

Cases in Strategic-Systems Auditing

The Shell Group

Reporting on Sustainable Development

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Introduction

During the 1990s, there were a number of significant environmental and social events that presented new business risks to corporations while also raising the social consciousness of corporate managers (see Table 1).¹ The

This case is set in the late 1990s. The Shell Group continues to evolve its systems and reports dealing with corporate social responsibility. Students can view the most recent reports at <http://www.shell.com>.

I'm sorry, but if you expect any self-respecting activist to believe a word you say about your commitment to human rights, then you are as arrogant as the PR firm that came up with this strategy.

—Unknown from the “Tell Shell” program at <http://www.shell.com> accessed at the time of the case.

formation of coalitions of outside stakeholders in response to these events, especially nongovernmental organizations (NGOs), and the increasing politicization of issues dealing with the impact of business activities on present and future living conditions around the world, have elevated political risks (e.g., possibility of new regulations that would

constrain business operations) faced by corporations. Some of the events listed in Table 1 have presented new business risks to the major oil companies.

Table 1
Key International Events Related to Sustainable Development

- The Exxon Valdez oil spill in Alaska in 1990.
- The execution in 1995 of Ken Saro-Wiwa of the Ogoni tribe in Nigeria.
- The formation of the World Business Council for Sustainable Development.
- Television show host Kathy Lee Gifford’s exposure of child labor in Latin American sweatshops in 1996.
- The diagnosis of “mad cow disease” in the UK in 1996.
- The Asian financial crisis in 1997 that pointed out the need for better corporate governance and reporting transparency.
- The demonstrations at the World Trade Organization (WTO) meetings in Seattle in 1999.
- The creation of the Dow Jones Sustainability Group Index in 1999 to track the performance of companies that are leaders in sustainability development issues.
- Global population reaches 6 billion in 2000.

Similar to many other large multinational companies (MNCs), the Royal/Dutch Shell Group was targeted by various NGOs (e.g., Green Peace) for its alleged damage to the environment and its alleged failure to meet its responsibility to a broader array of stakeholders. While Shell believed it had been acting as a good corporate citizen, events unfolded (especially the 1995 execution of Ken Saro-Wiwa of the Ogoni

¹ See H. Rouls, *Contributing to Sustainable Development: A Management Primer* at <http://www.shell.com>.

tribe in Nigeria, see Exhibit B) that caused Shell to rethink its approach to health, safety and environmental (HSE) issues and to wrestle with its commitment to the environment and its social responsibility. In 1998, as a result of this commitment, Shell became the first major oil company to respond to concerns by environmentalists and social activists by providing detailed disclosures of its HSE performance data.² Additionally, Shell undertook a number of programs to strengthen its commitment to sustainable development.³ The main focus of the case is on the Shell Group's choice of using transparent HSE reporting along with auditor verification of those data in response to operating in a dynamic and adverse political environment.

Industry Issues

During the past decade, companies operating in the "oil patch" have faced four critical issues. First, even though the Organization of Petroleum Exporting Countries (OPEC) exercises significant control over the price of oil, prices fluctuated significantly throughout the 1990s.⁴ These fluctuations made it very difficult for most oil companies to forecast operating and financing activities and resulted in a number of bankruptcy filings by small independent exploration companies. Second, the oil industry always has been very competitive and the recent trend toward privatization of state-owned oil companies has exacerbated industry competition. Third, there has been significant merger and acquisition activity throughout the industry but especially among the "major" oil companies. Such mergers are driven by a perceived need for larger companies with economies of scale, greater access to capital markets for funding exploration and development and the ability to offer a broader array of products. Fourth and last, the oil and gas industry is extensively regulated, particularly with respect to anti-trust and environmental matters. Among the most affected by these issues are the major integrated oil and gas companies. The five "supermajors" in this group are ExxonMobil, Royal Dutch/Shell Group, BP-Amoco, TotalFinaElf and ChevronTexaco. Of this group, only The Royal Dutch/Shell Group of Companies (The Shell Group) was not created by a recent merger.

² Throughout this case we use the terms "The Shell Group" or "Shell" to refer to the consolidated HSE reporting by the Royal Dutch/Shell Group of Companies.

³ The World Commission on Environment and Development (The Brundtland Commission) has defined *sustainable development* as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Our Common Future, page 8, 1987). For more information, see e.g., <http://www.wsu.edu:8080/~susdev/WCED87.html>

⁴ For example, the average price of crude was as low as \$11.97 a barrel in 1998 and as high as \$27.81 in 2000 with the 1998 price representing a 20-year low. Since 2000, OPEC has had greater control over the production of oil.

