



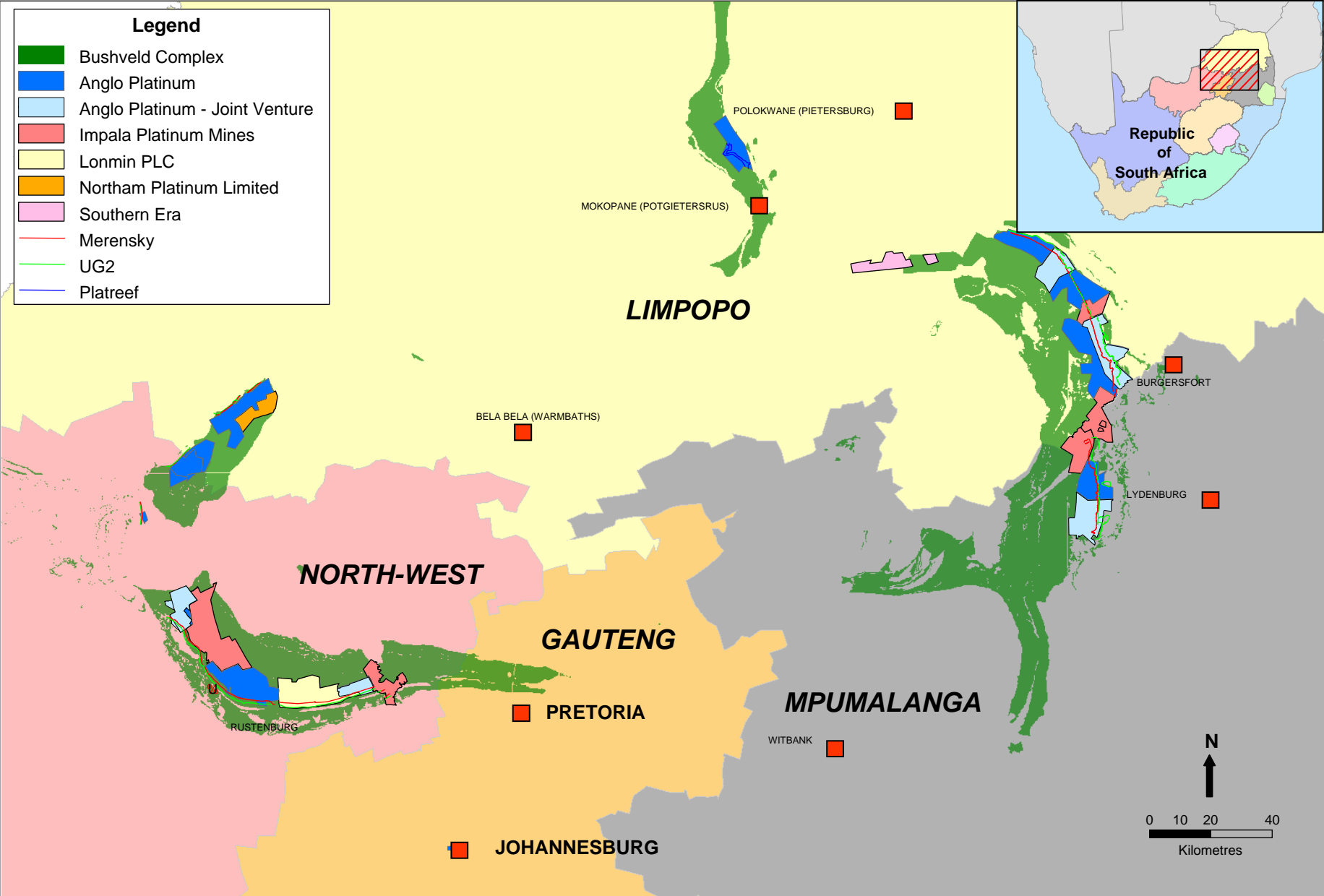
# **Sustainable Platinum**

December 2007

# OVERVIEW

- Overview of the main producers
- Economic Contribution
- Key CSR challenges
  - Safety
  - Environmental
  - Health
  - Community development
- Concluding remarks

# Background - Platinum producers in the South Africa's Bushveld Igneous Complex



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The four main PGM producers in 2006 were: -

- Anglo Platinum - 2.816 million oz Pt
- Impala Platinum - 1.898 million oz Pt
- Lonmin Platinum - 0.987 million oz Pt
- Northam - 0.222 million oz Pt

South Africa's total Pt production in 2006 was 5.430 million oz Pt

# Background - Platinum producers in South Africa's Bushveld Igneous Complex

South African ore resources held by the main producers: -

Anglo Platinum - 390 Moz - 138 years LOM

Impala Platinum - 88 Moz - 46 years LOM

Lonmin Platinum - 115 Moz - 116 years LOM

Mvel/Northam - 47 Moz - 209 years LOM

# Economic Contribution

The industry has a significant positive impact on the South African economy: -

- Total Value Add\* of the 4 producers in 2006 was R53.5bn#
- Mining industry Value Add in 2006 was R120bn
- Paid salaries to 165 000 employees

Given the ore resource and strong market fundamentals for PGMs this positive contribution is likely to continue

\* Salaries, wages and other benefits net tax + taxes and other to government + providers of capital + re-invested in the Group.

