to minimize our impact.

Our objectives and targets focus on our most significant impacts.

We have taken steps to enhance our oil spill response preparedness and capability.

Technicians look at a plan during the commissioning of the FPSO PSVM.
Environmental management

BP Angola places the utmost importance on managing the environmental impact of all its activities.

Managing our impact
Our health, safety, security and environment (HSSE) policy sets out our aspirations for HSSE performance in our operations.

Potential environmental impacts from our activities fall mainly in the following areas:

**Waste generation, management and disposal:** hazardous and non-hazardous wastes are produced from FPSO operations, rigs and logistics sites.

**Operational discharges:** these include drill cuttings generated when we drill into the seabed to construct a well. Mud or drilling fluids may adhere to the cuttings and when disposed at sea may settle down and deposit on the seabed. The main process discharge from the FPSOs is warm seawater with traces of biocide from the seawater cooling system. From time to time, produced water may also be discharged, depending on the volumes produced and the status of the facilities.

**Air emissions:** these are generated mainly from the combustion of fuels in power generation for drilling, marine vessels and FPSO operations, well clean-up and testing operations and flaring.

**Accidental spills:** If an incident occurs and oil or chemicals are released to the environment, those substances have the potential to pollute the waters and land, affecting flora and fauna as well as users who depend on these resources.

Everybody who works for BP Angola is responsible for the continuous improvement of our HSSE performance. We are committed to continual reduction of our risks.

Our goals are simply stated – no accidents, no harm to people and no damage to the environment.

We will operate all our facilities in the region in a safe and efficient manner and care for all those on our sites or those impacted by our activities. We will continue to drive down the health, safety, security and environmental impact of all our operations by maintaining regulatory compliance, reducing waste, emissions and discharges, using energy efficiently and assuring a safe work environment for our workforce.

We will lead our organization in the region to:

- **Systematically** apply the Operating Management System (OMS) to all our operating activities to continuously reduce risk and deliver performance improvement in a safe, compliant, and environmentally and socially responsible manner
- **Identify, manage and mitigate** risks in all of our activities through a rigorous risk management process and intervene when ‘emerging risks’ become apparent
- **Comply** with all applicable legal requirements and company policies and procedures
- **Consult, listen and respond** openly to our customers, employees, local stakeholders, neighbours, public interest groups and those who work with us
- **Work with others** – our partners, suppliers, competitors and regulators – to raise the standards of our industry
- **Openly report** our performance, good and bad
- **Recognize those who contribute** to improved HSSE performance
- **Continuously improve our performance** by improving the leadership, capability and capacity of our organization
- **Sustain** OMS to enable safe, compliant, responsible and reliable operations and review the effectiveness of the system at least annually

Our business plans include measurable HSSE targets. We are all committed to meeting them. Our OMS contain information on our organization, how we set and communicate our HSSE objectives and how we monitor performance.

Working safely and complying with all applicable legal requirements is a condition of employment. Staff and contractors must not tolerate deviations from legal requirements, nor the existence of unsafe acts, behaviours or conditions. All who work for and with BP are obliged and have the authority to stop work they consider unsafe or that contravenes legal requirements.

**Martyn Morris**
Regional President BP Angola Region
Underwater noise: noise generated by our activities results from vertical seismic profiling carried out during drilling operations and regional seismic surveys. The noise induced in the water column can affect marine fauna. Potential effects on marine mammals and turtles are of particular concern.

Taking a systematic approach
To manage these impacts, we operate an environmental management system (EMS) which meets the requirements of the international standard ISO 14001:2004. The EMS provides a systematic approach to managing environmental impacts and seeks to ensure that every practical step is taken to minimize those impacts. The system is externally certified and covers the Greater Plutonio production operations, all seismic, drilling and supply base activities in BP Angola, and onshore office facilities.

An independent surveillance audit was completed in 2012, which examined the management of significant environmental aspects associated with seismic surveys, oil and gas drilling, well completion and oil and gas production activities. A number of non-conformances were observed, which are being addressed, but the audit found that the system conforms to ISO requirements and there had been a remarkable improvement observed when compared with the previous audit.

Complying with legislation
We have put in place a compliance management system to identify legislation, assess its applicability, examine controls and assign actions. This is helping us in our drive to achieve safe, reliable and compliant operations. We have submitted an implementation plan for approval by the Ministry of Petroleum in response to new legislation (Executive Decree 224/12 on Operational Discharge Management, published in July 2012). This decree introduces challenging new requirements applicable to all operational discharges generated during petroleum extraction.

We carried out environmental impact assessments (EIAs) in 2012 covering the development of the Gas Export System in block 31 and seismic activity in block 18. As stipulated in the EIA process, these assessments involved informing affected parties about the nature and scale of the potential impacts. In both cases, the assessments identified potential impacts and mitigation measures. For the block 31 project, for example, the EIA identified the potential for damage to sensitive seabed features from the laydown of pipeline. Mitigation measures included the use of detailed geophysical and geotechnical survey data to inform pipeline routing to avoid any sensitive features on the seabed.

For the block 18 seismic work, the potential disruption to fishing activity was investigated in detail even though BP’s environmental risk assessment methodology identified this as a minor risk. The additional examination was carried out in response to the high levels of public interest in previous environmental impact assessment processes conducted for seismic surveys in the Angolan offshore environment. A number of actions to mitigate the risk of disruption were put in place including the use of standard communication (constant bridge watch and radio contact) and navigation systems (lighting and signalling systems) on the survey vessel and support vessels; the issue of notices to mariners to warn other users of the sea of the potential presence of seismic vessels and inform them of the location and timing of activities; and the use of standby vessels to intercept and redirect any vessels potentially encroaching on the safety zone around the vessel.
Environmental performance

Achieving continuous improvement in our environmental performance requires the effort of everyone who works for BP Angola.