Company Background

The Shell Group is owned by two parent companies: Royal Dutch Petroleum Company (incorporated in the Netherlands) and The “Shell” Transport and Trading Company (incorporated in the United Kingdom), which do not engage in operational activities. They derive their respective incomes (except for interest expense on cash balances and short-term investments) from their interests in the companies known collectively as the Royal Dutch/Shell Group of Companies. The Royal Dutch/Shell Group of Companies grew out of an alliance made in 1907 between Royal Dutch and Shell Transport, whereby the two companies merged their interests in numerous operating companies on a 60:40 basis while remaining separate and distinct entities (see Figure 1).

At the time of the case, the Royal Dutch/Shell Group of companies was the sixth largest company in the world and the second largest oil company with gross sales of \$177 billion, more than 91,000 employees and operations in 140 countries.⁵ The Group contains 2,500 companies and joint ventures, many of which are with foreign governments or related entities. Shell has five major businesses: (1) exploration and production; (2) refining, distribution, and retailing; (3) chemicals, (4) gas and power; and (5) renewables. It also conducts

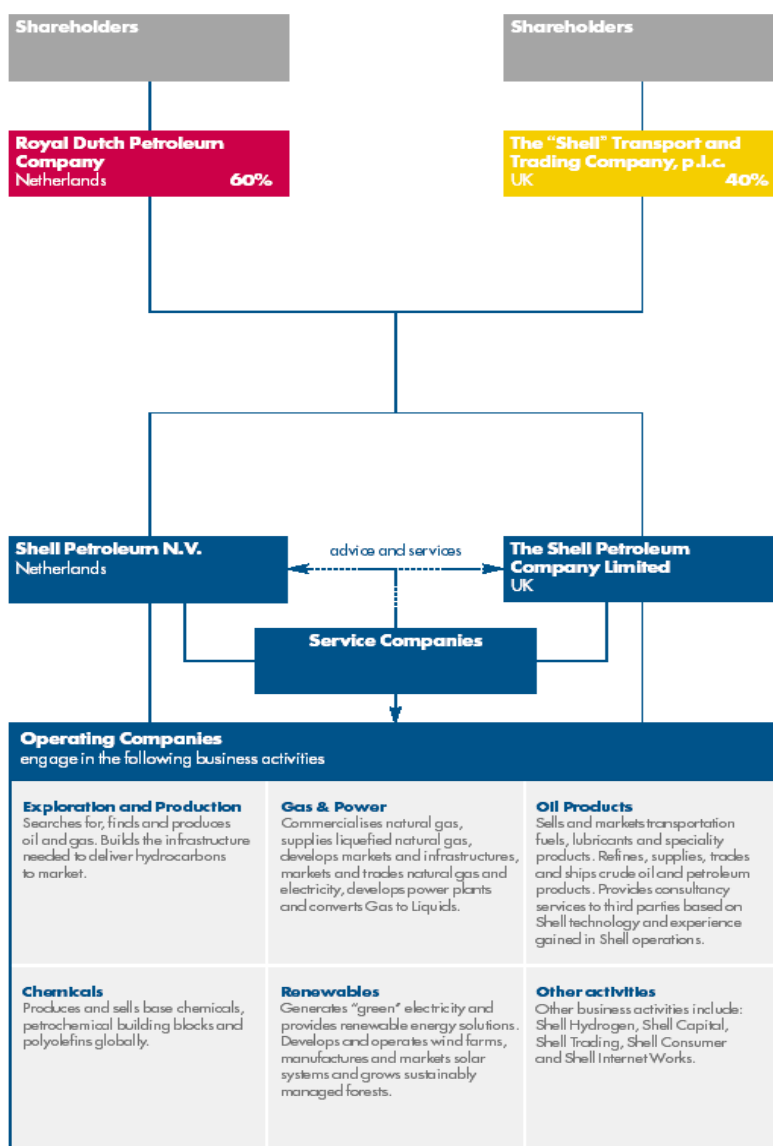


Figure 1. The Structure of The Shell Group.

Source: Shell’s 2001 Annual Report.

⁵ Refer to Fortune’s Global 500 at <http://www.fortune.com> and Shell’s 2001 Annual Report at <http://www.shell.com>.

other business activities via, for example, Shell Hydrogen, Shell Capital, Shell Trading, Shell Consumer and Shell Internet Works.

There are two holding companies at the Group level: Shell Petroleum N. V. in the Netherlands and The Shell Petroleum Company Limited in the UK. The two holding companies share in the aggregate net assets and in the aggregate dividends and interest received from the Group companies in the proportion of 60:40. These holding companies own all of the shares in the Service Companies and, directly or indirectly, all Group interests in the Operating Companies. The main business of the Service Companies is to provide advice and services to other Group and associated companies. The Operating Companies explore and produce downstream gas and power, oil products, chemicals and renewables.