# Average exchange rate in 2006 R6.77 to the US\$.

# CSR Challenges - Safety

Safety performance of the industry is unacceptable

- In 2006, 42 workers lost their lives on the mines
- Anglo Platinum - 18
- Impala Platinum - 12
- Lonmin Platinum - 6
- Northam - 5

# CSR Challenges – Safety cont..

	Jul-Dec 2005	Jan-Jun 2006	Jul-Dec 2006	Jan-Jun 2007
<b>Anglo Platinum</b>				
Fatalities in the half year		8	10	18
Fatality rate per million ounces		5.93	7.41	13.33
Fatalities in financial reporting year			18	
Fatality rate per million ounces			6.67	
Fatality rate per 200 000 hours			0.019	
LTIFR per 200 000 hours reported			2.52	
<b>Impala</b>				
Fatalities in the half year	5	2	7	6
Fatality rate per million ounces	9.09	3.64	12.73	10.91
Fatalities in financial reporting year		7		13
Fatality rate per million ounces		6.36		11.82
Fatality rate per 200 000 hours		0.02		
Fatalities in year corresponding to AP reporting year			9	
Fatality rate per million ounces			8.18	
Fatality rate per 200 000 hours			0.017	
LTIFR per 200 000 hours reported			0.79	
<b>Lonmin</b>				
Fatalities in the half year		4	2	
Fatality rate per million ounces		8.33	4.17	
Fatalities in financial reporting year			6	
Fatality rate per million ounces			6.25	
Fatality rate per 200 000 hours calculated			0.038	
LTIFR per 200 000 hours reported			2.5	

# CSR Challenges – Safety cont..

Some of the causes of safety incidents include: -

- Non adherence to rules, standards and procedures
- Poor ground conditions
- Literacy levels
- Social conditions
- Machinery and equipment failure

# CSR Challenges – Safety cont..

Typical engineering solutions to improve safety include: -

- Locomotive proximity devices and guard cars
- Winch signalling devices
- Installation of spillminator boxes on ore and waste passes
- In stope rock support methodologies – in stope meshing



# CSR Challenges – Safety cont..

More recently safety initiatives have shifted focus to include the “soft issues” of cultural, value and social based issues

Focus areas include :-

- Alignment of values
- Effective leadership
- Communication
- Caring and connectivity
- Systems



# CSR Challenges – Environment – Air Quality

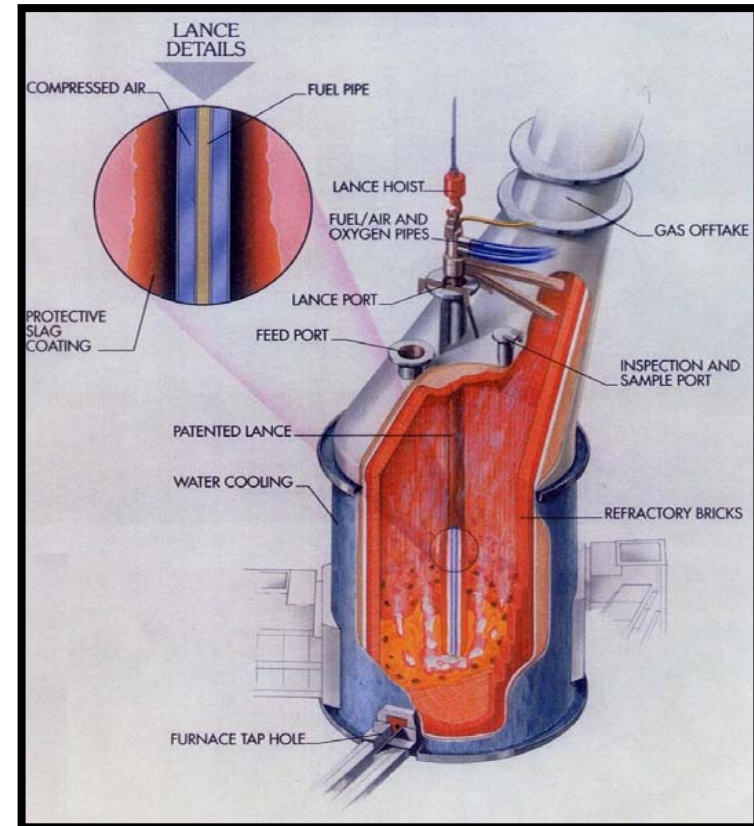


Sulphur dioxide emissions were a problem in the past & all producers have reduced their emissions drastically



