

Biodiversity

Growing populations and rising wealth are putting many sensitive and biodiversity-rich ecosystems under threat. Meeting the world's need for more and increasingly diverse energy supplies risks adding to the pressure. New technologies, partnerships and ways of working are needed. We are committed to helping and are making slow, but steady, progress in turning that commitment into action.

As the 2005 Millennium Ecosystem Assessment made clear, governments urgently need to find the right balance between development and nature conservation. The biggest problem is encroachment by farming and housing. However, energy production also plays a role, from the search for oil and gas in sensitive areas, to the extra land needed for energy infrastructure and, increasingly, for energy crops.

We were the first energy company to adopt a biodiversity standard. It requires us to respect protected sites, work with others to maintain ecosystems and seek partnerships to conserve biodiversity. We committed not to explore or develop for oil and natural gas in natural World Heritage Sites – more than 170 locations recognised by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). We also committed to follow strict operating practices in places designated by the World Conservation Union (IUCN) as Category I–IV protected areas and in other areas of high biodiversity value. We are currently working on standards for sourcing biofuels for transport sustainably (see box).

Turning commitments into action

Biodiversity checks are now included in the social and environmental impact assessments that are done at an early stage in our projects. Instructions for operating in areas of high biodiversity value are now included in our HSE Management System.

We also require operations in IUCN Category I–IV protected areas to have biodiversity action plans. These plans include measures to conserve or enhance local biodiversity and checks that these measures are implemented and effective. By early 2006, all these operations – in Brunei, the Netherlands, Nigeria (see box) and the USA – had plans in place. We aim to have similar plans in place for operations in other areas of high biodiversity value by the end of 2007.

However, plans are only as good as our ability to execute them. Spreading awareness and skills of biodiversity management to key project staff remains a priority. Our library of case studies, which was updated and expanded in 2006, is helping us do this. So is the biodiversity network, which shares examples of good practice between project teams. We are also developing training programmes on implementing biodiversity action plans.

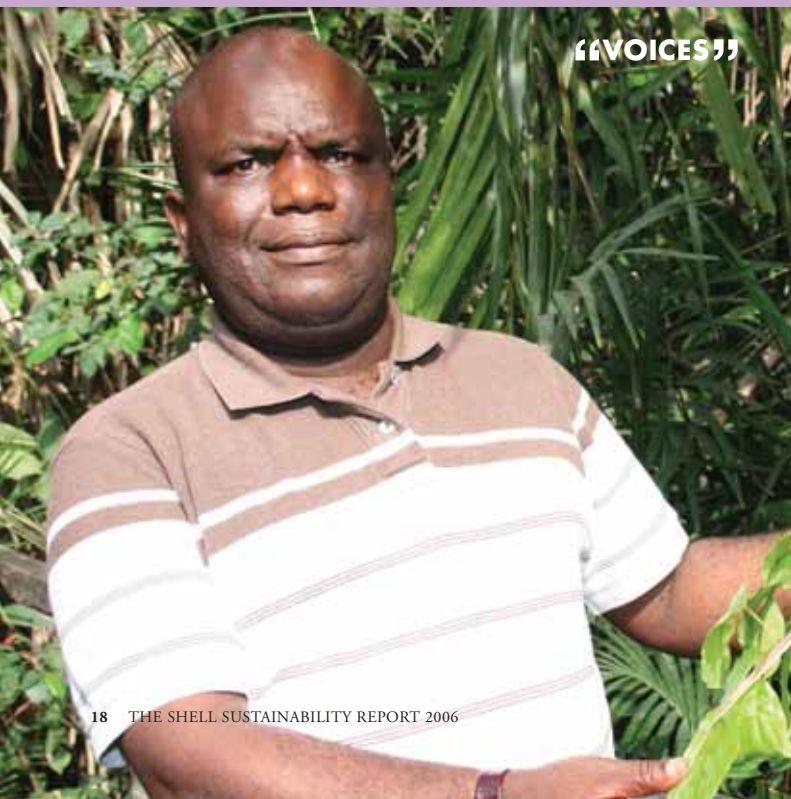
Working with others

To support global biodiversity conservation and reduce biodiversity impacts around our operations, we work with (and learn from) more than 100 scientific and conservation organisations in 40 countries. Details of our work with some of these organisations is available on the web.

