



# ANGLO AMERICAN CREATING ENDURING VALUE

REPORT TO SOCIETY 2004

# FOREWORD

## MESSAGE FROM THE CHAIRMAN

Sustainable development is central to Anglo American's future. Alongside our record financial performance I am pleased to note that 2004 was a year of significant advance for sustainable development within our businesses. This can be measured, quantitatively, in terms of the initiatives outlined in this Report but also, qualitatively, from my visits to operations in many different parts of the world. At site level, I increasingly find a sense that the different parts of the jigsaw are coming together and some real enthusiasm for what it means for the way we do business. In the jargon, we are increasingly integrating sustainable development concepts into our core business practices.

I would single out four strands of activity from the overall programme in 2004. First, the inception of our energy efficiency programme, based on work with the Rocky Mountain Institute. Energy accounts for 7% of our operating costs and this programme, taken with our work on carbon management, shows how more efficient resource use also makes good business sense. Second, we continued to take an active role in combating the impact of HIV/AIDS, especially in southern Africa, in our operations and in the communities around them. Aside from the humanitarian imperative, this is a significant investment in preserving the human capital of our businesses. Third, our socio-economic

assessment toolbox (SEAT) was put to work in the field. It is being used in over 30 operations around the globe – increasing our understanding of the needs and priorities of local communities and of how we can improve the developmental impacts of our work. Finally, we strengthened our risk management processes by initiating a new sustainable development risks and opportunities assessment system. This complements the Turnbull system and its output was particularly valuable because of the cross-disciplinary discussions generated at site level.



Achieving sustainable development requires us to understand society's expectations. As this Report makes clear, to do that effectively requires us to engage with our stakeholders at all levels – from investors through to communities. At an international level we have done this through involvement in groups like the International Council on Mining and Metals (ICMM) and the World Business Council on Sustainable Development. We have joined the Global Compact and strongly endorse the 10 principles. We are also closely involved in the Extractive Industries Transparency Initiative and, latterly, the Voluntary Principles on Security and Human Rights. These organisations and initiatives all provide an opportunity to learn from, and exchange experiences with, other international companies and to engage with governments and civil society groups.

In business we tend to be most comfortable when we are in control of events. However, in some areas, our managers are having to learn new skills to enable them to work with others. We are finding that partnerships offer solutions which are beyond our capacity to deliver alone – hence, for example, Mondi's work on wetlands with WWF, our community partnerships on HIV and AIDS with governments and NGOs or the involvement of Casa de la Paz in our community development work in Chile. There must be boundaries to corporate responsibility. But, especially in developing countries, we cannot disengage from the societies in which we work. Outside our immediate business activities we cannot, and should not, be the prime movers in tackling corruption or human rights abuses; in countering HIV and AIDS or in planning regional economic development – but in each case we have a part to play. In playing that part we make ourselves more acceptable as an investor, as an employer, as a neighbour and as a business partner – and, thereby, reduce risk and increase the sustainability of our business.

In September, the United Nations will review progress towards the Millennium Development Goals. We are committed to improving the developmental impacts of mining. As the Commission for Africa's Report makes clear, responsible businesses have a key role in poverty alleviation. We are a significant investor in developing countries and, as illustrated by this report, we are increasingly coming to understand our part in building enduring capacities – through good employment practices, training, environmental stewardship, local business development and partnerships.

In 2005, there will be no shortage of new challenges from the global to the local. But if I were to identify one enduring priority, it is to ensure that we improve our safety performance and, in particular, to resume our progress towards workplaces free from fatalities or serious injuries.

Sir Mark Moody-Stuart, Chairman



# CONTENTS AND CONTACTS

<b>SUSTAINABLE DEVELOPMENT</b>	<b>2</b>	
Message from the chief executive	2	
Scope of this report	4	
Reporting and assurance	4	
Sustainable development programme	5	
Targets	7	
Maps of operations, financial highlights	10	
<b>GOVERNANCE AND ETHICS</b>	<b>12</b>	
<b>ECONOMIC VALUE</b>	<b>14</b>	
Empowerment through enterprise	16	
<b>HUMAN CAPITAL</b>	<b>19</b>	
Safety is our first priority	19	
Occupational health for all	22	
Building our people	24	
<b>SOCIAL CAPITAL</b>	<b>30</b>	
Overview	30	
Corporate social investment	33	
HIV and AIDS	37	
Human rights and ethics	42	
Indigenous peoples	43	
<b>NATURAL CAPITAL</b>	<b>44</b>	
Environmental overview	44	
Air quality	45	
Energy use	47	
Water use	49	
Land stewardship	52	
Biodiversity	53	
<b>MAN-MADE ENVIRONMENT</b>	<b>56</b>	
Waste reduction	56	
Research and development	57	
Cultural heritage	59	
<b>ASSURANCE AND DATA</b>	<b>60</b>	
Reporting and assurance	60	
Data tables	62	
Glossary	66	
		<b>FOR FURTHER INFORMATION, PLEASE CONTACT</b>
		Anglo American plc
		20 Carlton House Terrace
		London SW1Y 5AN
		United Kingdom
		Tel: +44 (0)20 7968 8888
		Fax: +44 (0)20 7968 8500
		<a href="http://www.angloamerican.co.uk">www.angloamerican.co.uk</a>
		Dorian Emmett
		Head of
		Sustainable Development
		<a href="mailto:demmett@angloamerican.co.uk">demmett@angloamerican.co.uk</a>
		Edward Bickham
		Head of External Affairs,
		Social and Community Issues
		<a href="mailto:ebickham@angloamerican.co.uk">ebickham@angloamerican.co.uk</a>
		John Groom
		Head of Safety, Health
		and Environment
		<a href="mailto:jgroom@angloamerican.co.uk">jgroom@angloamerican.co.uk</a>
		Karin Ireton
		Head of
		Sustainable Development:
		Markets and Economics
		<a href="mailto:kireton@angloamerican.co.za">kireton@angloamerican.co.za</a>
		Editor: Report to Society

# SUSTAINABLE DEVELOPMENT

## CREATING ENDURING VALUE

### MESSAGE FROM THE CHIEF EXECUTIVE

Anglo American had, for the most part, an excellent year in 2004. We achieved record financial results and made real progress in addressing the challenges and exploring the opportunities which sustainable development presents.

I must, however, report with deep regret the deaths of 49 people (21 employees and 28 contractors) in our operations last year. This is particularly distressing because we have been making steady progress in reducing the frequency of deaths and injuries over the last few years. Through concerted effort the Group's lost-time injury frequency rate has reduced by 65% since 2000 and our businesses are committing to challenging future targets.

Safety is a focus of the board of directors as well as the executive board, all businesses and our senior management. We continue to urge every employee to make safety their first priority and to ensure that they and their colleagues work safely.

### Outlook

Over the past five years we have been through significant change perhaps best illustrated by over \$15 billion of acquisitions and \$9 billion of disposals (including \$2.1 billion in 2004). While this has posed some reporting challenges, it has left us in a good position to achieve our strategic goals.

We now have a much better balanced portfolio of high quality natural resources assets in 65 countries (60 in respect of the managed companies

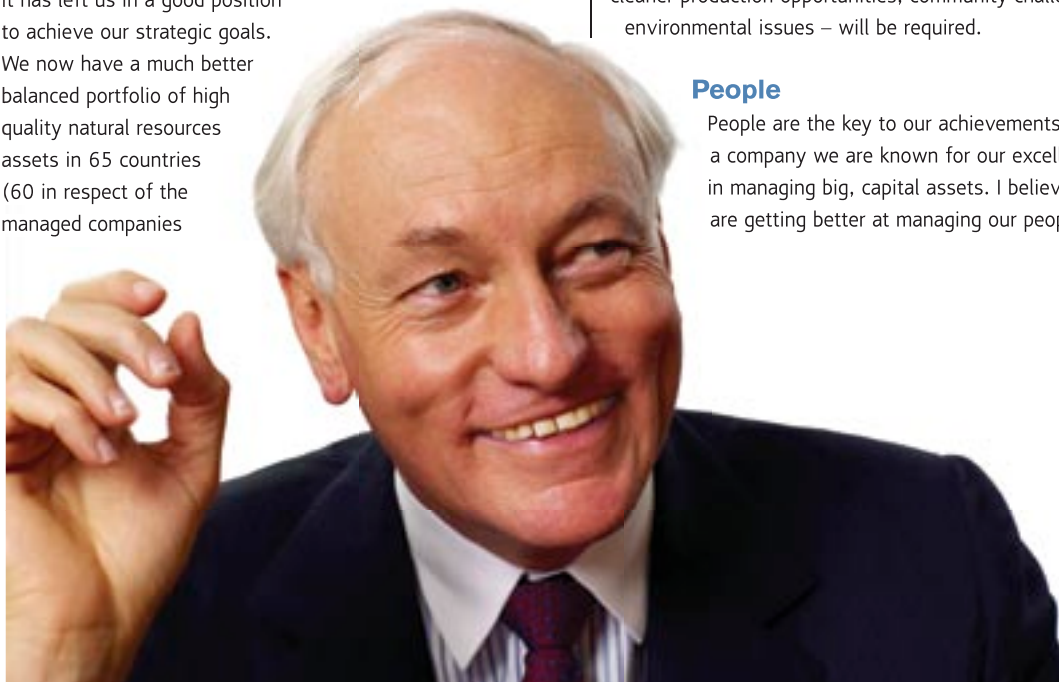
which are the primary focus of this report), as well as one of the best investment pipelines in the industry. Our outlook for the medium term is encouraging, with economic growth in China and economic stability in the industrialised countries being important factors.

We are focused intensely on improving the operating efficiency of our assets and on innovation, which has become a watchword in the business and is being encouraged at business unit as well as corporate level, through innovation zones, knowledge sharing and research and development. Efficiency and cost improvement initiatives of \$554 million were achieved in 2004 and we have targeted at least a further \$250 million for 2005. This scrutiny is also causing us to take a hard look at the efficiency with which we extract and process resources. An energy project launched in the Group last year with the help of the Rocky Mountain Institute has highlighted priority opportunities for efficiency improvements.

Water availability, energy costs and supply security now pose real challenges; greater efficiency in the use of these resources is needed and, indeed, expected. As a major resource user this is an area of opportunity for us. The investment committee, which evaluates all new major projects, now requires an evaluation of the cost of carbon and emissions reductions strategies in all new project proposals. During 2005, a more complete sustainable development assessment – including cleaner production opportunities, community challenges and environmental issues – will be required.

### People

People are the key to our achievements. As a company we are known for our excellence in managing big, capital assets. I believe we are getting better at managing our people.



Our human resources strategy includes the development of existing staff – from literacy training to encouraging employees to complete their education and identifying and fast-tracking talent. I am delighted to report that our investment in young people has grown from 3,000 bursars, apprentices and trainees in 2002 to 6,000 in 2005. The diversity of our staff is a critical issue wherever we operate including, in particular, in South Africa, where progress is being driven by a newly appointed Transformation Committee chaired by Lazarus Zim, CEO of Anglo American South Africa.

### Creating enduring value

Sustainable development is increasingly becoming part of our business mainstream. Our goal is to create enduring value for our shareholders, our employees and our host countries. We have developed a number of new tools and methodologies which will give us a better understanding of the socio-economic impacts we have and the risks and opportunities which the sustainable development agenda presents. The risks and opportunities assessment as well as our socio-economic assessment toolbox (SEAT) work alongside our operational environmental responsibilities and biodiversity management initiatives. This combination of economic, environmental and social value constitutes the triple bottom line for any company.

Using these tools will enhance our ability to manage and prioritise sustainable development issues. In line with risk and stakeholder expectations, work continues on tougher, measurable targets in the environmental and resource efficiency areas and progress is reported through this report.

In South Africa, we have taken a determined leadership position in tackling the HIV and AIDS pandemic. Our programme is delivering gratifying results, with more than 94% of those on treatment able to return to normal work. Treatment costs and absenteeism due to illness are coming down and we are working hard at increasing the take-up of voluntary counselling and testing. Employees must know their status in order to access help. We received an award for global leadership from the Global Business Coalition on HIV/AIDS and were honoured that our chairman, Sir Mark Moody-Stuart, was invited to chair this coalition.

To continue to facilitate uptake of our sustainable development thinking and principles, Dorian Emmett, previously chief operating officer of Anglo Platinum, was appointed as head of sustainable development and we have reorganised the sustainable development team to clarify roles and accountabilities.

### Opportunities

We are developing an internal structure and strategy at the corporate level to enhance the Group's ability to take advantage of emerging opportunities in the greenhouse gas market and to grow our expertise in this area.

One of the benefits of being a global group is the opportunity to draw from a wide range of knowledge and experience. We have foresters from Russia and South Africa working together on silviculture and biodiversity,

our new operations in China are able to draw on UK safety practice and training and we can build on our South African experiences to fight HIV and AIDS in China, South America and Europe. I was fortunate to travel to China during the year and believe there are many opportunities for the Group there, particularly as the Chinese government is keen to import good safety and environmental practice along with foreign investment.

One of the strengths of the Group is our technical expertise and ability to develop greenfield and brownfield projects. In 2004, Buxton Cement in the UK (\$173 million) and Collahuasi's Rosario copper mine in Chile (\$288 million) were commissioned. The upgrade and expansion of the Ruzomberok pulp and paper mill in Slovakia (\$233 million) and the Anglo Platinum converting project (ACP) in South Africa (\$250 million) were also completed very successfully. In all of these projects, innovation, social and environmental considerations have played a key role. The sulphur dioxide (SO<sub>2</sub>) emissions from the ACP, for example, reduced by 72% over the year, with significant air quality benefits.

### Recognition

We have been delighted by the recent recognition given to our work in the sustainable development field. This encourages the people whose hard work and dedication are required for success in this area. It is also an important reminder that we work on this agenda in concert with our shareholders and our social partners – including governments and communities.

Anglo American was recognised as the top mining company in the Basic Resources Sector of the World Index of the Dow Jones Sustainability Index 2004-2005 and the STOXX Index – the benchmark for European resource sustainability investment funds. Anglo American, Anglo Platinum, Kumba Resources and AngloGold Ashanti were also included in the Johannesburg Securities Exchange SRI index. Our 2003 *Report to Society: Contributing to Sustainable Development* received a commendation from the UK's Association of Chartered Certified Accountants for articulating the sustainable development challenges for the business. The president of the Philippines, for the third year in a row, has especially recognised our exploration division's work on biodiversity.

### Progress

I believe Anglo American has made great strides in addressing key aspects of the sustainable development agenda, linking the risks and opportunities that it presents to our core business strategy. It comes as no surprise to the board that those operations which are handling their safety, environmental and social issues well are invariably also those that deliver excellent financial value to the Group. This report is a reflection of a dynamic Group, which has firmly committed to being part of a sustainable future. We hope that you will find it useful in getting to know more about Anglo American – and invite your feedback.



Tony Trahar, Chief Executive

## SCOPE OF THIS REPORT

Anglo American plc, with its subsidiaries, joint ventures and associates, is a global leader in the mining and natural resources sectors. It has significant and focused interests in gold, platinum, diamonds, coal, base metals, ferrous metals, industries, industrial minerals and paper and packaging as well as financial and technical strength. The Group is geographically diverse, with operations in Africa, Europe, North and South America, Australia and Asia.

### Managed companies

The report highlights the contribution to sustainable development through analysis, commentary, case studies and performance data, drawn from our managed companies. These are operations in which Anglo American has full authority to introduce, implement and control the Group's SHE policy, management and business principles and sustainable development strategy. As these documents and other policy documents have been published in previous years they are not repeated in this report but are available from our website:

[www.angloamerican.co.uk/susdev/](http://www.angloamerican.co.uk/susdev/)

The basis of reporting excludes Hudson Bay Mining and Smelting which was sold in 2004 and for which no data are reported. Kumba Resources, which was acquired in 2003, is included for the first time. The Bauernfeind operations, acquired by Mondi Packaging, will be included from next year. The independently-managed AngloGold Ashanti and Tongaat-Hulett are, where appropriate, included in the report. The inclusion is specifically highlighted, for example in the financial figures and in the HIV and AIDS section. The paper and packaging business unit underwent significant reorganisation during 2004 and has been rebranded as Mondi, with two divisions: Mondi Business Paper and Mondi Packaging. A full list of the managed operations is available on the data pages, arranged by business unit.

## REPORTING AND ASSURANCE

We have applied the Global Reporting Initiative's (GRI) 2002 guidelines in this report as well as the Draft Boundary Protocol. We report on all operations in which we have both management control and a majority stake, focusing on the parts of the value chain where we have strong control or influence. Exceptions to this are the inclusion of the financial figures and human resource statistics for independently managed subsidiaries in order to ensure comparability with the numbers presented in our Group financial report. Where possible, the reader is presented with both sets of figures. In addition, where we believe an issue could materially affect a stakeholder's perception, we include the information. See also reporting and assurance page 60, financial highlights and maps pages 10-11.

### Materiality

We believe that our key material risks and impacts are covered: those that measure our economic contribution; the effects our operations have on the natural environment and how these are managed and mitigated; the safety, health and development of our people; and the role we play

in contributing to the long-term quality of life of society. Our choices have been informed by our risk assessments, our ISO 14001 systems and commonly-held definitions of materiality.

We believe we fulfil the requirements of reporting in accordance with GRI guidelines, and draw the reader's attention to past and present GRI indices published in our reports and on our website [www.angloamerican.co.uk/susdev/reports.htm](http://www.angloamerican.co.uk/susdev/reports.htm). KPMG undertook an independent assessment of some of our data and systems – see page 61. Reporting requirements and indicators and indeed our data collection and management capability have matured significantly over the past years. This is an ongoing process. Where data have been refined and corrected, footnotes are provided to aid anyone with an eye for the finer detail.

We participated in the GRI and International Council on Mining and Metals working group that has recently negotiated a mining and metals reporting supplement and we will begin incrementally reporting on additional indicators during 2005 and 2006.

Past reports may be located on our website  
[www.angloamerican.co.uk/susdev/reports.htm](http://www.angloamerican.co.uk/susdev/reports.htm)



Chairman's Fund projects



## SUSTAINABLE DEVELOPMENT PROGRAMME

By their very size, scope and global distribution, Anglo American's activities have an impact on the human, economic and natural environments in which we operate. We are committed to working to extract and transform the natural resource capital wisely: creating jobs, building skills, contributing to social and physical infrastructure. We continue to work to conserve biodiversity and minimise pollution, waste and resource consumption for the benefit of our shareholders, our employees and the communities and countries in which we operate.

Our sustainable development programme evolves each year as we learn from experience and interactions with stakeholders, governments and non-governmental organisations. It is, and will remain, deeply rooted in our corporate strategy. Our vision is that the principles of sustainable development will become an instinctive part of everyday business. We must deliver fair value to shareholders based on competence, vision, minimising risks and maximising the opportunities.



Photo Mondi

**Natural capital, illustrated by this forest scene, is one of the five capitals discussed in this report**

### Sustainable development risks and opportunities

During 2004, we established a Group-wide project for identifying and ranking short, medium and long-term sustainable development risks and opportunities and ensuring consistency across the Group.

The first assessment recognised risk in the areas of employee safety, market access, the breadth and pace of legal change in Europe and South Africa, skills shortages, industrial action and rapid change due to growth, as well as employee health. These and the management actions flowing from our management systems are covered in this report.

The five capitals model, which identifies human, social, natural, economic and man-made capital, was used as our framework for analysis and has become the sustainable development model used by the Group.

A significant amount of refinement and stress testing is still required, including integration with the existing business risk processes. However, the process that was developed highlighted the value of structured, multi-disciplinary discussions at senior management level around the broader concept of sustainable development.

Further work is needed to improve the quality of opportunity assessment and simplify assessment of those risks that are difficult to measure and quantify. Once refined, the methodology will be adapted for use by operating companies.

### Engagement and partnership

Throughout this report we provide examples of partnerships to address key social and environmental challenges, as well as for research and innovation, and for policy development. At local level we have mutually beneficial partnerships with governments, community groups, international donors, our peers and non-governmental organisations. We are participating in the International Finance Corporation's review of its safeguard policies, and initiatives launched to give effect to the United Nations' (UN) millennium development goals. With the IUCN – the World Conservation Union – the UN Environment Programme (UNEP) and others, we are exploring biodiversity and mining legacy problems.

We work closely with many international agencies and are members of the International Council for Mining and Minerals, the World Business Council for Sustainable Development, the International Business Leaders Forum, the World Coal Institute, the Global Business Coalition for HIV/AIDS and other associations.

As a Group whose operations around the world have grown substantially in recent years, we also use this report to share good practice between our operations and highlight that the principles and practice of sustainable development are universal, though solutions must be relevant locally in order to be successful.

### Integration

Sustainable development requires multi-disciplinary thinking and an acknowledgement of the interdependencies between people, their development, the natural resource base and the economy. Our case studies are allocated into sections according to a primary problem or impact. However, we focus on illustrating the integration of sustainable development principles into all our thinking.

### Feedback

We encourage and receive a significant amount of feedback on our report and our sustainable development programme.

A variety of academic institutions from four continents used our report as material for their inquiry into this complex topic. One such initiative was facilitated by the GRI as part of its organisational stakeholder programme. As highlighted in our chief executive's overview, we received extremely positive feedback through our inclusion in various indices, assessment by opinion formers as well as through nominations and awards. These serve to encourage and further motivate us.

## SUSTAINABLE DEVELOPMENT CONFERENCE

In March, we held the second Anglo American sustainable development conference, which was attended by more than 125 senior managers and executives from Group companies – including chairman Sir Mark Moody-Stuart, chief executive Tony Trahar and the chief executives of most of Anglo American business units.

The day provided an opportunity for dialogue that enabled senior managers to develop a better understanding of the sustainable development agenda. For many managers this has become a significant part of their everyday business challenge – one for which they have not, for the most part, had extensive training. The mix of presentations and dialogue was designed to present the broad spectrum of issues and create networks of expertise into which they could link and share experiences.

Keynote speaker Amory Lovins of the Rocky Mountain Institute in the US joined the conference by video. He drew clear links between cleaner production and bottom-line benefits, which would position the Group for competitive advantage. He urged a focus on innovation in thinking, design and process to reduce significant cost and wastes coming from existing ways of resource extraction and processing.

### Energy efficiency focus

Lovins challenged the mining businesses to find ways of reducing the waste material moved in metals mining and to focus on significantly increasing energy efficiency. These equated to vast business opportunities and provided a strong argument for following a natural capitalism model, which designs out toxicity, reduces waste, focuses on delivering services rather than product and aims for symbiotic relationships with others in the supply chain. He proposed that changing design focus in process plants could significantly reduce energy required for pumping. Energy efficiency improvements could be fast-tracked by taking advantage of renovations and expansion projects. The capital costs would be lower, with less heat loss, reduced noise, space and weight, easier maintenance and longer equipment life.

Lovins highlighted work the Rocky Mountain Institute was undertaking at one operation, which identified technical potential to cut energy intensity significantly within five to seven years without compromising quality or production. He predicted that much of the technical potential could be realised, without major capital expenditure.

Chief executive Tony Trahar drew clear parallels between commitments on sustainable development made by the Anglo American board and executive committee and the Company's strategy for growth. He said the executive team believed that sustainable development provided a framework for response to key risks and for alignment with social partners to tackle some of the bigger problems such as HIV and AIDS in South Africa. The focus had won recognition from the Chinese government, which encouraged Anglo American and other companies investing in China to introduce international safety, environmental and human development standards.

Anglo American's philosophy, he said, was to deliver value to stakeholders through efficiency, competence, equity and ethics. He echoed the view that waste represented an unproductive use of resources and urged managers to focus on whether more could be done with regard to reducing waste and maximising product and to view this as an area for delivery on Anglo American's ongoing bid to reduce operating costs.

Sir Mark Moody-Stuart, chairman of the Anglo American board, urged operations managers to accept new ways of tackling problems and to make progress on measurable targets that responded to stakeholder concerns – in particular, in response to changing climate patterns and energy consumption.

The chairman, divisional CEOs and Bill Nairn (then technical director) called for refinement of management approaches, accountability, sharing of expertise within the group and building clear linkages between the business and sustainable development strategies. The chief executive's call for a systematic approach to risk identification was given effect in the sustainable development risks and opportunities project described on page 5.



Photo: David Marlow

**Amory Lovins, a proponent of natural capitalism, is the CEO of the Rocky Mountain Institute**



## TARGETS

	OUR GOALS FOR 2004		2004 PERFORMANCE	2005 AND FUTURE TARGETS
GOVERNANCE AND ETHICS				
GOVERNANCE, ETHICS AND BUSINESS PERFORMANCE	• Roll-out <i>speakup</i> campaign across the Group	✓	• Roll-out almost complete, significant progress made	• Ensure quality, service and follow-up on reports
	• Further progress towards realising objectives of South Africa's Mining Charter	~	• Applications lodged for conversion to new order mining rights	• Continued progress
ECONOMICS				
MARKETS AND ECONOMICS	• New focus this year		<ul style="list-style-type: none"> <li>Guidelines implemented for the inclusion of cost of carbon evaluations into investment proposals</li> <li>Work started to evaluate the implication of the EU's new chemical policy (REACH) for Group companies</li> </ul>	<ul style="list-style-type: none"> <li>Entrench sustainable development appraisal of investment proposals</li> <li>Establish steering group to determine Group focus on product stewardship and recycling</li> <li>Engage key suppliers on sustainable development principles, practices and targets</li> <li>Increased stakeholder engagement on external reporting</li> </ul>
HUMAN CAPITAL				
SAFETY	• Eliminate all work-related fatalities and ultimately eliminate all work-related injuries	✗	• 21 employees and 28 contractors died in our managed businesses	• Our goal is to work without fatal injuries and ultimately to eliminate work-related injuries
	• Reduce LTIFR by 27% to 0.45 (or 0.73 including all restricted work cases)	✗	• We no longer consider any restricted work cases as a separate category. LTIFR was 0.77 (23% down on 2003)	<ul style="list-style-type: none"> <li>Reduce LTIFR by a further 35% to 0.50</li> <li>Re-assess contracts and contractor selection processes; ensure all contractors are fully integrated into our safety programmes</li> </ul>
OCCUPATIONAL HEALTH	• Ultimately eliminate occupational disease and health impairment due to workplace health hazards	~	• The occupational illness rate is 12.8/1,000 employees	• Ultimately eliminate or control workplace health hazards to avoid new cases of occupational disease and health impairment
	• Complete auditing of Occupational Health Management Guidelines	✓	• 70% of operations have had third party H&S management systems audits, and 87% self-assessed compliance with our guidelines	• Evaluate occupational health leadership to re-assess performance and drive the consistent achievement of best practice
	• 75% third party health and safety systems certification within two years	✓	• 70% complete by the end of 2004	• Certification will be at least 75% complete by the end of 2005

✓ Target achieved

✗ Target not achieved

~ Progress being made, ongoing, work needed

	OUR GOALS FOR 2004		2004 PERFORMANCE	2005 AND FUTURE TARGETS
HUMAN CAPITAL				
HUMAN RESOURCES	• Further increase in staff receiving performance and development reviews	~	• The number of employees receiving formal performance and development reviews was lower than 2003. This in part reflects more stringent criteria for inclusion in 2004 data and some union resistance to application beyond managerial ranks	• In 2005, focus on ensuring that at least all managerial and professional staff receive individual performance and development reviews (a large proportion of our workforce is subject to team-based targets and reviews)
	• Further progress on South African employment equity targets	✓	• Representation of historically disadvantaged South Africans in management positions increased from 35% to 37%; proportionately more at senior levels	• Further progress towards employment equity targets (40% historically disadvantaged South Africans in management by 2007)
	• Repeat communication survey in Q4 2004 with specific focus areas	~	• Surveys held in Base Metals, Coal South Africa, Tarmac	• Group survey to be conducted in 2005
	• Roll-out electronic Group information portal	~	• Partial roll-out at Corporate centre and central technical functions	• Evaluate and extend programme
SOCIAL CAPITAL				
CORPORATE CITIZENSHIP	<ul style="list-style-type: none"> <li>• Adopt policies on resettlement, security and human rights</li> <li>• Develop detailed guidelines on human rights</li> <li>• Support mentoring and volunteer schemes</li> </ul>	<ul style="list-style-type: none"> <li>~</li> <li>~</li> <li>~</li> </ul>	<ul style="list-style-type: none"> <li>• Draft policies on resettlement and child labour exist</li> <li>• <i>Voluntary Principles on Security and Human Rights</i> adopted. Training/implementation materials developed</li> <li>• Volunteering survey undertaken in Johannesburg. Continued support for ENGAGE campaign</li> </ul>	<ul style="list-style-type: none"> <li>• Finalise policies following international review of IFC safeguard policies</li> <li>• Implement training programme on security and human rights</li> <li>• Develop human rights guidelines</li> <li>• Management recommendations to be formulated</li> </ul>
OUR LOCAL COMMUNITIES	<ul style="list-style-type: none"> <li>• 100% of current significant operations to have community engagement plans</li> <li>• Training in use of SEAT methodology; 20 assessments conducted</li> <li>• Establish community of practice on social issues</li> </ul>	<ul style="list-style-type: none"> <li>~</li> <li>✓</li> <li>~</li> </ul>	<ul style="list-style-type: none"> <li>• Coverage of significant operations was 96% – up from 88%</li> <li>• Extensive training undertaken: 13 assessments conducted and 23 in progress</li> <li>• Resource area for community of practice developed</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain essentially full coverage of these plans and improve the quality</li> <li>• 45 conducted by year-end</li> <li>• Training to be undertaken in 2005</li> </ul>
HIV/AIDS	<ul style="list-style-type: none"> <li>• Substantial increase in the uptake of voluntary counselling and testing (VCT)</li> <li>• Substantial increase in enrolment of HIV-positive employees in wellness programmes</li> <li>• Extend partnerships with governments, NGOs and donor agencies to address HIV/AIDS in communities associated with our operations</li> </ul>	<ul style="list-style-type: none"> <li>~</li> <li>~</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>• Base Metals operations achieved 87% VCT; Coal and Mondi &gt;60%. Weighted average 21%</li> <li>• Nearly 5,000 employees enrolled. Higher targets had been set</li> <li>• New partnerships created following additional funding by the United States Government. Community HIV/AIDS partnership progressing well. Work is ongoing</li> </ul>	<ul style="list-style-type: none"> <li>• 50% VCT by the end of 2005 and 75% by 2007</li> <li>• 10,000 employees enrolled by end of 2005</li> <li>• Consolidation and expansion of existing partnerships</li> </ul>

- ✓ Target achieved  
 ✗ Target not achieved  
 ~ Progress being made, ongoing, work needed

