

CLIMATE CHANGE

A REAL STRATEGY FOR A REAL FUTURE





Caption - front cover:

The regreening initiative at our Thabazimbi Mine is one of our many initiatives that show how we are continuing to make a real difference to the environment.

Note: All Rand/US Dollar conversions contained in this brochure are based on the exchange rate on 11 January 2011, of US\$1 = R6,848

**OVER THE NEXT TEN YEARS, OUR
AIM IS TO ACHIEVE THE MAXIMUM
ECONOMICALLY SUSTAINABLE
ENERGY AND CARBON SAVINGS IN
OUR BUSINESS AND IN THE USE
OF OUR PRODUCTS**

WE FIRMLY BELIEVE THAT NOT ONLY DO WE WANT TO BE PART OF THE SOLUTION, BUT THAT WE CANNOT AFFORD NOT TO BE

We can all argue over climate change: whose fault it is; what should be done about it; who should pay for it. We at Anglo American do not have that luxury. For us, it is safer to assume that the climate is changing, rather than hoping that it is not. We believe that this is a major challenge and one that is not going away. Therefore, the potential impacts need to be understood and addressed. We firmly believe that not only do we want to be part of the solution, but that we cannot afford not to be.

Every risk needs to be assessed. How large is it? What harm could it cause? Only once we have assessed the answers to these questions, can we undertake the correct action.

RISKS

Climate change poses three main strands of risk to us as a company:

THE FIRST STRAND

Energy costs money

Any increase in energy costs makes doing business more expensive. In South Africa we face energy price rises of 25% a year until 2012 and we believe that prices will continue to rise significantly in all markets.

Carbon becomes taxable

Taxes on carbon emissions are already in place or are being planned in the European Union, Australia, New Zealand, South Africa and the USA. Eventually there could be a direct taxation on our own carbon emissions, or a tax per tonne of products such as coal. There might be more indirect taxation, a type of import duty on the production of raw materials such as iron ore. Whatever the manner of imposing the tax, the effect will be felt commercially.

Measured by the footprint

Our carbon footprint is around 19 million tonnes a year – mainly from coal-fired electricity in South Africa and methane from our Metallurgical Coal operations in Australia. If the last Australian tax proposals had been approved, they could have cost the company around R6,8 billion (US\$1 billion) over the next decade, significantly impacting on our profits. It is clear that we will need to reduce our carbon footprint before 2020, which is when we believe many carbon taxation schemes will come into effect. We might well have to achieve some challenging carbon reduction targets to avoid exposure to taxation.

THE SECOND STRAND

Compliance is a chain

The second strand of risk is to our markets, and we believe that by 2020 the global picture will be very different. By then we expect that most supply chains will be actively involved in reducing their carbon footprints. Suppliers as well as customers will change technology – substituting coal for gas, for example – or they will use alternative sources to lower their carbon profiles.

OUR FOCUS IS ON SHORT-TERM PERFORMANCE IMPROVEMENT, BUT AT THE SAME TIME WE ARE PREPARING FOR FUTURE POLICY DEVELOPMENTS

This could also result from customers developing new products, using copper rather than energy-intensive aluminium.

We will need to be able to respond to reductions or increases in volume for certain products. We will also need to respond to opportunities that could arise from, for example, the use of platinum catalysts in new carbon-reduction technologies such as fuel cells, a technology we have long been researching jointly with Johnson Matthey, a leading supplier of autocatalysts.

THE THIRD STRAND

Changing with the climate

Climate change might have a significant physical impact leading up to 2025 and beyond. Because we invest in long-term assets, it is important for us to understand our vulnerabilities. Where sensible, we should introduce climate adaptation measures early on rather than adapting infrastructure more expensively at a later stage.

Whether it be by flooding or drought, both our production and the communities in which we operate could be affected. Disease patterns could alter. Changes in sea level could affect our ability to load or unload our bulk products.

In addition to the three major risk areas, we also face scrutiny from stakeholders. They need to know that we are aware of the challenges we face, and they want to see how we intend to tackle them.

CLIMATE CHANGE

We have developed a strategy. Our focus is on short-term performance improvement, but at the same time we are preparing for future policy developments.

OUR AIM

Over the next ten years, our aim is to achieve the maximum economically sustainable energy and carbon savings in our business and in the use of our products.

This will require:

- carbon/energy performance management, as well as standards and targets
- carbon costs to inform our business decisions
- development of the capability to trade carbon mitigation credits
- use of climate adaption risk models
- understanding of the risk and the opportunities in product markets

Our strategy ensures focus and coherence, and it will be implemented in three phases.