Additional web content:

- Our approach to biodiversity in practice (case studies).
- Our work with others to promote conservation.
- Protecting biodiversity at operations in IUCN protected areas.

 www.shell.com/biodiversity



BIODIVERSITY ACTION PLAN: NIGERIAN INDIGENOUS FORESTS

In the Niger Delta, we have concessions to extract oil and gas in two indigenous forest reserves that are IUCN protected areas. We have not produced in these areas for many years, but have dormant oil wells in one and active pipelines across the other. The paths we built when we were producing here may have also provided access to these areas for others and made illegal logging and hunting possible.

In 2005, the SPDC joint venture launched two biodiversity action plans to preserve the forest and develop alternative sources of income for the local community.

The plan was drawn up with farmers, local groups and the [Editor: state] government. Actions include programmes to raise awareness of biodiversity in the local community, and projects to develop alternative sources of revenue from the forests. Under the plan, control over logging has been moved from the government to a community forest management committee. We will fund their delivery. The forest-based communities own the plans and are responsible for implementing them.

Jonathan Amakiri
PRINCIPAL ENVIRONMENTAL ADVISOR, SHELL NIGERIA



Flying over the Mackenzie Delta, Canadian Arctic, location of Shell Canada's Niglintgak gas project.



BIOFUEL AND BIODIVERSITY

Governments are increasingly turning to fuels from plants and organic waste (biofuel) to help with energy security and climate change. For example, the 2005 USA Energy Bill set aggressive new goals for biofuels. The EU aims to have 5.75% of transport coming from biofuels by 2010.

There are risks however. Making fuel from crops will increasingly compete with food production for water and scarce land. That could lead to rainforests being cut down and fragile wildlife habitats being threatened. The USA goal will likely be met mostly with ethanol from corn that otherwise would have fed cattle. It is estimated that an extra 1.6 million hectares of cropland will need to be found, somewhere, to replace that corn. To meet the EU target, between 10 and 30% of the region's agricultural land could be needed to grow energy crops.

We are working with NGOs, governments, suppliers and industrial consumers on standards for producing energy crops sustainably, for example through the Roundtable on Sustainable Palm Oil. In the meantime, we are monitoring our biofuel suppliers against our biodiversity standard and Shell General Business Principles. We are also investing in advanced second-generation biofuels from wood waste and straw that do not compete with food production (page 15), and could help reduce demand for corn and palm oil.



EXPLORING OFF ALASKA'S NORTHERN COAST

We are exploring for oil and natural gas in the Beaufort and Chukchi Seas off Alaska's northern coast. These are not national or IUCN protected areas. There has been oil and gas activity here for many years. They are remote, however, with a harsh and rapidly changing climate, large populations of whales, walrus and seals, and local communities who rely on subsistence hunting. We are committed to moving with great care, following our biodiversity and Health, Safety and Environment (HSE) standards and learning from other Shell projects with experience operating in arctic conditions. We continue to mitigate and monitor the impact of our activities and consult and work with local communities. In 2005, we completed an impact assessment in preparation for seismic exploration. This study highlighted the need to minimise disturbance to the bowhead whales that spend the summer months in this region. In response, we implemented a marine mammal monitoring and impact mitigation programme that employs experienced local people as observers. We completed some seismic exploration in the Chukchi Sea in 2006, but in the Beaufort Sea, no work was done because of heavy sea ice. In 2007, we plan to conduct more seismic tests in the Chukchi and, if conditions allow, in the Beaufort as well. We also plan to start exploratory drilling in the Beaufort Sea in 2007, once we have complied with government requirements and also completed an impact assessment in line with Shell internal requirements for this work.