	OUR GOALS FOR 2004		2004 PERFORMANCE	2005 AND FUTURE TARGETS
ENVIRONMENT				
MANAGEMENT SYSTEMS	<ul style="list-style-type: none"> <li>ISO 14001 certification complete in 2004, new acquisitions in two years</li> </ul>	~	<ul style="list-style-type: none"> <li>83% complete (measured by turnover). A further 6% is due in 2005. The other 11% is made up of new acquisitions and small non-material business units</li> </ul>	<ul style="list-style-type: none"> <li>Complete and maintain certification</li> </ul>
ENERGY AND CO <sub>2</sub> EMISSIONS	<ul style="list-style-type: none"> <li>Continue to improve energy efficiency and reduce CO<sub>2</sub> emissions</li> <li>Determine and report CO<sub>2</sub> emissions from acid consuming processes such as copper heap leaching</li> <li>Refine data systems to complete renewable energy aggregation</li> <li>Establish a baseline for greenhouse gas emissions and spontaneous combustion in South African coal mines</li> </ul>	~ ~ ✓ ~ ~	<ul style="list-style-type: none"> <li>Energy use increased from 218 million GJ to 223 million GJ (due to production changes, energy mix and restatements)</li> <li>CO<sub>2</sub> emissions increased from 29 million tonnes to 31 million tonnes due to portfolio changes</li> <li>CO<sub>2</sub> from acid processes was 107,000 tonnes, included in the 31 million tonnes</li> <li>Energy from biomass (mainly Mondi) was 56.7 million GJ for 2003 and 59.8 million GJ for 2004. (Not included in the 223 million GJ for comparability purposes)</li> <li>Work in progress. Methane from South African coal mines is now covered</li> </ul>	<ul style="list-style-type: none"> <li>A 12% improvement in energy efficiency will be delivered by 2014</li> <li>A 10% reduction in CO<sub>2</sub> emissions per unit of production (energy intensity) will be delivered by 2014</li> <li>Establish definitions, reporting boundaries and determine the CO<sub>2</sub> relating to transport by 2006</li> </ul>
AIR QUALITY	<ul style="list-style-type: none"> <li>6% reduction in SO<sub>2</sub> emissions from processes targeted for 2004</li> <li>Anglo Platinum's Waterval Smelter to achieve SO<sub>2</sub> emissions of &lt;20 tonnes per day (t/d) by end 2004</li> <li>Develop data on SO<sub>2</sub> emissions from fossil fuel use</li> </ul>	✓ ~ ~	<ul style="list-style-type: none"> <li>This was based on planned reductions at the Waterval Smelter</li> <li>Emissions in December 2004 totalled &lt; 20t/d (a 72% reduction from monthly figures at the start of the year)</li> <li>Ongoing work required</li> </ul>	<ul style="list-style-type: none"> <li>To be completed in 2005</li> </ul>
WATER USE	<ul style="list-style-type: none"> <li>Derive water usage per unit of production for our major products</li> </ul>	✓	<ul style="list-style-type: none"> <li>The baseline has been established</li> </ul>	<ul style="list-style-type: none"> <li>Targets will be set to improve efficiency of use in water-stressed areas</li> </ul>
BIODIVERSITY	<ul style="list-style-type: none"> <li>Biodiversity action plans (BAPs) in place at all significant sites by end 2004</li> <li>Ongoing participation in the IUCN/ICMM dialogue and other key partnerships</li> </ul>	~ ✓	<ul style="list-style-type: none"> <li>Management plans are in place at all significant sites. Not all are full biodiversity action plans</li> <li>Participation at international and national workshops</li> </ul>	<ul style="list-style-type: none"> <li>BAPs to be integrated into ISO 14001 systems</li> <li>10 BAPs will be peer reviewed</li> <li>The work will continue with ICMM and appropriate partnerships with major conservation organisations</li> </ul>
LAND USE	<ul style="list-style-type: none"> <li>Review and manage closure liabilities for all managed operations</li> </ul>	~	<ul style="list-style-type: none"> <li>All business units report this as complete. Cost provisions total \$942 million</li> </ul>	<ul style="list-style-type: none"> <li>Closure plans for all managed operations will be regularly updated and fully costed</li> </ul>

✓ Target achieved

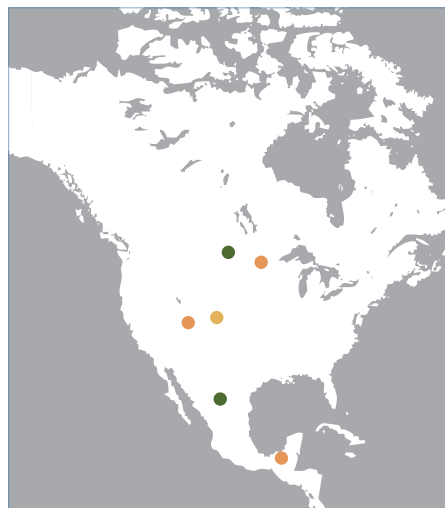
✗ Target not achieved

~ Progress being made, ongoing, work needed

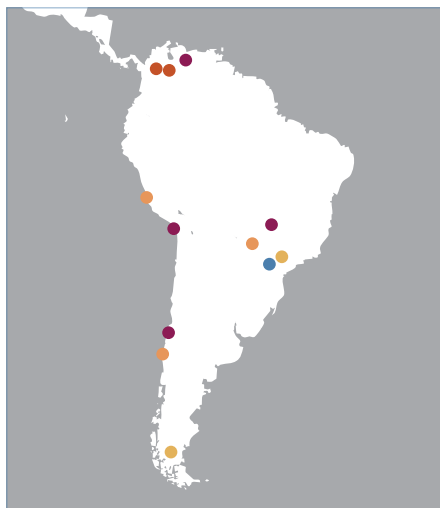


## A GLOBAL BUSINESS – MAPS OF OPERATIONS AND

NORTH AMERICA



SOUTH AMERICA



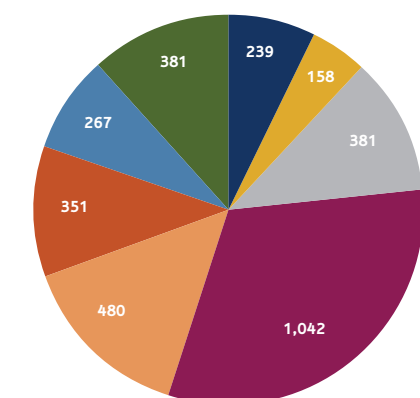
EUROPE



	North and South America		Africa		Europe		Australia and Asia	
	Managed	Independently managed	Managed	Independently managed	Managed	Independently managed	Managed	Independently managed
Value added* (\$m)	1,768	289	3,427	1,484	3,021	3	711	130
Employees	10,000	2,000	86,000	63,000	42,000		5,000	1,000
Payments to government (\$m)	246	42	704	228	734	3	341	11

### Headline earnings

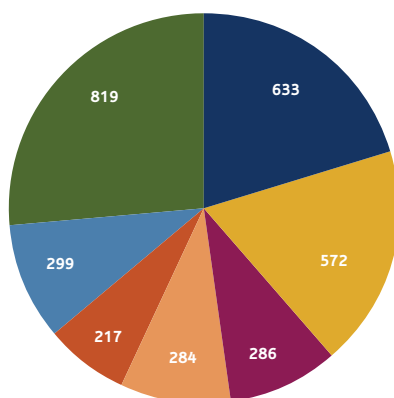
by business unit \$ millions



■ Platinum  
 ■ Gold  
 ■ Diamonds  
 ■ Base Metals  
 ■ Ferrous Metals and Industries  
 ■ Coal  
 ■ Industrial Minerals  
 ■ Paper and Packaging

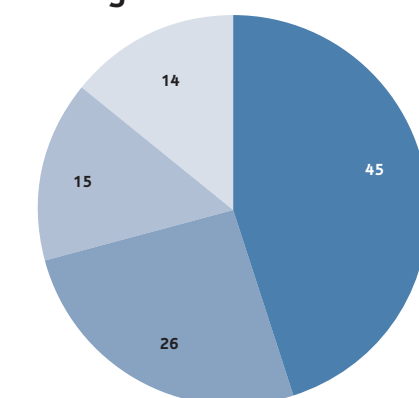
### Capital expenditure

by business unit \$ millions



■ Platinum  
 ■ Gold  
 ■ Base Metals  
 ■ Ferrous Metals and Industries  
 ■ Coal  
 ■ Industrial Minerals  
 ■ Paper and Packaging

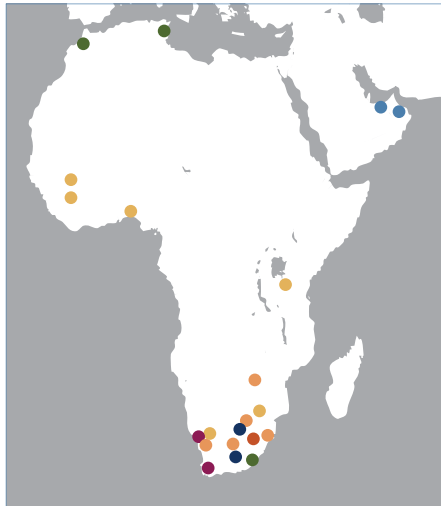
### Geographic headline earnings mix %



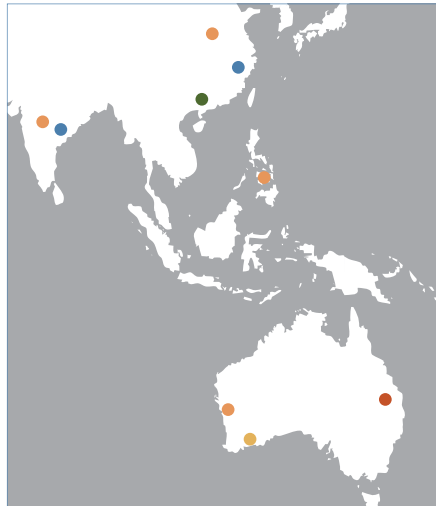
■ Americas  
 ■ South Africa  
 ■ Rest of the World  
 ■ Europe

## FINANCIAL HIGHLIGHTS

### AFRICA



### AUSTRALIA & ASIA



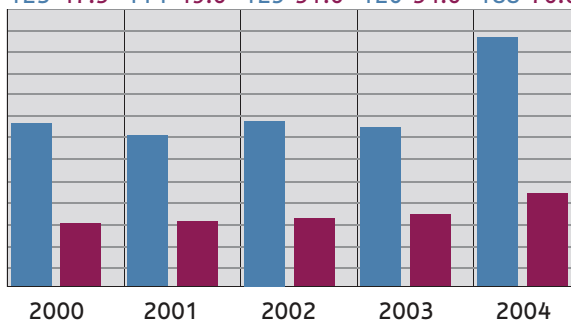
- Platinum
- Gold
- Base Metals
- Ferrous Metals and Industries
- Industrial Minerals
- Coal
- Paper and Packaging

	Total		
	Managed	Independently managed	Total
Value added* (\$m)	8,927	1,986	10,833
Employees	143,000	66,000	209,000
Payments to government (\$m)	2,025	284	2,309

### Headline earnings and dividends per share

US cents

123 47.5 114 49.0 125 51.0 120 54.0 188 70.0

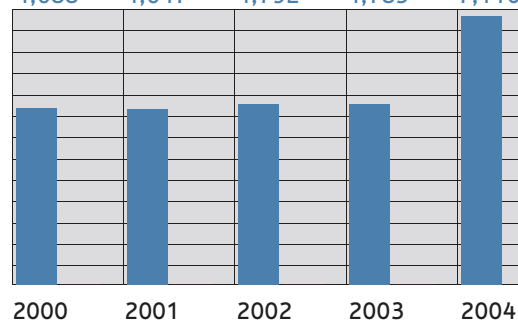


- Headline earnings per share
- Dividends per share

### Group EBITDA

\$ million

4,688 4,647 4,792 4,785 7,110



The 2004 Annual Review, the 2004 Annual Report and the shareholder information booklet are available on the corporate website: [www.angloamerican.co.uk](http://www.angloamerican.co.uk)

\*See glossary

# GOVERNANCE AND ETHICS

## GOVERNANCE AND ETHICS

No changes were made in 2004 to the board, of whom half, excluding the chairman, are independent and non-executive. Measures to evaluate the board's performance were formalised during the year and part of its annual three-day strategy session was devoted to an assessment of the performance of the members, the committees and the board as a whole.

The Safety, Health and Environment (SHE) Committee had its remit broadened at the end of 2004 to include all aspects of the sustainable development agenda and was renamed the Safety and Sustainable Development (S & SD) Committee. It will continue to be chaired by Dr Chris Fay.

Tony Redman became technical director at year-end following the retirement of Bill Nairn, who held the post from 2001. On 31 January 2005 Tony Trahar announced that in order to focus increasingly on his global duties as chief executive of Anglo American plc, he would relinquish the post of chief executive of Anglo American South Africa in favour of Lazarus Zim. Godfrey Gomwe becomes chief operating officer of Anglo American South Africa. An executive board of Anglo American plc was created to replace the executive committee. It will comprise the chief executive, the chairmen of the managed subsidiaries and the heads of the finance, technical and human resources functions as well as the chief executive of Anglo American South Africa.

Anglo American's key sustainable development risks are managed through an integrated system of policies, programmes and targeted interventions. Business unit chief executives provide annual Letters of Assurance on adherence to the *Good Citizenship* business principles and the Group's SHE Policy.

Where certain small business entities had not been fully briefed on the business principles, this was addressed in 2004. New employees and staff employed by recently acquired entities are routinely briefed on the principles. The only significant managed entity where the principles have yet to be rolled-out is at Kumba, which only became a subsidiary at the end of 2003.

### Whistleblowing

The independently managed *speakup* facility which guarantees anonymity to those reporting irregularities was extended from South Africa to head office in London, the corporate office in Luxembourg and the exploration hubs of Perth and Vancouver. By year-end, 214 'reports' were passed to the relevant

business units for analysis, review and investigation. At Anglo Platinum, 37 of 52 reports resulted in action being taken or processes being upgraded. A small number of all cases may lead to criminal prosecutions. Because of logistical and linguistic issues the facility is provided by separate suppliers for Anglo Coal Australia, and for Base Metals and Mondi operations where English is not the first language.

*Speakup* covers behaviour that may endanger the health or safety of people or cause damage to the environment, unethical financial or other practices, failure to comply with business principles or legal obligations, fraud, bribery and corruption, and miscarriages of justice.

A total of 716 employees (857 in 2003) were dismissed or resigned following breaches of the business principles (including offences involving disregard for safety or conduct liable to bring the company into disrepute, violence, dishonesty, harassment, discrimination). Contracts with 15 companies were terminated for breaches of our principles.

### International initiatives

During 2004, Anglo American joined the UN Global Compact.

Sir Mark Moody-Stuart, our chairman, joined an Advisory Group to Dr Emil Salim during the latter stages of the Extractive Industries Review (EIR), conducted for the World Bank group. Whilst we welcomed some aspects of the EIR, we regretted the lack of participation by many leading developing country governments. We believe that the response adopted by the World Bank board of seeking to raise their performance standards, whilst rejecting the more controversial recommendations, will improve the development outcomes from mining projects. We will continue to make a contribution

Safety and Sustainable Development Committee	plc board members
Sir Mark Moody-Stuart* – plc Chairman	✓
A J Trahar – Chief executive	✓
B E Davison	✓
Dr C E Fay* – Committee chairman	✓
R M Godsell*	✓
Dr M S B Marques*	✓
G Lindahl*	✓
Sir David Scholey*	✓
W A Nairn	
A E Redman (from December 2004)	
*Non-executive	
Other Anglo American plc directors: D J Challen*, A W Lea, R J Margetts*, N F Oppenheimer*, F T M Phaswana*, Professor K A L M Van Miert*	



to the World Bank Group's consultations on its new standards.

We are strong advocates of the Extractive Industries Transparency Initiative (EITI). Its implementation should improve the governance of revenues from natural resources projects, redress the potential for corruption or embezzlement and, we hope, stimulate in-country discussion about the use of these revenues. Anglo American served on the UK Department for International Development's 'core' stakeholder group and was the industry representative for an EITI visit to Peru.

### Political donations

Anglo American and a number of our business units made political donations in support of all the major parties participating in the South African elections. These were a departure from our general policy. The board believed the exception was justified because of the importance attached to supporting the relatively new democratic system and structures in South Africa. Political donations totalling \$1.7 million were made by Anglo American South Africa, Anglo Platinum, Kumba Resources, as well as AngloGold Ashanti and Tongaat-Hulett.

### Government relations

Our business principles state that *'we have the right and the responsibility to make our positions known to governments on any matters which affect our employees, shareholders, customers or the communities associated with our operations... we will seek to promote the observance of human rights in the countries where we operate.'*

It is legitimate for us to make representations to our home and host governments, not least to protect our investments, jobs and the interests of local people. Nonetheless, we recognise that there are concerns about the perceived power of multinational companies. The table opposite lists the major issues raised with governments either directly or through industry associations, sometimes accompanied by media activity and sometimes on a private basis. Because the corporate office and business units belong to a significant number of associations, national and international, which cover a wide variety of cross-sectoral

issues, the list is by no means exhaustive. We hope that stakeholders find it useful.

### Test case

Anglo American is the 'test case' in a Group Litigation Order challenge which is being referred to the European Court of Justice and will be heard in late 2005 or early 2006. This is one of a series of Group Litigation Order cases being brought against the UK Inland Revenue. It is alleged that the UK tax regime is inconsistent with its European Union Treaty obligations in respect of its treatment of Controlled Foreign Companies (CFCs) and its treatment of foreign dividends.

It will be argued that UK domestic tax regulation makes it less attractive for a UK resident company – such as Anglo American – to establish a subsidiary outside of the UK and that it also impacts upon a company's ability to move capital and make payments between member states without impediment.



**Sir Mark Moody-Stuart with Mondi chief executive David Hathorn and Viv McMenamin, who was appointed Mondi's sustainable development director during 2004, photographed during a Safety and Sustainable Development board committee site visit to the Richards Bay expansion project**

### Current government relations issues

<b>International</b>	World Bank's Extractive Industries Review and the International Finance Corporation's draft performance standards.
<b>Australia</b>	Proposed Industrial Manslaughter legislation in New South Wales.
<b>Brazil</b>	Water collection fees; Mining rights in border regions and defining compensation rates for environmental impacts in new mining projects.
<b>Chile</b>	Draft proposals on the imposition of a mining royalty.
<b>European Union</b>	Draft Mining Waste Directive; Draft Waste Incineration Directive; REACH Proposals; Ecotoxicity of zinc and nickel; Emissions Trading; Reform of CAP sugar regime.
<b>Philippines</b>	Representations to government in response to Supreme Court judgement on FTAA decision limiting role of foreign investors.
<b>South Africa</b>	Mineral and Petroleum Resources Development Act; Draft Mineral and Petroleum Royalty Bill; Draft Beneficiation proposals; Draft new environmental provisions and related regulations; Department of Agriculture to increase ownership of agricultural land in HDSA hands and the BEE scorecard for the wine industry; Draft Sustainable Development and Agricultural Resources Bill; Air Quality Bill; BEE Code of Conduct; Precious Metals Amendment Bill.
<b>United Kingdom</b>	Emissions trading regulations (allowances for new entrants); Improving operation of Clean Development Mechanism; UK Review of Mineral Planning Guidance; Implementation of Water Act 2003; Classification of Recovered Fuel Oil.
<b>Zimbabwe</b>	Levels of price increases imposed by State-owned utility companies; Implementation of Land Reform legislation; Enhanced Platinum Sector Regime; Management of exchange rate.

# ECONOMIC VALUE

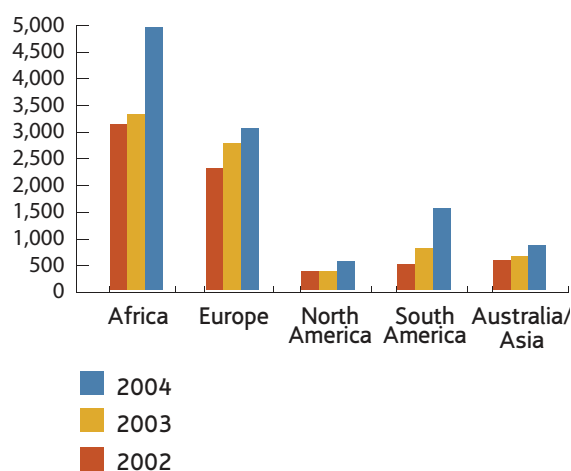
## DISTRIBUTING ECONOMIC BENEFITS

We add value\* through using labour and a variety of materials and services to extract and beneficiate primary products – mostly in the developing world. The products we produce play an essential role in society, in development and in providing quality of life. They are used in creating the structures in which we live and work, in making and powering the machines we need for transport, health, emissions control, manufacturing and communications. Paper and packaging are essential to education, communication and the safety of food, medications and other products. Metals and precious stones have been used since the earliest civilisations in jewellery for ornamentation, as a store of value, and for marking significant transitions in life.

Most of our products are sold into commodity markets for use by industrial manufacturers all over the world and go through various stages of beneficiation before reaching household level. Individual consumers are often not aware of how much of any of our products is contained in the mobile phone, vehicle, house or appliance that they buy.

Africa remains the region where we have the most significant operations although South America is currently where the fastest rate of growth is taking place.

### Value added by region \$ millions



Many groups benefit directly from our activities. These include the communities in which we live and work, the suppliers of materials and services, employees, shareholders who provide capital and governments who use tax revenues to fund public services.

\* See glossary

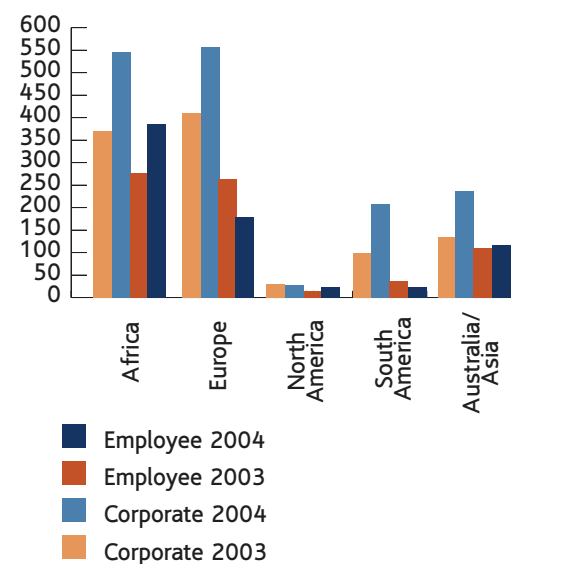
During 2004, value added increased 39% from \$7,783 million to \$10,833 million, of which \$8,927 million came from our managed operations. Changes in value and changes in disbursements are the result of a combination of net acquisitions, production and cost changes at existing businesses and commodity price and exchange rate changes.

In 2004, \$1,704 million (\$1,502 million managed) was paid in dividends and interest payments. These payments increased by 21% on the 2003 figures. Anglo shareholdings are widely dispersed, principally amongst institutions. The largest shareholder – Old Mutual – accounts for 7.5% of our equity. Anglo American plc is listed on the London, Johannesburg, Botswana and Namibian stock exchanges.

Total employee payments including wages and salaries, social security, healthcare and pension contributions amounted to \$4,157 million at our managed operations. The figure including the independently managed companies was \$5,170 million, an increase of 32% over 2003. Of this, pension-related payments amounted to \$286 million (\$228 million for the managed companies).

We employ over 209,000 people worldwide, 143,000 in our managed operations. More than 70% live in Africa, where we have operated for nearly 90 years. Employee numbers increased by 16,000 over the year due primarily to the acquisition of Kumba Resources.

### Taxes and other payments by region \$ millions



**Tax payments by category and region \$m**

	Profits	Transactions	Labour	Royalties and environment	Other
Africa	252	190	386	73	30
Europe	125	254	180	116	62
North and South America	143	67	53	13	13
Australia/Asia	123	29	116	78	6
	643	540	735	280	111

Total payments to governments from our Group operations increased by 32% to \$2,309 million (\$2,025 million managed), of which 51% was to governments of developing countries. In many countries we provide a significant proportion of government revenue. The above figures include company taxes, employee taxes, royalties, sales, and other taxes. We believe that this wider 'tax footprint' is a valid reflection of our tax contribution as in many countries there would be few alternative sources of income, and therefore tax, to compensate governments in the absence of our operations.

Taxes and other payments to government amount to 26% of value added in developed countries and 18% of value added in developing countries.

**Largest tax and related payments to governments \$m**

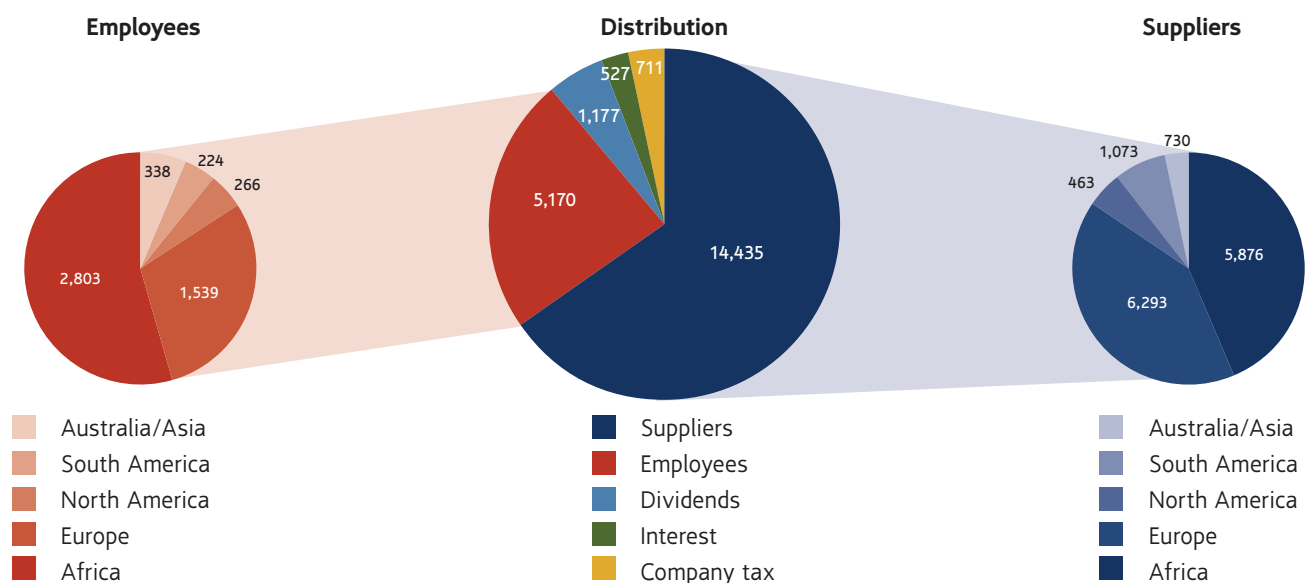
	Total	Managed
South Africa	823	690
Australia	337	326
United Kingdom	322	320
Brazil	110	83
Chile	100	100
Russia	88	88
Germany	72	72
Austria	64	64
Poland	40	40
France	39	39
Others	314	203
Total	2,309	2,025

The company tax picture for Anglo American as a whole, including joint ventures and associates, which are outside of the scope of this report, is given on pages 60-61 of the Annual Report.

**Suppliers**

In addition to the payments made from the value we create, we also enable other businesses to add value through the procurement of supplies, which amounted to \$14,435 million.

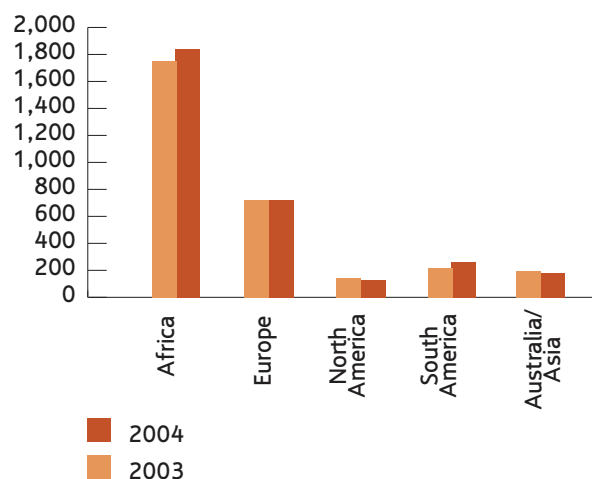
We make efforts to purchase from local suppliers. Anglo Zimele (see page 18) was set up specifically to establish new businesses and assist new entrepreneurs to bid for contracts. We also make efforts to help establish local suppliers where none currently exist.

**Sharing of economic benefits \$ millions**



## Capital expenditure

\$ millions



## Investment and Exploration

New capital amounting to \$3,129 million (\$2,519 million in managed companies) was spent in existing operations and expansions. Group subsidiaries currently have a \$4.7 billion (\$4.5 billion managed) project pipeline under development.

Exploration activities can be considered as a form of investment. While individual orebodies are inevitably eventually exhausted, most of the minerals we extract are not rare and the potentially available quantities in the earth's crust remain significant though more challenging to reach and less commercially attractive using current extraction and process technology.

The Anglo American exploration division is focused on the base metals operations in Chile, Brazil, Ireland, Namibia and South Africa. In addition, new base-metals resources are being targeted in Australia, Brazil, Canada, Finland, India, Mexico, Peru and Philippines. In 2005, \$45 million will be invested in this search for new base metals deposits. Individual operations also conduct exploration to improve orebody definition and to convert mineral resources into ore reserves. These activities, plus the purchase of mineral rights, enable us to replenish the reserves that have been used in the current year's production. This practice helps maximise the benefit to the communities that depend on the mine by extending operational life. Mine life is further extended through research and technical developments to lower the cost of extracting ore and so increasing the commercially viable ore.

## Reserves

Page 90 of the Annual Report and Accounts gives a breakdown of our reserves and resources at each of our business units. These figures are calculated using standards which meet South African, Australian and Canadian mineral reporting codes. The Group has a clear policy demanding that competent persons conduct the classification of mineral assets in a thorough manner to satisfy external scrutiny.

## Contributing to development

The UN Human Development Index (HDI) is calculated from a number of indicators such as health, education and income (based on purchasing power parity) and varies between one (most highly developed) and zero (least developed). Some 19% of our employees work in 'high human development' countries, 75% work in 'medium human development' countries of which the large majority are in South Africa and 6% are in 'low human development' countries with an HDI score of between 0 and 0.5. South Africa has a score of 0.67 on the HDI.

Working in developing countries often requires extensive efforts to remedy shortages of skilled labour. Anglo American spent \$134 million on direct training in 2004, \$108 million in managed operations, (59% of which was spent in Africa). The figure includes only the cost of externally provided courses and not employee or management time. Details of some of our training initiatives are given on pages 24-27.