Objectives and targets

We set annual objectives and targets to help achieve our goal of continuous environmental improvement. When setting these objectives, we concentrate on our most significant environmental impacts.

We summarize below our performance against our targets in 2011 and 2012. Target setting takes account of risks, legal requirements, and our specific business circumstances.

Performance

Air emissions

Our routine emissions to the atmosphere result primarily from FPSO power generation, drilling and vessel operations. There is also some flaring from FPSO activities and our well operations during well testing and clean-up operations. Production operations lead to occasional emissions from venting due to tanker loading. Our policy is for the FPSO at Greater Plutonio to operate without flaring during steady operations. However, there may be intermittent flaring during start-up procedures and when the gas compression facilities are unavailable to allow production to continue from the complex subsea system that cannot be readily stopped and re-started. The emissions from these sources include carbon dioxide, methane, non-methane hydrocarbons, and oxides of nitrogen and sulphur (NOx and SOx).

Our emissions to air, the majority of which come from FPSO activities, have been tackled principally through facility design and processes. Gas compression and reinjection facilities seek to avoid the need to dispose of associated gas to flare. Under normal operations, we have the ability to recover flare gas through a flare recovery system. This excludes flaring required for safe operations, such as during major process upsets.

<table>
<thead>
<tr>
<th>Area</th>
<th>Target and performance in 2011</th>
<th>Area</th>
<th>Target and performance in 2012</th>
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</thead>
<tbody>
<tr>
<td>Standards and policies</td>
<td>Prepare required statutory plans for the DSS rig and PSVM FPSO</td>
<td>Standards and policies</td>
<td>Review and update flaring policy</td>
</tr>
<tr>
<td></td>
<td>Secure regulatory approval for environmental license for new rig DSS and PSVM FPSO</td>
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<tr>
<td></td>
<td>Expand the scope of our EMS to include PSVM FPSO</td>
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<tr>
<td>Chemical management</td>
<td>Conduct supplier assurance of chemicals management</td>
<td>Chemical management</td>
<td>Review and document drainage system at new chemical storage area</td>
</tr>
<tr>
<td>Waste management</td>
<td>Ensure accurate waste reporting including purchase of digital or mechanical scale for weighing the wooden waste for recycling</td>
<td>Waste management</td>
<td>Improve waste transfer notice control between site material coordinator and AES</td>
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<td>Update the supply base waste handling plan against the waste management disposal and deposit plan and the waste management strategy</td>
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<td></td>
<td></td>
<td></td>
<td>Implement waste management practices</td>
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<tr>
<td>Operational discharges</td>
<td>Ensure compliance with new regulatory requirements of revised Executive Decree 12/05 (if the new law is published)</td>
<td>Operational efficiency</td>
<td>Improve the performance of high pressure compressors to reduce flaring by 58%</td>
</tr>
<tr>
<td>Awareness</td>
<td>Deliver EMS, waste management and ISO 14001 training (Sonils base)</td>
<td>Reporting</td>
<td>Develop a reporting procedure to facilitate environmental reporting requirements</td>
</tr>
<tr>
<td></td>
<td>Deliver EMS training to new rig (DSS)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Completed or progress in accordance with plan
- Achieved partially or later than planned: some concerns over ability to deliver
- Not completed
The BP Angola flaring policy is being updated and is targeted for completion and delivery in 2014.
Our equity share direct greenhouse gas emissions totalled 1,050 thousand tonnes CO2 equivalent in 2011 and 966 thousand tonnes in 2012.
Non-greenhouse gas emissions of SOx and NOx increased. A number of factors accounted for the increase including amendments to production entitlements in both BP operated blocks in Angola, higher consumption of diesel and fuel gas, and changes to the emissions calculation methodology, in line with group requirements.
BP Angola’s principal operations are located offshore, more than 100 kilometres from centres of population. The predictive models we used during the project design phase looked at the potential impact of our operations on air quality onshore. This analysis found that the operations do not have any significant impact on air quality on the Angolan coast.

Waste management
We manage our waste through operational controls, setting objectives and targets, monitoring and auditing and conducting research or investigations when necessary.
Our waste management strategy, implemented through waste management and handling plans at a facility level, seeks to ensure that we meet regulatory requirements and follow acceptable industry practices.
We exercise a duty of care over our waste management practices in Angola – using waste transfer notices to document the movement of waste from generation through transfer and handling by approved contractors, through to disposal.
We seek to implement the waste hierarchy of reducing, reusing and recycling waste from our operations in Angola. The amount of non-hazardous waste disposed totalled 255 tonnes in 2011 and 474 tonnes in 2012. The increase was primarily the result of a new rig starting operation in 2012, contributing to an increase of approximately 60% in block 18, and the hook up and commissioning of the PSVM FPSO in block 31 where a Flotel supported daily operations. The amount of hazardous waste disposed decreased in 2012 from 887 tonnes to 760 tonnes.
We manage our waste through operational controls, setting objectives and targets, monitoring and auditing and conducting research or investigations when necessary.
We also manage produced water and have the ability to treat and re-inject it into the oil reservoir for reservoir pressure support.

We monitor the amount of oil in produced water, and set daily and monthly average targets for reducing these levels. We also monitor and report on the number of oil in water excursions (defined as occasions when we exceed desired levels for oil in water). The number of oil in water excursions increased in 2012. Total tonnes discharged in 2012 were 55, compared with 43 tonnes in 2011. These figures are related to the Greater Plutonio FPSO in block 18 and the principal reason for the increase was operational issues with hydrocyclones on board. Produced water is now being injected into the well formation, which is reducing the quantity of oil in produced water being discharged to the environment.

Losses of primary containment and oil spills
There were five spills of hydrocarbons of more than one barrel from our activities in 2012. In all cases, we sought to minimize the amount of oil that reached the environment, and developed actions to prevent recurrences.