Products

Shell's products can be classified into three groups: (1) oil-related (2) chemicals and (3) renewables. The exploration and production of oil and gas, oil refining and chemicals manufacturing are the activities that have the most significance for environmental damage and sustainability. The emphasis in the renewables product line is to develop clean, safe energy.

Oil-Related Products

As a fully integrated oil company, the Shell Group is involved in all sectors: exploration and production, downstream gas and power and sales and marketing of oil products. The oil-related products produced by the Shell Group are crude oil, natural gas, natural gas liquids and condensates. Crude oil is refined to create a number of final products such as gasoline, jet-engine fuel, butane, propane, solvents, petrochemicals, diesel fuel, fuel oils and asphalt.

The Group and associated companies operate in the upstream sector by exploring for and producing crude oil and natural gas. Companies in the downstream gas and power sector process, sell and deliver natural gas by long distance pipelines and in liquefied form by tanker; sell and deliver liquid by-products of natural gas processing and gas-to-liquid conversion; market and trade natural gas and electricity; wholesale and retail to industrial and domestic customers; and develop and operate independent power plants. The oil products segment also sells and markets transportation fuels, lubricants, specialty products and technical services; refines supplies, trades and ships crude oil and petroleum products.

Chemicals

The Group has significant operations within the chemical sector. The Chemicals sector produces and sells petrochemical building blocks, polyethylene and polypropylene to industrial customers around the globe. Chemicals are widely used in plastics, coatings and detergents that are used in products such as thermal and electrical insulation, medical equipment and sterile supplies, computers, lighter and more efficient vehicles, paints and biodegradable detergents.

Renewables

Group companies also seek opportunities in other businesses aimed at enhancing longer-term prospects for profitability. As a generator of green electricity and provider of renewable energy solutions, Shell Renewables develops and operates wind farms and biomass power plants, manufactures and markets solar energy systems and grows forests to supply biomass for energy production. See Table 2 for the Group's net proceeds by industry segment.

Table 2				
Net Proceeds by Industry Segment (including inter-segment sales)				
	(\$ millions)			
	2001	2000	1999	1998
Exploration and Production				
Third parties	12,137	13,468	9,474	8,119
Inter-segment	13,951	14,326	8,849	7,400
	26,088	27,794	18,323	15,519
Downstream Gas and Power				
Third parties	15,721	15,991	9,729	7,796
Inter-segment	705	496	295	192
	16,426	16,487	10,024	7988
Oil Products				
Third parties	93,517	104,002	72,450	64,738
Inter-segment	2,108	2,280	1,570	1,876
	95,625	106,282	74,020	66,614
Chemicals				
Third parties	13,260	15,205	12,886	12,272
Inter-segment	990	1,102	748	849
	14,250	16,307	13,624	13,121
Corporate and other*				
Third parties	576	480	827	767
Inter-segment	2	-	-	-
	578	480	827	767

* Includes renewables, and other business activities such as, Shell Hydrogen, Shell Capital, Shell Trading, Shell Consumer and Shell Internet Works
Source: *Annual Report* on Form 20-F 2000 and 2001 for Royal Dutch Petroleum Company and The "Shell" Transport and Trading Company

Customers

Shell's products serve three main sectors and their related customers: transportation, industrial and domestic. In 1998, the transportation sector for passenger and freight traffic was responsible for approximately 48 percent of the world's oil consumption. The industrial sector accounts for 19 percent of worldwide oil demand and the domestic sector, which includes residential and commercial consumers, accounts for 13 percent. Customers in the industrial sector mainly use chemical products. Renewables, such as wind and solar power are marketed to industrial and domestic customers.

Competition

Competition is intense in the oil and gas industry. Currently, the industry is experiencing a shift in control because foreign state-owned oil companies are moving to the top ranks as the largest oil companies. These companies no longer operate solely within their country borders but are expanding internationally to increase revenues and market share. Most of these companies do not publish financial or operating data so it is difficult to judge their size and profitability. The Saudi Arabian national oil company, ARAMCO, is assumed to be the largest company in the industry. In the industrial segment of the market, oil is losing market share to alternatives. Environmental pressures are making natural gas more attractive than oil. Electricity and, to a lesser extent, renewable energy sources also are putting pressure on oil products.

Business Risks⁶

Risk is the chance that an event will occur that has an adverse impact on the ability to achieve objectives. It is measured in terms of consequences and likelihood. The Shell Group faces a number of business risks that can be categorized under economic, environmental and social.

Economic Risks

In addition to normal economic risks such as maintaining profitability and solvency, Shell must address a number of risks that are particularly relevant to the oil and gas industry.