# EMPOWERMENT THROUGH ENTERPRISE



## Mondi Recycling is testing out some tricycles to make paper collection easier for the entrepreneurs who scour the Johannesburg suburbs for waste paper and cardboard

Sustainable development requires a sound and developing economic base, which delivers increasing value to the population. This is fundamental to the United Nations' goal of eradicating poverty. The approach adopted in South Africa has been to stimulate small business development and use the procurement chain to effect change. In recent years the Mining Charter has set a regulatory framework and performance targets. In other countries we are developing similar approaches, stimulating local purchasing and small business development which can continue if our operations reach closure.



**Lazarus Zim (left) is driving transformation in South Africa**

### The South African Mining Charter

The Mining Charter, which was finalised in 2002 and gazetted in August 2004, was the first tranche of policy and legislation to give effect to broad-based black economic empowerment in South Africa. Legislation has since been enacted which empowers the Minister of Trade and Industry to encourage standardised transformation codes for all sectors of the economy and establish a black economic empowerment (BEE) advisory council. The Mining Charter's aim of broad-based socio-economic development and transformation fits well within the sustainable development framework that Anglo American has adopted. The Charter was introduced as part of the post-apartheid economic transformation. It sets medium- and long-term goals for enabling the transfer of a portion of the mineral rights into the hands of previously disadvantaged people as well as increasing the quality of life of mine workers. The key points of the Charter are highlighted below, with a brief summary of progress.

### Mining Charter progress

1. **Human resources development** – Anglo American has a comprehensive global human resources programme, which includes plans to increase the literacy and numeracy of employees and to provide career development opportunities. Most businesses are confident of meeting the targets for adult basic education. A significant number of mining-relevant bursaries and engineering apprenticeships are available – for example, Platinum offered 64 bursaries in mining and chemical engineering as well as 396 engineering learnerships.
2. **Employment equity plans** – historically disadvantaged individuals make up 37% of the management of the South African operations, which means we are on track to meet the 40% target.
3. **Women in mining** – the participation of women in mining or core operations is increasing.
4. **Management transformation** – significant progress was made during the year both through developing individuals within the Group to take up more senior positions as well as through recruitment. At senior management level there was an improvement of 23% (excluding white women) and 39% including white women. At middle management level there was a corresponding 27% increase (without white women) and 38% including white women. At junior

management level 153 new equity candidates were appointed. Challenges remain in technical fields.

5. **Migrant labour** – the Group adheres to agreements to ensure the non-discrimination against foreign migrant labour. Where possible, however, on new projects the recruitment of labour from the immediate area is preferred. Anglo Coal does not have migrant labourers in its workforce.
6. **Mine community and rural development** – the development of the immediate community and the labour sending areas is a feature of our socio-economic development programmes, the social and labour plans undertaken for the conversion of mining rights. Our Chairman's Fund includes this requirement in its selection criteria. Social labour plans are developed and integrated with local development planning.
7. **Housing and living conditions** – these are a regular feature of wage negotiations with organised labour. Each operating business has a locally relevant policy to reduce density in mine hostels, to offer a living-out allowance to workers who do not wish to live in hostels and to promote home ownership. The shortage of housing in mining areas is a serious constraint to this policy and a number of innovative solutions are being explored.
8. **Nutrition** – each operating business implements a nutrition policy alongside its housing policy. A key aspect of this also ensures that staple products which have been enriched to provide additional nutritional support are used. This also assists in maintaining well-being in employees who may be HIV positive.
9. **Procurement** – proactive procurement has been a feature of Anglo American's corporate policy in South Africa since 1989. In 2004, R5.7 billion (\$0.9 billion) was spent in black empowerment companies, with R4.4 billion (\$0.7 billion) in small and medium-sized enterprises. A 20%-30% year-on-year growth is being targeted. The programme includes the development of small and medium-sized businesses. See page 18.
10. **Ownership** – the target is that 15% of production should be owned by historically disadvantaged South Africans<sup>[1]</sup> by the end of 2009 and 26% by 2014. We are on course to achieve these targets following a number of empowerment deals and transactions in recent years. Since 1993, we have facilitated the introduction of black ownership into both mining and non-mining assets to the value of R30 billion (\$4.7 billion) in 2004 money terms. Ongoing negotiations between industry, trade unions and government are exploring the practicalities of creating effective employee share option programmes in part-fulfilment of this provision and to achieve broad-based empowerment objectives.
11. **Beneficiation** – Anglo American operating companies are working in a variety of ways to increase the level of beneficiation, including through the development of jewellery-making skills in South Africa. See also Anglo Platinum and AngloGold Ashanti's sustainable development reports for 2004.
12. **Reporting** – this report provides the public vehicle for reporting the Group's progress against the Mining Charter, the UN's Global Compact and other frameworks which reflect societal expectations and Group norms around sustainable development. Individual business units report internally as well as to Anglo American South Africa's Transformation Committee.

<sup>[1]</sup> Defined as black, coloured and Asian people and white women.

## Legislation

The Mineral and Petroleum Resources Development Act became effective on 1 May 2004 and the South African State is now the custodian of the country's mineral resources. The Act requires, *inter alia*, that owners convert all existing prospecting permits and mining licences to 'new order' rights within set maximum periods and register them.

Anglo American companies have to date submitted nine applications for the conversion of mining licences. These include four by Anglo Platinum, three by Anglo Coal and two by AngloGold Ashanti. In addition, 72 prospecting applications have been submitted: three by Anglo Base Metals; 48 by Anglo Coal; one by Anglo Platinum; and 20 by Kumba. All of the applications are still in process.

## Empowerment transaction

Two deals in the newsprint and packaging sectors, jointly valued at R3.55 billion (\$0.6 billion), represent major strides in changing the ownership profile of the South African paper and packaging sector. These involved the creation of a new company, Mondi Shanduka Newsprint valued at R1.1 billion (\$171 million), incorporating Mondi's former newsprint operation which manufactures about 220,000 tonnes per year and employs 322 people. It supplies all major newspaper titles and is the only producer of telephone directory paper in Africa. Shanduka also acquired a 42% equity stake in the new entity that owns Mondi's South African packaging businesses. Both transactions made provision for equity participation by Mondi's South African employees and local communities, the majority of whom are historically disadvantaged South Africans.

## Black economic empowerment

One of Anglo American's strategic goals in South Africa has since 1989 been proactive procurement and the promotion and development of small and medium-sized enterprises.

A total of R5.8 billion (\$0.9 billion) was spent by the Group during 2004 on goods and services sourced from black economic empowerment companies, including businesses developed by Anglo Zimele. This spending amounted to 13% of total procurement and about 17% of procurement excluding purchases from parastatals and municipalities.

Since inception, goods and services worth R17.4 billion (\$2.7 billion) have been procured from historically disadvantaged South Africans, at a confirmed growth rate of 20-30% a year.

Anglo Zimele has facilitated the entry of emerging black businesses into South Africa's economic mainstream for 15 years. It is currently invested in 27 businesses, which employ over 2,000 people and produce an annual turnover of R264 million (\$41 million).

The basis for developing businesses in the BEE sector is the utilisation of Anglo American's purchasing power to contribute to the overall transformation. This is done on a strictly commercial basis.

Anglo Zimele has created in excess of 100 BEE companies and has developed a successful model which includes taking a limited-term minority equity stake in an emerging business and then acting in a mentoring and business advisory role. This typically assists the small business to survive through the difficult first stages, develop its ability to attract and manage capital, and develop the governance standards required by commercial banks. Once capacity has been transferred, the equity stake is sold and the profit re-invested in other businesses.

The Anglo Khula Mining Fund, a partnership between Anglo American and Khula Enterprises Finance Limited, was launched in 2003. The primary aim of this partnership is the development of a BEE junior mining sector in South Africa, and it is currently invested in two companies.

## Agricultural enterprise in Chile



A group of hardy boer billy goats is contributing to improving the standard of living in the rural areas near Chagres smelter, 80 kilometres north of Santiago, Chile. In a bid to stimulate sustainable economic activity and improve income levels in the area, Anglo American Chile is working in partnership with the local municipality and university as well as specialist consultants to transfer farming, food production and animal husbandry skills to the small producers.

The boer goats, from South Africa, will be cross-bred to strengthen the genetic stock owned by 40 farmers, to improve the goats' meat and milk yield and enable the production of quality goats' milk cheese, under the newly-created Lomas de Catemu trademark. Local and international marketing and distribution channels are being developed.

The Catemu Educational Farm was established to build entrepreneurship and transfer environmentally and economically sustainable technology and skills to the farmers. The educational farm will have areas for goat and bee producers, pens, a milking parlour and veterinary centre as well as offices and meeting rooms. The programme includes technical training, infrastructure improvement, animal health, genetic selection and breeding, feeds, technical supervision and marketing activities. During the second phase, the focus will be on beekeeping – including reproductive management and genetics, production and sales of honey and by-products.

## SAFETY IS OUR FIRST PRIORITY

### A YEAR OF BOTH ENCOURAGEMENT AND DISAPPOINTMENT

We report with deep regret the deaths of 21 employees and 28 contractors. This total is five more than in 2003 and represents a 6% increase in the fatal injury frequency rate (FIFR) from 0.018 to 0.019 per 200,000 man hours.

	Work-related fatal injuries		Lost-time injury frequency rate	
	2003	2004	2003	2004
Platinum*	24	24	1.68*	1.45
Coal	7	2	0.55	0.44
Industrial Minerals	1	1	0.85	0.62
Base Metals	6	9	0.78	0.57
Ferrous Metals	1	5	0.65	0.46
Industries	2	1	0.34	0.21
Paper and Packaging	2	7	0.47	0.40
Exploration	0	0	0.49	0.20
Technical and other	1	0	0.45	0.20
Total	44	49	1.00*	0.77

- \* These numbers have been revised to include all the restricted work cases, with the following changes:
- Platinum was reported as 0.74 in 2003; this now increases to 1.68
  - The Anglo American plc total (managed companies) was reported as 0.64 in 2003; this increases to 1.00.

### Taking action

Every incident is investigated and steps are taken to address the risks and prevent further problems. These are illustrated in the case studies.

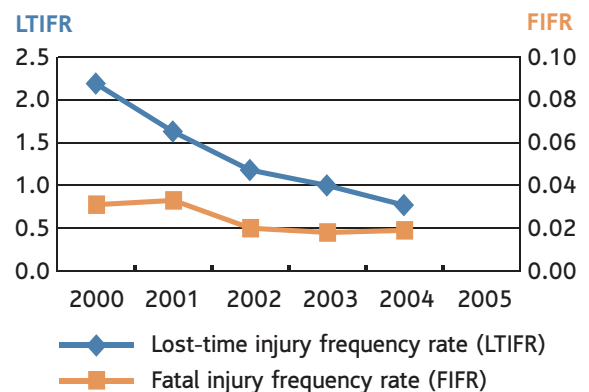
In the worst single incident, at the El Soldado copper mine in Chile, five long-term contractors lost their lives.

Two-thirds of our deaths occurred underground, and one-third of them was due to falls of rock. The steps that Anglo Platinum is taking to meet this challenge are described on page 21.

A careful review of the policies and practices that we have detailed in the two previous reports, together with benchmarking against safety leaders in mining and other sectors, has convinced us that the right ingredients are in place and that we must now pay meticulous attention to implementation.

This view is supported by an encouraging decline in our lost-time injury frequency rate (LTIFR). This fell by 23% during the

### Lost-time injury and fatal injury frequency rates



year, and has declined by over 65% in the five years we have been reporting. Some 19% of our businesses that employ over 100 people were injury-free for the year, up from 16% in 2003. Our businesses continue to set themselves challenging targets for improvement and we are seeing the emergence of a new safety culture. The majority of our businesses are now willing to be judged against a target of zero lost-time injuries, and there is increasing focus on leading indicators that allow us to be more proactive in safety management. Such indicators include the analysis of 'near hits', directly appropriate training, safety audits and site leadership observation, and correction of unsafe working behaviour. It will still take time to eliminate serious injury, but the belief that zero is possible will drive much better performance.

We also recognise the need to review our approach to contractor selection. Contracts will be re-assessed to ensure that contractors are fully integrated into our safety management programmes.

In support of our leadership and employee-focused initiatives, we are increasing formal certification of our safety systems. Certification to third-party OHSAS 18001, NOSA or ISRS international management system standards increased from 53% in 2003 to 70% in 2004. We are well on track to meet our target of 75% in 2005.

We have, however, had our failures and legal actions taken against the Group resulted in costs totalling \$483,000 – up substantially from 2003, although from fewer cases.



### Fatal incident at El Soldado

On 12 August, a fatal incident occurred underground at the El Soldado copper mine near Santiago, Chile, which resulted in the deaths of five people and minor injuries to five others. The incident was the result of an in-rush of water from one of the ore passes that transfers mineral from the open pit mine to a collection point located in the underground section of the mine.

An emergency committee was established to provide comfort and support to the families and colleagues of the deceased and lead the incident investigation. Operations were immediately halted and recommenced only when it was verified that the area was secure and no other such dangerous conditions existed.

A detailed investigation has been completed with considerable co-operation from the international mining community. A multinational review of best practice in ore-pass management and control was conducted and the results of our own investigation have been passed on to our industry colleagues around the world.

### Tarmac targets zero lost-time injuries

Anglo Industrial Minerals has made significant progress towards its target for 2005 of zero workplace injuries. At the end of 2004, the performance had improved by 78% compared with 2000, after Anglo American completed the acquisition of the Tarmac group. Tarmac has already surpassed the UK Health and Safety Executive's call for a 50% reduction in reportable injuries in the quarry sector by 2005. The company reduced injuries in UK quarries by 87%, contributing to a reduction of 46% for the sector as a whole. The principles of Anglo American's Zero Tolerance Target Zero (OTTO) programme include taking appropriate action if unsafe situations are seen, stopping other people from unsafe behaviour and preventing colleagues from working in unsafe conditions.



**Tarmac Southern team demonstrating the award-winning cement-truck safety handle and access platform to enable safe unloading**

In 2004, Tarmac China, Tarmac Recycling and Tarmac Shared Services were injury-free for the second year running. Tarmac's Henlade precast concrete plant has reported no lost-time injuries for the third successive

year. Operations in Spain have failed to meet the company's performance standards and additional initiatives have been taken to resolve the problems.



In recognition of this performance, Tarmac was awarded the UK's quarry Products Association top award for outstanding performance in health and safety. The company was praised for its "intense and all-pervasive focus on health and safety". Tarmac also received awards for innovation, competence assurance and behaviour-based safety initiatives.

The innovation award was for a vehicle collision avoidance system (VCAS) that Tarmac has developed and fitted to all large rollers to protect a five-metre safety zone to the front and rear of the vehicle. The equipment has proven so successful that it will be used worldwide.

### Codemin wins Chief Executive's Safety Award



**From left: Pedro Paulo Batista, then president of Anglo American Brazil, with Anglo Base Metals' head of nickel Brian Beamish, head of zinc Dave Morris, chief operating officer Peter Smith and chief financial officer Mike Gordon**

Codemin, a nickel operation in the state of Goiás, Brazil, was awarded the Chief Executives' Safety Award for its 2003 performance. Codemin operates an open pit mine and processing facilities with two lines of rotary kilns and arc furnaces producing ferronickel alloy.

Safety and occupational health management at Codemin is part of a consolidated and integrated quality management system incorporating ISO 9001, ISO 14001 and OHSAS 18001. Underpinned by solid systems, Codemin's excellent safety performance was based on fostering a culture of care and co-operation involving employees, contractors and external stakeholders. In an annual safety, health and environment week, families and the local community are also included. A programme that combines safety and health with total quality management has been in place since 1994.



Employees and contractors elect representatives to an accidents prevention committee (CIPamin) which discusses risks and makes recommendations for improvements.

Some departments have their own safety initiatives, such as the internal safety team elected by the workers every four months at the smelter, managed by Jurandir de Pádua Duarte. Although the smelter has the highest inherent risks, his department achieved four years to May 2004 without a lost-time injury.

Codemin employees believe that the safety and health management system brings personal benefits, opportunities for active participation and satisfaction at work, as well as generating high performance and success for the company. Unfortunately, in September 2004, José dos Santos Vieira, a sub-contractor employee, suffered a fatal electric shock while working on the Codemin II project. This tragic event has re-emphasised the importance of reviewing risk assessments during non-routine situations such as construction.

### **Mondi sets up contractor guidelines**

Mondi has developed standard contractor risk-management guidelines that will ensure that all contractors are selected on competence, resources, commitment to effective risk management and demonstrated past performance. Mondi will work with contractors to ensure they develop the necessary risk-management competency and resources.

The guidelines assist in more clearly defining the occupational health and safety risks associated with projects and other work for which contractors may be responsible. They set out the requirements for contractors to design key risks out of the contract and establish procedures to address occupational health and safety from the planning through to the implementation stage.

Contractors' employees will be required to carry site passports, which contain a detailed record of site-specific induction and relevant training. Selection of prospective contractors will eventually be through an occupational health and safety management scheme. Post-contract review will provide for a database of preferred contractors.

### **Anglo Platinum avoiding falls of ground – a huge undertaking**

Some 44,000 people work underground in our platinum mines. In 2004, 63% or 15 of the 24 deaths which occurred in the business unit were related to underground rock falls. Normal procedures to identify potential rock falls, and to manage the risks, are multi-fold and improvements are sought on an ongoing basis. Learning is shared as widely as possible to avoid these tragic events.

Rock faces are examined daily by competent people to identify any irregularities and to take corrective action. Supervisory staff can authorise the installation of additional support and management and rock engineers demarcate special areas where conditions are thought to pose additional risks. This highlights the importance placed on the task of declaring an area safe, as specified in regulations promulgated in 2002.



### **Anglo Platinum's human resources department has developed a system for undertaking real-time skills assessment**

Panel rating systems are used routinely and specialist engineers conduct coaching into identifying and treating rock-related risks as part of their normal visits. Incidents are reported and investigated thoroughly by internal and external bodies, and corrective action is taken.

All team leaders and miners need to be competent in assessing risks prior to declaring a workplace safe. Essentially, the company is required to develop plans to ensure that people who are going to declare a workplace safe are appropriately qualified. The company is using hand-held computers to facilitate the process of assessing the competence of those who identify, report and manage these risks.

Anglo Platinum had some 19,000 people who needed to be assessed in terms of their competence across an average of seven skills areas. This entailed 133,000 assessments with both practical and written (theoretical) elements. The challenge of conducting practical assessments underground, where conditions are often wet, dark, noisy and muddy with few flat surfaces, was significant. The Anglo Platinum human resources development team has streamlined the process by making use of palmtops linked to data bases.



**Pocket computers, encased in waterproof protective shells, make it possible for electronic monitoring and auditing of competence assessments**

## OCCUPATIONAL HEALTH FOR ALL

Reducing and managing health risks remain essential functions at our operations. For the second year, our businesses have measured their level of compliance with our own occupational health management guidelines. The score increased from 80% in 2003 to 87% for 2004. This was supported by an increase in the coverage of third party audits and certification from 50% to just over 70%.

In general, it is our policy to report occupational illness when the case has been accepted by the local authority for compensation purposes. However, due to the different approach to occupational health in each country (a mixture of company, private and state service providers), there is variability in the point at which occupational disease is reported, with some reporting at the time the disease is diagnosed and others at the point when it is compensated. The statistics should therefore be treated with some circumspection.

In 2004, the number of reported new cases of occupational illness rose substantially from 1,257 cases to 2,033. Once again, by far the majority (1,581 or 78%) of the new cases relate to noise-induced hearing loss (NIHL). Of these, 91% can be attributed largely to new South African legislation introduced at the end of 2003, which changed the way that hearing loss is calculated for compensation purposes. All potentially noise-exposed employees were assessed for compensation against the old system and, at the same time, had a new baseline set against which future hearing loss will be measured. Many employees, who would otherwise not have been assessed for a number of years, are being compensated early. The effect of this is to move all compensation into a single year – at least to the extent that the authorities can manage the greatly increased number of claims. The higher numbers of ‘new’ cases will continue in 2005 until the backlog is reduced. There will be a corresponding lag in the reporting of new cases of NIHL in the future and, with good management, the numbers should be significantly lower.

In addition to this, 228 cases of pneumoconiosis, 141 cases of other occupational lung disease, 49 cases of musculo-skeletal injury and 34 cases of hand-arm vibration syndrome have been reported. Reports have also been received of a few cases of illness relating to heat exposure, lead and dermatitis. These latter cases have not led to permanent impairment and have been managed through improvements in the working environment and employee reassignment: none resulted in compensation claims.



For the first time we are able to include an occupational illness rate for Group employees. The total occupational incidence rate is estimated to be 12.8 per 1,000 employees. This is not equivalent to the lost-time injury statistics because it is unusual for working time to be lost. It does provide us, however, with a quantified baseline for measuring improvement in the years ahead. As indicated above, this number should fall rapidly in the future as the number of compensation claims for NIHL declines significantly.

Our approach to the prevention of occupational disease is based on a hierarchy of controls beginning with reduction of exposure at source through engineering controls before any other measures, such as using personal protective equipment (PPE), are taken. As an example, in South Africa the approach to noise involves reducing employee exposure to noise levels over 85 dB(A) – the general regulatory standard – and follows the basic steps of:

- Identification, mapping and monitoring of noisy areas
- Training employees (awareness, signage and access control)
- Physical separation of noisy areas where possible, either through enclosure of machinery or soundproofing of control rooms
- Specifying sound levels for new equipment
- Personalised hearing protection when necessary
- Regular monitoring of exposed employees' hearing
- Engineering improvements to make machinery quieter.

Some specific examples of this approach are listed below:

- At Mondi's SilvaCel operation, tractor exhaust silencing has reduced noise levels by up to 9 dB(A). A 3 dB(A) drop in noise levels results in a halving of the noise exposure (and hence potential hearing damage), whilst a 10 dB(A) drop results in halving the perceived noise.
- Tarmac reduced noise (and saved energy) by installing lagging on a stone dryer at Bayston Hill quarry.
- Drill muffling, fan silencing and the use of custom-fitted ear protection have been implemented at Anglo Platinum.
- Reducing noise in vehicle cabs and personal exposure monitoring at Anglo Coal Australia.
- Partnership with a load-haul-dump machine manufacturer in our South African coal mines has reduced noise levels to 82.5 dB(A) – with the cab air conditioner on.
- Fitting of silencers to steam-release and various process exhaust valves at Mondi operations.

### Lung disease

Anglo American Corporation of South Africa (AACSA) last year received 19 separate summonses which were instituted in the High Court of South Africa by claimants who seek to hold AACSA liable for personal damages which each of them allegedly sustained from silicosis. AACSA denies that it is liable to any of the claimants and is defending the claims.

Silicosis is an occupational lung disease caused by the inhalation of free silica dust which is present in mining areas where quartz concentrations are high, as is frequently the case in deep level mines. AngloGold Ashanti

has stated that in South Africa the follow-up treatment and compensation systems set up in the past under the Occupational Diseases in Mines and Works Act, especially for ex-employees, do not seem to be functioning as well as intended. Anglo American and AngloGold Ashanti are working with the state, unions and other mining companies in developing solutions to overcome these difficulties.

### Reducing the risk of back pain from bulldozer vibrations

A report completed in early 2004 into musculo-skeletal injuries at Anglo Coal Australia's open cut operations identified vibrations experienced by bulldozer and heavy machine operators as a possible cause of back and neck injuries.

A plan has been put in place to reduce operator exposure by reducing vibration, introducing a virtual cabin for a remote-control-operated bulldozer, and possibly re-assigning certain bulldozer operators. The results of the plan will be benchmarked in 2005 against other initiatives in the Australian mining industry, including collaborative industry programmes with equipment manufacturers.



**Ongoing exposure to vibration in heavy machinery accounts for 19% of occupational injuries at Anglo Coal Australia**

### Concerns about diesel particulate matter

There is debate as to whether diesel particulate matter (DPM) is a possible or probable carcinogen and various studies are being undertaken around the world. Recent recategorisation by the National Institute for Occupational Safety and Health in the United States from 'possible' to 'probable' has initiated a reactive change elsewhere in the world, to mandate very low exposure levels. There are doubts about the ability of the mining industry to meet the new limits with existing technology.

Research results were recently presented by Anglo Coal Australia at the Queensland mining industry safety and health conference. These indicate that the mining industry does not experience a higher level of disease caused by DPM than other industries. However, it remains an issue of great concern. Agreement was reached to find a common approach



**Education is critical for the prevention of injury. Mondi Packaging used this image to highlight the need for safety when undertaking heavy lifting**

across all sectors of the industry, to collate research and set a strategic guideline of best practice for the management of DPM in coal mines and establish baseline monitoring for each mine site.

Vehicle design, operation and maintenance are key to the control of DPM levels underground. Data will be generated on vehicle maintenance, movement and traffic densities, as well as environmental and personnel monitoring in areas of low ventilation quality and high vehicle activity.

### Reducing noise and vibration on hand-held drills

Hand-arm vibration syndrome (HAVS) and noise-induced hearing loss (NIHL) are significant causes of occupational injury and nuisance. Boart Longyear has worked on a number of projects with the University of Pretoria in South Africa to reduce noise and vibration experienced by operators.

A PhD student has developed a vibration absorber for hand-held pneumatic drills. The vibration transmitted to the operator is significantly reduced by modifications to the coupling between the handle and the drill. Further work is being undertaken to ensure commercial viability of the new handle.

Shaft sinking is normally undertaken with the help of a jumbo drill which typically comprises six booms and feeders mounted with rock drills. To reduce the noise levels generated by the exhaust air, the rotation unit and the impact of the piston on the steel, the rockdrill has been encapsulated in a muffled box made of polyurethane and a composite material. To reduce the noise levels emitted from the drill string, it has been shielded for the full length of the drill rod. Various materials and designs for collapsible bellows have been tested in a shaft-sinking application.

A low-noise rock drill system has been developed in conjunction with the University of Pretoria and SIMRAC, the mine safety research and advisory committee in South Africa. The rock drill, air leg and drill string are fully encapsulated in a composite material tube. The drill system is supported by two temporary roof supports and requires two people to move and set up. One unit using an S215 rock drill is currently being tested in a training stope.



# BUILDING OUR PEOPLE

## Anglo American people

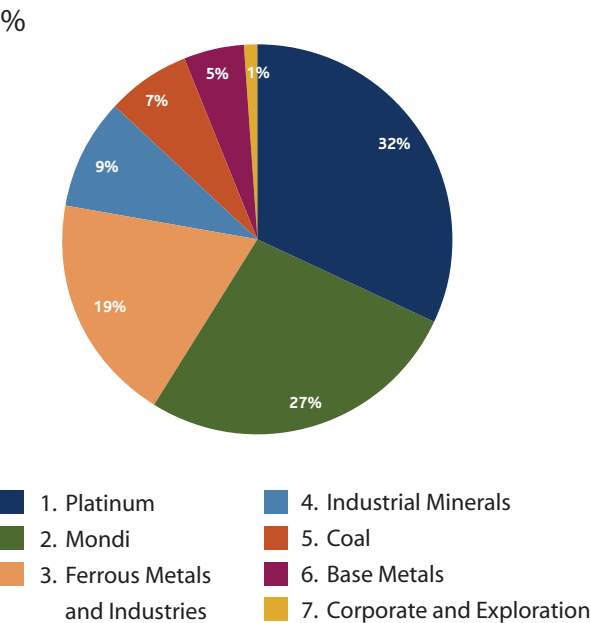
We pride ourselves on having good people – without them we would not be able to achieve world-class performance in all areas of business. For them to achieve, we have to strive continuously to create an open and empowering environment which attracts the best talent and ensures that employees can realise their full potential.

Our investment in our employees includes creating safer and healthier working environments, investing in their skills and capabilities and ensuring fair and ethical working practices.

Anglo American managed subsidiaries employ over 143,000 people around the world (over 209,000 including independently-managed subsidiaries AngloGold Ashanti and Tongaat-Hulett). Most of our

## Permanent employees by division

(excluding AngloGold Ashanti and Tongaat-Hulett)



Employee numbers by continent		
	Managed Companies	Total
South Africa	84,000	127,000
Rest of Africa	2,000	22,000
Europe	42,000	42,000
North America	4,000	4,000
South America	6,000	8,000
Australia and Asia	5,000	6,000
Total	143,000	209,000
Number of countries	60	65

employees are in developing countries or countries with economies in transition, where there is real need for jobs and economic opportunities.

On an annual basis our operations complete an Employee Related Information return. This indicates that in 2004, nearly 80% of our employees were covered by trade unions, works councils or other formal consultation mechanisms.

During 2004, our focus was on developing safe and healthy work environments, embracing the ideas and talent of all sectors of the population and transforming the culture in our business. More than 40% of total expenditure in training was allocated to training in the safety, health and environment arena, with special emphasis on safety in the workplace.

## Putting training in place at the Yang quarry



Jack Fang conducting safety training at Yang quarry

When Anglo Industrial Minerals invested in the Yang quarry project near Huzhou city in Zhejiang province in eastern China, it became obvious that safety had in the past not been given any priority, leading to many severe injuries and deaths.

The quarrying practices were rudimentary with no modern drilling and blasting techniques. Almost no personal protective equipment (PPE) was worn and mobile equipment was repaired only on a breakdown basis. There was no guarding on the moving parts of the crushing equipment.

With Zero Tolerance Target Zero (OTTO) as the company goal, Tarmac UK quarry managers were recruited to develop and embed a safety culture and run the quarry according to UK safety standards. A young teacher, Jack Fang from Hangzhou, was recruited as training manager. He modified and translated basic training literature, and adapted a version of an interactive induction tool developed in the UK.

There are currently around 40 operational employees in Yang, all of whom are on a training schedule for the first time in their working lives. Employees have willingly taken to the wearing of the required PPE and understand the benefits of classroom training as well as learning from the practical experience of others. The Chinese authorities have praised Anglo American for introducing international safety practices to its operations in China. A significant proportion of the local community is dependent on the quarry, which has now operated without lost-time injuries since the third quarter of 2003.

### The human factor

Welding fume exposure was identified as a health risk at Mondi's Felixton mill in South Africa. Programmes have been introduced to reduce risk, including improvement of ventilation, the use of respiratory equipment, the installation of extraction fans and the training of personnel.

When investigating why measured exposure to welding fumes continued to exceed the prescribed limits, management at the Felixton mill recognised that solutions have to be tailored to local conditions. Even though they understood the dangers, workers were reluctant to use protective respiratory equipment because of the extremely hot, humid summers and the noise of the extraction fans.