Spill preparedness
To enhance our oil spill preparedness and response capability we have continued to participate in a coastal mapping initiative supported by the industry association ACEPA. The project identifies environmental and social sensitivities along the northern Angolan coast, where there is potential for oil spill impact. The information is then integrated within a geographic information system database. We are examining whether the initiative can be carried out in southern Angola, in the light of new exploration activity there.

Noise
To mitigate and avoid negative effects from noise on marine fauna, BP has implemented strict noise controls at all its seismic operations. This includes having marine mammal observers on board the sound source vessels, making provision for stopping operations when vulnerable fauna are present in the area and introducing safe operational practices such as soft starts, in which the power used during seismic activity builds up from a low level to give adequate time for marine mammals to leave the vicinity.
We support Angola’s development through social investment initiatives that strengthen the capabilities of local people and institutions.

Our goals

We will build a safe, reliable and sustainable operating company that contributes to the social and economic development of Angola.

We will work in partnership with NGOs and local people to make sure that the projects we support are efficiently run and sustainable.

We will support projects in education and enterprise development, poverty reduction, social integration, and health, safety and the environment.

In this section

How our projects address vital social needs.

$641m spent with Sonagol-related suppliers in 2012.

25 new graduates from the BP-supported Masters programme in oil and gas law in 2012.

A student thanks BP and partners in a message on behalf of school students during the opening of a new school in Camabatela, Kwanza Norte province.
Building capacity

BP is committed to investing in the development of local people, building the capability of local companies, and creating strategic partnerships for institutional and social development.

Our social investment strategy
BP is committed to building a safe, reliable and sustainable operating company in Angola that contributes to the social and economic development of the country.

We engage with stakeholders such as community and church leaders, the Angolan government, NGOs, academics and aim to form strategic partnerships that generate mutually beneficial outcomes.

We make sure that our support is aligned with our business objectives and complements government programmes while meeting community needs. We are mindful too, that our stakeholders want us to support projects that help achieve the UN Millennium Development Goals, a set of eight initiatives to tackle global challenges such as poverty, hunger and disease.

A common theme across our social programmes is investment in people. We seek to promote education and build capability at various levels, to develop human resources, enhance the capability of local companies, and promote institutional and social development. This also includes initiatives to reduce poverty, promote social inclusion and environmental conservation.

This approach also gets local people and businesses more closely involved with our business activities, helping to develop their skills and experience. Social and economic development and stability in Angola are important factors for our shareholders and our continuing business success.

We also make sure that we carry out social projects in rural areas away from our operational activities, where social and economic challenges are more severe.

Our partnership approach
We work in partnership with NGOs, local institutions and people who develop and implement project proposals based on their knowledge of government strategy, community needs and social development expertise.

We couple their views with our insight into government strategy and community concerns as well as our business objectives.

We pay special attention to developing the human and institutional capability of the organizations we work with. We seek to ensure the potential beneficiaries of our projects are directly involved so that they have a stake and a role in making the projects work. These partnerships are therefore vital for the success of these social projects.

This less interventionist and more participative approach encourages the participation of all stakeholders, such as implementing partners, beneficiaries, government, academia, religious organizations, NGOs and the private sector.

Projects financed by BP within our portfolio are identified and drawn up by implementing partners under framework guidance that we provide. The process involves a direct relationship between all parties in which BP evaluates the proposals and provides support to set goals and performance indicators.

Our social projects
Over the past decade, BP has invested millions of dollars in social initiatives to support the development of Angolan communities. In 2011 and 2012, we continued to support community developments.