Significant Price Fluctuations

The price of Shell's basic oil products can vary significantly as a result of factors that are beyond the control of management. Changes in supply and demand for its products may be influenced by factors such as economic conditions, weather conditions or actions taken by OPEC. For example, a slowdown in economic activity worldwide or in parts of the industrialized world can lead to reduced demand for oil and an attendant price decline. Similarly, warmer winter weather can trigger decreased demand for oil and gas products and a price decrease. Lastly, OPEC through its control on production can exert significant influence over the supply and, thus, the price of oil.

Drilling and Production Results

The Shell Group's future oil production, like other oil companies, is dependent on successful exploration, drilling and oil well development. There have been major improvements in the technology used to find and drill for oil, including horizontal drilling, measurement while drilling, deep-water drilling and seismic imaging and analysis. While these new technologies increase Shell's chances of finding and removing oil, there still remain significant risks in interpreting geological and engineering data, project delays, cost overruns and technical and fiscal conditions. To remain a market leader, Shell must continue to develop and use innovative technologies to find, develop and sell oil and gas products.

Regulatory and Political Environment

Because Shell operates in 144 countries, it faces varying political and regulatory risks. For example, Shell operates in a number of countries that are politically unstable. In some countries, Shell may face expropriation by the government or limits on the company's ability to repatriate earnings. Shell's U.S.

⁶ See the AICPA/CICA's *Managing Risk in the New Economy* (New York: AICPA, 2000) for a discussion of business risks.

operations address economic sanctions imposed on countries like Iraq, Iran, Syria, Sudan and Libya by the U.S. government. Finally, Shell must address regulatory issues related to land tenure, entitlement to produced hydrocarbons, production rates, royalties, pricing, social impact, exports, taxes and foreign exchange.

E-commerce

Like many other industries, business-to-business e-commerce impacts the oil and chemical industry. Shell and other major players in the industry have formed a number of online procurement exchanges. If these e-commerce activities were to be operated effectively, there would be great potential for reducing costs.

Environmental Risks

Environmental risks relate to potential damage to air, water, soil, plants, animals and people by the various operations of the company. Environmentally related financial risks for the Shell Group arise from two sources: governmental authorities and NGOs. Shell is subject to a myriad of environmental laws, regulations and reporting requirements. The restrictions in these laws and regulations vary from country to country. Shell incurs significant costs for prevention, control, abatement or elimination of releases into the air and water, as well as disposal of wastes at operating facilities.

When a country adopts the Kyoto Protocol, an international environmental agreement drafted in December 1977, it has implications for oil companies operating in that country. The Kyoto Protocol established very strict targets for greenhouse gases that are believed to cause global warming. Negotiations related to the Kyoto Protocol collapsed in November 2000 when the United States and the European Union (EU) were unable to resolve their differences on how to cut emissions of greenhouse gases. In spite of the lack of an international agreement, Shell recognizes that there are significant risks in not maintaining a commitment to reduce greenhouse gases.

Over the last 30 years or so, NGOs such as Green Peace, The Sierra Club and World Watch have raised the social awareness of risk to the environment posed by business activities. These NGOs consider themselves “stakeholders” whose views must be recognized. Shell considers such groups to be important to its sustainable development process and actively seeks their input when addressing environmental issues.

Social Risks

The genesis of social risks is consciousness about the health and safety of employees and local communities, diversity and equal employment opportunities, human rights and employee and stakeholder perceptions of integrity of the entity. For example, if Shell were not to maintain a good social record, it could find its products boycotted by human rights activists. The Shell Group also must align its business processes with sustainable development principles or there would be an elevated risk of a decline in the company's reputation for integrity. For Shell, managing the views of the various stakeholders in an appropriate manner is an important process. Shell's management of stakeholders' perceptions, however, must be "real." That is, stakeholder engagement must be taken seriously and not used merely as a public-relations tool by the Shell Group.

Environmental and Social Attacks—The Shell Group Responds

In the mid 1990s, two events occurred that stimulated the Shell Group to establish a stronger and more transparent commitment to sustainable development.

The first event involved Shell's plan to sink the Brent Spar oil platform in the North Sea (see Exhibit A).

The second event was the execution of Ken Saro-Wiwa, the leader of the Movement for Survival of Ogoni People, and eight other members of the group by Nigeria's military government (see Exhibit B). While Shell believed that it acted appropriately in both cases, there were protests against the company and a boycott of Shell products in parts of Europe. Further, a broad group of stakeholders did not believe that Shell acted as a good corporate citizen.

The Shell Reports are an important innovation here. They not only specify how our businesses are living up to our Business Principles, they also provide external verification where this is feasible, and invite comment and debate about our policies and performance.