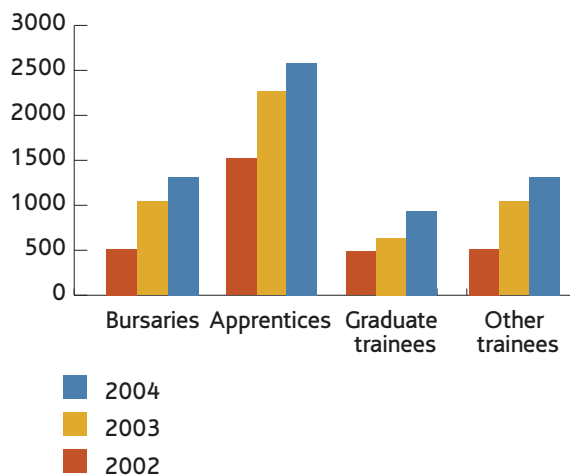
A local extraction and ventilation system was, therefore, installed. This brought exposures down to 5% of regulated limits, reducing risks and improving working conditions and morale.

### INVESTMENT IN TRAINING

As a Group, our investment in long-term training initiatives is significant. Since 2002, we have increased the number of bursary students, apprentices, graduates and other trainees from 3,000 to 6,000. In many areas where few employment opportunities exist, we offer young people the chance to obtain transferable skills and qualifications, and economic

#### Group trainees: 2002-2004

(excluding AngloGold Ashanti and Tongaat-Hulett)



**The occupational health impact of welding has been reduced at Felixton mill**

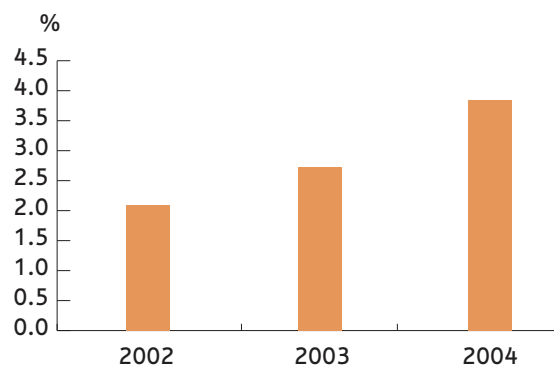
independence. We provide educational support for every level of employee – whether it be adult basic education, job-skills training, professional accreditation or management development. During 2004, training costs were 3.8% of total employment costs (excluding independently-managed subsidiaries), up from 2.7% in 2003.

Our goal is to be an employer of choice and to create an environment that encourages all our employees to give of their best. Many of our operations have introduced employee surveys to help them understand, develop and improve morale and corporate culture.

The need to promote and support diversity in the workforce is a global issue. In our mining businesses, attracting women into the workforce remains a particular challenge. The mining business units are addressing the issue through recruitment programmes. Our Paper and Packaging business unit has recognised the need to focus further in this area and has set goals and appointed champions to ensure that women are recognised within the workforce.

#### Training costs as percentage of total employment costs: 2002-2004

(excluding AngloGold Ashanti and Tongaat-Hulett)





## BRIDGING THE EDUCATION GAP

### Apprentice training for Chilean school-leavers

A Base Metals apprentice programme to encourage Chilean high school leavers to learn mining-related trades and prepare them for the labour market is providing important opportunities for young people to gain employment in regions where few economic opportunities exist. More than 500 apprentices have been trained, with many of them going on to full-time employment in the industry.

The youngsters are selected from several industrial high schools based on their academic background, a pre-employment medical examination with the mutual benefit fund and a psychological examination. Participants work for 12 months under the guidance of an employee who acts as a tutor to a small group of youngsters. These apprentices are trained in specific production activities.

This technical-professional education also improves relations with the community and enables Anglo American Chile to demonstrate its principles of good corporate citizenship. The Mantos Blancos apprentice programme has run for 12 years with an average of 30 apprentices per year. The Mantoverde programme accepts about 22 apprentices a year and provides opportunities for youngsters



Diego Pizarro and Jazmin Becerra, are part of the Base Metals apprentice programme

from Chañaral and other local towns, where few employment opportunities exist. Chagres smelter accepted 24 apprentices in 2004.

### Literacy training

For a number of employees in Mondi Packaging's 47 industrial sack plants, reading and writing was a real challenge. Since March 2004, about 70 people in Morocco, China, Jordan and Tunisia have been enrolled in a literacy programme of four to six hours a week, some of it on weekends. They are hoping to

acquire basic reading and writing skills in their own languages over a two-year period.

### Ensuring a steady stream of professionals

Kumba Resources, in South Africa, part of the Ferrous Metals and Industries business unit, invested R24 million (\$3.7 million) last year in bursaries for study at universities in South Africa and professionals-in-training programmes to ensure a steady stream of suitably qualified professionals in a skills-deficient market.

In 1995, a bridging programme was initiated to improve the mathematics and physical science abilities of high school students to enable them to qualify for tertiary education in engineering and geology.

Since then, 122 students have received bursaries for tertiary study and 39 bridging school pupils have gone on to be employed as qualified engineers or geologists at Kumba. About 60% of Kumba's bursary holders have come through the bridging school. There are 25 full-time pupils currently at the bridging school and 130 bursary holders.

After completing their studies with Kumba's aid, the professionals-in-training undertake a structured development programme, in order to register with professional bodies in their respective fields.

### Workers at Mondi's Moroccan packaging plant receiving literacy training



### Anglo Coal Australia graduate programme

Anglo Coal Australia's graduate programme has been designed with the aim of developing well-rounded, innovative individuals, with mature attitudes and commercial awareness, who are capable and keen to accept responsibility in their professional disciplines.

The 2005 intake is the largest yet, with 27 new graduates, including one graduate recruited as part of the Anglo American plc international graduate campaign. The graduate programme covers 10 disciplines and is of three years duration, giving each graduate two different placements at an open cut mine, an underground mine or corporate office.

A graduate's development plan is based on the job requirements of the mine sites and business units and the individual development needs of each graduate.

An important element is the annual graduate dinner and peer day when the trainees make short presentations about the work in which they are involved and their experiences on the programme. Upon completion of the programme, graduates take up positions throughout the business and are encouraged to continue to build their careers within Anglo Coal Australia.

The programme also involves scholarships for courses relevant to Anglo Coal Australia's business. Anglo Coal Australia's chief executive Eric Ford says the scholarships have two key benefits – financial assistance and guaranteed vacation employment.

Scholarships were also granted for the first time this year to 12 high school students. The scholarship programme, which began eight years ago, currently has 39 active scholars at six universities in Queensland and New South Wales, and at Moura and Gympie state high schools in Queensland.

### Achievers recognised

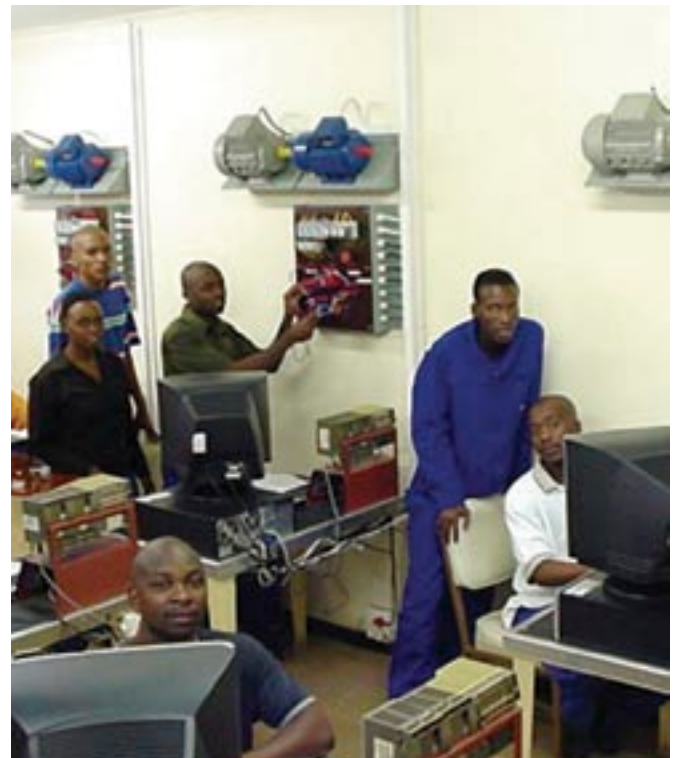
The Achiever programme in South Africa is a first step in management development for employees who are in their first four years of employment and who are demonstrating potential and performance. The programme provides delegates with exposure to the greater Group at an early stage in their career. It is also an opportunity to network with employees and senior managers from other operations or divisions, as well as exposure to benchmarking, talent management and competitiveness. The programme includes significant interaction and informal sharing of ideas between senior management and these high-potential individuals.

### Challenging trainee programme

Copebrás has been expanding its business following the implementation of the Goiás project. Additional trainees were required in production, process, remuneration, logistics, communication, commercial and quality management at the Cubatão and Catalão sites.

Candidates for the 18-month trainee programme for the Goiás project need to display qualities that Copebrás considered as vital. They need to be team players willing to face challenges, demonstrate potential and enterprise and have a good command of English.

An innovative training programme included technical lectures, area visits and weekly presentations. It gave participants an overview of the company and improved communication skills and included a weekly musical expression activity. Work was also undertaken with the company's leaders to ensure they understand the way this new generation of trainees behaves, their aims and expectations and to reinforce the relevance of the coach's role.



Kumba apprentices

### Apprentice training for unemployed

The apprenticeship scheme in Kumba Resources was established to use the company's training infrastructure to contribute to South African national and industry targets for training the unemployed. At any one time, there are up to 430 people in the three stages of engineering learnerships, at vocational training centres based at the Sishen mine in Kathu and at the Grootegeeluk mine in Lephalale (Ellisras).

Kumba focuses on five disciplines – diesel mechanics, electrical engineers, fitters, millwrights and plate workers. In 2004, 79 of 200 engineering apprentices who completed their trade tests successfully were appointed in Kumba. Of these apprentices completing their trade test successfully in 2004, 151 (76%) were historically disadvantaged South Africans, including 11 women.

Kumba is training about 14% of all engineering apprentices in the country and 27% of those in the mining industry. At South Africa's Growth and Development Summit, held in June 2003, the mining industry committed itself to training some 10,000 unemployed people over the next 10 years.

## Transformation in South Africa

As part of the transformation agenda within our South African business units, we have continued to increase the representation of historically disadvantaged South Africans in management positions from 35% in 2003 to 37% in 2004.

Most significantly, year on year we have more than doubled the number of historically disadvantaged South Africans in our most senior executive ranks (7% to 14%). We have also seen steady changes in the composition of our senior management population across all our business units, as a result of internal promotions as well as external recruitment activity. As a result we therefore now have a substantial number of visible leaders in senior positions throughout our business to give impetus and effect to our transformation strategy.

## Diversity starts at the top

Mondi is committed to having a workforce that reflects the diversity of the countries and communities in which it operates and to creating an environment which will understand, respect and value these differences and capitalise on the benefits diversity brings to our company. To this end, Mondi Packaging has started its diversity programme at the executive level, reflecting their belief that diversity is usually not a grassroots movement, but must be a 'revolution from above'.

The 40 most senior managers of Mondi Packaging, from 13 different countries, have been given the responsibility for diversity, with the human resources team driving it and the sustainable development manager acting as diversity champion for the group. Mondi Packaging is making concerted efforts to introduce more female managers and to provide them with the support they need to succeed.

## Mondi women in technical positions

Women have traditionally been an important part of the workforce in Eastern Europe. However, the dramatic changes in the labour market in transition economies have left qualified women with fewer and fewer options.

One company taking a proactive role on gender issues is Mondi's Ruzomberok mill, in Slovakia. In an industry dominated by men,

the company has developed a comprehensive programme for the professional development of women, and a target for female employment of 20% or more.

Women are receiving occupational education and training in fields such as production and technology, leadership and management. They are also being assisted to obtain licences as forklift drivers, crane operators and electricians. A recent survey showed 95% of women were in an education programme and 98% wanted to do more difficult tasks. Women have been included in the finishing lines at the PM 18 rewinder, as well as in the restructuring of the quality control laboratory.

## Technical achiever

Dr Olga Šotolová, fibreline department manager, is an excellent role model for women in technical and managerial positions in Mondi. Dr Šotolová is responsible for environmental matters at the Ruzomberok mill and under her management chemical oxygen demand levels (an indicator of environmental performance) have dropped below the best available technology figure. Public authorities rated the total reduced sulphides (TRS) emissions monitoring system as one of the best, communication with the community has significantly improved, and complaints about bad smells from the plant have been resolved. She has clearly achieved a great deal in two years.

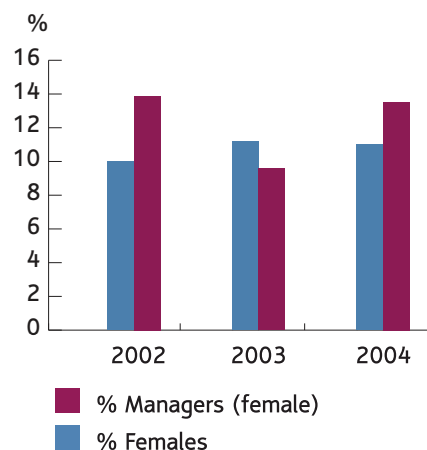
## BUILDING A MERITOCRACY THAT IS OPEN AND EMPOWERING

Our aim is that every employee will have face-to-face meetings with a direct line manager to agree performance targets and to review performance and development needs. These conversations ensure that employees understand what is expected of them and how their individual contribution supports our business strategy.

Feedback and discussions on strengths and weaknesses assist the employee in working more effectively, building on strengths and identifying ways to overcome any shortcomings.

## Gender diversity

(excluding AngloGold Ashanti and Tongaat-Hulett)



Olga Šotolová



Despite the difficulties associated with complex shift arrangements and dispersed work locations, currently 42% of our total workforce have a formal annual performance review (54% in 2003).

### Performance review

To obtain feedback on the effectiveness of the performance review process in our corporate offices, two external audits were held at the end of 2004. In Johannesburg, a representative sample of managers and employees took part in confidential focus groups and in London 62% of employees responded to an on-line questionnaire. The results confirmed that reviews were taking place in both locations, with both positive feedback and areas for improvement.

Key areas that were highlighted for action in 2005 in Johannesburg were the need to align objectives more closely with business strategy. In London, managers were advised to improve in helping employees identify their strengths and weaknesses, and with training and development needs. Follow-up development meetings will be held with managers and employees.

A common theme for improvement was for a stronger and more transparent link between performance and reward. This indicates a need for better communication of this linkage below the head of department level.

### Entrenching new values

Employees have set in place a cultural revolution in Anglo Coal South Africa. *Yebo Siyaphambili*, a five-year initiative, will entrench a new set of values identified through a recent survey. The message was clear. Employees want to work in an environment that fosters empowerment, communication, innovation, motivation and productivity. They want to deliver performance excellence – through people.

Their vision is that Anglo Coal in 2008 will be an organisation driven by fun and passion, which achieves profit through performance, demonstrates leadership and has the courage to innovate. Employees want to work for an organisation that draws strength from its



**Greenside colliery manager Vusi Maseko and assistant manager Chris Sonnekus and their team celebrate the October record of more than 147,000 'safe' tonnes of coal mined by Mapula section and 145,000 tonnes by George section – demonstrating the shared values of the *Yebo Siyaphambili* initiative**

diversity, expresses care and inspires trust, empowers its people, communicates and is a magnet for talent. Simply put, it needs to be a company with a single, shared vision. *Yebo Siyaphambili* means 'Yes, we are moving forward together'.

### Releasing the energy

Research has shown that where the work climate is good, job satisfaction is high and business performance is enhanced. With this in mind, Base Metals conducted a worldwide survey of employees to assess their views on their jobs, the business unit and its perceived strengths and areas where improvement was needed.

In total 6,642 employees – 94% of the workforce – responded. Results showed that employees know where the Base Metals business unit is headed and want to be part of this unified global company renowned for its

high standards and business ethics. Employees gave Base Metals excellent scores in the area of role and job clarity when benchmarked against high performing companies. Diversity results were encouraging, although there is more work to be done in southern Africa and Namibia.

One of the objectives set in 2004 was to build an agile company that was intolerant of bureaucracy. Addressing unnecessary rules and undue procedures is an improvement priority. Performance management was positively perceived and the business unit will focus its efforts on providing regular performance feedback as well as enhancing career and development management. More efficient communication and developing more effective leadership will also get attention. Focus groups at all operations are studying the results and reviewing plans for improvement. Base Metals will repeat the survey in 2006.

## COMMUNITY AND SOCIAL ISSUES



**Head office staff contributed to a tree planting campaign in central London**

### OVERVIEW

The first sustainable development risk assessment undertaken within the Group last year confirmed our exposure to people issues – both our employees and those related to our host communities. We are a large employer, and frequently the only one in our areas of operation. The management of social issues has lagged behind safety, health and environment practice at many of our operations and we have found ourselves in situations of potential conflict.

With this in mind, we have in recent years increased our stakeholder engagement capability and aligned our socio-economic development initiatives and corporate social investment programmes more closely with our strategic objectives.

As is highlighted in this section of the report these efforts are beginning to deliver value to the organisation and our neighbours. It has become a growing priority for us that over the lifetime of an operation we contribute to building a more sustainable future for local people. There are developmental, structural and educational reasons why in some countries communities are not able to derive a reasonable share of the benefits and may bear a disproportionate share of the negative impacts of living next to a major industrial operation.

Our understanding of the full range of our local impacts is improving and we are increasing local benefits through procurement; training initiatives; business development and partnerships with, for example, farmers and craftspeople, to improve their capacities and market opportunities.

Partnership and capacity building are fundamental to finding sustainable outcomes rather than fostering a sole and unhealthy dependence upon the company. This implies ensuring that governments remain engaged in an area, that other stakeholders are involved in discussions that affect them and that challenges, like mine or plant closure, are addressed in good time.

Business has particular skills and an ability to get things done. We can also play a catalytic role in attracting new players – such as new investors or development agencies – or to developing alternative scenarios for a town or region. Mondi's plant at Swiecie in Poland, for example, has been playing a leading role in working with others to attract new investors to the town – as a response to high unemployment. Similarly, Anglo Platinum has pursued a partnership with the German Government's international development agency and Mondi Forests has worked with the UK Department for International Development on its 'black gold' charcoal manufacturing initiative.

### COMMUNITY ENGAGEMENT

Since we launched our *Good Citizenship* business principles in 2002, we have been working hard to ensure that our performance in relation to communities measures up to our own standards. Regular engagement is not only about the standards expected of a good neighbour but also about effective risk management.

At the end of 2004, based on internal criteria to determine their social, economic or environmental significance, 138 of our managed operations were required to have a three-year, annually reviewed, community-engagement plan. These plans are intended to contain details of stakeholders and how they are to be engaged, as well as objectives and success criteria. They highlight key impacts and stipulate how these are to be managed. They include plans for community social investment and socio-economic development initiatives, complaints procedures, reporting mechanisms, resources and management accountabilities. Some 96% have achieved this goal. Kumba and Bauernfeind eastern European operations were exempt from this requirement as they were new acquisitions. In a number of cases operations decided to complete their socio-economic assessment toolbox (SEAT) before finalising their community engagement strategy – and therefore missed the target date.



Different social or economic contexts, rightly, lead to different models for engagement. The majority of operations have some form of liaison committee or community forum in place. Across Anglo Industrial Minerals' operations, for example, there are formal local liaison arrangements in place at 153 sites, though only 66 are deemed to have significant footprints. In some countries local government is the focal point for engagement. In others there may be parallel structures between elected and traditional leaders or marginalised groups.

### SOCIO-ECONOMIC DEVELOPMENT

Throughout our operations, we create opportunities for wider development and the alleviation of poverty. In many developed countries this can largely be achieved through conventional processes of government. Where governmental capacities are limited, we are more active in promoting sustainable development using a variety of means including recruitment and training of local people, stimulating local businesses, building capacity in the local supply chain and partnerships with other organisations.

Our longest established business development initiative is Anglo Zimele in South Africa, which in 2004 was invested in 27 companies employing more than 2,000 people. The business model is now internationally recognised and involves taking a short-term equity holding, mentoring entrepreneurs, and using the procurement function to build markets.

These companies have a survival rate of about 90%. A network of business development officers who understand the potential and capacities of their local supply chain, ensures that tenders are accessible to smaller companies and spot potential entrepreneurs who can be supported in establishing businesses.

Where possible, we contribute to and integrate our own economic development initiatives with the development frameworks created by regional and national governments.

### SOCIO-ECONOMIC ASSESSMENT

The Anglo American Socio-Economic Assessment Toolbox (SEAT) was developed during 2002-3 through three pilot projects and extensive peer review. It is designed for use at established operations and is not an alternative to a social impact assessment. It is a mechanism for building internal capacity at site level to address social and community challenges and for improving managers' understanding of their social and economic impacts. It also informs their action plans to enhance economic opportunities and build community capacity. The quality of engagement with local stakeholders is improved through identifying inclusive and appropriate channels.

During the year, almost 100 employees from southern Africa, Europe, Brazil, Canada, China and the Middle East attended training workshops. Thirteen assessments have to date been completed in six countries around paper plants, sugar plantations, forestry operations, smelters and mines. A further 23 SEAT assessments are currently underway. To date, therefore, SEATs have been undertaken in 10 countries – Australia, Brazil, Chile, Ireland, Poland, Russia, South Africa, Swaziland, Venezuela and Zimbabwe. We plan to have undertaken a total of 45 by the end of 2005. Individual tools or groups of tools are also being used to benchmark or improve practices at some operations where full assessments have not yet been conducted. Different implementation models are emerging. In Chile it has been used in partnership with a national NGO, Casa de la Paz, and, in Australia, as an input to an assessment of Anglo Coal's Drayton mine carried out by the Centre for Social Responsibility.

#### Anglo Coal South Africa

Anglo Coal in South Africa carried out its first two SEAT assessments at the New Denmark and Goedehoop collieries. These highlighted a number of common issues including the central importance of continuing senior management engagement and the greater likelihood of realistic community expectations as a result of a more active engagement policy. Amongst the impacts and issues which the assessment

highlighted by local communities were the perceived lack of opportunities provided to local suppliers, including youth-orientated companies and the importance of transparency in local employment practices. Employee housing ownership, need for communication around the progress made with the South African 'transformation' agenda and the desirability of closer relations between the mines and all local schools were also identified. These issues are being addressed as part of the management response action plans.

#### Chagres Smelter

Anglo Chile has led the way in SEAT implementation, completing assessments at all five of its managed operations (the El Soldado, Los Bronces, Mantoverde and Mantos Blancos mines and the Chagres smelter). SEAT has coincided with a period of debate in Chile about the need for the mining industry to improve its contribution to the long-term development of the country.

The SEAT programme was undertaken in partnership with Chilean NGO, Casa de la Paz, which has provided expertise in social assessment, engagement techniques and objectivity. Indeed Casa de la Paz are now using the toolbox with other companies with which they work in other sectors in Chile. They consider the SEAT methodology to be ground-breaking in its field. The application of the tool has started to be introduced in Chile as an example of good business practice and of NGO-business alliances, where the experience of both parties is leveraged.

Chagres directly employs 287 people and there are 270 indirect jobs supported by the operation. It is estimated that some 1,600 people are supported by the smelter.

Analysis of local stakeholder concerns revealed, however, a relatively low level of trust of the company by stakeholders in areas like environmental reporting, potential health impacts, dust and noise, and the transportation of hazardous substances. There was a perception that the smelter contributes little to the local economy and jobs as well as fears about the ultimate incompatibility of a smelter with an ecological emphasis on the development of local agriculture. A change in

smelter technology in the mid 1990s is perceived to have improved environmental performance and training initiatives, and the goat breeding and bee-keeping programmes (see page 18) are positively perceived.

The management response is still being completed but the recommendations to management include actions for improving routine engagement with local community representatives as well as improving transparency around environmental monitoring and reporting and transport management measures. Local procurement, including the provision of training support for local suppliers and improving the performance of contractors was also highlighted.

### Getting first impressions right

Exploration geologists are the first contact that a community may have with Anglo American. If a viable deposit is found, the legacy of the early relationship that they establish may be vital in determining whether a project can proceed. Trust has to be earned and it will only be earned if a community's experience of us is consistent and shows a common adherence to core values. Our exploration team have recognised that Anglo's commitment to responsible interaction with communities must stretch from exploration to closure and that they needed to provide greater guidance to the geologists on the ground. The result, launched in prototype at the end of 2004, is the 'Exploration SHEC-List' an integrated approach to assessing impacts created during exploration.

Unlike SEAT, the SHEC-List also embraces safety and environmental impacts. It contains 30 thematic checklists and a similar number of background guidance notes. Amongst the issues covered are negotiating access to land, water use management, community consultation, cultural and religious sensitivities, artisanal miners, security and conflict awareness, safety, and preparing an exit strategy for the great majority of projects which do not become viable mines.

Project leader John Landmark sees the SHEC-List as a source of support and guidance: 'The SHEC-List provides a compass for our field

## STAKEHOLDER ENGAGEMENT

Our *Good Citizenship* business principles emphasise the importance of regular and systematic engagement with stakeholders to inform our strategy and improve our understanding of the priorities of the societies around us and to enable us to work with them in building sustainable futures. The table illustrates the range of stakeholders with which we routinely engage and the channels through which we and our business units seek to understand their views.

### Stakeholder Group – methods of engagement

Investors	Individual and collective presentations; annual presentation and thematic meetings on sustainable development performance; stakeholder surveys.
Employees and their representatives	Performance contracts and development reviews; team briefings; CEO briefings on strategy and financial results; climate surveys; European Information Council; trade union consultations and negotiations.
Governments	Direct engagement as well as through industry associations. National partnerships on social priorities and international partnerships (such as the Extractive Industries Transparency Initiative), stakeholder surveys.
International organisations	Membership of UN Global Compact; ICMM; WBCSD; Global Business Council on HIV and AIDS etc.; participation in consultations on World Bank's Extractive Industries Review and the IFC draft performance standards.
Communities	Community engagement plans; community liaison panels; SEAT; roundtables; consultations; engagements with democratic and traditional leaders.
Contractors and supplies	Commercial interactions; site level open days; safety inductions; performance reviews.
Customers	Commercial relationships; satisfaction surveys; complaints procedures.
NGOs	Engagement on specific issues; stakeholder surveys; involvement in partnerships (e.g. on biodiversity conservation; on environmental research; on HIV and on the Voluntary Principles on Security and Human Rights).

geologists in tackling a whole range of challenging and fast evolving societal issues.'

### Loma de Níquel certified to SA 8000

Loma de Níquel in Venezuela has been certified to SA 8000, which is a measure of a company's social responsibility systems. As part of the audit, compliance with all Venezuelan labour laws and basic employee rights was assessed. Auditors interviewed trade union representatives and about 90 employees and contractors. Loma de Níquel has rapidly entrenched excellent systems and was simultaneously certified to ISO 9001, 14001 and OHSAS 18001 in December 2003.

SA 8000 certifies that a company complies with all local labour legislation and international standards on children at work, slavery, work schedules, occupational health and safety, compensation, discrimination and disciplinary procedures, freedom of association and negotiation on working conditions. Loma de Níquel is believed to be the first mining company and only the eighth metallurgical company worldwide to be certified to SA 8000. It is the first Venezuelan company and only the fifth in Spanish speaking Latin America. More than 400 companies worldwide have certified to the standard.

## CORPORATE SOCIAL INVESTMENT

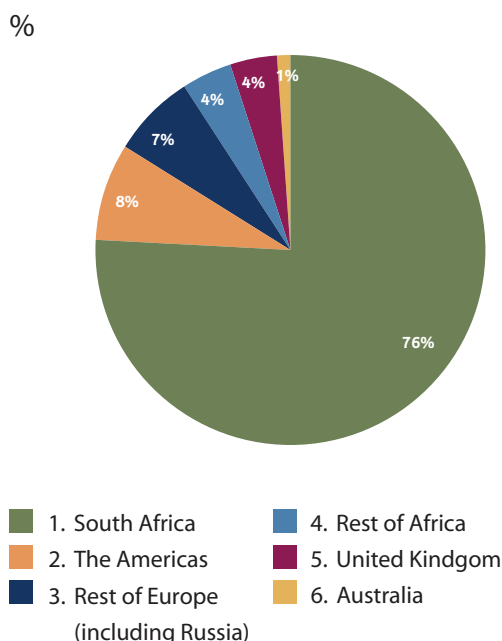
Social investment generates only a small proportion of the beneficial impacts which we have on the societies around us. It can, however, constitute a significant contribution to national charities and local communities. Where possible, we amplify the impact of our investments through partnerships with governments and civil society and through appropriate personal involvement of our managers.

In 2004, we contributed \$47.4 million (1.1% of pre-tax profit) in charitable donations and community social investment. This amounted to an increase of \$9.1 million over 2003, albeit that there was a reduction in the share of pre-tax profit from 1.5%.

At an international corporate level our priorities mostly related to projects involved with international development objectives. These included: support for a CARE project in Zimbabwe; Leonard Cheshire's work in Tanzania; making Bees for Development's materials available in South America; and support for the continued development of Engineers Without Borders in the United Kingdom. British-based charities supported include a number of higher education initiatives; help for homelessness charities in London; and support for the National AIDS Trust.

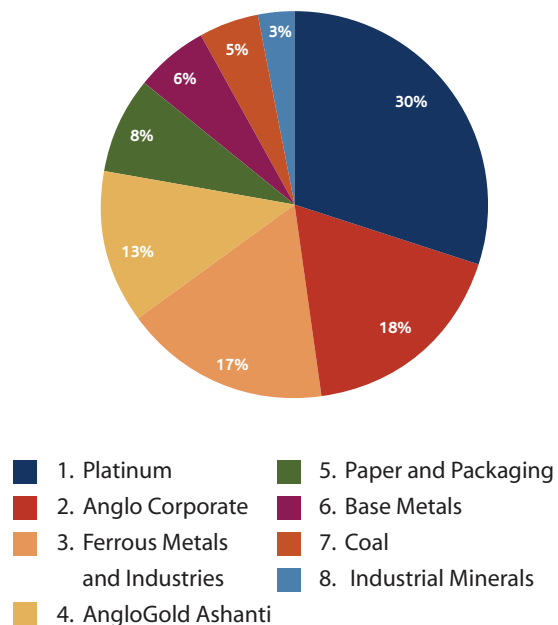
More than three quarters of expenditure was in South Africa, reflecting our commitment to the transformation agenda in that country, our well established vehicles for social investment and the high proportion of our workforce located there.

### Regional distribution of corporate social investment



### Contribution by business unit

%



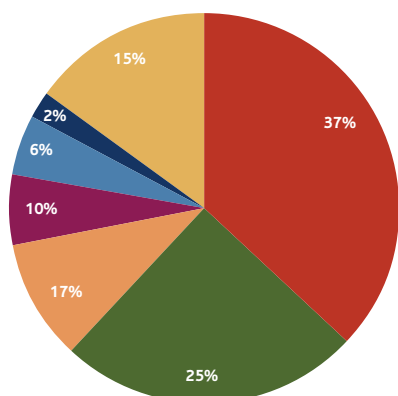
### Building communities through corporate social investment

An innovative programme in Brazil is helping young people to discover their rich heritage and contribute to the development of their towns through entrepreneurial ideas. The *Se Liga no Futuro* (Get Connected to the Future) project is a Goiás state government initiative which has been sponsored by Codemin and Mineração Catalão, and has been launched both at Barro Alto and Ouidor, two small towns where many of our stakeholders live.