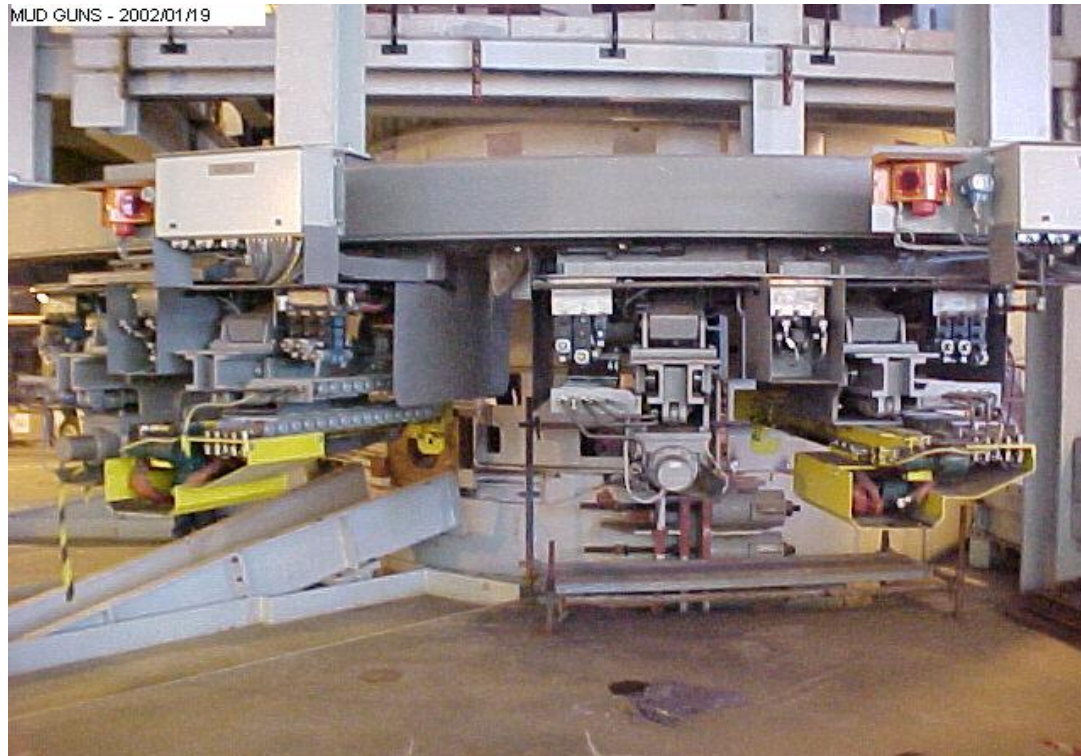
# CSR Challenges – Environment – Air Quality

## The ACP project



# CSR Challenges – Environment – Air Quality

## The ACP project – During Construction



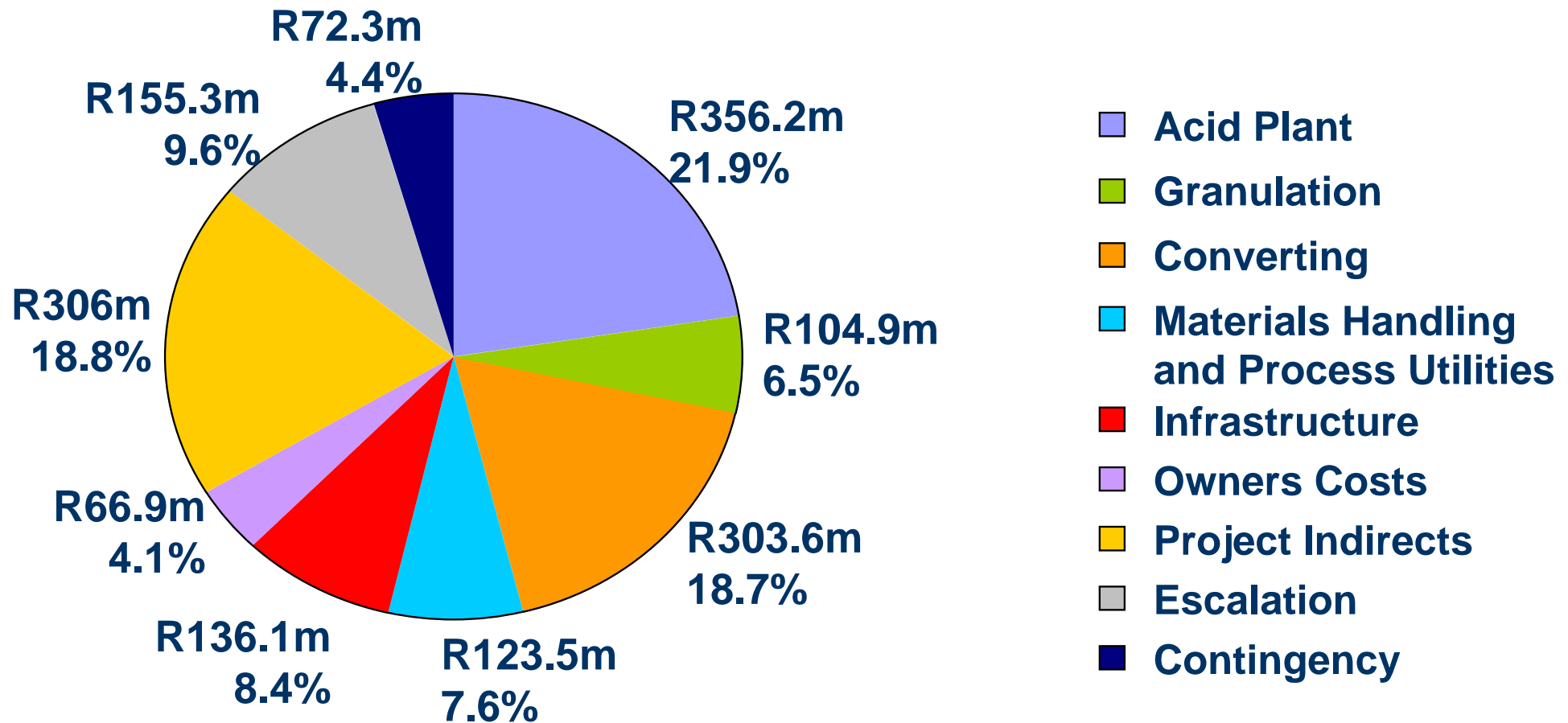
# CSR Challenges – Environment – Air Quality