—The Shell Group, *Contributing to Sustainable Development – A Management Primer*

In an attempt to respond to criticism from various NGOs, the Shell Group issued its first HSE report in 1997 based on 1996 data. That report provided extensive information on Shell's performance in the areas of health, safety and the environment.⁷ However, this report was not well received by environmental groups and other NGOs who argued that Shell could not be trusted to report truthfully about its performance in these areas. To respond to such criticism, the Shell Group employed its independent

⁷ Shell also issued a separate HSE report on the Shell Petroleum Development Company (SPDC) in Nigeria entitled "People and Environment Report" (<http://www.shellnigeria.com/frame.asp?Page=1999EnvRep>).

auditors (KPMG and PricewaterhouseCoopers) to provide assurance on its HSE reporting. The Shell Group subsequently reissued the 1997 report verified by its auditors and their consultants.⁸

Table 3 shows the HSE reporting behavior of the supermajor oil companies. Note that the Shell Group and BPAmoco prepare HSE reports that are verified while ExxonMobil and TotalFinaElf prepare HSE reports that are not verified.

Table 3				
HSE Reporting and Verification by Major Integrated Oil Companies				
Company	HSE Report	First Year Issued ¹	Report Verified	First Year Verified
Shell Group	Yes	1997	Yes	1997
ExxonMobil	Yes	2000	No	
BPAmoco	Yes	1998	Yes	1998
TotalFinaElf	Yes	2000	No	
ChevronTexaco ²				

¹ Relates to the first year that a full HSE report was issued.
² The recent merger of Chevron and Texaco makes it difficult to determine if the individual companies issued any HSE reports. There is limited information at the archive sites.
Source: These data were taken from a preliminary search of each company's Web site.

HSE Reporting - Strategic Issues Faced By Shell

In responding to criticisms of the company, Shell had to address a number of important strategic issues. While Shell had mainly focused on improving corporate financial performance, the actions by various NGOs posed a scenario where corporate profits could be affected if Shell did not adequately respond. Once the decision was made to respond to its critics, Shell faced a number of strategic decisions. Answers to the following questions were needed: Who are Shell's stakeholders? Are there generally accepted guidelines for reporting on sustainability? How will performance be measured along HSE dimensions? Are there systems in place to track performance? Should an external party verify the HSE report? If verification is to be sought, should external auditors be used or should other non-auditor verifiers such as Aspinwall or Arthur D. Little conduct the verification inquiry?

⁸ *The Shell Report 1997* only provided verification on upstream activities.

Shareholders versus Stakeholders

Shell has adopted a broad view of who constitutes the company's stakeholders. The company understands the importance of accountability to all stakeholders, not just shareholders. In *People, planet and profits - The Shell Report 2001* (page 49), Shell presents its Business Principles. Principle 2 recognizes that Shell has five areas of responsibility:

- *To Shareholders*: To protect shareholders' investment, and provide an acceptable return.
- *To Customers*: To win and maintain customers by developing and providing products and services which offer value in terms of price, quality, safety, and environmental impact, which are supported by the requisite technological, environmental and commercial expertise.
- *To Employees*: To respect the human rights of their employees, to provide their employees with good and safe conditions of work, and good and competitive terms and conditions of service, to promote the development and best use of human talent and equal opportunity employment, and to encourage the involvement of employees in the planning and direction of their work, and in the application of these Principles within their company. It is recognized that commercial success depends on the full commitment of all employees.
- *To Those with Whom They Do Business*: To seek mutually beneficial relationships with contractors, suppliers and in joint ventures and to promote the application of these principles in so doing. The ability to promote these principles effectively will be an important factor in the decision to enter into or remain in such relationships.
- *To Society*: To conduct business as responsible corporate members of society, to observe the laws of the countries in which they operate, to express support for fundamental human rights in line with the legitimate role of business and to give proper regard to health, safety and the environment consistent with their commitment to contribute to sustainable development.

Shell knows the importance of responding to the needs of each of these stakeholders. However, each of these groups comes to the table with different objectives. Shell's approach to building trust and credibility with its constituencies is to engage in an ongoing dialogue for more transparent communication and to use a number of different methods to gather information from its stakeholders. One of these methods is to survey important audiences. Shell surveys employees and contractors through its Shell People Survey⁹ and conducts market research to learn about its customers' needs. Shell also has instituted a global Brand Tracker survey to determine which brand is preferred. Lastly, Shell uses its "Tell Shell" program to elicit comments from all its stakeholders.¹⁰

⁹ See <http://www.shell.com/peoplesurvey>

¹⁰ See <http://www.shell.com/tellshell>

Generally Accepted Criteria for Reporting

There currently are no generally accepted standards or criteria for HSE reporting. A number of initiatives have been undertaken to develop guidelines for HSE reporting but none have gained general acceptance.¹¹ Without a clear approach to HSE reporting but with a desire to be transparent, Shell developed its own criteria that were appropriate and suitable for verification based on interactions with stakeholders.