Teachers at the local high schools invited students to attend training in agribusiness and tourism or other potential economic development areas. In the first phase, since March 2004, 5,500 students in 30 towns (10% of the state) were trained and submitted 1,770 projects to the competition. During the next phase, winning teams will develop their projects. The programme aims to build self-esteem and civic pride in young people, who frequently leave the state in pursuit of jobs in bigger centres, and to allow them to see themselves in a lead role in the community. The project has been recognised by UNESCO – the United Nations Educational, Scientific and Cultural Organization.

## Investment focus

%



- |                          |                               |
|--------------------------|-------------------------------|
| 1. Community development | 4. Health and HIV/AIDS        |
| 2. Education and youth   | 5. Arts, culture and heritage |
| 3. Housing               | 6. Environment                |
|                          | 7. Other                      |



Dr Walter Stuart, a surgeon at Chris Hani Baragwanath hospital hand unit, with one of his young patients. Dr Stuart campaigned to raise the standard of the unique facilities

## Upgrading hand unit at the Chris Hani Baragwanath hospital

The Anglo American Chairman's Fund and the Ferrous Metals and Industries subsidiary Scaw Metals have donated R4.5 million (\$0.7 million) to upgrade the hand unit at the Chris Hani Baragwanath Hospital on the outskirts of Soweto, Johannesburg. A total of R6.2 million (\$1 million) is needed to upgrade the hand unit, which has an excellent international reputation for hand and digit transplantation, repair to nerves affecting the use of the arms and the reconstruction of congenital hand deformities.

The doctors annually repair over 1,000 injuries caused by industrial trauma, vehicle accidents and violence, with Scaw employees among those who have been treated. It is the only centre of training in hand surgery for orthopaedic surgeons from the University of the Witwatersrand Medical School. Dr Walter Stuart, from the specialist unit, says the upgrade is desperately needed to improve the standards of care and efficiency for state patients and to extend the service to private patients. The unit is a centre of excellence for training hand surgeons, therapists and nurses, a position which needs to be maintained.

As a result of the Anglo investments and the dedication of the clinical staff who drove the appeal to upgrade the facilities, Gauteng Health has pledged R1 million (\$155,000) in equipment and contributed to the building costs, turning this into a true public-private partnership.

## Mondi multiple-resource use

The sustainable use of resources such as *incema* (grass) and *ikhwane* (reeds), as well as the harvesting of invader trees on Mondi and SiyaQhubeka properties, creates employment opportunities for people living in rural communities and helps to alleviate poverty.

Sponsored and supported by Mondi Business Paper, the Dube Village Community Development Co-operative (DVCDC) has 12 groups of crafters in the Northern KwaZulu-Natal region in South Africa. The groups – usually women and young people – train newcomers and provide ongoing training to existing members. The crafts are handmade from natural fibres and dyes sourced from *Ilala* palm leaves, *ungonothi* (bamboo), reeds and grass, which grow in the Mondi and SiyaQhubeka open areas. The co-operative has displayed its wares nationally and internationally and will soon be providing the Natal Sharks rugby team with beaded shark logos on trademark merchandise and beading 20,000 sandals for export.

## Inner city science and technology

Inner city children in Johannesburg will have access to fully-equipped computer, science and technology laboratories following a R1.2 million (\$190,000) donation from the Anglo American Chairman's Fund for a classroom block that houses a new science and technology centre. The opening, in March 2004, was attended by the then Minister of Education, Prof Kader Asmal.

Of the 660 learners that will have access to this centre and who are currently enrolled at the school, 37 are former street children, six are



refugees and 29 are AIDS orphans. They receive bursaries from the school, according to Sister Natalie Kuhn, the principal. The school hopes that early exposure to technology will stimulate in pupils an interest that will continue to adulthood.

Clem Sunter, chairman of the Anglo American Chairman's Fund, says the Dominican Convent is improving teaching and learning in key disciplines, which are critical to South Africa's advancement. The Fund firmly supports Science and Technology education. An example of this is the 2004 Maths and Science Awards – a joint initiative of the Department of Education and the Fund.



**Modipadi Primary School, in South Africa's Limpopo province, received support from the Chairman's Fund for building additional classrooms, toilets and water tanks**

### Medical facility at Rosh Pinah

The establishment of Skorpio Zinc at Rosh Pinah in southern Namibia has brought with it an unprecedented influx of people to an otherwise remote area of the country. This influx placed increasing pressure on the already-strained resources of the existing clinic. The geographical isolation of Rosh Pinah meant that it became imperative to develop a top-class medical facility for all residents of the settlement and employees of the surrounding industries and their families. Skorpio Zinc allocated a budget of R8.6 million (\$1.3 million) for this project, of which close to R4 million (\$.6 million) was spent on the civil works.

The new facility, opened in October 2004, is a far cry from what the residents of Rosh Pinah had been accustomed to. The facility is equipped with all the necessary means to deal with minor procedures, trauma and injuries. It has greatly enhanced primary health care in Rosh Pinah and

a day care facility is available for the first time, with visits by medical specialists and surgeons planned in the near future that will negate the need to travel to urban centres for many services.

State-of-the-art medical equipment, like cardiograph and sonar machines, has been acquired to ensure that potentially lifesaving facilities are close at hand. More importantly, the number of staff-members has grown from 5 to 15 (including a full-time general practitioner, radiographer and trauma nurse), ensuring an efficient and better all-round service for all patients. The new clinic has been summarily dubbed by the community *Sidadi*, a Khoekhoegowab word meaning simply, 'It is ours'.

### Keeping children safe

Tarmac Severokámen in the Czech Republic has been involved in campaigns to increase the safety of kindergarten children – through providing schools with high visibility reflective vests so that the children would be clearly visible to passing traffic in bad weather. The project also attracted other sponsors including companies, municipalities and foundations. Overall 1,166 vests were distributed to 114 kindergarten schools. Another 360 vests are in production.

This has become a state-wide project to ensure "safe streets for children" under the auspices of the Ministry of Transport and the Czech police as well as Our Child Foundation – see [www.clive-detem.cz](http://www.clive-detem.cz).

In 2004, Tarmac Severokámen extended their child safety programme to include raising awareness of the potential risk of playground sandpits, which if not regularly sanitised may contain dangerous inorganic substances and micro-organisms. Sand from its quarry in Horní Ďasnice



**Czech kindergarten children wearing high visibility vests donated by Tarmac Severokámen**



met all the requirements of the health authorities. To celebrate Children's Day more than 60 kindergartens took up the company's offer of free sand; 314 tonnes of sand was made available, at a cost of CZK50,000 (\$2,000). The company also paid for the analysis of the sand – saving the kindergartens the cost of individual testing.

Tarmac actively sponsors other children's activities, through support for an orphanage, equipping children's wards in hospitals and support for sports clubs and cultural groups.

### Scaw Metals

During 2004, Scaw Metals provided support for the establishment of a Welding Training School and a Computer Skills Training School for members of the communities around its South African operations. At full capacity the training centres can accommodate 20 welders and 14 computer skills trainees on three-month programmes that are registered with the relevant industry training authorities. Each year 136 young people will be equipped with basic skills to enable them to become self-employed or to strengthen their position in the job market. Community leaders have provided assistance in targeting some of the most disadvantaged youth.



**Lucy Ledwaba & Maria Rafapa from the Ga-Pila Community on the road leading to the new village – see story right**

## RESETTLEMENT

Resettlement is sometimes an inevitable feature of mine development. Wherever possible, we obtain the consent of local communities and use any provisions for involuntary resettlement as a last resort. Resettlement may be highly intrusive and disruptive of people's lives. Arrangements for resettled or relocated families must, therefore, be based on consultation and consider social and economic sustainability, access to land, fair compensation and cultural issues.

We regard the World Bank and the International Finance Corporation (IFC) guidelines as the benchmark of 'best practice'. We had intended to adopt a formal internal policy on resettlements in 2004 but decided to suspend adoption of this until the key tenets of the IFC's new performance standard in this area have been finalised.

Resettlements can cause friction between an operation and local communities as well as between community members who may be affected differently or where land rights are in dispute. They can create the situations most likely to carry a significant risk of conflict and need to be handled with patience and sensitivity.

We conducted relatively few resettlements during 2004. At Isibonelo in South Africa, 32 former farm workers were relocated to high quality sustainable housing after a lengthy consultative process. At the Yang quarry in China a small number of families will need to be relocated. This will be done using the World Bank or IFC Guidelines.

Anglo American Farms have been engaged in a relocation relating to the (now divested) Boschendal wine estate over a long period of consultation. The programme involves a number of very positive housing quality and social upliftment elements. 413 families have moved from the Boschendal lands to the newly-constructed Lanquedoc Village. However, a group of 22 households do not wish to participate in the Home Ownership project and legal proceedings have been initiated using relevant South African legislation. Prior to occupation by the rightful beneficiaries, 45 newly constructed houses in the Lanquedoc Village were illegally occupied by squatters. Eviction orders had to be obtained and enforced in order to make the homes available for their legitimate occupants.

Anglo Platinum's relocation project at Ga-Pila in South Africa's Limpopo province is in its close-out phase. Some 750 families have been successfully resettled. However, some members of the community express ongoing resistance to the local municipality taking over the service provision from the tribal authorities, as this will be associated with cost recovery. A small number of claims for additional compensation, which Anglo Platinum believes to be unfounded, are also still being resolved. A few remaining families will have to be evicted in order for the company to meet its norms for health, safety and environmental management and the surface requirements of the existing operation.

## HIV AND AIDS

### RESPONDING TO HIV AND AIDS IN 2004 – AN ONGOING CHALLENGE

The HIV and AIDS epidemic remains the most significant health issue confronting our operations, particularly in sub-Saharan Africa. Globally there is increasing concern about the unfolding epidemics in Eastern Europe, particularly Russia, and also in India and China. However, there are many lessons that we have learned from our operations in the countries worst affected by HIV and AIDS.

Today we know the importance of getting HIV prevention messages to young people and of nurturing healthy sexuality. We are extremely concerned about the extraordinary vulnerability of young women to HIV infection and the disproportionate impact of the epidemic on them. Our community-based HIV and AIDS partnership is specifically targeted at protecting and empowering youths and women in the fight against HIV and AIDS.

Migrancy may be an unavoidable feature of the economic systems of many developing countries, but it has a profound effect on the spread of HIV and it can no longer be business as usual. We are exploring new and innovative ways to ensure family integrity for all our employees.

The debate is not about the merits of prevention versus HIV testing, treatment and care – all of these are needed on a much greater scale than anything that has been achieved to date.



**Chief executive Tony Trahar (right) receives the award for Leadership in the Global Business Coalition HIV/AIDS Business Excellence Awards from World Bank president James Wolfensohn. The ceremony took place in Berlin in the presence of German chancellor Gerhard Schröder. At the same ceremony Sir Mark Moody-Stuart was named the new chairman of the Global Business Coalition on HIV/AIDS**

### The workplace response – HIV prevalence

Accurate measurement of the prevalence of HIV infection within a community is best carried out through anonymous unlinked HIV testing of a randomly selected sample of community members. We have found this very difficult to achieve on a consistent and regular basis in our workplace communities. We report on HIV prevalence at our eastern and southern African operations annually, but it is important to recognize that these figures are our best current estimates, based on a combination of prevalence surveys, VCT results, actuarial projections and estimates of HIV prevalence. The table below gives the HIV prevalence information on this basis at the end of 2004:

### ESTIMATED EMPLOYEE HIV PREVALENCE – EASTERN AND SOUTHERN AFRICA\*

	Total number of Employees in region**	Estimated HIV Prevalence	Estimated HIV +ve Employees**
AngloGold Ashanti	39,500	30%	12,000
Anglo Platinum	46,750	25%	12,000
Anglo Coal	7,500	17%	1,300
Anglo Ferrous Metals and Industries	40,750	18%	7,300
Anglo Base Metals	2250	2%	50
Anglo Paper and Packaging	7500	12%	900
Corporate Centre	750	5%	50
<b>Total</b>	<b>145,000</b>	<b>23%</b>	<b>34,000</b>

\* Includes all managed operations and our independently managed subsidiaries AngloGold Ashanti and Tongaat-Hulett as well as newly acquired Kumba Resources.

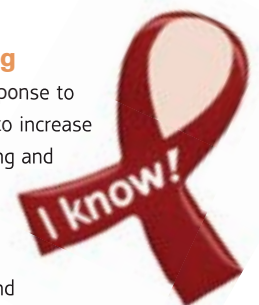
\*\* Numbers are rounded and will not total

### Voluntary counselling and testing

The most important strategic thrust of our response to HIV and AIDS in 2004 was a concerted drive to increase dramatically the uptake of voluntary counselling and testing (VCT) by all our employees.

VCT is the entry point for a continuum of prevention and care in the fight against HIV and AIDS. Operations with successful HIV and AIDS programmes are reporting VCT uptake in excess of 60% of the workforce. We need to create a climate where knowing one's HIV status becomes as routine as knowing one's blood pressure or cholesterol level.

The weighted average VCT uptake for the Group (in eastern and southern Africa) is far below what it needs to be if we are to achieve an effective HIV and AIDS response. We have set a target of 50% for 2005, bearing in mind that all operations start from zero at the beginning of the year.



## VOLUNTARY COUNSELLING AND TESTING FOR HIV – EASTERN AND SOUTHERN AFRICA

	VCT Uptake 2004
AngloGold Ashanti	10%
Anglo Platinum	15%
Anglo Coal	63%
Anglo Ferrous Metals and Industries	17%
Anglo Base Metals	87%
Anglo Paper and Packaging	69%
Corporate Centre	70%
<b>Weighted average</b>	<b>21%</b>

### Antiretroviral therapy

Access to simple and effective antiretroviral treatment (ART) has profoundly changed the course of the AIDS epidemic. It is the most effective weapon for banishing fear and ignorance and for preventing stigma and discrimination. Today AIDS can be managed as a chronic disease. With early access to effective treatment, there are far fewer opportunistic infections, greatly reduced absenteeism, improved productivity and much less need for hospital or home-based AIDS care.

'Some 2,000 Anglo American employees are receiving antiretroviral therapy to combat AIDS – 94% of them are completely well and are able to carry out their normal work.' Dr Brian Brink, Anglo American.

By the end of December 2004, 2,456 employees across the Anglo American Group had been started on ART since the inception of the programme in November 2002. A significant number of these (491; 19%) have been lost from the programme for a variety of reasons. However, of the 1,965 employees remaining on ART, 94% are completely well and able to carry out their normal work. We estimate that without ART at least one third of these would already have died from AIDS.

### Employee reasons for stopping ART

ART requires meticulous adherence to the treatment regimen. Those employees currently on treatment have achieved a reported adherence of greater than 90%, which is most encouraging. For those who are unable to adhere to the treatment, we prefer to stop the drugs and provide intensive counselling until the employee is ready to start again. In this way we hope to keep the development of viral resistance to antiretroviral medication to an absolute minimum.

The number of deaths on treatment (130; 5.3%) is almost certainly due to the fact that almost three quarters of the patients starting ART are waiting till they are sick before requesting treatment. This is too late to get an optimal response. For those wanting to start treatment when they are in advanced stages of AIDS, the ART is often too late to treat the patient effectively. This is why it is so important to get many more employees to establish their HIV status now and if HIV positive, to enrol in wellness programmes before they get sick.

We estimate that approximately one quarter of the employees who are HIV positive are in need of antiretroviral therapy. This would translate to just over 8,000 employees in need of treatment. Only 30% of these have come forward for treatment. We believe that the reasons for this are not so much fear, denial and stigma, but more likely because so many of our employees do not know their HIV status and do not understand the relentless progression of HIV infection towards immune deficiency and consequent illness.



**Sir Mark Moody-Stuart being counselled by sister Evalyn Thwala at Goedehoop colliery after volunteering to have his HIV status tested. Sir Mark has urged as many Anglo American employees as possible to know their status and to enrol in wellness programmes if they are HIV-positive**

### Strong leadership needed

A good response to HIV and AIDS is synonymous with good management, good business and a good investment. We believe that Anglo American fulfils most of these criteria in its response to HIV and AIDS:

- strong leadership at chief executive level
- impact assessments based on real data
- negotiated HIV/AIDS policies
- up-to-date strategic HIV/AIDS responses
- specific HIV/AIDS performance indicators and targets
- community HIV/AIDS partnerships
- ongoing monitoring and evaluation.

There are many reasons for optimism – outstanding technological advances in testing and treatment, knowing what needs to be done and how to do it, improved global funding and tremendous opportunities for public private partnerships in response to HIV and AIDS – to name a few. We feel confident that with strong leadership and a positive commitment to action, both in the workplace and in surrounding communities, we can make real progress in turning the tide of the AIDS epidemic.



## ECONOMIC IMPACT OF HIV AND AIDS

Two health economic assessments are being undertaken for the Anglo Group of companies by the Aurum Health economics programme (AHEP). These cover both a total economic impact assessment of HIV and AIDS as well as the costs and benefits of company provided antiretroviral therapy (ART). Preliminary results from the ongoing cost benefit analysis of ART are positive. The all inclusive cost of the programme per patient month on treatment has declined over time driven by declining ART prices, associated laboratory tests and economies of scale being achieved as the programme expands. After a full year of implementation this cost, including programme administration time, use of company infrastructure, monitoring and support as well as drugs, laboratory and clinical staff time, stood at an average of R1,365 (\$212) per patient month on treatment. Sizeable variation in cost exists across companies and ART delivery sites, but overall costs declined by 18% in the first 18 months of roll-out. Preliminary analysis of short-term trends in absenteeism and utilisation of company provided health services shows declines of between 25% and 40% for workers on the treatment programme. The estimated impact of HIV and AIDS on selected Anglo American companies, in the absence of the treatment programme, ranged from 0.8 to 3.0% of payroll, with impacts predicted to peak between the years 2008 and 2011.



Playing cards with HIV prevention messages issued to workers at Boart Longyear's Wuxi plant in China



Photo: Brent Stirton, Getty Images

Sex workers in the Witbank area have been drafted into the HIV/AIDS awareness campaign



## Fighting disease at Goedehoop colliery

The war against HIV and AIDS is not only against disease. It is a battle against ignorance, poverty, social disruption and despair. For John Standish-White, regional general manager of Goedehoop, it was a battle he wasn't prepared to lose. Goedehoop is one of Anglo Coal South Africa flagship collieries.

In 2004, it exported 100% of its 6.5 Mt production through Richards Bay coal terminal – delivering important export revenue. It has a proud SHE record with only 4 lost-time injuries but one fatality during 2004. It has retained its ISO 14001 certification five times and was awarded the new CEO's Productivity Award for breaking 'every record in the book' in 2004!

Standish-White has led a campaign which has united the workers of Goedehoop with their local community, their families and even the local sex trade in a bid to stop the spread of

HIV and nurse sick workers back to health. The first step has been to persuade more than 1,059 of his 1,177 workers (90%) to report for voluntary counselling and testing and to convince them that knowing their status was either the first step back to health or the information that would promote healthy living and prevent the spread of the infection.

### Educational activities

This has been accompanied by ongoing educational activities – linked to family fun, to induction programmes, to awards celebrations. Every opportunity to promote awareness and fight the disease has been well used. The mine has begun serving a vitamin-enriched version of the local porridge staple food in its canteens and distributing 'thank-you' packs to workers reporting for VCT. Since February 2002, more than 286,000 condoms or femidoms have been distributed in the surrounding community. When Standish-White was at Greenside colliery he recruited local sex workers to promote safe sex and they now play an important role in

distributing condoms and raising awareness along trucking routes.

Seventy workers are now on anti-retroviral treatment (ART). All of them are back at work. A further 176 are enrolled in wellness programmes designed to keep them from progressing to the next stage of the disease as long as possible. Although ART is delivering excellent results, it is a lifelong commitment, that cannot be put on hold temporarily or in anyway compromised. It also requires good nutrition and dedication to improving one's own lifestyle.

The estimated cost in time, management focus and awareness and treatment programmes is in the order of about R1 million (\$155,000) a year. For Goedehoop the benefits are evident. Absenteeism is falling, morale has risen and the mine is achieving its production and profit goals – goals which would have been severely compromised if the disease had been allowed to run rampant through the workforce.



## THE ANGLO AMERICAN COMMUNITY HIV AND AIDS PARTNERSHIP

The Anglo American Community HIV and AIDS Partnership Programme was launched in South Africa in August 2003 with a R30 million (\$4.7 million) three-year grant to co-finance a community programme. This is designed to extend and deepen the impact of our workplace initiatives by supporting community-based initiatives for young people and introduce youth-targeted efforts close to our operations.

The programme is effectively a large scale, internationally path-breaking Public Private Partnership (PPP). It is hoped that this concerted, regionalised effort can break the pattern of the disease through an innovative awareness and behaviour-change campaign and significantly reduce the adolescent infection-rate and teenage pregnancy rates.

Initially these activities have used targeted education and awareness and capacity building programmes. Youth programme leaders and motivators deliver accessible information and encourage positive lifestyle choices. These youth leaders are trained to become *groundBreakers*. For a year they lead after-school initiatives in their communities using motivational talks, physical well-being and challenging debate to assist adolescents in recognising and realising their potential. Early indications are that adolescents participating in these programmes are making positive choices about life, sexuality and their futures and are more likely than their peers to find employment. It is hoped the partnership will enable a range of activities and results that could not be achieved by acting alone. The programme was the first example of a co-investment by business with the Global Fund to fight AIDS, Tuberculosis and Malaria.

Specific capacity building programmes have been undertaken within public primary health clinics with a view to improving service delivery on all levels, including preparation/preparedness for possible participation in the state's anti-retroviral treatment roll-out. The intention is for community clinics to become more accessible to youth and the wider community, enhancing treatment for sexually transmitted infections, facilitating voluntary counselling and testing and finally linking to other company interventions in these regions.

### Roll-out

In its first year, the programme has been rolled out to seven sites in six provinces in partnership with six Anglo American companies. Some 38 government primary health care clinics are participating in the National Adolescent Friendly Clinic Initiative funded by the programme; 10 youth HIV and AIDS prevention social franchises have been established and some 100 youth programme leaders from across South Africa have enrolled as *groundBreakers* in a one-year internship programme with *loveLife*, a leading South African NGO in HIV and AIDS prevention.

The programme has further secured \$1 million from the US Government through the President's Emergency Programme for Aids Relief (PEPFAR). This will enable structured interventions to support community efforts to care for AIDS orphans and other vulnerable children as well as strengthening the capacity of home-based care teams that provide much-needed services to the victims of AIDS and their dependants. New partner NGOs have been selected to deliver these new elements of the programme starting in four of the original seven sites and extending to the balance of the sites the following year, funding permitting.



**Apprentices at Scaw Metals have participated in two training modules to date. They are a critical target audience for the company and efforts are focused on keeping them HIV-negative. They are extending the knowledge they have gained through their own projects**



**The men in partnership programme is a unique aspect of the West Coast AIDS Initiative where men come together to lead community prevention efforts**

## VOLUNTARY TESTING AND COUNSELLING

For Base Metals operations Skorpion Zinc and Black Mountain, recent HIV prevalence tests have provided excellent news. The prevalence rates are less than 2.5%. The challenge now is to keep the prevalence low.

The Skorpion Zinc voluntary counselling and testing drive (VCT) held in October reached 82% of the staff with 503 out of a possible 614 people being tested. The HIV prevalence rate was 2.4%, which is well below the Namibian national average, but in line with the average for that age sector.

VCT rooms were set up all over site and were staffed by Careways sisters to ensure professional and confidential pre- and post-test counselling and testing. The Skorpion peer educators did all the planning, organising and advertising of the week, supported by Priscilla Davies, Skorpion's Careways consultant. Skorpion's next challenge is to keep the prevalence level to below 2.4%, and to extend the programme of awareness to involve the broader community of Rosh Pinah.

### Black Mountain

A similar VCT campaign was held at Black Mountain, where there was also a higher than expected uptake. This was partly because the testing team was from outside Aggeneys and no names were asked.



**Skorpion Zinc peer educators helped achieve an 82% VCT rate**



**More than 90% of Black Mountain staff had their status tested voluntarily in 2004**

A total of 508 of the 700 Black Mountain employees took the opportunity to determine their HIV status – with more employees tested afterwards. From this we can confidently say that 90% of the employees know their status. The HIV prevalence rate was 2.36%.

### Peer education programme in Mondi forests

Mondi Forests has launched peer education health programmes in several areas, including Sabie and Piet Retief, to complement the clinic system. These are being run in partnership with NGOs. The peer educators are able to transfer information and skills because they are of similar social background, understand the problems, and have no cultural and language barriers. The programme addresses HIV/AIDS, sexually transmitted infections, tuberculosis, diarrhoea, cholera, nutrition problems and malaria. Some programmes target communities and the youth, others target contractor employees addressing HIV/AIDS, other health-related issues and build capacity. To date, 300 peer educators have been trained across the division.

Some of the programmes are run in partnership with the Project Support Association of South Africa, an NGO. Mondi Forests gives technical support and functional guidance.

In 2001, the Siyanqoba project opened in the Greytown area and with the local youth in mind, Mondi Forests set up the Future Promise groups in the Drakensberg area, under the leadership of a community health worker, Olga Maseko. The groups include community members and youth from the Greytown communities.



**Boart Longyear Wuxi facilitated an HIV/AIDS seminar for 150 employees conducted by the Government of Wuxi's Centre for Disease Prevention and Control. It was also broadcast by local television to an audience of about 1.5 million people. Playing cards were used to help perpetuate the HIV prevention messages and assist in conveying the importance of knowing one's status and staying healthy.**

## HUMAN RIGHTS AND ETHICS

During 2003/4, a cross-divisional task team conducted a risk-assessment of security and human rights issues in the countries where the Company operates and developed briefing materials on best practice in relation to risk assessment, contracting private security providers, and public security forces. This work culminated in December in an application to accede to the round-table process of the Voluntary Principles on Security and Human Rights. Anglo American plc joined the process at its Annual Meeting in Oslo in January 2005.

### Colombia

We have owned a one-third, non-managing stake in Cerrejón Coal since February 2002. Since that time, the operation has had to address some legacy issues connected with past relocations and resettlements. Only eight agreements from the relocation of the Tabaco community are now outstanding. The Guajira region, in which the operation is located, has seen significant levels of activity by armed groups, principally the FARC and para-military groups. In April 2004, a group of Wayuu Indians in Portete, close to Puerto Bolívar, was tragically massacred by para-military forces. Cerrejón immediately implemented a humanitarian aid programme. Hundreds of community members sought refuge at Puerto Bolívar, where they were given food aid. Cerrejón provided further logistical support to enable community members to return to Portete once the military had made the area safe.

Cerrejón bases its security policies on the Voluntary Principles on Security and Human Rights. It has also been working with the Inter American Centre on Human Rights in Costa Rica, *inter alia*, to provide human rights training to the military personnel deployed in the vicinity of the mine. During 2004, 328 people were trained, with training for a further 500 security personnel planned.

At the 2004 Anglo American annual general meeting, allegations were made about actions by Cerrejón officials forcibly relocating the 'community' of Sarahita. Further investigation revealed the allegations to be wrongly based. The land had been owned and occupied for more than 12 years by the company and no community had been based there for that period. The removal of the squatters was carried out without any violence on either side.

Towards the end of the year, trade union leaders connected with Cerrejón's main union were subject to threats and intimidation. These coincided with bi-annual negotiations on pay and conditions. Relations between management and the trade union at Cerrejón have been good and constructive for more than a decade. Management and the trade union issued a joint statement affirming their belief in fundamental labour rights and condemning intimidation and the company drew the attention of the vice president of Colombia to the existence of the threats, with a view to ensuring that personal security issues were adequately addressed.



**Employees are encouraged to blow the whistle on unethical practice using an anonymous *speakup* facility**

### Apartheid litigation

We are one of many international companies named as defendants in some of the dozen or more class-action complaints filed in the United States (US) relating to the apartheid period in South Africa. In November 2004, the court dismissed the principal complaints, although the plaintiffs are appealing the ruling. The South African government has stated its belief that the issues raised in the complaints would be best resolved within South Africa. We believe these cases are without merit and intend to contest them vigorously.

### Industrial action

During the year, isolated incidents of industrial actions over wage demands occurred. At Anglo Platinum's Rustenburg operations 29 mineworkers were injured and 40 arrested following clashes with police during a strike when some 30-40% of the workers downed tools. Police fired rubber bullets at a group of protesting workers, armed with 'traditional weapons' who barricaded a road leading to the mine in an attempt to prevent colleagues from getting to work.

### Zimbabwe

The situation in Zimbabwe has continued to cause concern. We have, however, been a long-standing investor in the country and believe that our continued presence is of benefit to our employees, their families and the communities around our operations in relation to generating livelihoods and food security. Anglo American's Hippo Valley and Mkwesine estates remain designated for compulsory acquisition. Promises to delist them under a Memorandum of Understanding, signed by the Government of Zimbabwe, have not yet been honoured. Despite a High Court ruling nullifying the purported acquisition of Mkwesine, 2,063 hectares of this estate have been settled illegally.



## INDIGENOUS PEOPLES

### Building trust in Canada

In 2003, Anglo American geologists identified Victoria Island in the Canadian Arctic as a favourable area for nickel sulphide mineralisation. Other exploration companies had recognised the potential, but had failed to obtain a social licence to explore from the local Inuit people. Our exploration team decided to consult with the Inuit prior to acquiring claims so as to enable the consultation process to proceed unhindered by any sense of urgency resulting from Company timetables.

In October 2003, community representatives explained their concerns about caribou migration, habitat and vulnerability during calving. The Inuit were worried about the potential impacts resulting from exploration and subsequent mining activity. Although they were divided over exploration, they were generally interested in working with Anglo to find solutions and mitigate the impacts on the caribou.

In May 2004, a second meeting was scheduled to obtain support for low-impact reconnaissance exploration in the summer. Strategies to avoid caribou herds and to hire local assistants as guides were proposed, and

the Hunters and Trappers Assessments agreed to review our proposal and probably approve it in time for a short exploration programme in late summer 2004. Regrettably, at this time, most of the land area and targets identified by Anglo were staked by a competitor. Although disappointed, our exploration team feel that consultation with the Inuit prior to staking was correct, even though it left the company open to competitor staking.

### Indigenous groups sign cultural heritage agreements

Anglo Coal Australia's Dawson North, Dawson Central and Dawson South developments have established a co-operative framework of cultural heritage agreements to minimise impacts on culturally significant areas.

