

## **Shell International's Legacy of Pollution and Damage**

The Royal Dutch Shell Group (The Shell Group) is a huge multinational corporation with annual gross sales of more than \$175 billion, more than most countries gross domestic product (GDP). It is one of the world's top oil companies (ranked either No. 1 or No. 2) and the seventh largest chemical company.

In recent years, the Shell Group has attempted to improve its environmental standing in the world. In 1995 the company committed itself to sustainable development. It supports the International Labour Organisation's Declaration of Principles and Rights at Work and is an active player in the UN Global Compact. Its business principles now include a commitment to sustainable development and human rights. This fact sheet looks at Shell's track record in Africa and in particular, South Africa.

### **1. Shell International**

The Shell Group is one of the biggest multi-national energy corporations in the world operating in more than 145 countries and employs in excess of 115 000 people.

The Shell Group was formed in 1907. It is comprised of The Royal Dutch Petroleum Company based in the Hague and the Shell Transport and Trading Company based in London.

The Shell Group's business is based upon the exploration, extraction, transportation and refining of fossil fuels - oil and gas. It supplies petrol and lubricants to its 43 000 service stations around the world and produces a wide range of chemical products.

### **2. Shell in South Africa**

The Shell Group owns 50% of the largest oil refinery in Southern Africa called the South African Petroleum Refinery (SAPREF). British Petroleum (BP) owns the other 50%.

The Shell Group is jointly responsible for the management and operation of SAPREF.

SAPREF started operations in the 1960's after getting the go ahead from the South African Apartheid government.

SAPREF is situated in the South Durban Basin next to the Engen refinery, Durban International Airport and Monde Paper Mill. It is surrounded by residential areas with a population of approximately 250 000 inhabitants.

SAPREF has the capacity to refine 180 000 barrels of crude a day and employs about 580 people and more than 600 contractors.

SAPREF operations consist of the refinery, seven underground pipelines which run from the refinery through residential areas, the Island View tank terminal which consists of storage tanks and an off shore single buoy mooring, off the Durban coast, where crude oil is off loaded from tankers and pumped to the refinery.

SAPREF produces petrol, diesel, kerosene, lubricating oils, jet fuel, LPG, paraffin-based solvents, bitumen, marine fuel oil and chemical feed stocks.

### **3. Shell's Pollution in South Africa**

The south Durban basin consists of 5 industrial belts and is home to about 120 industries. SAPREF and the Engen Refinery occupy one of these belts. Residential areas are located between and adjacent to the industrial belts. It is one of the biggest industrial pollution hotspot in South Africa.

Investigative studies by a local journalist have shown that the rate of leukaemia in South Durban may be up to 24 times higher than in other parts of South Africa. A study by the University of Natal medical school found that children in the suburbs south of Durban “are up to four times likely to suffer from chest complaints than children from other areas of the city” of Durban.

The Shell Groups management and operational record of SAPREF has been poor as borne out by the numerous accidents and incidents that have occurred over the past five years at SAPREF.

- On May 19, 1998 SAPREF’s alkylation unit malfunctioned, resulting in the release of 5 tons of hydrogen fluoride into the atmosphere. Exposure to large amounts of hydrogen fluoride can cause death. Inhaling hydrogen fluoride can damage your lungs and heart. Long-term exposure can lead to a condition called skeletal fluorosis.
- In February 2000 the refinery management admitted that they under reported their sulphur dioxide emissions to Government authorities by up to 12 tons a day since 1995.
- On January 23, 2001 a fire occurred at the Crude Distillation Unit number 2 at SAPREF. On the same day 1000 litres of bunker fuel spilled into the Durban Bay.
- On March, 22, 2001: A tetra ethyl lead (TEL) tank failure resulted in 25 tons of TEL leaking out of the tank. It leaked for 4 days.
- On June 19, 2001 a flare failure resulted in the release of unburnt gases including a substantial amount of hydrogen sulphide on to the surrounding communities.
- On July 7, 2001 a petrol pipeline leak resulted in the release of more than 1 million litres of petrol into the soil under residents’ houses. The leak was discovered and reported by residents.
- On the 1<sup>st</sup> of August a second pipeline leak was discovered resulting in residents demanding an immediate inspection of the pipeline. The South Durban Community Environmental Alliance, a coalition of community organisations from residential areas in Durban south, has called on SAPREF to replace all its pipelines as a matter of urgency. Most of the pipelines, like the refinery are forty years old.
- On August 15, 2001 SAPREF’s Bitumen plant malfunctioned resulting in the release of soot, smoke and hydrocarbons.
- On the 14<sup>th</sup> October 2001, during a ship refuelling, fuel oil spilled into the harbour. SAPREF claimed that only 20 litres of fuel leaked, but the harbour authorities claim that closer to 2000 litres of fuel oil leaked into the harbour.