The company reports its performance under three elements of sustainable development: economic, environmental and social. In reporting on its progress, Shell indicates how each of its Business Principles relates to a particular aspect of its performance. Shell reports its successes and the challenges that it faces. The company has established a sustainable development road map that outlines the company's goals and commitments for the future (see Exhibit C).

Key Performance Indicators

Key performance indicators (KPIs) are used widely in economic and financial reporting to elucidate an entity's performance. KPIs are the logical basis for targets and milestones and for developing standards of reporting and verification. Shell is developing a set of KPIs to measure and drive progress in critical areas of economic, environmental and social performance and with its stakeholders is developing KPIs to measure and report on the company's progress toward sustainable development. The Company has established common definitions for KPIs and implemented systems to track them (see following discussion).¹² Exhibit D lists the criteria used by Shell to screen KPIs for inclusion in sustainability reporting.

Shell identified an initial list of 16 KPIs with the help of its stakeholders (see Exhibit E), five of which presently are reported on (e.g., "ROACE," total shareholder return, critical environmental data, critical health and safety data and greenhouse gas emissions). Efforts in recent years to test the practicality of the remaining 11 KPIs have led Shell to conclude that they fall into two basic groups. The first group of KPIs is those where measurement can largely and meaningfully be achieved by surveys and the results from local levels or other levels can be aggregated (e.g., reputation, brand performance, acceptability of

¹¹ The Global Reporting Initiative (GRI) has issued a set of sustainability reporting guidelines that seem to be gaining public acceptance. These guidelines are currently being tested by a number of companies. See GRI's Web site (<http://www.globalreporting.org/>) for more information on their initiative. *The Shell Report 2001* has been produced within the broad framework of the GRI reporting guidelines.

¹² The Shell Group has developed a set of guidelines that are contained in the publication "Group HSE Performance Monitoring and Reporting" at <http://www.shell.com>. This document contains the KPIs definition, scope, units, methods and references.

environmental performance, integrity, staff feelings on how they are treated with respect and diversity and inclusiveness in the workplace).

The second KPI group is being developed using a “learning by doing” approach. Examples include: stakeholder perception of the quality of engagement, social performance and acceptability of environmental performance at the local level. Shell is using pilot studies to develop tools and approaches in a range of operational and cultural contexts for this second group of KPIs. Each pilot study involves external experts and extensive consultation with local communities and other stakeholders to seek their views of the Company’s performance, identify areas for improvement and work toward agreeing local performance indicators. Early indications are that these studies have the potential to enhance the social performance of business units and inform Shell’s overall approach.

Progress also is being made in developing and applying a tool for self-assessing the degree of alignment between business processes and sustainable development. The tool is being used widely in the Chemicals and Exploration and Production businesses to heighten awareness and identify actions for improvement. In both businesses, Shell has been capturing the learning that has taken place to continue development and application of the tool.

Shell has identified 12 HSE KPIs that are being subjected to verification (see Exhibit F) and the Company believes that these 12 parameters reflect the most significant HSE impact on the Shell Group

HSE Reporting Systems¹³

Similar to financial reporting, HSE reporting requires a high quality information system that identifies, records and reports relevant data. Using Shell’s reporting guidelines, “Group HSE Performance Monitoring and Reporting,” the operating units report their data to the relevant business level HSE organization. From there the data are further processed and aggregated at corporate level for *The Shell Report*. If a specific Shell Group KPI also is a significant risk for a local operating unit, the process of gathering, processing and reporting the data related to that KPI usually will be part of its HSE management system (HSE – MS). Shell requires that all operations have a HSE – MS in place. More than 95 percent of Shell’s major installations have had the environmental element of these systems externally certified to international standards, such as ISO14001 and eco-management and audit scheme (EMAS).

¹³ Shell’s “Group HSE Performance Monitoring and Reporting” provides guidelines for monitoring and reporting HSE management systems.

While the HSE – MS is important for managing risks at the local level, it is the internal information system that is used to report the data in *The Shell Report*.

HSE data (information) management procedures ensure that:

- The appropriate monitoring, checks and review processes are in place to detect and correct errors and omissions in the data.
- Tasks and responsibilities for data processing and review are assigned to line management and HSE advisers. It is the responsibility of line management in the operating units to ensure submission of reliable, accurate and complete data.
- The definitions used, and the scope of the data reported, are in accordance with Shell’s Group HSE Performance Monitoring and Reporting, for the whole reporting period.