A cultural heritage investigation and management agreement (CHIMA) has been established in consultation with the Gangulu people who are traditional owners of the development area and custodial owners of cultural heritage in the vicinity of Dawson North. The CHIMA Agreement anticipated the requirements of new legislation which came into effect in mid-2004.

The agreement provides a workable system of cultural heritage evaluation and protection and establishes future strategies to facilitate the management, protection and control of Gangulu cultural heritage.

The plan is built on a spirit of co-operation and a co-ordinating committee has been set up to help implement and manage all matters associated with the CHIMA.

Traditional owners are involved in the formation and execution of an agreed work plan for the Moura and Callide operational areas as well as the Dawson Project works. The committee provides a forum where open debate leads to improved understanding.

Cultural heritage management plans have been agreed separately with the two traditional owners of the Dawson South development area – the Gangulu and the Wulli Wulli people.

Cultural heritage has been given a high priority in the studies undertaken prior to mining. Four field studies have been conducted since 1980 and further fieldwork by traditional owners will be undertaken immediately before mining is started. Through the cultural heritage management plans and ongoing consultation with traditional owners the identified cultural heritage values, items and materials can be respected and conserved.



A meeting at Suggi Lake in Canada to discuss regional land use with the Cumberland House commercial fishing community



# NATURAL CAPITAL

## ENVIRONMENTAL OVERVIEW

The Group is a significant user of environmental resources in its primary activities, which extract and transform natural resources. The impacts resulting from both the consumption of resources – whether renewable or non-renewable – and any resultant pollution or degradation are material to any discussion on sustainable development, as is the end-state of natural resources once our operations close. Energy use and efficiency as well as carbon dioxide (CO<sub>2</sub>) emissions, water, air quality – particularly sulphur dioxide (SO<sub>2</sub>) emissions, – and biodiversity conservation are covered in this section. Biodiversity management has emerged as a strength and an area of focus for those operations which are located in areas of biodiversity significance. Over the past few years we have invested time and the specialist skills needed for improving and developing the baseline data essential for effective resource management.

The Group's product and commodity diversity, as well as its regular acquisition and sale of assets, makes aggregation of environmental data to Group level of little use to the reader wishing to evaluate year-on-year performance. However, each operation reports its resource consumption and emissions against tonnes of product sold or produced, allowing for trend comparison. A summary of key data, illustrating progress over time, can be seen on pages 62-65.

Most material changes in consumption and emission data are attributable to the sale of Hudson Bay Mining and Smelting in

Canada or the acquisition of Kumba Resources in South Africa. The Kumba data are included for the first time and we expect that further work will be needed to ensure consistency of definitions, as is the case with any newly-acquired subsidiary.

### Highlights

Highlights for the year include a Group-wide energy project, which led to commitments to long-term energy efficiency improvements and a targeted reduction in energy and emissions intensity. This is detailed on page 48. Real progress is also being made towards long-term water pollution reduction, management and mitigation solutions for the South African mines.



A forest near Syktyvkar, in the Komi Republic

### Managing risks

Incident reporting improved markedly in 2004. The attached table shows a significant rise in level 1 incidents, which have only minor impacts with short-term effects from a base of about 1,500 in 2001. This is the effect of better reporting as a result of ISO 14001 systems. We expect that incident reporting will increase.

It is a requirement that action plans are put in place to avoid recurrences of level 2 or 3 incidents. For the fourth year no incidents with long-term significant, or extensive, effects were reported.

Syktyvkar mill recorded two level 2 incidents for repeatedly exceeding

air and water emissions limits.

A management review will be conducted in 2005 to investigate the possible impacts of these emissions and the options available to the site to reduce these events.

Fines of \$55,250 and \$52,519 were paid following 10 civil cases and seven criminal cases. These represent a 170% increase in costs. The majority of these were related to failures in water-management systems or failures to secure the correct permits. Mondi Business Paper's SCP Mill in Slovakia paid \$36,583, for operating without the correct temporary permit and for leakage of black liquor from the recovery boiler into the mechanical treatment plant.

Group companies have identified rapidly changing legislation as a priority risk for 2005. Many companies have made technological and process changes ahead of the new legislation, and the potential for increased costs is being monitored.

Type	Effect	2003	2004
Level 1	Minor impact, short-term	6,660	9,153
Level 2	Moderate impact, medium-term	125	166
Level 3	Significant impact, extensive or long-term	0	0

## Management systems

Three years ago the Group set a target for 100% (by turnover) third party auditing for ISO 14001 and Forest Stewardship Council (FSC) certification systems by the end of 2004. The current figure is 83%. Six per cent are scheduled for audit in 2005 and a further 11% is made up of new acquisitions and a number of non-material business units. Newly-acquired companies are given two years in which to achieve certification. Good progress was made towards the FSC certification of 1.16 million hectares of forests in the Komi Republic. Three Mondi Business Paper operations – in Slovakia, Russia and in Austria, and Mondi Packaging operations in the UK, Ireland and South Africa received ISO 14001 certification for the first time. Several Base Metals operations in Chile obtained ISO 14001 certification. All eight of Anglo Coal South Africa's operations now have ISO 14001 and implementation began on Isibonelo colliery, which is in the construction phase, and Mafube colliery. All the Australian collieries have now achieved certification. During 2005, the focus will be on retaining ISO 14001 certification and ensuring integration with biodiversity action plans. All significant Ferrous Metals and Industries sites, with the potential to have negative impacts, have certified systems. Highveld Steel will be migrating to an integrated safety, health and environment system.

## Successes

The Mondi Wetlands Project (MWP) has been recognised by WWF International – the global conservation organisation. The project was used as a partnership case study for the WWF European fresh water workshop held in Scotland in June 2004.

## Certification by Anglo Platinum

Anglo Platinum achieved its target of having all its operations certified to ISO 14001, following a commitment in 2002. The Western Limb tailings re-treatment plant and the Polokwane metallurgical complex, which were not part of the 2002 commitment, will be certified in 2005. Certification to ISO 14001 has led to an increase in environmental awareness, including an improvement in reporting. No incidents with permanent or major impacts have been reported during a

four-year period. Most of the minor impacts resulted from spills of fuel, oils, grease and lubricants or the inappropriate handling of domestic or industrial waste. Focus is being given to improving these practices. Spillage, leakages and uncontrolled discharges of water also occurred.

Four level 2 incidents were recorded (down from 18 in 2003); these are listed and the follow-up action highlighted.

- A partial failing of a tailings dam wall. The failure was repaired in 24 hours and the clean-up has been completed.
- Silt spilled during maintenance of settling dams and was cleaned up.
- A pollution-control dam overflowed during excessive rainfall. Corrective action includes recycling more water and reducing pumping to the Klipgat dam to allow more buffer capacity in episodes of extreme rainfall.
- An effluent spill relating to a pipe failure occurred. Clean-up was undertaken and revised procedures implemented.



Catalão site for MCEP pilot project

## Mine certification system tested

Base Metals' Catalão in Brazil will become one of the first mines outside of Australia at which a proposed independent third-party certification for mines will be tested.

Members of the mining industry, NGOs, labour and government agencies, the financial and accounting sector and research institutions have been working under the leadership of the Australian branch of WWF, the international conservation organisation, to evaluate whether an independent third-party certification of sustainable performance can be applied to the

sector. The Mining Certification Evaluation Project (MCEP) was inspired by the FSC's successful certification scheme. Field tests have been held in Australia to test the audit protocols, the time required for the audits, the availability of information as well as appropriate scoring systems.

Further information can be obtained from <http://www.minerals.csiro.au/certification>

## AIR QUALITY

Total recorded emissions of sulphur dioxide (SO<sub>2</sub>) from managed operations reduced by 75% in 2004 to 71,692 tonnes. The Group reduction was, however, primarily due to the sale of Hudson Bay, which had been the Group's biggest emitter of SO<sub>2</sub> emissions, and for which no data were recorded in 2004.

Air quality is managed at local level and at present no useful way of reporting aggregated SO<sub>2</sub> emissions for the Group has been established, due to significant variances in fuel sources. It will be improved in the future. Research was undertaken into calculating SO<sub>2</sub> emissions from fossil fuel consumption, and initial estimates indicate that these total roughly 9,000 tonnes. This number excludes the emissions from coal burnt as the confidence in the number was low, given large variances in sulphur content. Our capability in calculating these emissions will be improved as we go forward. The focus on emissions from processes will continue, and will be expanded to include direct and indirect sources that can be controlled.

Recently, a number of South African operations have faced significant air quality challenges, in particular dust, SO<sub>2</sub> and odours. Case studies in this section illustrate actions to resolve these problems by Highveld Steel, Scaw Metals in Germiston, the Anglo Platinum Converting Plant (ACP) and Mondi operations at Merebank and Richards Bay. During December, Anglo Platinum's ACP achieved the critical level of less than 20 tonnes of SO<sub>2</sub> a day emitted. Some technical problems have been encountered and further work will be necessary for this level to be maintained.

### Communicating air quality improvements

Good communication and significant reductions in SO<sub>2</sub> emissions have gone a long way to transforming a once-acrimonious relationship between the community of Rustenburg and Anglo Platinum's Waterval smelter. After years of technology search, Anglo Platinum embarked on a capital investment programme to reduce SO<sub>2</sub> emissions in 2002. Things did not go entirely smoothly. During 2003, the community was up in arms when their expectations of a reduction in emissions did not materialise. During 2004, as the new plant began operating, problems were largely resolved and emissions (stack and fugitive) reduced by 72% from an average of 133 tonnes a day to about 37 tonnes a day. The overall SO<sub>2</sub> emissions from Waterval, Mortimer and Polokwane smelters and from Rustenburg Base Metals Refinery (RBMR) fell 63% year on year. Perhaps the most significant, however, has been the improvement in relationships that has been experienced as a result of concerted and regular communication between company, NGOs and community.

Two open days were held, affording the community the opportunity to listen to company presentations and to ask any questions. These sessions were facilitated by independent specialists and monitored to ensure issues were addressed and that any questions which could not be answered immediately were followed up. It was clear in 2004 that the range of issues and concerns stretched beyond the local air quality – which the community felt was being addressed – and covered a full range of social and economic aspects.

For further detail see  
<http://www.angloplatinum.com>

### Ruzomberok mill reduces sulphur

A €240 million (\$37 million), 18-month investment project at the Mondi Business Paper's Ruzomberok mill has put it at the cutting-edge of production quality and environmental impact in the sector.

The collection and incineration of malodorous gases has reduced emissions by 90%. SO<sub>2</sub> emissions have been reduced by 64% over the

life of the project and it now meets best available technology standards. Particulate emissions from the lime furnace are down 95%.

Ozone is now used during the first bleaching stage, resulting in material improvements in organic chlorine compounds (AOX) and chemical oxygen demand (COD) emissions to waste water and making it possible to significantly reduce the use of bleaching chemicals in the downstream stages. Further projects to improve the capacity of the bark boiler, the reduction of 10,000 tonnes of waste per year and the liquidation of an old caustic sludge landfill will continue over the next two years.

### Progress at Merebank

Mondi's Merebank mill in South Africa has been in ongoing negotiation with the community in the South Durban area for some years around its proposals to switch to a multifuel boiler. Mondi is one of several industrial operations in close proximity to the community, which over the years has raised numerous concerns about local air quality.

Mondi will be commissioning flue gas desulphurisation on its existing coal-fired boilers during the first quarter of 2005. Once commissioned, these will reduce the coal boiler SO<sub>2</sub> emissions by at least 66%.

Approval from the authorities for the multi-fuel boiler at the mill has been granted and this will allow for the decommissioning of the heavy-fuel oil boilers, which are kept on standby for use in the event of abnormal mill operating conditions, such as planned maintenance shutdowns on the coal boilers and offline coal boilers. Not only does the heavy-fuel oil boiler increase SO<sub>2</sub> emissions when in use, it also reduces the need for intermittent firing of the standby boilers which use heavy fuel, which further increases the SO<sub>2</sub> emissions.

The waste that will be used in the multi-fuel boiler (bark, ash, sawdust and sludge) will be independently tested to ensure that there are no substances present that would give rise to unacceptable emissions. European standards will be used and emissions will be tested independently. The company is committed to ongoing engagement with its neighbours.

### Cleaning up at Highveld Steel

Anglo Ferrous Metals' Highveld Steel has fully assessed what is needed to improve the company's environmental performance and reduce visible pollution from the smelting operations, which release fine particulate matter, dust and fumes into the air. Priority areas include emission abatement, rebuilding electrostatic precipitators and the automation of the kiln operation and control inputs. SO<sub>2</sub> emissions are being targeted as well as the reduction of fine dust particles.



Inside the plant at Highveld Steel

### Scaw Metals reducing pollution

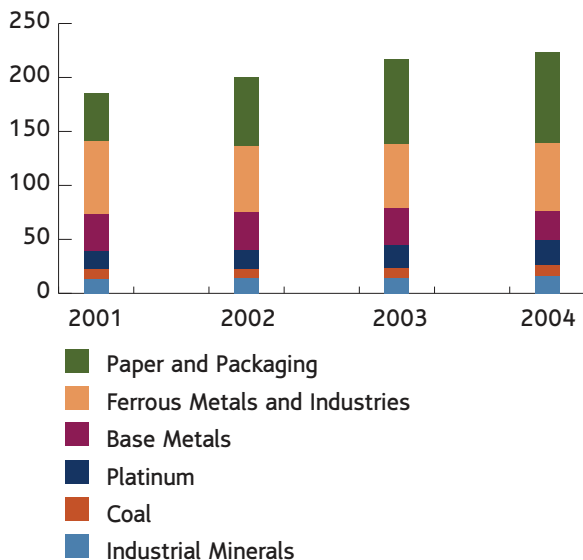
Air quality at Scaw Metals in Germiston in South Africa has improved significantly following the commissioning of a new fume extraction system (fumex) installed at the company's No 3 melt shop in June. Steel is produced in an 85 tonne electrical arc furnace and ladle furnace combination, by melting scrap metal and direct reduced iron ore. Approximately 25,000 tonnes of scrap ferrous metal is recycled in this manner per month, of a total of 35,000 tonnes.

The system that was installed at a cost of R65 million (\$10 million) has an extraction capacity of 1,3 million m<sup>3</sup>/hour, with air-quality and health benefits for employees. The system is also more energy efficient, with water-cooling tower fans which switch on and off automatically. An air-quality survey undertaken since the installation indicates a residual dust burden of 5 mg/m<sup>3</sup> in anticipation of new South African air quality regulations.

For Scaw, an added benefit has been the improved relationship with neighbours, who have welcomed the plant modernisation.

## ENERGY USE

### Energy used by division (million gigajoules)



#### Performance

Total energy use by the managed companies in the Group amounted to 223 million GJ, which constitutes a 2% increase on the 218 million GJ used in 2003. If the energy from biomass is included, these figures would be 278 million GJ (2004) and 269 million GJ (2003), respectively. The overall increase represents a combination of portfolio, production and efficiency changes as well as the restatement of data owing to a refinement of the factors used for calculating the emissions from the purchases of electricity in Chile, in line with the Global Reporting Initiative's 2002 guidelines.

The greatest divisional increases in energy use were recorded in Industrial Minerals 8% and Coal 11%. The 2.5% decrease in GJ/tonnes mined or milled by Base Metals illustrates the effect of both a decrease in energy consumption due to a change in portfolio as well as energy-efficiency measures.

Greenhouse gas (GHG) emissions totalled 31 million tonnes (Mt) of carbon dioxide equivalents (CO<sub>2</sub>(e)), a 6.6% increase on the 29 Mt in 2003. Of this total, 14.7 Mt were from electricity purchased, 13.5 Mt were from fossil fuel combustion and processes (eg, lime calcining) and 3 Mt can be attributed to coal bed methane emissions. The major contributors were Ferrous Metals and Industries with 32% and Mondi accounted for 22% of the total. The change in emissions largely reflects the change in energy use. For detailed energy and emissions figures see the detailed data tables on pages 62-65.

The improvement in energy efficiency will be the principal focus of our ongoing efforts to reduce the intensity of GHG emissions at Group level. Energy consumption per unit of production at a number of our operations is improving. The challenge is to generalise this good performance.

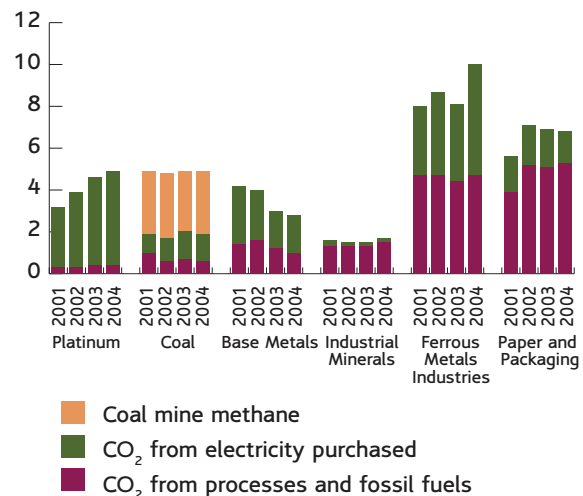
There are a number of examples of increases in energy efficiency: Loma de Níquel 10%, Swiecie 25%, New Denmark 28%. At Rustenburg, the 14% increase in energy efficiency resulted largely from the re-milling of old tailings, which also had significant other environmental and cost benefits.

#### Responding to the carbon challenge

We are developing our internal capacity to respond to the carbon challenge. An internal structure at the corporate level and a carbon-trading strategy are being developed to optimise the Group's response and to identify the potential value in internal trading.

In addition to improving energy efficiency, we also manage carbon emissions directly. An important development in this regard is the incorporation of a cost of carbon into the appraisal of all proposed investments. The procedure aims to ensure that potential future carbon costs and benefits are assessed and included in investment proposals. This procedure also encourages project sponsors to assess the financial viability of alternative, less carbon-intensive technologies and processes.

### CO<sub>2</sub> Equivalent Emissions (million tonnes)

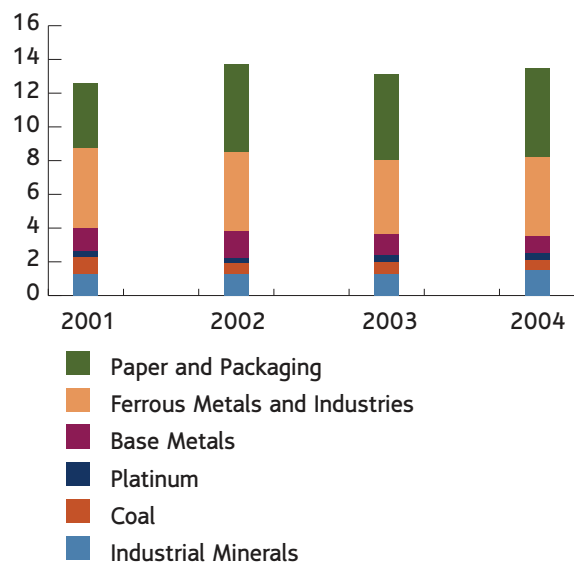


The EU emissions trading scheme entered into force in January 2005. In the period to 2007, the risks to our UK and central/eastern European operations are modest, and the existence of a positive carbon price gives managers a real incentive to investigate emissions-saving possibilities.

Around 68% of our emissions are generated by operations located in developing countries. The clean development mechanism (CDM), an instrument of the Kyoto Protocol, provides an incentive for GHG emissions saving projects in these countries, where these are not yet commercially viable. To help identify such projects we have introduced a screening tool for use by operational managers with little knowledge of the CDM. We will be taking further measures to familiarise managers with the CDM process later in 2005. Our existing CDM projects continue to make progress despite the challenging procedures that have been mandated by the CDM international executive board.



## CO<sub>2</sub> Emissions from fossil fuels and processes (million tonnes)



A multifaceted project at Codemin, in Brazil, seen right, proposes to switch from the use of charcoal to woodchips from managed plantations as a reductant in the production of ferronickel. This will also result in energy efficiency improvements. Trials are continuing with the University of São Paulo to produce a methodology to verify the combustion of methane in the furnaces. The current plan is to move towards validation of the forestry sequestration part of the project only. This amounts to 2.3 Mt CO<sub>2</sub> removal – half of which is CDM-compliant.

At Richards Bay, another multi-faceted project aims to use waste wood instead of coal as a boiler fuel. The benefits will result from reducing the use of fossil fuel and avoiding the creation of methane emissions, which would result from disposal of waste wood to landfill sites. The project is currently undergoing validation using the small-scale project validation methodology and has been short-listed for the Point Carbon 'Best CDM Project' competition.

A further CDM project has been initiated at TransAlloys, a subsidiary of Highveld Steel. The proposal is to retrofit the manganese ladles with an improved electrode design that would greatly increase energy efficiency. An outline methodology has been finalised and the validator has been identified. Validation may take up to six months to complete.

## IMPROVING ENERGY EFFICIENCY

Group companies have made commitments to an aggregated 12% reduction in energy intensity and a 10% reduction in carbon emissions over the next 10 years, working off the 2003 baseline. This follows a Group-wide energy pilot project completed in June 2004, which showed significant opportunities for energy efficiency with both economic and environmental benefits.



Trees being harvested at Codemin for use as fuel

## ENERGY TECHNOLOGY PILOT PROJECT

Early in 2004, an energy technology pilot project was launched in the Group, under the leadership of then technical director, Bill Nairn. Energy engineers used 2003 data as their baseline – the combined total energy consumption of the Group, including AngloGold Ashanti, was 292 million GJ in 2003, contributing towards greenhouse gas emissions equivalent to 30 million tonnes of CO<sub>2</sub>, at a cost of \$1 billion, or 7% of operating costs. The energy mix was 28% electrical power, 23% coke and coal, 20% gas, 19% biomass and 10% liquid fuel.

With growing global concerns about accelerated climate change resulting from human activities, Anglo American has been working on energy efficiency measures for some years. The strategic drivers of GHG regulation, rising energy costs, and concerns about security of supply following major blackouts in the US and Europe in recent years gave the pilot project significant impetus.

A small, central project team and energy engineers from around the Group looked at baselines and efficiency benchmarks. They explored opportunities for process change and technologies to improve efficiencies

## Platinum operations in Rustenburg were used as the pilot site for the energy efficiency project



and cut costs. Working with the Rocky Mountain Institute they developed energy-management capability and identified over 200 potential energy-saving projects, which have now been categorised and prioritised. Some specific projects which have resulted are highlighted in the case studies.

### Reducing cash cost of energy

Anglo Coal South Africa has set challenging goals of reducing the unit cash costs of energy purchased by 3%/year for five years and reducing energy intensity from 0,07GJ/ROM tonnes to 0,05GJ/ROM tonnes. These targets are complementary to the target of a 1.5% reduction in energy consumption in MJ/saleable tonnes. The programme focuses on the consumption of electricity, explosives and liquid fuels. Plans are site-based and part of a continuous improvement programme.

Some 50% of electricity in underground mines is used in ventilation and the potential exists to reduce electricity consumption by closing disused sections of the mine and through maintaining cleaner airways. In opencast mines improving pit layouts and planned blasting and reducing fuels consumed by haul trucks all contribute. Given higher-than-inflation rises in electricity costs in South Africa from January 2005 and exceptionally high oil prices, cost savings may exceed energy-intensity savings. A benchmark survey will therefore be conducted in early 2005 to track progress against both measures.

### Generating power from methane

Anglo Coal Australia is entering into an agreement for the long-term supply of waste mine methane from German Creek to a 32 MW power plant. The plant will be built, owned and operated on adjacent Anglo American land by an external company. Initial operation is expected by the end of 2005.

The mitigation effect of the power project at full capacity will be 1.1 million tonnes of CO<sub>2</sub> equivalents a year, including the effect of displacing the emissions from fuels that would otherwise be used to generate the equivalent amount of electricity. The amount of mitigation is, in the company's estimation, equivalent to planting 1.6 million trees or taking 250,000 cars off the roads.

The underground mines in German Creek contain large volumes of methane, which are held on the surface of the coking coal, posing a significant safety risk. The methane must be drained from the coal seam ahead of the mining. The remaining methane is released into the ventilation system and vented to atmosphere. In the past, if no viable options for its use have existed, drainage methane has been flared and converted to CO<sub>2</sub>, which has also been vented to atmosphere. This flaring reduced the effect of greenhouse gases, but did not contribute to the regional demand for its replacement in the power grid. Methane emissions from German Creek in 2003, which was used as the project baseline, amounted to 1.67 million tonnes of CO<sub>2</sub>(e).

The project has succeeded in securing capital funding from the Australian Federal Government's Greenhouse Gas Abatement Project and further revenue from the sale of tradeable credits under the New South Wales Greenhouse Abatement Certificate scheme. These will initially be in the

form of a cash payment scheme but could convert to more widely tradeable credits at some future date should the New South Wales scheme become eligible. Australia has not ratified the Kyoto Protocol.

### Syktyvkar provides energy for heating

Syktyvkar, Mondi Business Paper's mill in the Russian Komi Republic is fully integrated into its community and provides and shares many services with them. The mill generates its own electrical energy, about 25% of which is supplied to external customers. The 476 megawatt (MW) installed capacity is more than double the mill's 220 MW average requirement. Natural gas and biomass are used for fuel. About 75 MW is delivered to Komenergo, the state energy company. The 60,000 inhabitants of the city of Ezhva receive district heating supplied as water heated to 130 degrees Celsius (130°C) in winter and 70°C in summer. This results in delivered power variations from 80 MW to a maximum of 150 MW when the outside winter temperature drops to -35°C. In addition, Syktyvkar treats the wastewater for the cities of Syktyvkar and Ezhva – a combined 250,000 inhabitants – with the mill wastewater.

### Tarmac targets energy consumption

Tarmac has set a target to reduce specific energy consumption by 15% over 10 years. The savings will be based on energy efficiency as well as investment in clean, energy-efficient technologies. Employees will be trained in energy efficiency techniques and site audits will identify efficiency opportunities. Alternative fuels and renewable energy will be used where cost-effective.

At the Hayes asphalt plant in Greater London an audit identified the potential to make changes to the main extractor fan. The installation of variable speed drives on the fan has resulted in a 62% reduction in energy consumption.

A £2.2 million (\$4 million) investment to fit reverse jet filters at Tunstead shaft lime kilns has significantly reduced particulate emissions, with added thermal efficiency benefits.

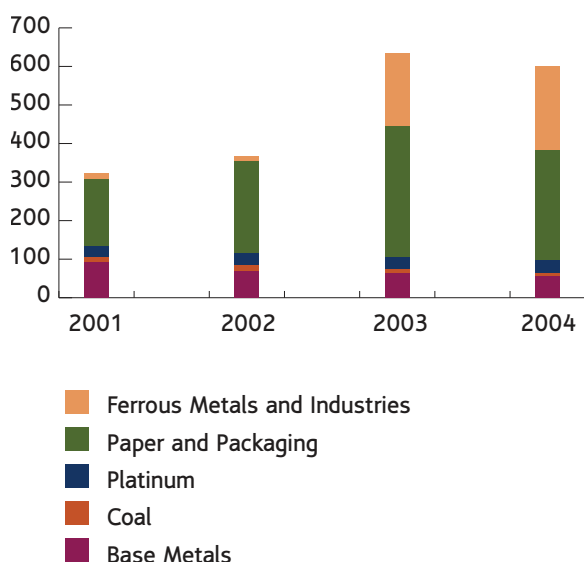
## WATER USE

The competition for clean water remains one of the most fundamental sustainable development challenges. Our operations are large water users and increasingly water and pollution charges pose significant risks. Business units have set quantifiable targets for the reduction of water use over the next decade. The actions to achieve these reductions will vary significantly according to type of operation and geographic location.

Group companies used 612 million m<sup>3</sup> of water compared with 645 million m<sup>3</sup> (restated) in 2003. Mondi accounted for 46% and Ferrous Metals and Industries 36% (29% in 2003). Ferrous Metals and Industries total use increased as a result of the inclusion of Kumba Resources' environmental figures. Kumba used 29 million m<sup>3</sup> of water, or 5% of the Group total. The overall reduction in consumption is accounted for by the sale of Hudson Bay (8 million m<sup>3</sup>) and refinement of the Mondi Syktyvkar data, which brought the total down by 50 million m<sup>3</sup>.

Significant effort was invested during 2004 in benchmarking, establishing water balances and research into water-treatment options.

## Water used for primary activities (million m<sup>3</sup>)



Divisional targets	Year	Reduction m <sup>3</sup> /tonne
Base Metals	2015	15%
Coal South Africa	2005	1.5%
Industrial Minerals	2010	4.3% potable water
Ferrous Metals and Industries	2005	1%
Mondi Business Paper	2010	10%
Platinum*	2010	1%/year
*Value in m <sup>3</sup> /ounce		

## Water-related incidents

Ruzomberok mill reported a level 2 incident following the release of waste water into the mechanical treatment plant. Although the permissible effluent levels were not exceeded, the authorities issued a warning. A significant number of the level 1 incidents reported by Anglo Platinum related to seepage, leakage, spillage and uncontrolled discharge of water. These are being corrected at site level (see page 45.)

# WATER DISCHARGES

## Exploring water treatment options at Anglo Coal

Anglo Coal South Africa has played a key role in developing an advanced passive water-treatment system for the simultaneous removal of sulphates, metals and acidity from mine water. This international breakthrough is the result of 100,000 hours of collaborative research over 10 years at a cost of more than R20 million (\$3.1 million). It has both size and cost benefits. Each new reactor is able to replace up to eight

conventional passive-treatment reactors, with a smaller footprint and at a considerable saving in capital cost.

South African regulations require the removal of sulphates prior to mine water discharge and the industry has been developing and evaluating a range of suitable technologies. Many mines need to treat low-volume seepages and decants continuously for decades. These are often in remote areas which have no access to utility services.



Passive water treatment pilot plant at Vryheid Coronation colliery in KwaZulu-Natal

## Passive treatment systems

Passive treatment systems have typically used constructed wetlands for iron removal and pH adjustment, sometimes with minor sulphate reduction in parallel. The initial sulphate removal rate ceiling was 30g of SO<sub>4</sub> (a common saline pollutant associated with the oxidation of pyrite) removed per day for every m<sup>3</sup> of organic carbon in the reactor vessel. However, a South African government-sponsored project led to a breakthrough in understanding the fundamental mechanisms that control passive sulphate-reduction systems.

The result is the patented 'IMPI' technology, capable of sustainably maintaining sulphate removal rates of around 240g SO<sub>4</sub>/m<sup>3</sup>/day and even reaching levels as high as 600g SO<sub>4</sub>/m<sup>3</sup>/day. The 'IMPI' has four reactors in series, each of which has a particular primary function.

The sulphide oxidising reactors require final development. However, the high rate degrading packed bed reactor (DPBR), with its ability to reduce sulphates and simultaneously produce very high levels of alkalinity (up to 1,500 mg/l) will be applied at full scale at Anglo Coal during 2005, to provide long-term sustainable treatment for contaminated discharges from a closed mine. The 'IMPI' appears to offer a practical and affordable technological solution for long-term mine water treatment at coal mines.