The table on the opposite page summarizes projects undertaken in 2010-12, followed by examples of recent initiatives.
<table>
<thead>
<tr>
<th>Project name</th>
<th>Purpose</th>
<th>Dates</th>
<th>Budget (US$)</th>
<th>Funding</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterprise/poverty reduction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro-credit</td>
<td>Increase agricultural production, business development and poverty reduction</td>
<td>2010-12</td>
<td>1,500,000</td>
<td>Block 18</td>
<td>ADRA</td>
</tr>
<tr>
<td>Support to Agriculture productivity in Cunene</td>
<td>Help rural communities adopt agricultural best practices and techniques</td>
<td>2012</td>
<td>200,000</td>
<td>Block 31</td>
<td>MAFIKo</td>
</tr>
<tr>
<td><strong>Health, safety and the environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection of sea turtles</td>
<td>Protection of sea turtles along the entire marine coast of Angola</td>
<td>2011-12</td>
<td>585,983</td>
<td>BP 100%</td>
<td>Faculty of Science (UAN)</td>
</tr>
<tr>
<td>Education for health and wellbeing in community</td>
<td>Promotion of maternal health care, nutrition and basic health care</td>
<td>2010-12</td>
<td>657,301</td>
<td>Block 31</td>
<td>ChildFund</td>
</tr>
<tr>
<td>Road safety</td>
<td>Prevention of road accidents and educating drivers</td>
<td>2011-12</td>
<td>1,091,000</td>
<td>Block 18 and BP 100%</td>
<td>DNTV and Sete Caminhos</td>
</tr>
<tr>
<td>Water and sanitation programme</td>
<td>Provide access to potable water for the rural population in Huambo and Bie provinces</td>
<td>2012</td>
<td>450,000</td>
<td>Block 31</td>
<td>Development Workshop</td>
</tr>
<tr>
<td>Hospital equipment and extension of Hospital Divina Providencia</td>
<td>Improve the services capacity of the hospital and equip the laboratory for medical analysis</td>
<td>2012</td>
<td>260,000</td>
<td>Block 18</td>
<td>Hospital Divina Providencia</td>
</tr>
<tr>
<td>Hygiene and health education in the Boavista District</td>
<td>Introduce best practices in the community on basic sanitation (garbage)</td>
<td>2012</td>
<td>143,339</td>
<td>BP 100%</td>
<td>AIDC</td>
</tr>
<tr>
<td>Green Namibe</td>
<td>Improve the microclimate in the Namibe desert and mitigate the advancing desert</td>
<td>2011-12</td>
<td>230,000</td>
<td>BP 100%</td>
<td>Liga 4 de Abril</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School building with 12 classrooms Carnabatela (Kwanza Norte)</td>
<td>Provide children with the best infrastructure for quality education</td>
<td>2012</td>
<td>450,000</td>
<td>Block 18</td>
<td>Frey dos Capuchinhos</td>
</tr>
<tr>
<td>Building of schools and medical centres in Amboim (Gabela)</td>
<td>Reduce the number of children outside the education system and improve medical help to rural communities</td>
<td>2012</td>
<td>1,786,350</td>
<td>Block 18</td>
<td>Freira Ferida and Helder Ngola</td>
</tr>
<tr>
<td>Construction of two schools in Funda and Viana (Luanda)</td>
<td>Reduce the number of children outside the education system</td>
<td>2012</td>
<td>500,000</td>
<td>BP 100%</td>
<td>RISE</td>
</tr>
<tr>
<td>Laboratory of GIS and spatial data analysis</td>
<td>Train university students in accessing new technologies</td>
<td>2012</td>
<td>200,000</td>
<td>Block 18</td>
<td>Science Faculty (Universidade Agostinho Neto)</td>
</tr>
<tr>
<td>Building schools in Chimbasse (Benguela and Cucema (Bié))</td>
<td>Provide children with the best infrastructure for quality education</td>
<td>2012</td>
<td>400,000</td>
<td>Block 31</td>
<td>RISE</td>
</tr>
<tr>
<td>Graduate programme in oil and gas law</td>
<td>Promote better understanding of the legal environment in the field of oil and gas production</td>
<td>2011-12</td>
<td>450,000</td>
<td>BP 100%</td>
<td>Law Faculty (Universidade Agostinho Neto)</td>
</tr>
<tr>
<td><strong>Social inclusion and poverty reduction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support special education and the Angolan Paralympics</td>
<td>Promote social inclusion among people with visual difficulties, through the teaching of Braille</td>
<td>2012</td>
<td>350,000</td>
<td>BP 100%</td>
<td>AACAG</td>
</tr>
<tr>
<td>Provide psychosocial care and support to child victims of violence</td>
<td>Train providers of social services to children with approaches related to the care and psychosocial support</td>
<td>2012</td>
<td>269,188</td>
<td>BP 100%</td>
<td>INAC and REPPSI</td>
</tr>
<tr>
<td>Building a child centre in Uige</td>
<td>Support underprivileged children with social assistance, which promotes their better growth</td>
<td>2012</td>
<td>360,000</td>
<td>Block 31</td>
<td>Frey dos Capuchinhos</td>
</tr>
<tr>
<td>Rehabilitation youth and community centre in Luena (Moxico)</td>
<td>Facilitate the interactive process among youth, reduce juvenile delinquency, drug use and negative social practices</td>
<td>2012</td>
<td>400,000</td>
<td>Block 31</td>
<td>Selecianos do Dom Bosco</td>
</tr>
<tr>
<td>HOPE II – Support for minorities San in Cuando Cubango</td>
<td>Provide for basic needs and train communities in promoting small businesses</td>
<td>2012</td>
<td>200,000</td>
<td>Block 18</td>
<td>ACADIR</td>
</tr>
</tbody>
</table>
Green Namibe

The city of Namibe is acquiring new lungs through a pilot project to plant trees, mainly financed by BP Angola and contributing to a better environment and improved quality of life for local people.

Visitors arriving by air to Namibe are struck by the extensive area planted with trees as they leave the city airport. Casuarina, Sene and Moringa trees, planted less than a year ago indicate that the Green Namibe experimental project – started in 2010 and implemented by Liga 4 de Abril with the backing of the Namibe government – is well on its way.

“We can’t fight the desert. It is an ecosystem created by nature. But what we can do is to try to create a microclimate in order to preserve life and increase biodiversity. This is exactly what we are doing by planting trees using micro irrigation techniques,” said president of the Liga, Mondlane Pereira.

“The green wall helps to stop the east wind which brings sand, in which silica may be one of the causes of tuberculosis among the population,” added the provincial public health director. The provincial government is aware of the importance of the project. Integrating the project with the Ministry of Energy and Water initiatives – which include the construction of two 4,000m³ water tanks – is one possibility.

The Green Namibe scheme has already planted 4,200 trees in an area of ten hectares, and on World Environment Day, 600 trees – five for each household – were planted at the social housing estate for young people.

In future, the project will aim to consolidate and preserve what has already been achieved, and will promote the institutional partnership that is important for its long-term durability. It will also seek to strengthen the initiative’s technical and scientific research elements.

Launch of water sanitation project in Huambo and Bié

A $400,000 water sanitation project, implemented by Development Workshop and funded by BP, was officially launched in February 2012 in Huambo, the central highland province of Angola.

The people who live in these areas have little or no access to clean water and basic sanitation, resulting in poor health and a high mortality rate, particularly in children under five years of age.

The event was hosted by Development Workshop and the Huambo provincial government. The launch ceremony took place in the Catchiungo municipality, which will be one of the first to benefit, in the presence of the deputy governor of Huambo, Henrique Barbosa. Representatives from the Huambo provincial water department, municipal administrators, representatives of Development Workshop and traditional leaders, as well as BP’s Angola Region President, Martyn Morris, were present.

“Water is life, and this project will help our local communities have access to this precious liquid which is so important for their health, and social and economic development,” said Mr Barbosa.