To facilitate control, monitoring and external verification of HSE data, Shell requires that there is an audit trail for each parameter (KPI).¹⁴ In addition, responsibilities for control and authorization are defined in the operating unit’s monitoring and reporting procedures. In this manner, the entire HSE data flow for each parameter will become transparent and easily accessible for review and external verification. External verifiers then can obtain sufficient evidence on the reliability of the data management systems, eliminating the need for significant detailed (substantive) testing of year-end data.

Providing Assurance on HSE Data

Shell verified its HSE data for the entire Group starting in 1997. This verification of HSE data was the most extensive ever undertaken by a large multinational company. Unlike auditing financial statement information, there are no generally accepted standards for verifying HSE data. The approach followed by the verifiers relied on “emerging best practice and principles within international standards for assurance services” (e.g. ISAE 100 Standard for Assurance Engagements from IFAC). In *The Shell Report 2001*, the verifiers use three symbols to indicate what information/data have been verified and to show differences in the scope of the work performed. To add meaning for stakeholders, confirming the accuracy of data is supplemented by other methods of assurance, including testimonials of experts, benchmarking, and stakeholder perceptions of performance. Verification focused, when possible, on the validity and reliability of self-assessment and internal control.

External verification of HSE performance covers selected data and the text supporting the statements made in *The Shell Report*. External verification is the last step in the assurance process and is designed to ensure that the reported data are free of material errors and/or omissions.

¹⁴ An audit trail in the context of HSE data includes a clear (documented) record of definitions, assumptions, aggregation, calculations and references that result in the final reported data and additional commentary text.

In addition to using analytical procedures at the business level, the external verifiers gather evidence from documentation, interviews and testing of systems and data at selected entities to confirm that:

- definition and scope of the parameter are consistent with the guide
- all significant data are reported for each parameter (completeness)
- reported figure is an accurate reflection of reality (accuracy)
- appropriate internal controls (checks and reviews) have been performed to demonstrate the reliability of the data.

The amount of work carried out by the external verifiers is dependent on the quality and reliability of the data and data management systems, knowledge gained from previous verification and on the degree of reporting risk associated with the parameter (e.g. fatalities compared to emissions to air).

Multidisciplinary Teams

A HSE report covers extensive information that is rather different from traditional financial statement information. HSE assurance engagements, therefore, require a combination of general audit knowledge and relevant knowledge from fields such as environmental and social engineering. Thus, it is ideal for the engagement team to include persons who possess such discipline-based knowledge. When an auditor has the responsibility for expressing the opinion and uses an expert in the collection and evaluation of evidence, the auditor must obtain evidence that the work of the expert is adequate for the purpose of the assurance engagement.

Conclusion

In the current environment in which investors and other stakeholders are calling for increased transparency from corporations, it appears that Shell has been ahead of the curve. It is likely, however, that the marketplace will call for greater disclosure of more diverse information. Environmental reports and the process of obtaining and providing assurance on such information may serve as models for the future.

Exhibit A

Background on the Brent Spar Oil Platform

From 1976-91 Shell's Brent Spar platform served as oil storing and loading buoy in the Shell/Esso Brent Field in the UK Sector of the northern North Sea. The Brent Spar platform consisted of six huge underwater storage tanks. In August 1991, Brent Spar was taken out of operation and moored in the Brent Field, awaiting approval for abandonment. Shell opted to dispose of Brent Spar by sinking it in water 1.5 miles deep, some 150 miles from land in the Atlantic Ocean.

Balancing safety, environment and cost factors, Shell considered the deepwater disposal of Brent Spar the best solution. Shell believed that there were considerable risks to people and environment if Brent Spar was removed from the water for dismantling. In February 1995, Shell received approval from the Department of Trade and Industry (UK) to remove the Brent Spar platform from its moorings, following a clean-up operation, and towing it to a designated deep-water site in the North East Atlantic for disposal. There was considerable public outrage and pressure from activist groups against Shell's planned disposal. It was alleged that Shell compromised environmental standards for short-term economic benefit.

The intensity and effect of the activists' campaign surprised Shell and the company was concerned about a boycott of Shell's petroleum products. In June 1995, Shell abandoned the deepwater disposal plan for Brent Spar. The platform was temporarily moored at Erfjord, Norway while Shell searched to find alternative solutions for the disposal of Brent Spar.

To solve this problem, Shell engaged contractors and individuals to combine problem-solving creativity with technical skills to develop proposals for the disposal or reuse of Brent Spar. Shell also opened a dialogue process with a wide variety of organizations across Europe (including universities, professional bodies, churches, consumer groups and environmental groups). In January 1998, Shell announced its new re-use solution for Brent Spar that involved turning the platform into a Ro/Ro ferry quay at Mekjarvik, Norway. In July 1999, the decommissioning of Brent Spar was finalized and the final sections of Brent Spar placed in position for the quay extension.