## The ACP project – The Finished Plant



# CSR Challenges – Environment – Air Quality

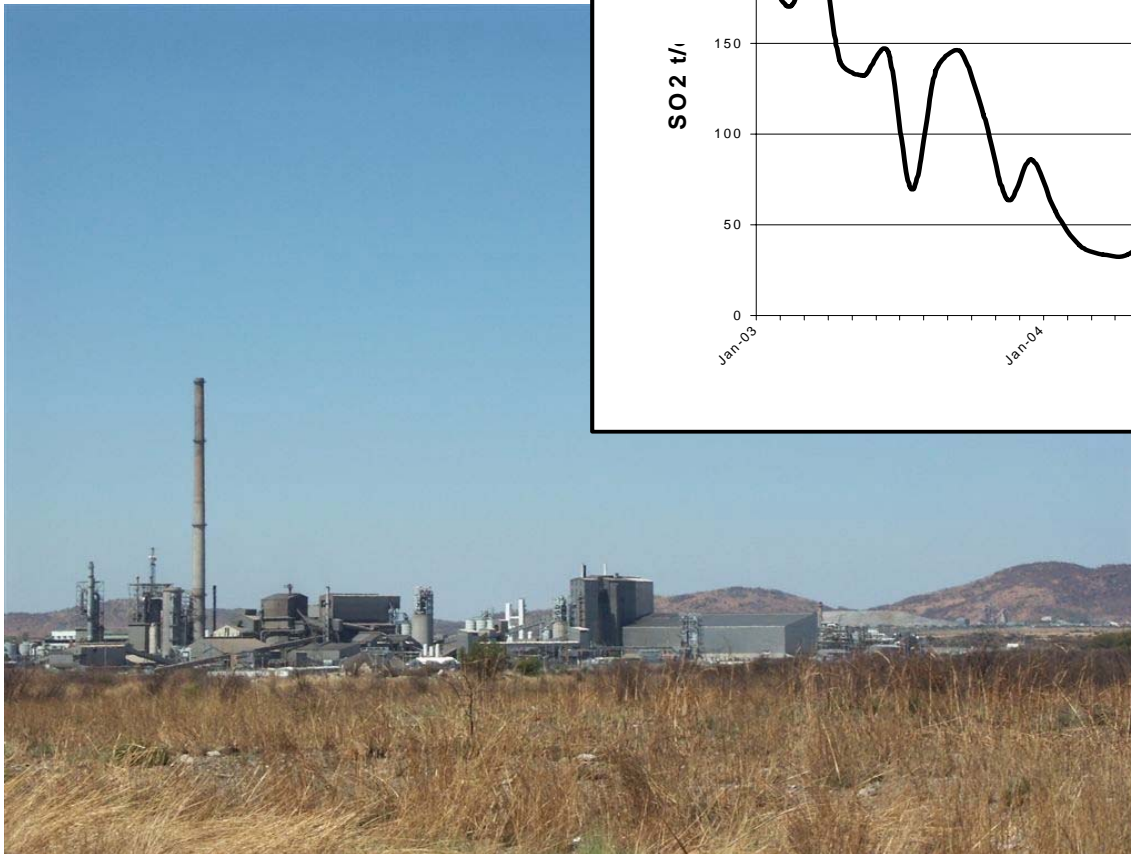
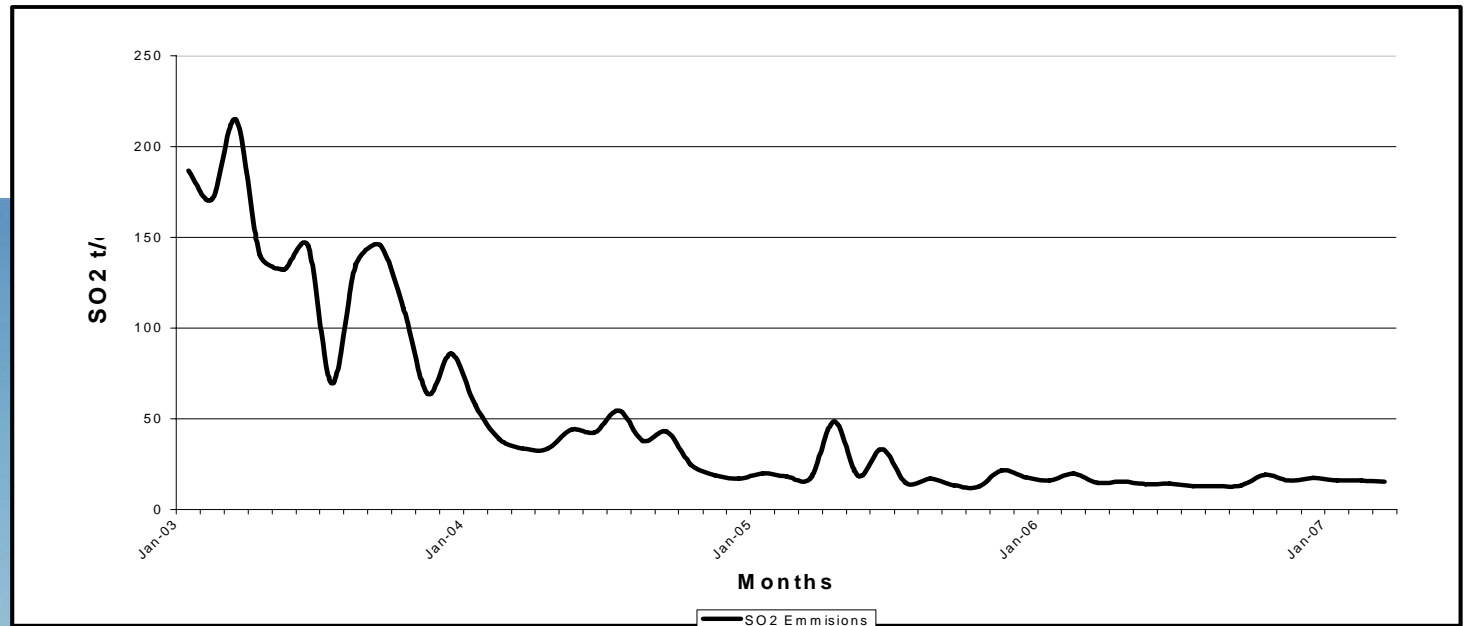
## The ACP project – Costs