- On the 30 December 2001, 15000 litres of fuel oil spilled from a SAPREF pipe into the harbour.
- On the 9 July 2002, during SAPREF excavation activities a diesel pipeline developed a leak resulting in 1000 litres of diesel spilled into a south Durban residential area.
- On the 19<sup>th</sup> November 2002, 15000 litres of crude oil were released from SAPREF's off shore facility into the ocean.
- On the 4<sup>th</sup> February 2003, during a maintenance test on a fuel oil pipeline, 1000 litres of fuel oil leaked into a concrete tunnel near Island View. The fuel oil was then pumped into Durban harbour.

#### **4. Campaigns and Community Action around Shell**

Communities in south Durban have a long history of environmental activism against polluting industries. The South Durban Environmental Alliance, formed in 1996, coordinates and leads community action and negotiations with industry. The Alliance's main concerns include the excessive pollution emanating from industry, access to information from government and industry, the poor record of industrial operation and management, lack of a strong and enforceable regulatory framework for industry and a lack of effective monitoring of industrial activities by government.

SDCEA's actions to address these concerns include a number of strategies. Mobilising community action through public meetings, demonstrations, the Media and campaigns is a central strategy of the Alliance. Through these actions SDCEA has consistently called on Shell to introduce pollution reduction plans and to upgrade its facility. Networking with communities both nationally and internationally, has added a new dimension to this strategy. On the 23<sup>rd</sup> April 2003, SDCEA together with groundwork, The United Front to Oust Oil Depots, from the Philippines; Friends of the Earth Nigeria, The Community In-power and Development Association, Port Arthur, Texas, Concerned Citizens of Norco, Louisiana, USA, Environmental Health Fund, USA, The Refinery Reform Campaign - Global Community Monitor, USA, Friends of the Earth UK, Milieudefensie from the Netherlands, and the South African Exchange Programme on Environmental Justice challenged Shell's international management at their AGM in London and the Hague. Communities groups questioned Shell about their pollution and operational track record and demanded that Shell's international management address local concerns.

#### **Case Study: The largest petrol spill in South African history**

In July 2001, residence living in the Bluff, a community in the Durban south Basin, complained about a strong petrol smell emanating from storm water drains in the area. A leak was then discovered in an underground SAPREF pipeline which transports 10 million litres of petrol a day through residential areas. The leak is close to a wetland called - the Bluff Nature Reserve along Tara Road in the Bluff. The leak, from a 4 millimeter hole in the pipeline, was the result of external rusting of the pipeline due to exposure to moisture.

SAPREF, after initially claiming that only 500 000 to 750 000 liters of petrol leaked from the hole, readjusted their estimate to between 1 million to 1,5 million litres of petrol that leaked. SAPREF has

thus far recovered more than a million litres of petrol from the soil. Remediation is expected to continue until 2004.

With regard to health risks, SAPREF informed residents that they may periodically experience burning eyes, coughing, dizziness and nausea as a result of the petrol vapours. SAPREF conducted no medical tests on residents. Remedial work to extract the petrol from the soil resulted in high concentrations of benzene, toluene, ethylbenzene and xylene in the air. Benzene exposure is linked to leukemia. Two months after the spill, 5 families living closest to the spill were temporarily relocated by SAPREF.

On the 27<sup>th</sup> August 2001, one month after the Tara Road incident, SAPREF reported another leak in their fuel oil pipeline between Badulla Drive and Grays Inn Road, Durban South. The fuel oil pipeline was shut down for inspection which revealed 98 defects involving 70% or more decrease of wall thickness, 42 defects involving between 60% to 70% decrease of wall thickness and 98 defects of 50% to 60% decrease of wall thickness. SAPREF then repaired patched of the pipeline over a length of 11 km. 2 km of pipeline was replaced completely. Six months later on the 14<sup>th</sup> January 2002, tests revealed new oil spills on the same pipeline.

SAPREF's research into its other 6 pipelines, reveal 8 defects involving 70% or more deterioration of pipeline wall thickness, 4 defects involving between 60% to 70% deterioration of wall thickness and 19 defects of between 50% to 60% deterioration of wall thickness.

Requests to replace the entire pipeline have not been granted.

## **5. Shell in Nigeria**

The Niger River Delta, a 70 000 square kilometer region on the south western coast of Nigeria, West Africa is an important life sustaining natural resource. It contains Africa's largest wetland and one of the Africa's largest coastal mangrove forests. Nigerians has cultivated it's rich soil producing rice, sugar cane, cassava, palm oil, yams and beans to feed families and communities for decades. It has more varieties of fresh water fish species than anywhere in West Africa.