## Large-scale desalination

Anglo Coal is also planning to introduce large-scale desalination options at the Landau colliery. A biological sulphate reduction technology is used to treat 3 ML/day of highly acidic and saline (gypsiferous) waters for re-use in the coal processing plant. The focus has been on reducing

the operating cost of water treatment, which is about 85-90% of the total cost of a plant over a 20-year life.

Various processes have previously been tested. They produced excellent water qualities but at a very low water recovery (~65%), resulting in significant quantities of brines, with resultant high disposal costs. Membrane life and high capital cost drove Anglo Coal to look at commercially proven alternatives.

Several technologies were investigated with varied success. Acidic, saline mine waters were treated from low pH and ~2,500 mg/l sulphates to neutral, pH 7-8 and sulphates below 250 mg/l. The target was <250 mg/l sulphates to ensure that excess mine waters complied with the long term water quality objective of the South African Department of Water Affairs and Forestry.

Anglo Coal has embarked on a joint venture to treat water on a regional basis in both the Witbank and Middelburg regions. Water from two Anglo Coal mines and one Ingwe colliery will be treated. The project includes a collection system over ~30 km, a 20 Ml/day desalination plant, a ~15 km distribution system to the municipality and residue handling and disposal. This pilot plant will be run by the water treatment technology company for three years, with the long-term intention of creating a black economic empowerment company to manage water treatment during operations and after the mines close (as the waters will continue to decant and seep from the closed operations).



**Tarmac is reducing the amount of potable water consumed and re-using water for product washing and dust suppression**

### Water targets prioritised at Tarmac

Most of the water used in Tarmac's quarries is abstracted from untreated ground or surface water. Little is lost to the environment and most is returned after its use for product washing and dust suppression.

Only small amounts of potable water are actually consumed. The company has now refocused its water-conservation targets and set

targets for a reduction of potable water consumption of 4.3% by 2010. Between 1.5 and 6% of Tarmac's total potable water usage leaves the sites in sand and gravel and hard rock products. A further 18% leaves site in concrete and mortar and about 12.5% in concrete products. By focusing on water consumption in these areas of production, Tarmac will be able to measure its effectiveness in conserving potable water supplies.

### Neutralising effluent at Namakwa Sands

The Namakwa Sands operations – situated on the semi-arid west coast of South Africa – are constantly looking for ways to reduce overall fresh water demand, increase recycling and recovery of water and prevent pollution. R28 million (\$4.3 million) has been allocated to prevent the slow leaching of acidic effluent from evaporation ponds at the Namakwa Sands mineral separation plant (MSP) into the groundwater.

The heavy mineral sand must be washed in fresh, clean water to ensure maximum mineral recoveries. The mineral concentrates are then cleaned in a hot sulphuric acid leach process to remove iron coating from the mineral grains. Water used in this process is recycled from the sand washing. The effluent generated by the acid leach process is currently sent to a series of unlined evaporation dams located on the premises, where it is mixed with lime in mixing channels in order to increase the pH of the water.



**Construction of the MSP neutralisation plant at Namakwa Sands is expected to be completed by July 2005**

Over time, monitoring boreholes indicated that the effluent was seeping into the groundwater. This was deemed a significant problem in terms of the ISO 14001 environmental management system. As an interim measure to intercept the seepage, a cut-off trench was built around the dams in 2003.

Although the neutralised water from the new plant will be of a far better quality than the current effluent water, it will still not be suitable for re-use in the mineral sands processes. It will have a high salt content, which will inhibit the effective separation of the minerals. Further



research will investigate the feasibility of either re-use of the water by the MSP or treating the water to a quality that will be suitable for use by other activities, such as agriculture. Discussions with local stakeholders and regulators indicate a willingness to use the treated water as a supplement to existing supplies. Construction of the plant is expected to be completed in April 2005.

## LAND STEWARDSHIP

Land under company control reduced by about 200,000 hectares to 1,161,000 hectares after the exclusion of 300,000 hectares sold with Hudson Bay and the inclusion of 95,000 hectares owned by Kumba Resources. This total includes the South African forests but excludes the forests of the Komi Republic in Russia, where we hold logging rights but do not exercise management control.

A \$942 million provision was made in this year's financial accounts for restoration, rehabilitation and environmental costs at closure. Group companies report that 6,600 hectares of disturbed land was fully rehabilitated during 2004.

Anglo Coal South Africa has been participating in trials to test indigenous grass species on rehabilitated land at Kleinkopje colliery to increase species diversity on rehabilitated land and to improve the sustainability of rehabilitation pastures.

Rehabilitation work at Goedehoop colliery's Hope dump is designed to significantly reduce the pollution load entering a tributary of the Olifants River and the Witbank Dam. Topsoil cladding and vegetation establishment will be completed in late 2005.

### Rural health project

Anglo Coal Australia owns 74,591 hectares of land, most of it for buffer zones around operating mines or to secure it for future mining activity. The land is leased to members of the local community for farming. In 2004, the company launched a rural safety, health and environment programme to be implemented on all of its agricultural properties over three years to bring them in line with the standards applied to safety, health and the environment for all other Anglo Coal sites.

As part of its annual SHEC policy review, Anglo Coal Australia identified this area as being inconsistent with our operating mine sites and was a potential risk. Farmsafe Australia last year claimed that the fatality rate in farming is comparable with other high-risk industries such as mining, construction and road transport. The general direction of all related legislation was to increase 'duty of care' and the New South Wales and Queensland governments have introduced a requirement for all rural enterprises to meet the Workplace Health and Safety Acts.

The first phase of the project was to ensure that staff were trained to undertake simple risk assessments, that health and safety certificates were current and that specialist qualifications such as Agricultural Chemical Handling Certification were renewed. This phase of the project is almost complete. A rural safety audit checklist was introduced for

inspections by staff and licencees. SHE issues were added to meeting and property inspection agendas as part of the owners' obligation to review the effective management of the properties.

One of the risk assessments identified the potential for occasional seasonal flooding, posing threats to livestock and staff that crossed through a single point. As a result an early-warning procedure has been introduced to enable livestock, people and equipment to be evacuated from the area. Good housekeeping has been emphasised, with plans in place to remove all unsafe structures and equipment. Licencees will be involved in the development of individual property safety plans. Training, particularly first-aid skills, will be a priority. The feedback has been positive about the courses and training we have provided, which aim to change the practices of generations – where these have proven to be unsafe or unhealthy.



**Rod and Ed Jones, who lease coal land in Australia, with a new cattle crush built to overcome safety risks**

### Vergelegen

In 1987, Anglo American bought the remaining 3,000 hectares of the historic Vergelegen wine estate established by the early Cape governor Willem Adriaan van der Stel. This has preserved a beautiful example of cultural heritage for the benefit of the South African nation.

Since then the refurbished home, with its 300-year-old camphor trees and international award winning wines, has attracted many tourists, presidents, popstars and business leaders. Now it is also attracting conservation NGOs following a farsighted sustainable development programme to restore the local *fynbos*.

The Cape *fynbos*, the world's smallest plant kingdom but the one with the most species, is naturally prone to fire during the hot, dry summer months. While this is frequently beneficial to the *fynbos*, it also increases the spread of invasive plants and more than 750 indigenous species face extinction.



#### Clearing alien vegetation on Vergelegen

The Vergelegen programme is the second-largest *fynbos* conservation project in the Western Cape – the largest in private hands – and has a number of sustainable development objectives, including the promotion of black economic empowerment. A stand-alone business was created and now employs 30 local people, who were taught essential conservation skills. Alien species with commercial value were identified and will be sold. Vergelegen has also become an important centre for environmental research.

Already the benefits are obvious. The removal of alien vegetation, which uses between 50 and 800 times more water than *fynbos*, has led to more water flowing from the farm to neighbouring communities, where it will be managed for community benefit.



*Madumbi*, similar to a sweet potato, is a subsistence crop for poor communities. It can grow in the wetlands

## BIODIVERSITY

### Biodiversity action plans in place

Anglo American has set targets for the development of biodiversity action plans (BAPs) at all sites where biodiversity is a significant factor. Good progress was made as highlighted on page 9. During 2005, the focus will be on ensuring that these are of appropriate quality and are integrated into the ISO 14001 systems. The development of criteria for assessment is part of ongoing work.

### Tarmac initiatives

Tarmac operates 200 active quarries in the UK, covering around 10,300 hectares and encompassing a variety of wildlife species and habitats. It has set a 2008 deadline for the completion of site-specific BAPs at all its active mineral extraction sites. In 2004, quarry managers completed the first stage of implementation, carrying out detailed on-site audits. A series of specialist studies will follow in 2005. The plans will form an integral part of their environmental management systems.

### Mondi Wetlands Project

Conventional conservation wisdom is being tested by the Mondi Wetlands Project (MWP), which believes that wetlands can provide important means of supporting patchwork subsistence farming and alleviating poverty in extremely dry parts of South Africa. MWP is a project of the Wildlife and Environment Society of South Africa and the World Wildlife Fund (South Africa), and is sponsored by Mondi and the Mazda Wildlife Fund. Best management practices have been developed and are being piloted in wetland areas in South Africa. These propose patchwork cultivation in among natural vegetation to ensure wetland dynamics are not compromised, as well as the use of flood-tolerant crops and shallow drainage to allow for rapid recovery after planting. The project aims to develop capacity among environmental and agricultural extension workers to enable them to respond to wetland management issues.

## CONSERVATION PARTNERSHIP CREATED



Lorenzo Menendez of Anglo American Chile and Mauricio Moreno Sagredo Executive Director of the *Fundación para la Recuperación y el Fomento de la Palma Chilena*, signing the partnership agreement, to protect the *Belloto del Norte* trees



A contested environmental impact study conducted for the expansion of an Anglo Base Metals tailings dam at El Soldado copper mine in Chile, has led to an exciting agreement for the rescue of a local tree species – a protected natural monument. To approve the project, government had to change existing conservation legislation. NGOs initially vigorously opposed this, fearing the precedent that would be set with regard to the management of vulnerable, protected species. However, agreement has since been reached for the relocation of affected trees and a 10-year conservation programme.



#### The *Belloto del Norte* tree

The El Soldado copper mine, one of the Minera Sur Andes operations, has only been part of the Base Metals business unit since November 2002, but copper has been industrially produced since the early twentieth century. The expansion of the tailings dam will extend the operating life of the mine by about 20 years.

Twelve hectares of vegetation had to be removed to expand the dam wall and the drainage system and build new infrastructure. A further 48 hectares of vegetation will be flooded. The key affected species was the *Belloto del Norte* (*Beilschmiedia miersii*) a tree from the Lauraceae family. The trees were classified as vulnerable to extinction in 1989 and declared natural monuments, protected under the Washington Convention, in 1995.

Consultation with government and key Chilean NGOs resulted in the *Belloto del Norte* campaign, which was launched by Anglo Chile in July 2004. The programme, which is recognised by NGOs and government, includes the protection of the *Belloto* population on the El Soldado

property, the relocation of the affected trees, the recovery, collection and propagation of seeds, together with scientific studies and research. Currently, more than 40,000 *Belloto* tree seeds have been collected on El Soldado property. These seeds are currently in nurseries.

#### Buffer zone protects World Heritage site

In March, Mondi's SiyaQhubeka Forests (SQF) and the Greater St Lucia Wetlands park authority in South Africa signed a buffer zone incorporation agreement, which sees the official inclusion of the 14,200 hectares of SiyaQhubeka's land into the reserve on the western shores of the world heritage site.

The inclusion marks a number of changes. Mondi's management of commercial plantations includes the restoration of wetlands and riparian areas, the protection of sensitive ecosystems and the use of biodiversity corridors. Park authorities have recognised the collective value of these ecosystems within the forest estate to the greater St Lucia area and SQF now makes a valuable contribution to the water and biodiversity resources of the park.

Recognition of forestry as a responsible land use is important for future markets. Plantation forestry, and SQF in particular, offers the park a stable and sustainable land use buffer to the world heritage site.

A major part of SiyaQhubeka's 26,451 hectares of prime eucalyptus plantations borders on the park. A 158 km-long eco-track between the park and the commercial plantation areas of Nyalazi and Dukuduku has been created. This separates 9,000 hectares of previously afforested state forest, with significant conservation value, from highly productive commercial forest on the western shores of the lake. There are plans to convert approximately 6,000 hectares of plantation into protected land.



Photo: Norman Neave

#### Elephants at SiyaQhubeka forest on the boundary of the St Lucia world heritage park

In partnership with government, the land will be rehabilitated to wetlands and grasslands, restoring soil and water conditions and encouraging biodiversity. Forty elephant, as well as rhinoceros, buffalo, cheetah and other game, roam freely within the area, which forms a buffer between the park and commercial farming areas. The park authority wishes to achieve the highest level of diversity, ecological integrity and a sustainable ecosystem through the integrated management of the reserve as a whole.

### Mine planning for sustainable development

The planning for Anglo Platinum's Der Brochen expansion project in South Africa is proving to be an important model for using mining to unlock mainstream economic, social and conservation benefits.

A mining zone, conservation zone and a socio-economic zone have been delineated and adapted to support government-led development and conservation plans for the area. The Der Brochen expansion project may be a key to the long-term conservation of the Sekhukhuneland Centre of Floristic Endemism and the chance to keep the endemic yellow arum lily, *Zantedeschia pentlandii*, alive in the wild.



**The Der Brochen valley**

Partnership and shared vision are central to success. If other current and future mining operations agree to the vision, the conservation area could be more than 16,000 hectares and provide the arum lily with a refuge from human population expansion and land-use change.

Anglo Platinum has a number of other biodiversity protection projects, which include the relocation of plants at Potgietersrust Platinums, threatened by development, and the establishment of a nursery to cultivate *Euphorbia* species at Twickenham mine. At Amandelbult section, a new eastern game park was created and 184 species relocated. Two young white rhinoceros have been released in the park and it is hoped that they will breed.



**Wetlands at Mancetter quarry**

## ENVIRONMENTAL AWARENESS AT TARMAC

### Biodiversity programme

Mancetter quarry at Hartshill Ridge in north Warwickshire in the United Kingdom is partly surrounded by areas which have been designated as sites of special scientific interest (SSSI) in recognition of their rich biodiversity, which includes a wide range of plant, bird and wildlife.

The biodiversity action plan provides detailed ecological information and analysis which informed the setting of targets and conservation objectives as well as a series of five-year plans for the progressive restoration of the quarry. This includes the development of additional woodland and the creation of other important habitats such as wetland, grassland and scrub.

### Environmental awareness at Tunstead quarry

Tunstead quarry in Buxton is one of the largest quarries in Europe, with an output of six million tonnes of limestone per year. The new plant provides important resources to the local construction industry as well as jobs for local people. It is also aiming at being one of the most environmentally integrated operations.

Situated in the High Peak area of Derbyshire adjacent to the Peak District National Park, the oldest in the UK and noted for its diversity of fauna and flora, Tunstead has been sited to reduce visibility.

The new cement plant was built at a capital cost of £110 million (\$173 million). The old plant will be removed and its site restored. Since starting operations at the new site in mid-2004, CO<sub>2</sub> emissions and energy consumption have been reduced by 22% and 40% per tonne of cement respectively. An integral vacuum system which enables dust or spillage to be cleaned away easily has been installed and the site will be linked to a network of rail-linked distribution depots to reduce road traffic and resulting fossil-fuel consumption.



## BUILDING CAPITAL AND REDUCING WASTE

Man-made capital is a term used to describe the infrastructural, technological and other changes to the environment which add value to our lives. Innovation, protecting the heritage of the past and reducing the burden of waste is critical to ensuring that we grow this form of capital.

### WASTE REDUCTION

Waste reduction is a growing concern, especially for those businesses operating in, or close to, urban areas. Waste is classified and reported by the business unit in terms of domestic and hazardous waste, waste rock and mine tailings. The details of the large-volume facilities managed by the Group in 2004 are shown in the table below.

Waste facilities total	2003*	2004	Change
Process waste disposal facilities	96	87	-9
Number in active use	51	36	-15
Hectares occupied	5,122	4,547	-574.9**
Number of audits (third-party and in-house)	114	158	44
* Restated      ** Hudson Bay			

### Strategic issue

At Scaw Metals waste reduction is a strategic issue and an integrated waste reduction and recycling strategy is being implemented. The operation is in a built-up area with few expansion options.

A new sand reclamation plant at Scaw Metals will result in an 84% reduction in new sand used for the production of moulds in the steel foundry, with cost and environmental benefits – particularly the reduction of landfill space required which could impact on the life of the plant and reduced extraction and transport of sand.

The sand reclamation plant is designed to reclaim silica sand and chromite sands and has the added benefit of creating good casting surface finishes. Scaw uses 1610 tonnes of sand a month and the reclamation plant reduces the need for new sand to 260 tonnes a month. The plant was commissioned during 2004 and includes a crushing/screening plant, pneumatic conveyors, coolers, de-dusting equipment, magnetic separators, a chromite separator and two mixers. Sand was approximately 10% of the material that was being disposed of in the landfill.



Scaw Metals' sand reclamation plant

### Recycling reduces waste at Tarmac

Anglo Industrial Minerals (AIM), including its subsidiary Tarmac, has set targets for reducing waste sent to licenced disposal sites by 25% from 2004 totals before 2010. Over 70% of waste produced by AIM is recycled or used in the restoration of mineral extraction sites. About 380,000 tonnes of non-hazardous waste is sent for disposal each year, mainly to landfill.

Tarmac UK has introduced a new system, in conjunction with one of its waste contractors, to recover waste after washing out their trucks and return coarse aggregate to the production process. The remaining slurry is then separated into clean water and a cake of the fine aggregate and powders. Both can be reused.

Tarmac has invested in its own recycling business, which produced over 1 million tonnes of recycled aggregates in 2004. These materials would otherwise require disposal but can be used to reduce the use of primary aggregates in the construction of roads.

Less than 3% of the total waste Tarmac produces is hazardous. It consists mainly of waste oil from plant and machinery, which can be recycled and used as fuel.

# RESEARCH AND DEVELOPMENT

## Benchmarking air quality

Anglo American’s Technical Division has launched a research and development initiative in South Africa which will provide significant benchmark data for the management of air quality resulting from Anglo Coal’s opencast mining operations in Witbank, Anglo Platinum operations in Rustenburg and Mondi activities in Richards Bay.

Emissions will be sampled during summer and winter conditions, using instrumented aircraft, supported by passive monitoring detectors. The project will deliver a detailed characterisation of the emissions in the Rustenburg and Witbank areas, including seasonal variations and the detailed characterisation of emissions from Mondi’s Richards Bay operation during periods of low inversion. The project is scheduled for completion by January 2006.

## Air quality research

New air quality legislation in South Africa will shift the focus of air pollution control from identifiable sources to ambient air quality compliance. This will require extensive monitoring of defined pollutants throughout South Africa. Through Coaltech 2020, Anglo Coal is taking a proactive approach to improving air quality in the Witbank area. Spontaneous combustion affects the air quality in the area near Kleinkopje colliery. The monitoring programme makes use of both aircraft and ground-based continuous measurements of trace gases during February and June – representative of best case (summer) and worst case (winter) air quality scenarios. A mobile monitoring station was commissioned to measure gases and airborne particulates.



Air quality research at Kleinkopje colliery will evaluate the impact of the mine on local air quality

In addition to the measurements of pollutants, two automatic weather stations have been installed for a year to improve dispersion modelling and interpretation of the collected data. Initial results confirm that the prevailing weather is the single most important factor influencing the concentrations of pollutants at the monitoring site. Results for some of the pollutants measured during winter exceeded guideline values for ambient concentrations. Using dispersion modelling, the spatial extent of the air quality impact from the mine will be evaluated. In addition, an attempt will be made to discriminate the specific emissions from the mine workings from other ambient air quality measurements.

## Technology improvement at pulp and paper mill

The R2 billion (\$235 million)\* expansion and modernisation of the Richards Bay mill (RB720 project) will be commissioned early in 2005. Best available technology (BAT) is being adopted with resulting reductions in water consumption and chemical use, improvements in atmospheric emissions and the quantity and quality of wastewater discharged. The RB720 expansion will increase the mill’s capacity for bleached eucalyptus pulp production by 33%, bringing the total production capacity to 720,000 tonnes per year.

There will be a significant decrease in the emission of malodorous gases. This is due to the incorporation into the expansion project of new technology, primarily replacing the existing batch digesters with a continuous digester and installing a new mill-wide malodorous gas handling system.

Specific energy consumption will be reduced by about 10% and coal consumed for power generation reduced from 562 tonnes per day to about 250 tonnes per day with resultant reductions in CO<sub>2</sub> and SO<sub>2</sub> emissions. Furthermore solid waste ash generated by the power boilers will be cut by about 60 tonnes a day to a total of 90 tonnes a day (wet) as the coal consumption decreases.

Water consumption will be reduced from 86,000 m<sup>3</sup> per day to 72,800 m<sup>3</sup> per day. By installing the latest proven bleach technology a reduction of approximately 40% in specific wastewater will be achieved.

Anticipated efficiency improvements	Present	RB720
Water Consumption (m <sup>3</sup> /ADT)	52	30–35
Wastewater (m <sup>3</sup> /ADT)	46	27–32
ClO <sub>2</sub> Consumption (kg/ADT as Active Cl)	55	30
Coal Consumption t/d	562	250
Ash Disposal t/d (Wet)	149	90

\* Converted at 2003 rates.

## Socio-economic benefits

The project will spend about R800 million (\$124 million) in South Africa, with benefits for local businesses and their employees. About 16% of the local spend is through Black Economic Empowerment companies with a further R49 million (\$7.6 million), or 7%, destined for

small and medium-sized enterprises. About 80% of the 3,100 workers required for the peak construction phase were locally hired. Engineering services and specialised machinery are being imported from Europe at a cost of about R1.5 billion (\$0.23 billion).

The additional timber will be sourced from empowerment forestry company, SiyaQhubeka Forests. Mondi will also continue to support its Khulanathi small timber grower assistance scheme, which has 2,854 participants registered and 5,900 hectares planted. Timber purchased from Khulanathi growers will increase to about 170,000 tonnes this year.

### Anglo research improving process technology

The Anglo American Research Laboratories are committed to developing and improving process technologies that will give the company a competitive advantage and protect its long-term licence to operate. A number of recent projects have focused on efficient use of resources.

An energy-efficient milling technology has been developed which reduces energy consumption, improves mineral recovery and reduces the consumption of reagents. An industrial-sized demonstration plant is currently being evaluated.

A 100kg/hour continuous pilot plant which will revolutionise the reduction roasting of ilmenite, ferro-nickel and iron ore – all energy-intensive processes – will be commissioned in the second quarter of 2005.

Work is being undertaken to reduce the emission of greenhouse gases during the smelting process, while producing stable residues and reduced waste streams.

The environmental laboratory is unique on the African continent in offering 21 ISO 17025 accredited analytical methods for the analysis of water and effluents. Independent statistical analysis of all results is quality controlled by third parties accredited under ISO Guide 43.

## TECHNOLOGY ADDING VALUE TO NATURAL RESOURCES

A new Superconducting Quantum Interference Device (SQUID), developed by the Geosciences Research Group and German research partners will significantly improve the ability of exploration teams to home in on conductive ore bodies, even when they are masked by magnetic or conductive ground cover which in the past has made them difficult to detect.

The new technology was presented at the Anglo American Technical Conference by Ian Willis of Exploration Division and Tiaan le Roux of the Geosciences Group. Willis explained that SQUID research for geophysical applications elsewhere in the world (including De Beers) has tended to

focus on high temperature liquid nitrogen-cooled SQUIDs. However, continued research with low temperature SQUIDs proved their superior quality and sensitivity, in spite of perceived field logistical problems of liquid helium cooling (4.2°K or -269°C).

Field tests for specific exploration applications were conducted in the harsh Western Australian environment. These tests proved field-worthiness and capability of detecting conductive targets at depth or below conductive cover. The prototype system has since been delivered for initial use in Australia and further field surveys have been concluded successfully. The system will potentially give Anglo exploration teams a strategic advantage over competitors, with a probable 3-5 year window before they catch up with this development. A supply and research agreement to the value of €5 million has been signed with the Institut für Physikalische Hochtechnologie.

### Coal to liquid energy project

Anglo American has taken a controlling interest in an Australian company, Monash Energy (previously Australian Petroleum Energy Limited, which ran the Victorian Power and Liquids Project). Monash Energy has plans to convert brown coal to ultra-clean diesel fuel and create a geosequestration project in the Latrobe Valley.

Anglo American took a 100% stake in the project following a pre-feasibility study which began in mid-2003. The study scope included a brown coal mine, a coal drying and gasification plant, a synthesis gas-based hydrogen production plant, a fuel synthesis plant for converting gas to liquids and an integrated waste heat and off-gas power plant. At full-scale the project is planned to produce 60,000 barrels a day of liquids – mainly ultra-clean diesel.

Jeff Cochrane, chief executive officer, says the focus for 2005 would be on defining the requirements for the first stage of the plant and for the geosequestration that will be needed to support full-scale development. With the assistance of an Australian Federal Government grant, the CO<sub>2</sub>CRC (Cooperative Research Centre for Greenhouse Gas Technologies) and Monash Energy are studying the potential for joint-use geosequestration storage sites and infrastructure to remove the greenhouse gas emissions concerns that would otherwise constrain new coal developments in Victoria. He cautions, however, that this still needs rigorous technical evaluation and wide-ranging community and stakeholder engagement to achieve the support needed for a commercial project.

### Desalinated water for Scaw's Moly-cop

Scaw's Moly-Cop subsidiary has commissioned a new grinding media factory at Mejillones Bay, Chile. The new factory situated in one of the driest places on earth some 65 kms from Antofagasta in Northern Chile. The plant uses 350 m<sup>3</sup>/day of desalinated water in the preparation of grinding material, which will be used by the mining industry.





## PROTECTING CULTURAL HERITAGE

### Archaeological finds

Every time new land is to be excavated by Tarmac detailed assessments are carried out by relevant authorities and, where necessary, archaeologists are appointed.

### Geologists out in the Tangle Lakes exploration area



During 2004, a wide range of interesting archaeological artefacts were discovered at Tarmac sites around the world. At Broom quarry in Bedfordshire upper skulls and the horns of seven aurochs – a predecessor of the modern domestic cow – were uncovered. Aurochs have been extinct since the Bronze age. See picture (left).

At Planany quarry in the Czech Republic relicts of ancient civilisations including Paleolithic and Roman artefacts, nine graves and skeletal remains were uncovered. In late 2003, a mammoth tusk was uncovered in the Langford lowlands. Other artefacts (far left) which have been discovered over years are now in museums in the UK.

## ALASKAN ARCHAEOLOGICAL SITES PROTECTED

When exploration geologists learned that local people had concerns about the protection of important archaeological sites around the Tangle Lakes exploration area, assistance was sought from the Alaskan Office of History and Archaeology.

The area is on the southern flank of the Alaska range and has one of the densest concentrations of artefacts, dating back 10,500 years, in the North American subarctic. The exact location of sites is kept confidential. Prior habitation of the area stems from the Denali complex, the Northern Archaic Tradition, the Late Prehistoric Period and the Athabaskan Tradition.

After authorities recognised the common ground between the disciplines, geologists were trained by the state archaeologist, Richard van der Hoek, in the identification of artefacts such as flake scatters, arrowheads, burned bone, charcoal and other historic items. The geologists and their helicopter pilot were also provided with instructions on marking and preserving any finds. No new sites have been located.



# ASSURANCE AND DATA

## REPORTING AND ASSURANCE

### BASIS OF REPORTING

The scope of this report is outlined on page 4. Safety, health and environmental (SHE) data are collected using our corporate database. Please refer to our Glossary on pages 66-67 and to the body of the report for further information on specific definitions.

### COMPARABILITY

The comparability of our SHE data is affected by changes to the portfolio of managed operations, by changes in the methodology for determining certain data and improvements in data collection systems, such as more consistent interpretation of definitions and use of better estimates. Where significant, these impacts are discussed within the main body of the report under the respective SHE performance indicators. In summary, the performance indicators impacted were:

- Environmental incidents: improved awareness of incident reporting and greater clarification of the definition has resulted in better capture of environmental incidents in 2004 for some divisions compared to previous years
- Land utilised: correct application of the definition has resulted in a significant decrease in the reported land utilised by Hippo Valley compared to that reported in 2003
- New cases of occupational disease: many new cases reported are a result of refining baseline data across the group.

### RESTATEMENT

During 2004, the following events have led to restatement of the actual 2003 data:

- Energy use: alignment of reporting with GRI reporting guidance, resulting in the use of gross instead of net calorific values
- Water used for primary activities: A change in the basis of reporting

water used by Tarmac to water removed from the environment in the product (See page 51 for further explanation)

- Syktyvkar: clarification of reporting boundaries and alignment of the basis of reporting with other mills has resulted in restated water use and CO<sub>2</sub> from processes
- Minor improvements in calculation methodologies or data refinements. These are referenced in the footnotes of the data tables on pages 62-65.

### AREAS FOR IMPROVEMENT

Over time, our SHE and Business Principles management and information systems have evolved as we continue to improve the reliability and comparability of our performance data. However, there are still a number of limitations that we are working to improve. These include:

- CO<sub>2</sub> emissions from coal seam venting and spontaneous combustion from our mines in South Africa are not reported due to the lack of reliable and accurate methodologies, which impacts the completeness of the Group's reported CO<sub>2</sub> emissions from processes
- SO<sub>2</sub> emission data are obtained from both mass balances and measurements. Group reported SO<sub>2</sub> emissions exclude emissions from fossil fuels. These will be captured for 2005 onwards
- To date, our focus on waste has been on process waste facilities including mine tailings, coal fines and slag. The most important indicator of our management of this large volume mining waste is the number of audits conducted. This focus will extend to non-mineral waste parameters during 2005, and we shall develop reporting on the generation and disposal of hazardous and non-hazardous waste
- In order to report on HIV prevalence at our eastern and southern African operations annually, and to demonstrate our attempts to increase

the uptake of voluntary counselling and testing, we need to focus on the metrics. We will focus on a practical way of representing VCT uptake across our operations and improving our HIV and AIDS reporting systems

- Almost all significant operations now have a Community Engagement Plan in place. The next challenge will be to improve their quality and the consistency of approach adopted. This process will be supported by the growing number of SEAT assessments
- During 2005, the plans are for Biodiversity Action Plans to be integrated into ISO 14001 programmes to ensure that plans can be reviewed and managed, the focus will also be on peer reviews of the action plans
- Water is a strategic resource and significant effort was invested during 2004 in benchmarking, establishing water balances and research into water treatment options. The indicators for the efficiency of water use in water-stressed areas will be improved in 2005.