**TOTAL : R1.7 bn in 2003 money terms**

# CSR Challenges – Environment – Air Quality

## The ACP project – The Results

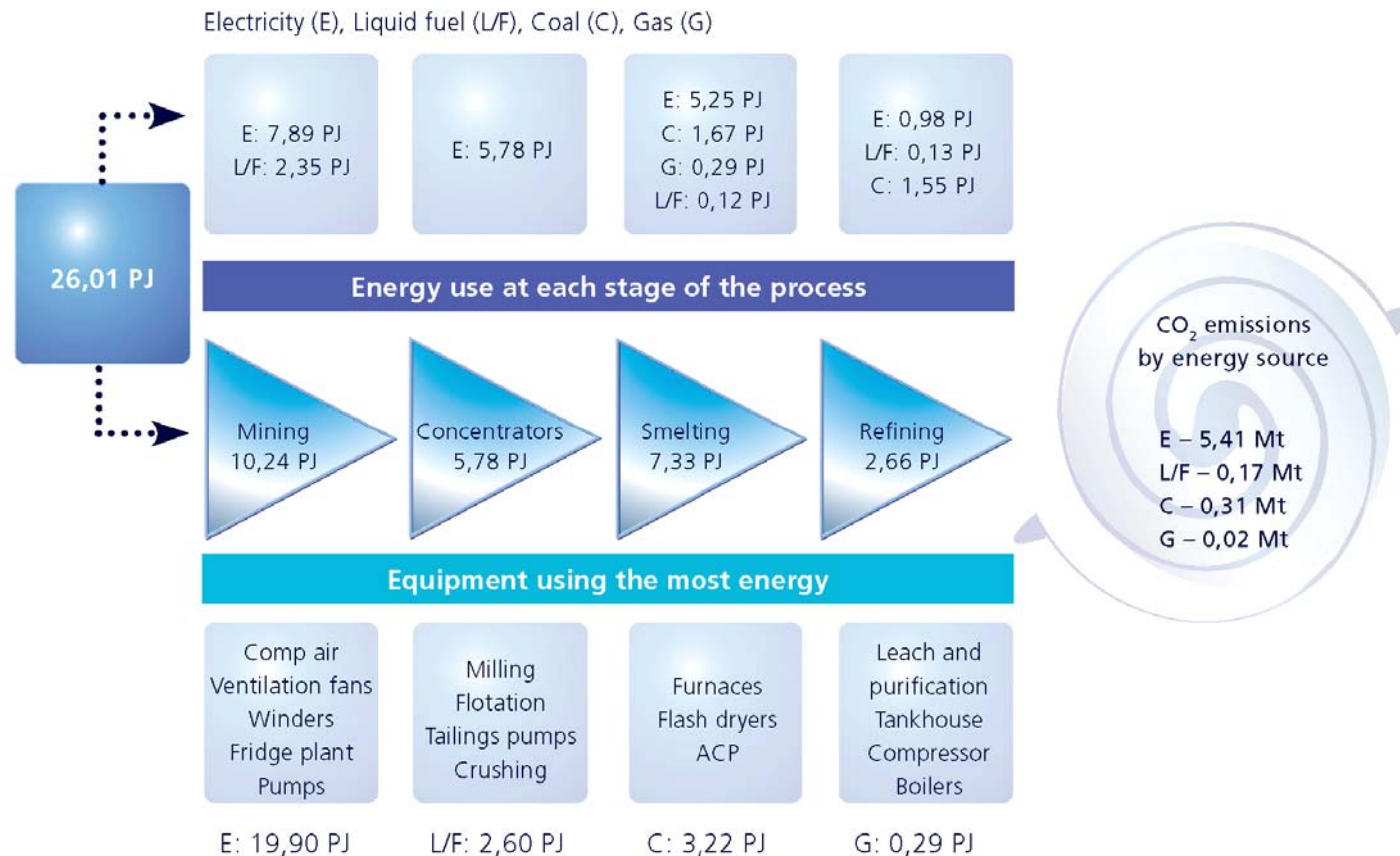


# CSR Challenges – Environment cont...

## Climate change and Greenhouse Gas emissions

- The industry emitted 9.4 million tons of GHG in 2006

### Anglo Platinum's Energy Footprint and GHG Emissions – 2006



# CSR Challenges – Environment cont...

## Climate change and Greenhouse Gas emissions

- The 3 main producers are signatories to the DME's Energy Efficiency Accord – (15 % energy use reduction by 2014)
- Some of Anglo Platinum's projects to improve efficiency include
  - Compressor project at Amandelbult saving 5.5 MW instantaneous power and a total of 75 978 GJ
  - Electric drilling (uses 0,12 kWh/meter versus 8kWh/metre for pneumatic drilling)
  - Low energy lighting at Amandelbult has saved an estimated 2.1 MW at pilot level. Total savings will be about 2.4% of the mines energy account
  - Solar water heating at Mototolo change house

# CSR Challenges – Health

## Noise Induced Hearing Loss

- 1339 new cases on NIHL in 2006
- Target is to eliminate all new cases by 2013
- Projects to eliminate NIHL include: -
  - switching to electric drilling;
  - silencing of compressors, fans and drills
  - removing people from areas where noise is greater than 80dB
  - providing appropriate ear protection

