

# Climate change and energy

## The anticipated policy and physical implications of climate change present a significant potential risk to our business

Identifying appropriate responses that balance the needs for economic development, job creation, energy security and greenhouse gas emission reductions is one of the most important challenges we currently face. As a carbon-intensive company we recognise that we have a particular responsibility and opportunity to contribute to finding solutions.

### Our approach to managing the risk of climate change

We have a comprehensive climate change response strategy, and in 2009 increased our voluntary greenhouse gas (GHG) emissions reduction targets to a more ambitious level. Over the past year we revised our GHG mitigation strategy, which rests on four main pillars:

- improving the carbon and energy efficiency of processes, thereby reducing GHG emissions;
- increasing the use of natural gas for energy generation;
- researching the potential for offsetting GHG emissions in Southern Africa, which could include renewable energy projects; and
- monitoring and influencing the development of carbon capture and storage (CCS) as a long-term solution.

The CEO and Group Executive Committee (GEC) are ultimately accountable for implementing our climate change strategy. A dedicated project team, steered by a mandated committee, is responsible for executing the strategy. The mandated committee ensures our response to climate change is integrated with our core strategy, and co-ordinates our engagement with government and other stakeholders on all regulatory and related climate change developments. The SHE Corporate Centre is accountable for GHG data management as well as setting and reporting performance against targets.

Sasol has been voluntarily reporting GHG emissions since 1996. Since 2002, we have reported in accordance with the GHG reporting protocol of the World Business Council for Sustainable Development and the World Resources Institute ([www.ghgprotocol.org](http://www.ghgprotocol.org)). Recently we undertook a review to align our reporting with the Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines. We have also participated voluntarily in the CDP (formerly known as the Carbon Disclosure Project) since its launch in South Africa in 2007.

During 2013, in preparation for engagements with the Department of Environmental Affairs (DEA), we undertook a rigorous review of our GHG data. In response to the findings of this review, we improved our methodologies for

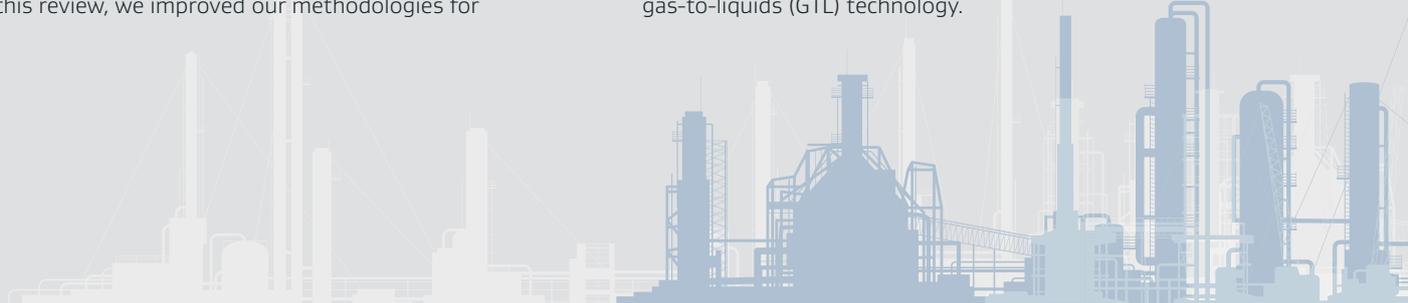
calculating GHG emissions and included smaller sources of emissions that were previously omitted. As a result, last year we issued a restatement of Sasol's global GHG emissions for the past decade. We also developed a measurement, reporting and verification (MRV) standard for the group, aligned to international best practice, which is now fully utilised by our various operations.

### Reviewing our GHG emissions reduction targets

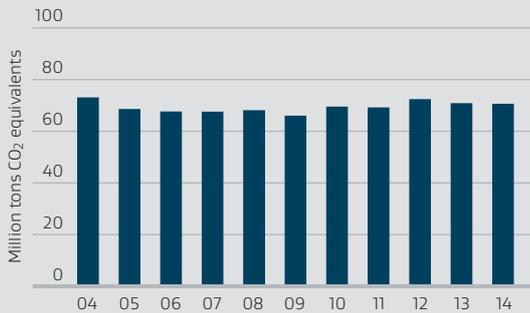
In 2009, we voluntarily committed to reducing the GHG emissions intensity of all our existing operations by 15% by 2020, from a 2005 baseline. We also committed to reduce our absolute GHG emissions by 20% for all new coal-to-liquids (CTL) plants commissioned before 2020, and by 30% for new CTL plants commissioned before 2030, with the average 2005 CTL design as a baseline.