WE ARE PILOTING A NEW CARBON AND ENERGY MANAGEMENT TOOL

OUR STRATEGY

PHASE ONE

The first phase is all about knowing where we are now so that we can determine our future options.

For example, we need to be:

- able to measure our carbon and energy savings
- capable of setting targets relative to risks and opportunities on-site
- aligned with the targets of our host countries
- devising a Group perspective to carbon pricing

To do this, we are piloting a new carbon and energy management tool throughout the Group. This will ensure that every site understands the cheapest methods that it can employ to save energy and carbon.

In addition, we will ensure that:

- where appropriate, the cost of carbon is integrated into business decisions
- business units understand the value at risk in product markets
- risk and mitigation plans are in place

Our plans define our future

We need to develop high level plans for adapting to climate change. Currently we are working with the UK Meteorological Office and Imperial College London on modelling the potential impact of climate change on the Minas-Rio project in Brazil and on our operations in South Africa.

If we are facing carbon taxation, we need to:

- know how carbon taxation might affect different regions
- have the capability to trade carbon credits within Anglo American as well as on the external market to lower our overall carbon compliance costs
- be able to estimate the potential for carbon offsetting

In addition, we will:

- explore ways of collaborating with our stakeholders
- help local communities adapt to the effects of climate change
- establish low-carbon technology research
- be involved in the development of public policy to help maximise the effectiveness and minimise the cost of compliance

- develop a carbon-sensitive culture within our business

Curbing methane emissions

Methane occurs naturally in all coal mines and is a greenhouse gas 21 times more damaging to the environment than carbon dioxide. It accounts for 17% of our greenhouse gas (GHG) emissions.

A R9 million (US\$1,3 million) methane flaring project at the New Denmark Colliery in South Africa will reduce the mine's annual emissions of the gas by 15%. Under the Kyoto Protocol's Clean Development Mechanism, and through the sale of Certified Emission Reduction credits, the project will pay for itself in three years and generate R54,8 million (US\$8 million) in revenue in the first decade. In addition coal-seam methane-fired power stations at our operations in Australia generate 77 megawatt of power.

In responding to climate change there will undoubtedly be a role for everyone. We will need more fresh ideas, such as the project at the New Denmark Colliery to help us address this challenge.

WE DO NOT HAVE ALL OF THE ANSWERS, BUT WE DO HAVE A STRATEGY. WE HAVE A POLICY AND WE KNOW OUR DIRECTION OF TRAVEL

PHASE TWO

This second phase will see us:

- minimising our exposure to – and the cost of compliance with – emerging carbon policies
- minimising risks and maximising business opportunities in our product markets
- building adaptation measures against the impacts of regional climate change
- investing in carbon offset projects and carbon trading
- piloting new techniques and technologies to re-engineer the business in response to carbon-related risks and opportunities
- working with partners on saving carbon

PHASE THREE

When we reach phase three we will be implementing the appropriate measures with all the expertise we will have accumulated.

By this time:

- programmes such as carbon offsetting will be delivering real commercial benefits

- adaptation measures will have been taken against key climate risks
- we will be accessing new opportunities through new products in new markets
- a carbon and energy behavioural change programme will be embedded in the culture of the workforce

REAL FACTS

Pumps consume about 20% of the world's total electrical energy, and are on average only 15%-40% efficient.

On average, an electric motor running for 96 days can cost more than the original purchase price.

Up to 25% of the heat in buildings can be lost through the roof.

Truck operators can make fuel reductions of up to 30% if they employ the right techniques.

A modern compact fluorescent lamp lasts eight times longer than a conventional incandescent lamp.

The impact of a global temperature rise of 2°C can be modelled, but this is not possible for temperature rises of 5°C, even with a computer that can make a trillion calculations per second, because the impacts are so varied and extreme.

Our copper, nickel and Brazilian iron ore businesses account for 38% of our total energy use, but only 9% of our greenhouse gas emissions because of the use of electricity from renewable sources such as hydroelectricity.

Compressed air is ten times more expensive to produce than electricity, and is one of the least efficient ways of transmitting energy between two points.

Reducing compressed air working pressure by one bar on a 55 kilowatt compressor could reduce energy costs by up to 10%.

Even when compressors are idling, they can still consume up to 40% of the energy they use at full capacity.

Caption - back cover:

We do not just mine raw materials, and then ship them out. When we close a mine, our policy is to restore the area as far as possible and help the local community plan a sustainable future.

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