# CSR Challenges – Health cont..

## HIV/AIDS

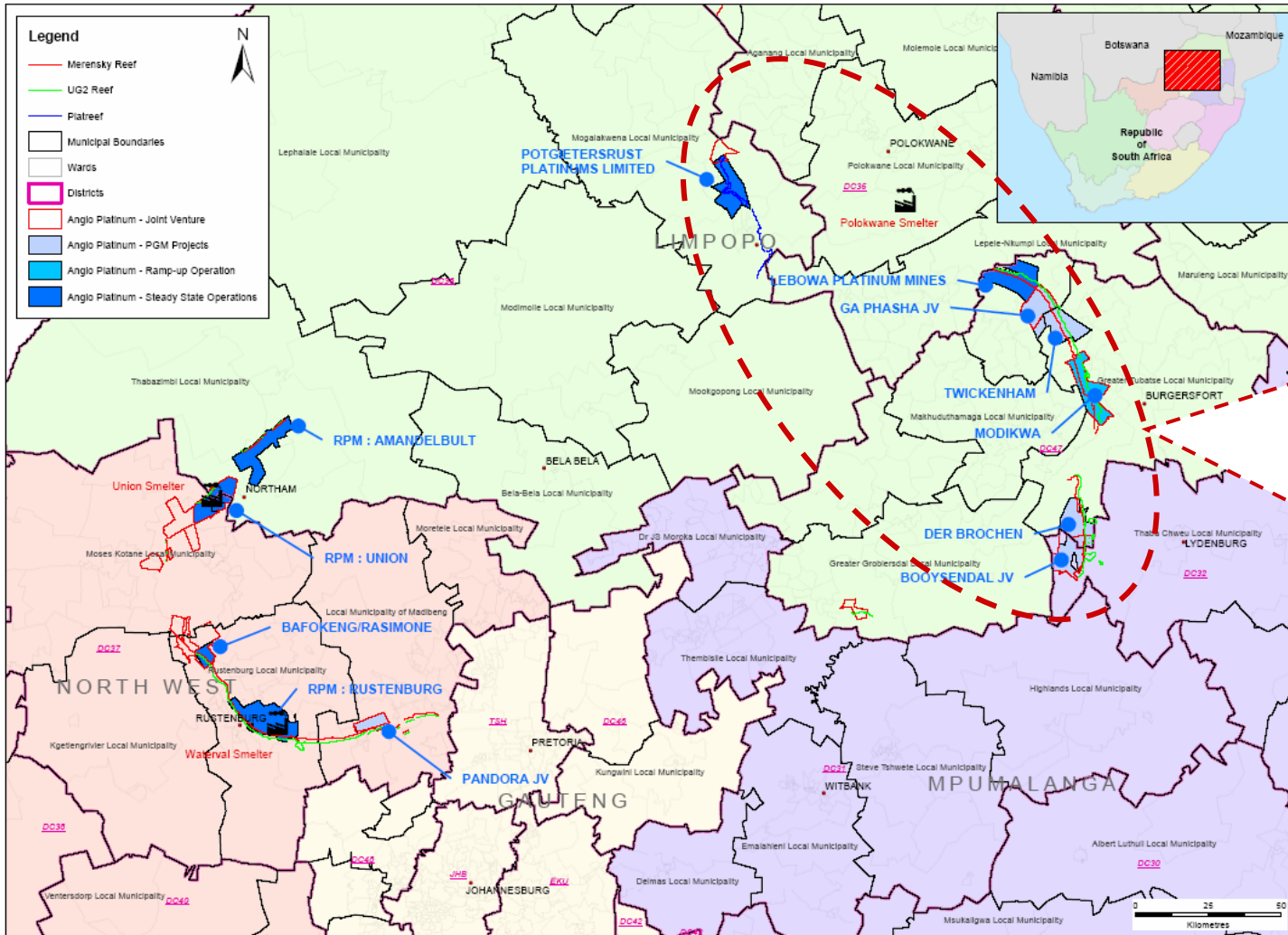
- Voluntary counselling and testing rates vary from 16% to 48%
- Prevalence rate is approximately 20%
- 7442 employees were on wellness programmes at the end of 2006
- 3367 employees in the industry were on ART at the end of 2006
- The main producers all have programme that focus on: -
  - prevention - awareness and condom distribution;
  - counselling and testing
  - keeping employees who are positive well (wellness)
  - giving ART to those that need it
  - Home based care for the ill



Anglo Platinum and Lifeline  
Sponsored Mobile VCT Clinic



# CSR Challenges – Communities – Eastern Limb



**Province:** Limpopo, (Mpumalanga)

**District Municipalities:** Greater Sekhukhune, Waterberg

**Local Municipalities:** Greater Tubatse, Lepele-Nkumpi, Makhuduthamaga, Mogalakwena, Polokwane, Aganang

Community population within 50km of the mines: ~4M

Interested Communities\*: 1,084

Affected Communities\*\*: 131

**There is a large number of communities surrounding the Mines**

\* Interested communities: Communities within a 50 kilometres radius of the operation footprints  
 \*\* Affected communities: Communities which are impacted due to the proximity to, or effects of, the operations

# CSR Challenges – Communities cont..

The producers spent R115 million in 2006 on socio-economic development projects

Main focus areas include: -

- Infrastructure
- Education
- Health and welfare
- Community capacity building