### INDEPENDENT ASSURANCE

This is the fifth year that KPMG have selected and reviewed certain of our sustainable development performance indicators and targets. This process provides our external stakeholders with independent assurance of the completeness and accuracy of our reported performance. An integral part of KPMG's assurance process is to provide written feedback to management that summarises their key findings and recommendations for improvement. This has been valuable in assisting us to improve our internal management and control.

KPMG's independent assurance report can be found on page 61.



### Independent assurance report to Anglo American plc

Anglo American plc engaged us to review selected sustainable development performance indicators and targets ('sustainable development criteria') in its Report to Society 2004 (the report), excluding the sustainable development criteria of Kumba Resources that was acquired as a subsidiary with effect from 5 December 2003. The sustainable development criteria we selected are set out below.

This report is made solely to Anglo American in accordance with the terms of our engagement. Our work has been undertaken so that we might state to Anglo American those matters we have been engaged to state in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Anglo American, for our work, for this report, or for the conclusions we have reached.

### Respective responsibilities of directors and reviewer

Anglo American's directors are responsible for the preparation of the report and the information and assessments contained within it, for determining the Group's objectives in respect of sustainable development performance and for establishing and maintaining appropriate performance management and internal control systems from which the reported information is derived.

Our responsibility is to express our conclusions to Anglo American on the findings of our review, based on the work referred to below. We also report if, in our opinion, any of the relevant disclosures are misrepresented or inconsistent with our findings, if we have not received all information and explanations we required to conduct our work, or if we became aware of additional information, the omission of which may result in the selected sustainable development criteria in the report being materially misstated or misleading.

### Basis of our work

There are no generally accepted standards for sustainability reporting. Anglo American applies its own Safety, Health and Environmental Reporting Guidance, Community Engagement Guidelines, Socio-Economic Assessment Toolkit and Biodiversity Action Plan Guidelines for reporting ('Anglo American's sustainable development guidance').

We conducted our work in accordance with International Standard on Assurance Engagements 3000: Assurance Engagements other than Audits or Reviews of Historical Information issued by the International Auditing and Assurance Standards Board. Our work was carried out by a multi-disciplinary team of safety and environmental, stakeholder engagement and assurance specialists.

### Work performed

We selected the following sustainable development criteria for review drawing on an understanding of the risks associated with reporting sustainable development performance and the systems and processes in place to mitigate these risks: *fatal injuries*, *CO<sub>2</sub> emissions from processes*, *fossil fuels and electricity purchased*, *total recorded emissions of SO<sub>2</sub>*, *total energy used*, lost-time injury frequency rate including restricted work cases, new cases of occupational disease, number of employees receiving antiretroviral treatment, land utilised, land fully rehabilitated, methane emissions, water used for primary activities, number of environmental incidents, biodiversity action plans, community engagement plans and Socio-Economic Assessment Toolkits. We selected 21 sites for visit and review by taking into account risks and issues that may influence reporting in a geographically and operationally diverse organisation like Anglo American.

We planned and performed our work to obtain all the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance over the sustainable development criteria set out above in *italic* text and limited assurance over the sustainable development criteria set out above in plain text.

### Our work consisted of:

- obtaining an understanding of systems used to generate, aggregate and report based on Anglo American's sustainable development guidance and the selected sustainable development criteria at 21 selected sites, divisional and group level;
- conducting interviews with management at the sites, divisional and group level to obtain an understanding of the consistency of the reporting processes and explanations of the trends in sustainable development performance;
- performing an analytical review of the sustainable development criteria submitted for central aggregation;
- testing the accuracy of the aggregation process for the selected sustainable development criteria;
- reviewing the presentation of the selected sustainable development criteria in the report in light of the findings from site visits, divisional and group levels and our cumulative knowledge of the industry and the group's operations.

## CONCLUSIONS

### Based on the work described above, in our opinion:

- Anglo American's sustainable development criteria set out in italics above for the year ended 31 December 2004, are fairly stated; and
- nothing has come to our attention that causes us to believe that Anglo American's sustainable development criteria set out above in plain text for the year ended 31 December 2004, are not fairly stated.

## DATA FOR MANAGED COMPANIES

FOR THE YEAR ENDED 31 DECEMBER 2004

	CO <sub>2</sub> from processes and fossil fuels <sup>a</sup>	CO <sub>2</sub> from electricity purchased <sup>b</sup>	Total energy used <sup>c</sup>	Land utilised by operations	Water used for primary activities	Tonnes mined/ tonnes milled <sup>d</sup>	Coal mine methane, CO <sub>2</sub> equivalent
	'000 tonnes	'000 tonnes	'000 GJ	ha	'000 m <sup>3</sup>	'000 tonnes	
<b>Anglo Platinum</b>							
Bafokeng Rasimone Platinum Mine	2	241	997	950	1,850	2,376	
Lebowa Platinum Mine	6	180	812	282	6,071	1,789	
Potgietersrust Platinums	75	270	2,166	1,941	3,266	4,470	
Precious Metals Refiners	1	44	190	32	163	0	
RPM Amandelbult Section	20	688	3,075	904	7,782	6,458	
RPM Rustenburg Section	12	1,299	5,424	3,476	8,173	16,623	
RPM Union Section	42	679	3,295	1,870	2,993	6,209	
RPM Waterval Smelter	95	619	3,638	57	1,415	0	
Polokwane Smelter	24	241	1,244	728	403	0	
Rustenburg Base Metals Refiners	141	185	2,323	145	670	0	
<b>Totals for Year 2004</b>	<b>418</b>	<b>4,451</b>	<b>23,181</b>	<b>10,390</b>	<b>32,804</b>	<b>37,925</b>	
Totals for Year 2003	390	4,192 <sup>e</sup>	21,774 <sup>e</sup>	8,934	31,224 <sup>e</sup>	33,545	
<b>Anglo Coal</b>							
							'000 tonnes
Anglo Coal Australia							
Callide	86	78	1,330	2,223	834	9,846	19
Dartbrook	166	66	317	873	501	3,853	326
Drayton	68	28	797	1,114	729	4,824	9
German Creek	48	181	985	4,249	3,177	7,405	1,784
Moranbah North	10	75	387	1,035	680	1,923	541
Moura	98	164	1,772	6,397	946	8,399	27
Anglo Coal South Africa							
Bank	2	71	324	852	379	3,936	25
Goedehoop	4	151	664	1,026	541	8,781	51
Greenside	8	47	309	394	64	4,759	2
Kleinkopje	39	125	1,064	2,489	341	8,072	16
Landau	10	71	432	1,485	191	5,541	11
Kriel	12	81	503	2,105	516	11,109	18
New Denmark	2	67	304	2,527	350	4,974	138
New Vaal	44	112	1,076	2,212	118	18,725	37
<b>Totals for Year 2004</b>	<b>599</b>	<b>1,317</b>	<b>10,267</b>	<b>29,269</b>	<b>9,395</b>	<b>102,148</b>	<b>3,002</b>
Totals for Year 2003	655 <sup>e</sup>	1,300 <sup>e</sup>	9,277 <sup>e</sup>	28,606	10,659 <sup>e</sup>	99,008	2,915

<sup>a</sup> CO<sub>2</sub> emissions from processes and fossil fuels consumed are calculated using the WBCSD Greenhouse Gas Protocol calculation tools, and do not include emissions from purchased electricity.

<sup>b</sup> CO<sub>2</sub> emissions from purchased electricity are calculated using country-specific factors for national grid electricity.

<sup>c</sup> Total energy used is calculated from electricity purchased and fossil fuels consumed.

<sup>d</sup> For Anglo Platinum figures are tonnes milled, for Anglo Coal figures are tonnes mined.

<sup>e</sup> These data are not the same as reported in 2003 due to data refinements during 2004.

Note: In some instances the exclusion of data from minor contributors will result in totals not being equal to the sum of the listed units.

Additional tables, including our greenhouse gas inventory and our GRI index, are available on our website <http://www.angloamerican.co.uk/susdev/reports.htm>

	CO <sub>2</sub> from processes and fossil fuels <sup>a</sup>	CO <sub>2</sub> from electricity purchased <sup>b</sup>	Total energy used <sup>c</sup>	Land utilised by operations	Water used for primary activities	Tonnes mined/ tonnes milled <sup>d</sup>
	'000 tonnes	'000 tonnes	'000 GJ	ha	'000 m <sup>3</sup>	'000 tonnes
<b>Anglo Base Metals</b>						
Mantos Blancos	130	142	2,048	1,888	3,974	8,579
Manto Verde	96	36	1,410	1,557	2,802	9,017
El Soldado	43	51	1,468	892	3,577	7,184
Los Bronces	85	143	3,895	4,710	21,954	20,446
Chagres	36	27	1,125	40	1,475	521
Codemin	83	9	2,200	1,141	2,025	515
Loma de Níquel	398	133	8,580	242	2,988	1,210
Catalão	3	1	132	203	3,380	568
Namakwa Sands	147	559	3,066	2,311	7,512	16,948
Skorpion	11	508	2,218	508	2,633	6,591
Black Mountain	9	133	664	929	2,159	1,500
Lisheen	3	84	478	406	36	1,452
<b>Totals for 2004</b>	<b>1,043</b>	<b>1,825</b>	<b>27,284</b>	<b>14,827</b>	<b>54,516</b>	<b>74,531</b>
Totals for 2003	1,225 <sup>e</sup>	1,771	34,043 <sup>e</sup>	18,111	62,935	72,698
	CO <sub>2</sub> from processes and fossil fuels <sup>a</sup>	CO <sub>2</sub> from electricity purchased <sup>b</sup>	Total energy used <sup>c</sup>	Land utilised by operations	Water used for primary activities	
	'000 tonnes	'000 tonnes	'000 GJ	ha	'000 m <sup>3</sup>	
<b>Anglo Industrial Minerals</b>						
Copebrás	64	6	1,824	136		7,180
Steetley Iberia	5	5	118	117		638
Tarmac Central Europe	12	26	363	1,674		548
Tarmac China	18	2	266	12		15
Tarmac France	6	2	166	214		182
Tarmac Middle East	41	6	614	109		108
Tarmac UK	1,366	189	12,124	9,594		2,739
<b>Totals for 2004</b>	<b>1,514</b>	<b>236</b>	<b>15,474</b>	<b>11,856</b>		<b>11,410<sup>f</sup></b>
Totals for 2003	1,325 <sup>e</sup>	209 <sup>e</sup>	14,455 <sup>e</sup>	10,866 <sup>e</sup>		10,332 <sup>e</sup>
<b>Anglo Ferrous Metals and Industries</b>						
Highveld Steel	3,540	2,973	38,000	2,077		8,473
Scaw Group	776	774	13,728	156		2,025
Zimbabwe Alloys Limited	57	151	1,216	999		308
Amfarms	0	1	4	0		6
Boart Longyear Ltd	27	48	566	45		343
Hippo Valley	40	3	488	871		177,104
Kumba	212	1,360	8,702	0*		29,752
<b>Totals for 2004</b>	<b>4,652</b>	<b>5,311</b>	<b>62,704</b>	<b>4,148</b>		<b>218,010</b>
Totals for 2003	4,434 <sup>e</sup>	3,721	59,035 <sup>e</sup>	8,262		189,201 <sup>e</sup>

<sup>a</sup> CO<sub>2</sub> emissions from processes and fossil fuels consumed are calculated using the WBCSD Greenhouse Gas Protocol calculation tools, and do not include emissions from purchased electricity.

<sup>b</sup> CO<sub>2</sub> emissions from purchased electricity are calculated using country-specific factors for national grid electricity.

<sup>c</sup> Total energy used is calculated from electricity purchased and fossil fuels consumed.

<sup>d</sup> For Anglo Base Metals figures are total tonnes milled (including waste rock, ore and overburden); for Namakwa Sands, Skorpion and Catalão figures are tonnes mined.

<sup>e</sup> These data are not the same as reported in 2003 due to data refinements during 2004.

<sup>f</sup> For more detail on the restatement of water for Anglo Industrial Minerals refer to page 51.

\* This figure will be reported in 2005.

NOTE: In some instances the exclusion of data from minor contributors will result in the totals not being equal to the sum of the listed units.



## DATA FOR MANAGED COMPANIES

### FOR THE YEAR ENDED 31 DECEMBER 2004

	CO <sub>2</sub> from processes and fossil fuels <sup>a</sup>	CO <sub>2</sub> from electricity purchased <sup>b</sup>	Total energy used <sup>c</sup>	Raw material used	Water used for primary activities	Particulate emissions
	'000 tonnes	'000 tonnes	'000 GJ	'000 tonnes	'000 m <sup>3</sup>	tonnes
<b>Anglo Paper and Packaging</b>						
Mondi Business Paper						
MBP Austria	159	89	3,572	500	6,822	0
MBP Hungary	75	54	1,901	179	3,346	0
MBP Hadera	0	52	234	97	878	0
MBP SCP Ruzomberok	282	45	6,106	1,150	29,590	178
MBP Syktyvkar	1,827	1	36,046	1,280	91,502	2,848
MBP South Africa						
Merebank	474	581	7,847	703	9,964	23
Richards Bay	635	156	8,137	1,817	30,711	681
SilvaCel	1	12	65	2,006	207	0
Forests Operations	0	3	14	32	43	19
Mondi Packaging						
Mondi Packaging Paper						
MPP Vaja (Sweden)	29	11	1,165	426	18,427	0
MPP Frantschach (Austria)	46	3	811	451	28,288	86
MPP Steti (Czech)	485	110	6,302	1,374	39,109	108
MPP Swiecie	938	129	6,248	1,759	20,296	428
Mondi Packaging Corrugated	19	30	562	438	1,231	84
Mondi Packaging South Africa						
Mondipak	26	27	450	192	189	0
Springs	121	100	1,752	165	1,576	124
Felixton	78	61	1,117	178	2,275	0
Piet Retief	112	78	1,558	0	1,098	270
<b>Totals for 2004</b>	<b>5,320</b>	<b>1,546</b>	<b>84,230</b>	<b>13,292</b>	<b>286,067</b>	<b>4,848</b>
Totals for 2003	5,125 <sup>d</sup>	1,820 <sup>d</sup>	78,866 <sup>d</sup>	12,684 <sup>d</sup>	340,190	4,181

<sup>a</sup> CO<sub>2</sub> emissions from processes and fossil fuels consumed are calculated using the WBCSD Greenhouse Gas Protocol calculation tools, and do not include emissions from purchased electricity.

<sup>b</sup> CO<sub>2</sub> emissions from purchased electricity are calculated using country-specific factors for national grid electricity.

<sup>c</sup> Total energy used is calculated from electricity purchased and fossil fuels consumed.

<sup>d</sup> These data are not the same as reported in 2003 due to data refinements during 2004.

NOTE: In some instances the exclusion of data from minor contributors will result in the totals not being equal to the sum of the listed units.

Additional tables, including our greenhouse gas inventory and our GRI index, are available on our website <http://www.angloamerican.co.uk/susdev/reports.htm>

	Solid waste generated	Waste water discharged	COD in waste water	AOX in waste water	TSS in waste water	Production for 2004 <sup>a</sup>	Production for 2003 <sup>a</sup>
	tonnes	'000 m <sup>3</sup>	tonnes	tonnes	tonnes	'000 tonnes	'000 tonnes
<b>Anglo Paper and Packaging (continued)</b>							
Mondi Business Paper							
MBP Austria	54	5,898	3,108	0	218	409	378
MBP Hungary	4,839	2,717	2,206	0	877	229	210
MBP Hadera	624	926	1,038	0	2,116	127	128
MBP SCP Ruzomberok	24,999	28,955	2,358	12	182	734	547
MBP Syktyvkar	62,457	75,963	13,060	390	1,479	1,472	1,372
MBP South Africa							
Merebank	140,833	8,782	6,610	0	1,129	452	516
Richards Bay	69,345	26,279	41,833	115	8,771	612	595
Silvacel	17,785	160	0	0	0	1,912	1,857
Forest Operations	0	0	0	0	0	14	39
Mondi Packaging							
Mondi Packaging Paper							
MPP Vaja (Sweden)	9,535	13,275	4,038	0	1,063	213	187
MPP Frantschach (Austria)	0	37,673	383	0	0	296	264
MPP Steti (Czech)	27,185	32,343	3,791	16	521	436	421
MPP Swiecie	0	17,127	1,914	0	516	760	737
Mondi Packaging Corrugated	1,251	100	0	0	0	367	149
Mondi Packaging South Africa							
Mondipak	2,460	155	144	0	0	333	323
Springs	27,315	1,091	2,486	0	81	129	136
Felixton	5,329	2,242	48,153	0	9,149	112	98
Piet Retief	15,182	779	2,705	0	968	126	129
<b>Totals for 2004</b>	<b>396,939</b>	<b>254,465</b>	<b>133,827</b>	<b>533</b>	<b>27,071</b>	<b>9,278</b>	<b>8,555<sup>b</sup></b>
Totals for 2003	507,899 <sup>b</sup>	256,620 <sup>b</sup>	126,685 <sup>b</sup>	119	25,016		

	Land under company charge	Total land area planted	Total grasslands and wetlands area
	ha	ha	ha
<b>Anglo Paper and Packaging (continued)</b>			
<b>Totals for 2004</b>	<b>502,503</b>	<b>285,362</b>	<b>102,421</b>
Totals for 2003	516,252	293,994	102,410

<sup>a</sup> Products are as follows: Richards Bay – pulp and packaging papers (tonnes); Felixton and Piet Retief – corrugating papers (tonnes). Silvacel – wood chips (tonnes); Merebank – graphic papers (tonnes). Springs – packaging board (tonnes).

Forests – lumber (m<sup>3</sup>) and woodchips (tonnes); Mondipak – corrugated boxes (1000 m<sup>3</sup>).

Mondi Packaging Poland – corrugated packaging (1000 m<sup>3</sup>); Mondi Business Papers – market pulp, graphic and packaging papers (tonnes); Frantschach – pulp, and packaging papers (tonnes)

<sup>b</sup> These data are not the same as reported in 2003 due to data refinements during 2004.

NOTE: In some instances the exclusion of data from minor contributors will result in totals not being equal to the sum of the listed units.

## GLOSSARY

TERM	DESCRIPTION
ABET	Adult basic education and training
ADT	Air dried tonne
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy
BAP	Biodiversity action plan
BBS	Behaviour-based safety
BEE	Black Economic Empowerment (South Africa)
CAP	Common Agricultural Policy of the European Union
CBO	Community-based organisation
CDM	Clean development mechanism
CH <sub>4</sub>	Methane
COD	Total quantity of chemical oxygen demand
CO <sub>2</sub> emissions from fossil fuels	Carbon dioxide emissions calculated by applying conversion factors to fuel usage volumes
CO <sub>2</sub> emissions from electricity	Calculated quantity of carbon dioxide emitted in the generation of electricity, which is subsequently purchased by a business unit. Country-specific conversion factors are used in the calculation
CO <sub>2</sub> emissions from processes	Carbon dioxide emissions from point or fugitive sources, excluding: <ul style="list-style-type: none"> <li>• carbon dioxide from coal seam gas venting and spontaneous combustion from Anglo Coal South Africa</li> <li>• carbon dioxide from biomass sources relevant to Paper and Packaging</li> <li>• carbon dioxide from the consumption of sulphuric acid in the leaching process relevant to Base Metals refining processes</li> </ul>
CO <sub>2</sub> (e)	Carbon dioxide equivalents, which enable the comparison of the impact of various greenhouse gases using CO <sub>2</sub> as a benchmark, thereby facilitating impact assessment and trading
Contractor	A contractor is any non-Anglo American person who is on Anglo American premises under contract for business purposes or anyone providing materials, personnel or services that directly benefit Anglo and relate to a contract or sub-contract
Controlled activities	Activities for which the managed operating company can set SHE standards and directly supervise and reinforce their application
CSLF	Carbon Sequestration and Leadership Forum
Currencies	Figures are quoted in both local currency and dollars, where possible, or in dollars. Conversions are done at the time of announcing a project or at an average annual rate and are therefore indicative rather than exact.
dB(A)	Decibels on the A-weighting scale, a frequency-weighted noise unit widely used for traffic and industrial noise measurement. The A-weighting scale corresponds approximately to the frequency response of the ear and thus correlates well with loudness
EBMS	Electronic business management system
EITI	Extractive Industries Transparency Initiative
Environmental incidents	Environmental incidents are classified as either: <ul style="list-style-type: none"> <li>• Level 1: minor impact, short-term effect</li> <li>• Level 2: moderate impact, medium-term effect</li> <li>• Level 3: significant impact, extensive or long-term effect</li> </ul>
Fatal injury	The death of an employee or contractor resulting from a work-related injury
FBO	Faith-based organisation
FIETA	Forestry industry education and training authority
FSC	Forest Stewardship Council
FTAA	Financial and Technical Assistance Agreement
GBC	Global Business Coalition on HIV/AIDS, an NGO dedicated to enhancing the business response to HIV/AIDS
GHG	Greenhouse gas
GRI	Global Reporting Initiative

TERM	DESCRIPTION
HAVS	Hand/arm vibration syndrome
HDSA	Historically disadvantaged South Africans – African, coloured and Asian men, and women
HIV	Human Immunodeficiency Virus
Hours worked	Total number of hours worked by employees, including overtime and training, excluding leave, sickness and other absences. Includes the total number of contractor hours worked on-site during the year
ISO 9001	A quality management systems standard published by the International Standards Organisation
ISO 14001	An environmental management systems standard published by the International Standards Organisation
ICMM	International Council on Mining and Metals
ISRS	International Safety Rating System
IUCN	World Conservation Union
Lost-Time Injury (LTI)	Any occupational injury which renders the person unable to perform his/her regular duties for one full shift or more following the day on which the injury was incurred, whether a scheduled work day or not
Lost-Time Injury Frequency Rate (LTIFR)	The number of lost-time injuries per 200,000 hours worked
Managed companies	Companies in which Anglo American has management control. These companies are individually responsible and accountable for managing SHE matters associated with their operations
Methane emissions	Quantity of methane generated and emitted to atmosphere from point sources and fugitive emissions, as a result of coal mining activities
NGO	Non-government organisation
NIHL	Noise-induced hearing loss
NOSA	The international NOSA integrated 5-star system provides an auditing and certification service in occupational health and safety risk management. Star ratings, awarded according to an operation's level of compliance with NOSA standards, range from 1 (fair) to 5 (excellent)
NO <sub>x</sub>	Nitrogen oxides
OEL	Occupational exposure limit
OHSAS 18001	Occupational health and safety assessment series (specifications for occupational health and safety management systems)
OTTO	Zero tolerance towards unsafe working practices and target zero for injuries
REACH	European Union Directive for the Registration, Evaluation and Authorisation of Chemicals
Restricted Work Case (RWC)	An occupational injury which renders the person able to return to work but unable to carry out his/her regular duties (light duty or light work)
SEAT	Socio-economic assessment toolbox
SDCEA	South Durban Community Environmental Alliance
SHE	Safety, health and environment
SHEQ	Safety, health, environment and quality
SO <sub>2</sub> emissions from fossil fuels	Sulphur dioxide emissions from the combustion of fossil fuels
SO <sub>2</sub> emissions from processes	Sulphur dioxide emissions from point sources or fugitive emissions
SO <sub>4</sub> , sulphates	Sulphate is a component of various pollutants such as acid rain, acid mine drainage, generally sourced from the combustion or oxidation of sulphur or substances containing sulphur, eg coal or sulphide ores
Total energy used	Calculated from electricity purchased, biomass, charcoal and fossil fuels consumed
Value-Added	The value added to the materials and services purchased for production
VCT	Voluntary counselling and testing for HIV
Water used for primary activities	Total new or make-up water entering the operation and used for the operation's primary activities. Primary activities are those in which the operation engages to produce its product(s) and include dust suppression within the operational area
WBCSD	World Business Council for Sustainable Development
Work-related incident	Work-related incidents from controlled activities are reported. An incident is considered work-related if an event or exposure in the work environment caused or contributed to the incident in any way. The work environment includes the employer's premises and any other locations where employees go to perform work-related activities in the interest of the employer



## Global Compact

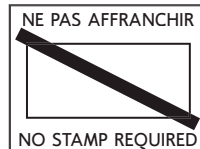
Anglo American became a signatory to the UN Secretary-General's Global Compact in 2004. The Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption:

Human Rights	
• Principle 1:	Businesses should support and respect the protection of internationally proclaimed human rights.
• Principle 2:	Make sure that they are not complicit in human rights abuses.
Labour Standards	
• Principle 3:	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
• Principle 4:	The elimination of all forms of forced and compulsory labour.
• Principle 5:	The effective abolition of child labour.
• Principle 6:	The elimination of discrimination in respect of employment and occupation.
Environment	
• Principle 7:	Businesses should support a precautionary approach to environmental challenges.
• Principle 8:	Undertake initiatives to promote greater environmental responsibility.
• Principle 9:	Encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	
• Principle 10:	Businesses should work against all forms of corruption, including extortion and bribery.
<b>References:</b>	Our business principles: <a href="http://www.angloamerican.co.uk/social/busprinciples.asp">www.angloamerican.co.uk/social/busprinciples.asp</a>
<b>Reports:</b>	<i>Creating Enduring Value: Report to Society 2004</i> <a href="http://www.angloamerican.co.uk/susdev/reports.htm">www.angloamerican.co.uk/susdev/reports.htm</a> – specific references below
Human Rights: page 7, 8, 13, 42	
Labour standards: page 24	
Environment: pages 9, 44-58	
Anti-corruption: page 7, 12, 13	
Glossary: page 66-67	

Postage paid from all countries world-wide

**BY AIR MAIL**  
*par avion*  
Royal Mail

**IBRS/CCRI NUMBER:**  
**PHQ – D/7712/SW**

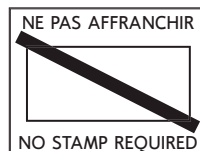


**REPONSE PAYEE  
GRANDE-BRETAGNE**

Mr Dorian Emmett  
Anglo American plc  
20 Carlton House Terrace  
LONDON  
GREAT BRITAIN  
SW1Y 5YT

**BY AIR MAIL**  
*par avion*  
Royal Mail

**IBRS/CCRI NUMBER:**  
**PHQ – D/7712/SW**



**REPONSE PAYEE  
GRANDE-BRETAGNE**

Mr Dorian Emmett  
Anglo American plc  
20 Carlton House Terrace  
LONDON  
GREAT BRITAIN  
SW1Y 5YT

Anglo American plc  
Report to Society 2004  
Please let us have your views on this report.



☐ Format

☐ Content

☐ Not sufficient detail

☐ Too much detail

☐ Other comment

Name

Organisation

Address

☐ Government/Regulator

☐ Academic

☐ Investor/Shareholder

☐ NGO

☐ Other

Data Protection: As a result of completing this form your name and address may be added to, or updated on, our central database which is accessible by our offices worldwide and our associated companies. The information we collect will be used to help us improve the format and content of reports and for purposes otherwise disclosed to you. We may also use this information to send you business communications in the future. If you would prefer not to receive such communications, please tick here. ☐

Thank you.

Anglo American plc  
Report to Society 2004  
Please let us have your views on this report.



☐ Format

☐ Content

☐ Not sufficient detail

☐ Too much detail

☐ Other comment

Name

Organisation

Address

☐ Government/Regulator

☐ Academic

☐ Investor/Shareholder

☐ NGO

☐ Other

Data Protection: As a result of completing this form your name and address may be added to, or updated on, our central database which is accessible by our offices worldwide and our associated companies. The information we collect will be used to help us improve the format and content of reports and for purposes otherwise disclosed to you. We may also use this information to send you business communications in the future. If you would prefer not to receive such communications, please tick here. ☐

Thank you.

## REGISTERED AND HEAD OFFICE

Anglo American plc  
 20 Carlton House Terrace  
 London SW1Y 5AN, United Kingdom  
 Telephone: +44 (0)20 7968 8888  
 Fax: +44 (0)20 7968 8500  
 Registered number 3564138  
 Website: **[www.angloamerican.co.uk](http://www.angloamerican.co.uk)**

## OTHER SUSTAINABLE DEVELOPMENT REPORTS PUBLISHED BY ANGLO AMERICAN GROUP COMPANIES:

Anglo American Chile Sustainable Development Report 2004  
 Anglo American Exploration Safety, Health and Environment Report 2003  
 Anglo Coal – Towards Sustainability 2004  
 Anglo Coal Australia – Towards Sustainability 2004  
 Anglo Coal South Africa – Towards Sustainability 2004  
 AngloGold Ashanti Report to Society 2004  
 Anglo Platinum Sustainable Development Report 2004  
 Mondi Business Paper Sustainability Review 2004  
 Mondi Sustainable Development Report 2004  
 Namakwa Footprint 2004 – Sustainability Report  
 Scaw Metals Group Sustainable Development Report 2004  
 Tarmac Safety, Health, Environment and Social Report 2004

### If you wish to receive copies of Anglo American's publications, please write to:

Investor and Corporate Affairs Department  
 Anglo American plc  
 20 Carlton House Terrace  
 London SW1Y 5AN  
 United Kingdom

Alternatively, publications can be ordered online at:  
**<http://www.angloamerican.co.uk/investor/reqreport.asp>**

## USEFUL WEBSITES

Anglo American	<b><a href="http://www.angloamerican.co.uk/susdev/">http://www.angloamerican.co.uk/susdev/</a></b>
GBC	<b><a href="http://www.businessfightsaids.org">http://www.businessfightsaids.org</a></b>
GRI	<b><a href="http://www.globalreporting.org">http://www.globalreporting.org</a></b>
ICMM	<b><a href="http://www.icmm.com">http://www.icmm.com</a></b>
IUCN	<b><a href="http://www.iucn.org">http://www.iucn.org</a></b>
UNAIDS	<b><a href="http://www.unaids.org">http://www.unaids.org</a></b>
UNEP/WCMC	<b><a href="http://www.proteus.unep.wcmc.org">http://www.proteus.unep.wcmc.org</a></b>
UNFCCC	<b><a href="http://www.unfccc.int">http://www.unfccc.int</a></b>
WBCSD	<b><a href="http://www.wbcsd.org">http://www.wbcsd.org</a></b>
WHO	<b><a href="http://www.who.int">http://www.who.int</a></b>

Published by Anglo American plc  
 Designed and produced by Creativity  
 Printed by Ultra Digital

The paper used in this report is totally chlorine-free, made from wood fibre sourced from fully sustainable forests, and 90% of the water used during the manufacturing process is recycled



## COVER STORY

Enzo Arévalo and Jonas Vargas are among 24 Chilean high school graduates who spent a year in training at the Chagres smelter in Chile as part of the Base Metals apprentice programme.

## ANGLO AMERICAN plc

20 Carlton House Terrace  
London SW1Y 5AN  
United Kingdom

Tel: +44 (0) 20 7968 8888

Fax: +44 (0) 20 7968 8500

Registered number 3564138

[www.angloamerican.co.uk](http://www.angloamerican.co.uk)