“It is a part of the government’s programme to meet the UN Millennium Development Goals and to eradicate poverty in Angola.”

The project will undertake the construction of 20 water wells, which will provide clean water for more than 20,000 people in local communities in Huambo and Bié provinces.

“It is with great humility that we are funding this project, which will help these communities have access to clean water, and thus improve their health and their prospects” said Martyn Morris.

The primary objectives of the project are to support communities and authorities in:

- Constructing protected water wells with manual pumps.
- Adopting best practices for hygiene and basic sanitation.
- Implementing community water management guidelines, registration and mapping.
- Building local community capacity in managing water and sanitation.
- Contributing to efforts to eradicate endemic diseases such as polio, cholera, malaria, and others that are directly impacted by the availability of clean water.
Building local economic capacity

A key part of BP’s strategy to build a safe, reliable, high-performing and sustainable business in Angola is to enhance the capability of local companies and help create opportunities for future investment in the local oil industry.

We aim to maximize local content in our operations and projects. Developing the capability of our Angolan staff and local companies drives job creation, economic growth and contributes to infrastructure development throughout the country.

Provisions within the production sharing agreement (PSA) seek to ensure that the social and economic benefits arising from our activities are shared for the country’s good. For example, in conducting our operations, we have a requirement in the PSA to give preferential treatment in certain circumstances to local labour and to the acquisition of nationally-produced goods, machinery and equipment. In taking this approach, the PSA seeks to support local economic development while adhering to the standards of the international petroleum industry.

In 2012, BP Angola spent approximately $641 million with Sonangol-related suppliers, in the following market sectors:

- Engineering services (Petromar LDA)
- Aviation (SonAir)
- Marine fuel (Sonangol Distribuidora)
- Marine services (Sonasurf, Sonatide)
- Logistics (Sonils)
- Pipelines (Sonaid limitada)
- Drilling (Sonamer Perfuracoes Ltd)
- Pipeline, engineering and sub-sea equipment (Angoflex).

Providing content from local suppliers was an important feature of the PSVM project. PSVM work contracted to Angola-based companies includes the fabrication of pipelines, manifolds, jumpers, buoyancy tanks, umbilicals and wellheads, to mention just a few examples. This required a significant investment in building local capability, creating jobs and contributing to the economic development in Angola.

In February 2012, BP Angola awarded a major contract to Oceaneering and their sub-contractors Sonasurf and Fugro, for the provision of up to three multipurpose field support vessels with associated project management services.

The $1bn package to support block 18 and block 31 subsea infrastructure maintenance, inspection and repair activities is set to run for five years from 2012 and is the culmination of around two years of strategy development, market approach and final negotiations.

Apart from its scale, the contract is a significant one because much of the project execution is taking place in Angola. It is one of the highest-value contracts awarded by BP Angola. The field-support vessel contract is a strategic long-term commitment for BP’s Angola business, which will help us manage safe and reliable subsea operations.

Sonangol was involved throughout the process and fully supported this major contract award, key to underpinning BP operations in Angola over the coming period of growth.

Contracting subsea services for blocks 18 and 31

$641m
spent with Sonangol-related suppliers.
Supporting education and enterprise development

We focus on supporting education and enterprise in Angola to help build people’s skills and capabilities.

Micro-credit
We have continued to support the development of local enterprise in provincial areas by building on a micro-credit project we initiated in Huambo and Benguela.

The initial micro-credit project was implemented in partnership with the non-governmental organization ADRA (Action for Rural and Environmental Development) with the support of Banco Sol. It was focused in a rural region that had been heavily affected by war in the 1980s and 1990s. In its second phase, the project supported by BP Angola and the block 18 partners Sonangol and SSI, is now helping to boost the local economy through the creation of a farmer’s cooperative and the sale of beans and corn.

Supporting education
One of the key challenges facing Angolan communities and government is access to education. While a number of factors contribute to the challenge of getting young people to school, one issue is the condition of many of the school buildings, especially in rural areas. We have therefore supported the construction and refurbishment of a number of schools in 2011 and 2012.

The fruits of micro-credit

“We started as a local group and later became an association made up of 11 farmers, seven of whom were women,” says Vitorino Chico, the president of the fiscal board of the newly created farmer’s co-operative. “We applied for a micro-loan at the SOL bank and it has since been entirely repaid. In July, 2011, with the technical assistance of ADRA, we decided to become a co-operative, and applied for a second loan. Today we are 50 members: 27 women and 23 men. We grow mainly corn and beans, and sometimes we grow tomatoes and onions. The advantage of being organized as a co-operative is that we can purchase the fertilizers and other products in bulk, at a lower price.”

“The selling process to buyers at the informal markets in Luanda who come here is easier,” says director of the co-operative, Mr Peregrino. “There is farmland in the commune and land parcels are cultivated by each member of the co-operative.”

Production consists of approximately 15,000 tonnes of beans per harvest, which come three times a year, thanks to the irrigation pumps provided by the project.

“I used to live in a tent. Now, thanks to the project supported by SOL bank and BP, I have been able to build a house,” says co-operative member Natalia Cafeca. “I bought a bed for 15,000 kwanzas and a mattress for 6,000 kwanzas. I consume one-third of what I produce, and sell the rest.”

Image: Greater Plutonio micro-credit beneficiaries exhibiting their produces during a fair in Benguela province.