- Small, medium and micro enterprise development

# CSR Challenges – Communities cont..

- Local Economic Development (LED) Projects in North West: -
  - Established two business advice centres – Rustenburg and Mogwase (link up local SMMEs with the mine and act as mechanism for building capacity within the SMMEs)
  - In negotiation with the Municipality on housing and infrastructure
  - Trained 20 SMMEs on Health and Safety and are now contracted to AP
  - 14 producer and service co-operatives have been formed
  - Establishment of 68 new businesses



A new BEE construction Company



A rock crushing business

# CSR Challenges – Communities cont..

- LED projects in Limpopo

- Developed 26 BEE companies; 11 have received substantial contracts
- Set up 35 new SMMEs (trained 32 people) creating 67 jobs
- Set up 7 new cooperatives
- Established business advice centres



PPL – Brick making business linked to new village



Modikwa water & agriculture project



Lebowa – Bakery under construction



Lebowa - Tire repair business

# CSR Challenges – Communities cont..

- Socio-economic development (SED) projects
  - Education in the North West
    - ▶ Renovated, and give ongoing support, 9 schools in the Rustenburg area
    - ▶ 45 educators trained
    - ▶ 535 students in Maths, Science and Technology. 217 HDSA learners have passed higher grade maths and science following Anglo Platinum run refresher courses. 56 are currently bursars
    - ▶ 3 learners who have attended the programme have gone on to get 6 distinctions