The Niger Delta also contains an estimated proven oil reserves of 22,5 billion of the worlds best quality crude oil. In addition to this, the Niger Delta also has natural gas, estimated at 124 trillion cubic feet, making it the world's 9<sup>th</sup> largest source.

The Royal Dutch Shell was the first oil company to be involved in Nigeria. In 1937, it had exclusive exploration and prospecting rights. In 1956, Shell first discovered oil and two years later it was producing oil from its Oloibiri well in Nigeria. After independence, the Nigerian Government transferred ownership of mineral rights to the Nigerian Government. Today, the Nigerian National Petroleum Corporation, through joint ventures with oil companies manages oil development in Nigeria. However, oil companies like Shell manage the day to day operations of oil extraction and development.

The Shell Petroleum Development Company of Nigeria is the largest producer, producing 900 000 barrels per day.

Oil Production has been at the centre of the continuing civil conflict in Nigeria since independence in 1960. In the past Nigeria produced enough food to feed its people as well as to export. Today it's economy is dependent on oil production. The agricultural sector is unable to produce enough food, forcing Nigeria to import food to feed its people. With its reliance on oil, so too grew its civil instability, corruption and economic exploitation.

There is documented evidence of spill, leaks, and well blow outs that occurred throughout the region for the past 30 years. According to the US Energy Information Centre, more than 4000 oil spills have been recorded in Nigeria's Niger Delta over the past four decades.

In July 1970 Shell's Bomu 11 oil well in the Tai/Gokana area of Ogoni, Nigeria blows out and flows over land. In March 1998 a crude oil spill of more than 840 000 barrels occurred at Shell's Jones Creek Flow Station due to a pipeline failure. In 2000, Shell Nigeria reported 340 oil spills resulting in 30,751 barrels of oil being spilled.

#### **The Case of Ken Saro Wiwa:**

Ken Saro Wiwa was a community leader of the Ogoni people of eastern Nigeria. In 1990, Ken Saro Wiwa founded the Movement for the Survival of the Ogoni People. The Movement adopted an Ogoni Bill of Rights demanding political autonomy and accused Shell of participating in the genocide of the Ogoni people. In October 1990, a peaceful protest took place outside Shells Umuechem facility in Port Harcourt. Police killed 80 unarmed demonstrators and destroyed 495 homes. The demonstration was organised by the Umuachem youth who called for electricity, water, roads and other compensation due to oil pollution of crops and water supplies.

In April 1993, Ogoni farmers protested in front of earth moving equipment used to lay pipelines for Shell across Ogoni farm land. The Nigerian military was summoned to the demonstration. One demonstrator was killed and another injured.

In June 1993, a pipeline leak at a Shell flow station resulted in crude oil being spilled over Ogoni farm land into water sources in Korokoro. The leak continued for forty days without any response from Shell. Throughout this time Ken Saro Wiwa and other Ogoni leaders were detained several times. The Nigerian Government also set up a special task force to deal with the Ogoni crisis. In May 1994, four Ogoni leaders were murdered by a group of youths who accused them of being government collaborators. Ken Saro Wiwa and other Ogoni leaders were arrested in connection with the murders, despite lack of evidence. The arrests and Government violence led to major protests by the Ogoni people.

While in prison Ken Saro Wiwa received the Right Livelihood Award, the alternative Nobel Peace Prize.

On the 31<sup>st</sup> October 1995, Ken Saro Wiwa was sentenced to death by the Nigerian Tribunal. On the 10<sup>th</sup> November he and eight others were hanged, despite international appeals.

## **6. Recommendations**

Despite the Shell Group's public commitment to sustainable development and human rights, communities are yet to benefit. The overriding recommendation that communities have put to the Shell Group is that they should put people's health and the environment first, before profits.

The Shell Group should implement the highest international operating, environmental, ethical, workplace and business practice standards in every country that it operates in. The Shell Group should provide access to information about accidents and incidents to communities. Open communication and transparency will positively reward the company's public image as well as build trust between the Company and communities. The Shell Group must address and invest in rehabilitating the impact of its past actions on people and the environment.

## **7. Links**

Following are other reports which have been published in the past year which have further information on Shell's operations in South Africa and abroad:

1. [\*\*Failing the Challenge - The Other Shell Report 2002\*\*](#)
2. [\*\*Leaking Pipelines – Shell in South Africa\*\*](#)
3. Comparison of Refineries in Denmark & South Durban in an Environmental & Societal Context: A 2002 Snapshot; South Durban Community Environmental Alliance - coming soon.
4. [\*\*Ground-zero in the Carbon Economy: People on the petrochemical fence-line\*\*](#); South African People and Environments in the Global Market.
5. [\*\*The groundWork Report 2002, Corporate Accountability in South Africa\*\*](#)