School constructions and refurbishments completed in 2011 and 2012

<table>
<thead>
<tr>
<th>School</th>
<th>Duration of work</th>
<th>Number of classrooms</th>
<th>Funded</th>
<th>Cost (000 US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuito (Bairro Popular)</td>
<td>24 months</td>
<td>12</td>
<td>Block 31</td>
<td>1,000</td>
</tr>
<tr>
<td>Limbata (Balombo)</td>
<td>3 months</td>
<td>8</td>
<td>Block 18</td>
<td>120</td>
</tr>
<tr>
<td>Enaus &amp; Temple (Kilamba Kxaxi)</td>
<td>18 months</td>
<td>14</td>
<td>Block 31</td>
<td>1,480</td>
</tr>
<tr>
<td>Limbata (Caimbambo)</td>
<td>3 months</td>
<td>6</td>
<td>BP 100%</td>
<td>100</td>
</tr>
<tr>
<td>Chicala</td>
<td>6 months</td>
<td>6</td>
<td>BP 100%</td>
<td>247</td>
</tr>
<tr>
<td>Huambo Pre-University</td>
<td>36 months</td>
<td>10</td>
<td>Block 31</td>
<td>900</td>
</tr>
<tr>
<td>Rangel 5029 and multi-use court</td>
<td>12 months</td>
<td>10</td>
<td>Block 31</td>
<td>300</td>
</tr>
<tr>
<td>Rumela (Bacoio)</td>
<td>3 months</td>
<td>4</td>
<td>BP 100%</td>
<td>60</td>
</tr>
</tbody>
</table>

Note: 1BP Foundation PLC
BP hands over a school to the Libata community in Benguela province

Education is a key priority in BP’s social and corporate responsibility approach in Angola. In June 2012, Martyn Morris and Balombo municipality administrator Kwanza Santos opened a new school in the Libata community in Benguela province. The school was built by Rise Angola, an NGO that focuses on school construction in rural areas, in 90 days, with funding from BP and the block 18 partners. The new facilities will accommodate 600 children, who had previously studied under mango trees. In 2010, the Balombo municipality school network comprised 82 schools, of which only 12 (with a total of 65 classrooms) were in buildings and in good condition. Around 27 schools operated in locations such as chapels and under trees.

“Thanks to BP Angola and its block 18 partners, some 1,200 children have access to a school with eight classrooms, desks and equipment. In short, they now have better study conditions to obtain better education. The construction of the school in less than 100 days from the moment the community chose the site together with BP Angola, is a remarkable achievement,” said Mr Santos.

We also focus our efforts on developing people’s skills so that they can make a valuable contribution to the country’s development. These initiatives are often linked to strengthening training and development institutions.

Supporting engineering and science
BP and University Agostinho Neto (UANI) signed a cooperation protocol in 2005 which aims to improve the quantity and quality of Angolan engineers and geoscientists trained in Angola. The programme provides financial assistance for internal scholarships, text books and laboratory equipment, programmes to improve teaching skills, and other education equipment, materials and facilities.

We have also partnered with the Academy for Educational Development to install a geographical information system laboratory and develop an applied professional users’ course. In addition to training university teachers and students, the course is providing training for individuals from utility companies and government bodies.

Building legal capacity in oil and gas
We have assisted the UAN law faculty in establishing a Masters (LLM) programme in oil and gas law. The objective of the programme is to create qualified professionals who will adequately serve the interests of the Angolan people, of the state and of the petroleum industry, with the goal of making petroleum and gas contracts beneficial to all. The course contains a wide range of modules including ethics and transparency, oil and gas technology, contracts, tax and environmental law.

BP initially committed $2.3 million to fund three sessions of the programme and has provided significant technical assistance. Further funding to cover a fourth course was subsequently provided. In June 2012, a class of 25 students graduated (including two graduates from BP) – the fourth group to complete the course.

Building on the programme’s success, the university law faculty has announced the establishment of a Research Centre for Legal, Economic and Social Studies which will be responsible for running the LLM programme as well as a prospective oil and gas MBA programme. Both initiatives will receive financial and technical support from BP Angola.
### BP Angola in figures

Data on our safety, environment, people and performance from 2006 to 2012.

For the year ended 31 December

#### Performance data

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hydrocarbons produced (mboed) (Op and non-op)</td>
<td>133</td>
<td>140</td>
<td>202</td>
<td>211</td>
<td>170</td>
<td>123</td>
<td>149</td>
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#### Safety

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td>BP employee fatalities</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>BP contractor fatalities</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Days away from work cases (DAFWC) workforce</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Days away from work cases frequency (DAFWC) workforce</td>
<td>0.062</td>
<td>0.094</td>
<td>0.095</td>
<td>0</td>
<td>0</td>
<td>0.083</td>
<td>0.093</td>
</tr>
<tr>
<td>Recordable injuries workforce</td>
<td>8</td>
<td>18</td>
<td>15</td>
<td>9</td>
<td>3</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Recordable injury frequency (RIF) workforce</td>
<td>0.25</td>
<td>0.42</td>
<td>0.35</td>
<td>0.2</td>
<td>0.07</td>
<td>0.27</td>
<td>0.32</td>
</tr>
<tr>
<td>Total vehicle accidents</td>
<td>78</td>
<td>31</td>
<td>30</td>
<td>39</td>
<td>23</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Total vehicle accident rate (TVAR)</td>
<td>23.3</td>
<td>9.3</td>
<td>14.3</td>
<td>14.8</td>
<td>7.9</td>
<td>12.8</td>
<td>8.4</td>
</tr>
<tr>
<td>Hours worked workforce</td>
<td>6,433,581</td>
<td>8,545,184</td>
<td>8,549,274</td>
<td>8,985,787</td>
<td>8,344,661</td>
<td>9,590,000</td>
<td>10,760,000</td>
</tr>
<tr>
<td>Kilometres driven</td>
<td>3,340,962</td>
<td>3,346,010</td>
<td>2,102,528</td>
<td>2,639,650</td>
<td>2,917,951</td>
<td>2,540,000</td>
<td>3,370,000</td>
</tr>
</tbody>
</table>