For more information see <http://www.shell.com>.

Exhibit B

Background on the Ogoni Issue

Shell Petroleum Development Company (SPDC) has been the main oil operator of Nigeria's oil fields since 1958. Most of these fields are located in the Niger Delta; an ecological sensitive area with an impoverished population of approximately seven million people. The Ogoni people who number about 500,000 are one of more than twenty ethnic groups living in the Niger Delta. Ogoni territory accounts for 3 percent of SPDC's oil production.

In 1990, the Movement for Survival of Ogoni People (MOSOP) became active in promoting the interests of the Ogoni people by campaigning for a greater share of oil revenues and self-determination. MOSOP accused SPDC of environmental devastation in Ogoni land and during 1990-93 violent clashes took place between the military and ethnic groups in the Niger Delta. SPDC was accused of colluding with then ruling military dictatorship. Even though SPDC denied such accusations, their facilities experienced sabotage and regular disruptions to its operations.

In January 1993, SPDC was forced to withdraw from Ogoni territory because of widespread community disturbances and threats made against company staff. In 1995, the MOSOP leader Ken Saro-Wiwa and 27 other Ogoni rights activists were brought to trial and tried for murder. Nine were found guilty and executed by the military government, including Ken Saro-Wiwa.

The trial drew considerable international attention. There were serious doubts about the fairness of the trial and the executions were condemned. Shell was criticized for failing to intervene more forcefully to halt the executions. In the aftermath of the trial and the executions, Shell was accused of having a poor social and environmental record in Nigeria. The company was criticized for continuing to do business in Nigeria because of the country's human rights record. Many groups asked Shell to pull out of Nigeria while others advocated that the company should use its influence to force the government to improve its human rights record.

To deal with these complaints, SPDC offered to clean-up oil spills on Ogoni land and to fund community projects. SPDC declared that future resumption of oil production on Ogoni land was contingent on the support of all Ogonis. To this end, SPDC has established ongoing discussions with various groups and representatives of the Ogoni people to address their concerns.

For more information see e.g., <http://www.shellnigeria.com> and <http://www.essentialaction.org/shell>.

Exhibit C

37 Road Map	1999	2000	2001	2002	2003	2004	2004+
Sustainable development	Understanding	Exploring	Piloting and progressive implementation				
Standards		Embedding policies and procedures					
Systems		Integrating sustainable development principles					
Targets		Progressive development and implementations of KPIs					
Continuous improvement				Ongoing			
Verification	Focus on data	Focus on controls	Exploring new methods of assurance				
Reporting				Integrated reporting			
				Internet real-time and local reporting			
Internal engagement	Building awareness and commitment		Empowering	Living the values			
External engagement	Dialogue	Cooperating		Cooperating	Moving to the 'Involve me world'		
							Unified processes

Source: *The Shell Report 2000*, page 24

Exhibit D

Criteria for Screening a KPI

- Under Shell's control or high degree of influence
- Can drive the business toward a clear degree target
- Relevant to internal/external audience
- More than a measure of compliance
- Related to critical activities
- Benchmarkable
- Verifiable
- Meaningful at corporate level
- Builds on existing data streams

Source: P. Wallage, Assurance on Sustainability Reporting: An Auditor's View, *Auditing: A Journal of Practice & Theory* (Supplement 2000): 53-65.

Exhibit E

Key Performance Indicators

- Economic performance
 1. Return on average capital employed (ROACE)*
 2. Total shareholder return*
 3. Customer satisfaction
 4. Innovation
- Wealth creation
 5. Quality of social investment
- Management of environmental impacts
 6. Critical environmental data*
 7. Acceptability of performance
- Potential impact on climate change
 8. Greenhouse gas emissions*
- Respect of people
 9. Critical health and safety data*
 10. Staff feeling on how the company respects them
 11. Diversity and equal opportunities
 12. Human rights
- Integrity
 13. Staff believe that the business principles protect them to act with integrity
 14. Reputation
 15. Degree of alignment of business processes with sustainable development principles
- Engagement
 16. Stakeholders perception of quality of engagement

* Indicates KPIs that are reflected in *The Shell Report 2001*.

Source: T. Delfgaauw, Reporting on Sustainable Development: A Preparer's View, *Auditing: A Journal of Practice & Theory* (Supplement 2000): 67-74.

Exhibit F

HSE Parameters Identified for Verification	
<ul style="list-style-type: none">• Fatalities• Total reportable case frequencies (TRCF)• Total reportable occupational illness frequency (TROIF)• Emissions of CO₂• Emissions of CH₄• Emissions of SO₂	<ul style="list-style-type: none">• Emissions of NO_x• Gas flaring• Global warming potential (GWP)• Energy consumption• Volume of spills• Amount of fines and settlements