Given the changes in our baseline with the sale of Arya Sasol Polymer Company and Sasol Solvents' Germany operations, and in line with recent policy developments, we initiated a review of our GHG intensity targets. It was determined that long-term company-wide targets are no longer appropriate for measuring our progress in respect of GHG mitigation, because of different regulatory policies in the regions we operate. It will therefore be closed out.

An internal process to develop separate GHG mitigation targets for our South African and international operations is underway. Joint Ventures (JVs) where we do not have operational or management control will not be included in our future overall target setting, but will be encouraged to set their own targets. The development of separate targets for our global operations will assist in isolating our energy-intensive operations from our lower-carbon operations, thereby providing for a more meaningful assessment of our progress in meeting external policy requirements. The revised GHG targets will also take into account any energy efficiency targets that are being developed as part of a separate regulatory initiative. These revised targets will be cascaded to business unit level in Sasol's new operating model. The two absolute CTL design targets have become redundant due to the shift in the group strategy towards gas-to-liquids (GTL) technology.



**Total greenhouse gas emissions for Sasol**  
(million tons CO<sub>2</sub> equivalents)



### Participating in climate change policy processes

Sasol supports the development of government policies that promote a transition to a lower-carbon economy, and that are based on sound analysis using clear and accurate information. Specifically in South Africa, we believe that government policy should recognise the inherently energy-intensive and coal-based nature of the economy in providing for the country's developmental and energy security needs. In South Africa, where most of our GHG emissions occur, we continue to participate actively in government policy activities specifically aimed at shaping the objectives of the National Climate Change Response White Paper. Over the past year, Sasol, together with other industry, government and non-governmental organisations, collaborated on a study aimed at determining South Africa's GHG mitigation potential. This study provides the basis for determining sector and company-specific emission budgets. We also provided further detailed inputs to National Treasury on the carbon tax design policy. During the 2014 budget review speech, National Treasury indicated that emission budgets (as proposed by the DEA) and the carbon tax would be integrated, representing a step forward in the development of a holistic carbon mitigation approach for South Africa. We also continue to participate in the international climate change policy development process.

### Investing in reducing emissions

Intensified efforts to improve energy efficiency management and operating practices over the last few years have resulted in improvements across our operations. The 2014 utility energy intensity index for our operations in South Africa for the year under review improved by a further 3%, following on the 6% improvement achieved in 2013. These improvements enabled Sasol South Africa's overall energy cost increases to remain below the energy inflation rate. We continue to pursue further optimisation in all operating units and additional improvements are possible if the current plant stability performance is maintained.

Energy efficiency reporting practices will be extended and improved from the 2015 reporting period in line with internationally accepted best practice, expected requirements of the South African Department of Energy, and in support of Sasol's new operating model. Work is underway to prepare our South African operations for new energy efficiency management and reporting legislation, which is expected to be promulgated during the next calendar year.

### Managing the risks associated with adaptation

Over the past year, we completed the second phase of a climate change adaptation study that examined how future risks and opportunities associated with extreme weather events could be amplified by climate change. The study identified potential adaptation options for some of our more vulnerable operations. These outcomes will inform the development of a group adaptation strategy. Ultimately, we aim to ensure that our response to climate risks is effectively embedded across the group. A detailed climate risk assessment at our North American operations was concluded in March 2014. Key lessons learnt in respect of implemented adaptation measures are being used in building resilient operations across the group.

We also undertook a detailed assessment of the readiness of Sasol's plants in South Africa for extreme weather. The aim of the project was to ensure that our plants can withstand these events and, where necessary, to develop appropriate early warning systems and improved emergency response measures. The benefits of the study will be shared more broadly with potentially affected local communities.



Our online report at [www.sasolsdr.com](http://www.sasolsdr.com), includes detail on our Scope 1 and Scope 2 GHG emissions by country; a review of our policy position on the South African carbon tax; and a review of various energy efficiency initiatives. A detailed account of some of the specific risks and opportunities of climate change is available in our CDP response on the CDP website ([www.cdproject.net](http://www.cdproject.net)).