#### Environment

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity share direct carbon dioxide (CO2) (tonnes)</td>
<td>484,666</td>
<td>940,541</td>
<td>1,208,764</td>
<td>1,162,490</td>
<td>1,055,204</td>
<td>1,006,583</td>
<td>898,618</td>
</tr>
<tr>
<td>Equity share indirect carbon dioxide (CO2) (tonnes)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Equity share direct methane (CH4) (tonnes)</td>
<td>1,643</td>
<td>4,160</td>
<td>2,644</td>
<td>2,502</td>
<td>2,444</td>
<td>2,079</td>
<td>3,220</td>
</tr>
<tr>
<td>Equity share direct greenhouse gas (GHG) (tonnes CO2 equivalent)</td>
<td>519,169</td>
<td>1,027,811</td>
<td>1,264,288</td>
<td>1,215,032</td>
<td>1,106,528</td>
<td>1,050,242</td>
<td>966,229</td>
</tr>
<tr>
<td>Total gas flared (tonnes)</td>
<td>1,987</td>
<td>148,882</td>
<td>200,221</td>
<td>138,093</td>
<td>227,851</td>
<td>323,693</td>
<td>308,095</td>
</tr>
<tr>
<td>Sulphur dioxide (SOx) (tonnes)</td>
<td>108</td>
<td>232</td>
<td>206</td>
<td>259</td>
<td>98</td>
<td>298</td>
<td>559</td>
</tr>
<tr>
<td>Nitrogen oxides (NOx) (tonnes)</td>
<td>1,587</td>
<td>5,800</td>
<td>2,923</td>
<td>1,849</td>
<td>928.4</td>
<td>1,060</td>
<td>3,828</td>
</tr>
<tr>
<td>Non-methane hydrocarbons (NMHC) (tonnes)</td>
<td>260</td>
<td>825</td>
<td>6,210</td>
<td>4,789</td>
<td>6,766</td>
<td>11,391</td>
<td>1,568</td>
</tr>
<tr>
<td>Losses of primary containment (tonnes)</td>
<td>-</td>
<td>-</td>
<td>33</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Number of hydrocarbon spills (tonnes)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Volume of product spilled (litres)</td>
<td>0</td>
<td>0</td>
<td>835.95</td>
<td>208</td>
<td>0</td>
<td>750</td>
<td>2,100</td>
</tr>
<tr>
<td>Volume of product unrecovered (litres)</td>
<td>0</td>
<td>0</td>
<td>635.95</td>
<td>208</td>
<td>0</td>
<td>0</td>
<td>1,000</td>
</tr>
<tr>
<td>Total hydrocarbon discharges to water (tonnes)</td>
<td>0</td>
<td>0</td>
<td>3.18</td>
<td>14.11</td>
<td>45.58</td>
<td>43</td>
<td>55</td>
</tr>
<tr>
<td>Hazardous waste disposed (tonnes)</td>
<td>673</td>
<td>1,054</td>
<td>768</td>
<td>1,070</td>
<td>1,035</td>
<td>887</td>
<td>760</td>
</tr>
<tr>
<td>Non-hazardous waste disposed (tonnes)</td>
<td>-</td>
<td>749</td>
<td>870</td>
<td>1,147</td>
<td>426</td>
<td>255</td>
<td>474</td>
</tr>
</tbody>
</table>

#### Employees

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angolan nationals (ploy)</td>
<td>337</td>
<td>367</td>
<td>473</td>
<td>461</td>
<td>507</td>
<td>575</td>
<td>680</td>
</tr>
<tr>
<td>Non-Angolan nationals based in Angola</td>
<td>80</td>
<td>172</td>
<td>168</td>
<td>142</td>
<td>113</td>
<td>156</td>
<td>302</td>
</tr>
<tr>
<td>Total</td>
<td>417</td>
<td>539</td>
<td>641</td>
<td>603</td>
<td>620</td>
<td>731</td>
<td>982</td>
</tr>
</tbody>
</table>
Notes to figures

a DAFWC: An injury or illness is classified as a days away from work case (DAFWC) if as a consequence of it the member of the BP workforce could not have worked on any day after the injury or illness, irrespective of whether there was scheduled work, or when a physician or other licensed health care professional recommends that the member of the BP workforce stay at home but the individual comes to work anyway.

b The BP workforce comprises all BP employees, all BP contractors and all BP directors.

c DAFWC workforce: The number of injury DAFWCs to the BP workforce for every 200,000 hours worked in the same period.

d A recordable injury is an injury and illness incident that results in a fatality, a day away from work case, restricted work or job transfer, or medical treatment beyond first aid.

e RIF: The total number of recordable injuries to the BP workforce for every 200,000 hours worked in the same period.

f TVAR: Total Vehicle Accident Rate: the sum of all light vehicle and all mobile plant accidents per one million kilometres driven.

g Direct GHG emissions are the physical emissions from operations on an equity share basis.

h Indirect GHG emissions are a consequence of the import by operations of steam, electricity and heat on an equity basis from third-party sources.

i Greenhouse gas emissions include carbon dioxide and methane (converted to the quantity of CO2 that would create an equivalent warming effect).

j Loss of primary containment: An unplanned or uncontrolled release of material from primary containment.

k Hydrocarbon spill: An accidental or unplanned loss of hydrocarbon greater than or equal to one barrel from primary containment from a BP or contractor operation, irrespective of any secondary containment or recovery. (One barrel is equal to 159 litres, equivalent to 42 US gallons). Historic data has been revised to meet latest BP reporting definitions.

l This number includes both Angolan nationals based at BP’s operations in Angola and those on overseas assignments.