School agriculture project – Union Mine



Mafenya School

# CSR Challenges – Communities cont..

- SED projects

- Health

- Supported development of 12 health facilities over the last 2 years
    - Supported 4 home based care organisations (focusing on HIV)
    - Assisted traditional health practitioners on understanding Voluntary Counselling & testing

- Infrastructure – Constructed two roads in partnership with provincial government (Amandelbult and Mokopane), Ga- Pila Community Hall, ATOK Multipurpose Centre, African Pathways Innovation Centre for Youth, Mecklenburg Hospital Western Wing, Sports facilities at Tubatse and Day Care Centres at Mogalakwena



New clinic under construction - Lebowa



HIV/AIDS awareness



Anglo Platinum and Lifeline Sponsored Mobile VCT Clinic

# Anglo Platinum and the Chairman's Fund Schools Project in Limpopo

## Infrastructure

- General infrastructure support spans more 105 schools
- Built 110 blocks of classrooms to date
- Provided Water and Sanitation to 52 schools
- Assisted 15 schools with administration blocks
- Assisted 36 Crèches with edutainment equipment



New school at Modikwa



Maths and science revision session

# Anglo Platinum and the Chairman's Fund Schools Project in Limpopo cont...

## Teacher Development

- Leadership and Management – 200 teachers have gone through programme.
- Curriculum Support – 42 key teachers attended Maths workshops.
- Teacher support (salaries), Lebowa and Thabazimbi
- 40 Teachers from 11 Schools received training and support.

## Learner Development

- Supplementary Education
  - Saturday classes at Mapela, Mokopane, Polokwane, Fetakgomo.
  - Total enrolment averages 420 per year.
- Winter and Spring School during holidays – Over 2000 learners annually
- Edumap – more than 20 learners from Limpopo go through programme per year.
- Mobile Science Centre – 4000 odd learners benefit annually

Investing in the Future Awards – Mail and Guardian Award

# CSR Challenges – Communities cont - Mine Training Centre in Limpopo

- Being constructed at Twickenham Mine property in Limpopo at a cost of R283 million
- Will train 2,000 new mining employees per annum and will feed trained employees to new and existing EL mining projects
- Primary focus on practical underground training in a working environment; however, supervisory, infrastructure development and maintenance skills training are also included
- Project will provide 100 new permanent jobs as well as 100 employment opportunities during the construction phase
- The first trainees are expected to enrol in 2008

# CSR Challenges – Communities cont..

## Relocations - Ga-Pila community relocation

- Relocation process started in 1998 and completed in 2006
- ~700 households relocated at a cost of ~R200M
- 13 families have not moved, and have not been forced to move, despite the fact their new houses have been built and sit vacant
- Community appointed a S21 company to represent them for the purposes of the relocation
- Move had the blessing of the traditional authority, government departments and the community
- Engagement process underway to address post relocation issues

# CSR Challenges – Communities cont..

## Relocations - Motlhotlo relocation underway

- The Ga-Puka and Ga-Sekhaolelo communities agreed to move in 2002
  - Plan for 957 households to relocate at a cost of ~R650M
  - Communities appointed S21 companies to represent them for the purposes of the relocation
- Key components of the relocation are:
  - Extensive engagement
  - Move had the blessing of the traditional authority, government departments and household owners (represented by the S21 companies)
  - High quality of houses and infrastructure
  - Compensation of land (~3 times)
  - Planned in accordance with World Bank and UN Guidelines
- Task team has been formed, facilitated by the Premier's office, to resolve issues that arise and continue to oversee relocation as there still issues
- Relocation commenced 11 July 2007 following the go ahead from the Limpopo Premier and to date 410 families have moved

# CSR Challenges – Communities cont.. Some of the benefits of the Motlhotlo relocation

- R50 million to be paid from a Community Benefit Fund established out of an annuity stream representing a percentage of on-mine cash costs for the life of the PPL mine
- SMME fund set up with seed capital of R3M
- The mine expansion itself has so far created 1,890 temporary jobs for local people
- 24 bursaries set aside solely for members of the relocating villages, of which 22 have been taken up
- Brickyard established in a JV with the community - employs many residents and will sustainably operate going forward

# CSR Challenges – Communities cont - Ga-Puka

## Small “Illegal” House 30 m2 (Stand No. 280)



# CSR Challenges – Communities cont - Ga-Puka Small House 55 m2 (Stand No. 53)



# CSR Challenges – Communities cont - Old and new schools

Current



New



New



# Concluding Remarks

- The industry undoubtedly has a significant positive economic impact on South Africa
- Whilst the producers have largely integrated CSR into their business models, there are still some challenges in the areas of: -
  - Safety performance
  - Improving energy efficiency and reducing GHG emissions
  - Water efficiency
  - Eliminating noise induced hearing loss
  - Reducing the HIV/Aids prevalence rates
  - Community development and meeting community expectations
- There is a growing shift in community expectations and increased pressure from communities around the mines that they should own an equity stake in the operations