Acronyms

AACAG  Associação Angolana dos Cegos e Ambliopes de Guerra (Association of War Related Blind and Partially-sighted Persons)

ACADIR  Associação de Conservação do Ambiente e Desenvolvimento Integrado Rural (Association for Environmental Protection and Integrated Rural Development)

ACEPA  Association of Companies for Exploration and Production in Angola

ADRA  Acção para desenvolvimento rural e ambiente (Action for Rural and Environmental Development)

AIDC  Associação Integrada do Desenvolvimento Comunitário (Integrated Association for Community Development)

ALNG  Angola liquefied natural gas project

BOPD  Barrels of oil per day

CAE  Centro de Apoio Empresarial (the enterprise centre)

CCF  Christian Children Fund

CDC  Citizens Development Corporation

CNAL  Clube dos Naturais e Amigos dos Lonados

DELOS  Deep-ocean Environmental Long-term Observatory System

DNVT  Direção Nacional de Viação e Trânsito (National Traffic Authority)

DW  Development Workshop

ENANA  Angola institute for aviation operations

EMS  Environmental management system

FPSO  Floating Production Storage Offloading vessel

GIS  Geographic information system

HIV/AIDS  Human Immuno-Deficiency Virus/Acquired Immuno Deficiency Syndrome

HSE  Health, safety and the environment

ICRA  Institute of Religious Sciences of Angola

IMO  International Maritime Organisation

IMT  Incident Management Team

INAC  Instituto Nacional da Criança (National Children’s Institute)

INAVIC  Angolan Institute of Civil Aviation

IPIECA  International Petroleum Industry Environmental Conservation Association

ISCED  Luanda Higher Institute for Educational Sciences (Instituto de Ciências da Educação de Luanda)

LNG  Liquefied natural gas

Mboed  Thousand barrels of oil equivalent per day

MoU  Memorandum of understanding

NEBOSH  National Examination Board in Occupational Safety and Health

NGO  Non-governmental organization

NOSCP  National oil spill contingency plan

OMS  Operating management system

PSA  Production Sharing Agreement

PSVM  The Plutão, Saturno, Vénus and Marte fields

REPPSI  Regional Psycho-Social Support Initiative

S&OR  Safety and operational risk

SME  Small and medium-sized enterprise

SPU  Strategic performance unit

UAN  University Agostinho Neto

UNDP  United Nations Development Programme
Independent assurance statement to BP management

This report has been substantiated by Ernst & Young, the BP group auditors. The primary purpose of the report substantiation process is to test that the assertions, claims and data set out in the text regarding BP’s sustainability performance can be supported by evidence. This process is intended to give assurance about the report contents from an independent third party. Ernst & Young’s scope of work and their conclusions are provided below.

Independent assurance statement to BP management

BP in Angola 2012 Sustainability Report (the Report) has been prepared by the management of BP Angola, 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 as outlined below, in order to provide conclusions on the claims, data and coverage of issues within it.

Our responsibility in performing our assurance activities is to the management of BP p.l.c. only and in accordance with BP’s instructions. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. 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 the International Federation of Accountants’ ISAE3000.1 The Report has been evaluated against the following criteria:

1. Whether the Report covers the key sustainability issues relevant to BP in Angola in 2012 which were raised in the media, BP Angola’s own review of material sustainability issues, and selected internal documentation.

2. Whether sustainability claims made in the Report are consistent with the explanation and evidence provided by relevant BP managers.

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

1. Reviewed a selection of external media reports and internal documents relating to the sustainability performance of BP in Angola in 2012, including outputs from stakeholder engagement.

2. Reviewed the outcome of BP Angola’s own processes for determining the key issues to be included in the Report.

3. Reviewed information or explanation about the Report’s sustainability performance data and statements. Whilst we reviewed documentation to support the sustainability data contained within the Report, we did not test the data processes for gathering, collating and reporting data at country or site level.

Level of assurance

Our evidence gathering procedures have been designed to obtain a limited level of assurance 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.

Our conclusions

On the basis of our review and in accordance with the terms of reference for our work we provide the following conclusions on the Report. Our conclusions should be read in conjunction with the above section on ‘What we did to form our conclusions’.

1. Does the Report cover the key issues?

We are not aware of any key sustainability issues relevant to BP Angola which were raised in the media or the outcome of BP Angola’s own materiality process that have been excluded from the Report.

2. Are the data and statements regarding BP Angola’s sustainability performance contained within the Report supported by evidence or explanation?

We are not aware of any misstatements in the assertions and data presented by BP management within the Report regarding BP Angola’s sustainability performance.

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 2012.

Ernst & Young LLP
London
8 July 2013

1 International Federation of the Accountants’ International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE3000).
Our corporate reporting suite

This document is part of BP’s corporate reporting suite. We report on our financial and operating performance, sustainability performance and also on global energy trends and projections.

Group reporting
Our website, www.bp.com/sustainability, is an integral part of our group sustainability reporting, covering a wide set of issues and reporting on them in more depth. The website also includes detailed information about our environmental and safety performance.

BP Sustainability Review 2012 is available in Arabic, English, German, Mandarin Chinese, Portuguese, Russian and Spanish. www.bp.com/sustainability

Country and site reporting
We have published country reports on our operations in Australia, Azerbaijan, Canada, Georgia, Germany, New Zealand, Southern Africa, Trinidad & Tobago and Turkey. We maintain a library of site reports for more than 30 of our major operations.

www.bp.com/countryreports
www.bp.com/sitereports

Case studies
Our case studies demonstrate our sustainability efforts in action around the world and provide insight into how our policies and practices can make a difference at the local level.

www.bp.com/casestudies

www.bp.com/angola
This provides an overview of BP Angola’s activities and investments, including a focus on our employees and partners, and community and social investment initiatives.

www.bp.com
This site contains information about the BP group including detail of its policies and values and reports on its activities and operations worldwide.

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Feedback
We welcome feedback on this report. You can write to us at the address below, marked for the attention of the Communications and External Affairs team, or send an e-mail to us at bpangola@bp.com

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