

NATURAL CAPITAL



MATERIAL ISSUES

Energy

- Pricing and the availability of electricity supply
- Business continuity and profitability

Climate change

- Health and safety
- Environmental aspects of climate change
- The Venture's production of significant quantities of indirect and direct greenhouse gas emissions (GHGs)
- Investing in new technologies to reduce emissions

Water

- Use and availability

Waste

- Incidents and compliance

Natural capital includes the natural resources and processes needed by an organisation to produce its products.

This includes renewable (timber and water) and non-renewable (fossil fuels and minerals and metals) resources and processes such as energy consumption, waste creation, emissions, etc. Without access to the natural capital contained in our mineral reserves and resources our business would not exist.

We maintain and enhance natural capital by:

- reducing our dependence on fossil fuels
- eliminating waste by reusing or recycling it whenever possible
- protecting biodiversity and ecosystems
- wherever possible using renewable resources from well-managed and restorative ecosystems
- managing resources and reserves efficiently

NATURAL CAPITAL: CLIMATE CHANGE AND ENERGY

KEY POINTS

The CO₂e generated per tonne of ferrochrome produced in 2015 was **5.24tCO₂e** (2014: 5.51tCO₂e)

The energy use per tonne of ferrochrome produced in 2015 was **13.18Gj** (2014: 16.48Gj)

Stakeholder impact and engagement

The Venture's stakeholders benefit from its energy efficiencies, which have made it one of the lowest-cost ferrochrome producers in the world and the lowest-cost producer in South Africa.

Managing climate change and carbon emissions

The Venture focuses on understanding the current and future impact of climate change on its operations. Climate change risks are included in each operation's risk assessment. It measures and interprets energy and greenhouse gas (GHG) data to identify areas of opportunity. The Venture continuously researches and identifies potential energy and GHG reduction opportunities and evaluates the feasibility of implementing these opportunities. It also actively participates in discussions on climate change legislation via various industry organisations.

The Venture's efforts to continually evaluate and better its energy efficiency are in line with the societal demand to reduce the emissions of GHGs. It uses the Greenhouse Gas Protocol as an accounting and reporting standard for our emissions, which uses the factor of 0.926kgCO₂ (2014: 0.869kgCO₂)kWh. This protocol was developed in partnership with the World Resources Institute and the World Business Council for Sustainable Development. It divides GHG emissions into different types, categorising them as either direct or indirect emissions.

A representative of the Venture was selected to the council of the Energy Intensive User Group (EIUG) during 2015. The Venture, which chairs the Ferro Alloys Producers Association (FAPA), represents the ferroalloys industry at Business Unity of South Africa (BUSA). The Venture's representatives play a leading role in these forums and they comment on climate change and carbon tax legislation. The Venture also lobbies with government via these forums to ensure that the potential impact that the proposed legislation will have on our industry and Company is understood by government.

The Venture again played an important role during 2015 in the engagement process, which took place between business and the National Treasury on the draft carbon tax paper. It also continued engaging with all members of FAPA to gain a common understanding of GHG emission factors for our sector and the calculation of the GHG emission footprint.

Climate change performance is included in the health, safety, environment and community performance indicators that the Venture uses as part of its performance appraisals.

The Glencore Alloys Group Environmental Manager is responsible for climate change-related issues in the Venture.

The Venture's focus for 2016

The Venture will continue with its engagement processes and with identifying and further evaluating potential GHG mitigation projects.

While the Venture has not set any specific climate change targets for 2016, in future it will use the targets set as part of the Department of Environmental Affairs' carbon budgeting process to guide its target setting processes.

Understanding the Venture's carbon footprint

The Venture generates GHG emissions from its smelting processes and from its energy use. The use of fossil fuels in the form of diesel and petrol in vehicles contributes directly to the creation of GHGs and the electricity supplied from coal-fired power stations contributes indirectly to the creation of GHGs.

The Venture and Merafe are committed to minimising GHG emissions and improving our energy efficiency, and recognise the magnitude and importance of this challenge. The Venture also actively engages in public policy, specifically through collaboration with the Department of Environmental Affairs (DEA) on a carbon budgeting process aimed at estimating the country's annual carbon emission.

The risks associated with climate change

Climate change remains a key longer-term risk for the Venture. The potential risks are complex in that they include operational risks such as business continuity, health and safety, environmental aspects and regulatory aspects. Risks are both physical and financial, for example should the Venture's operations be damaged by flooding and extreme storms this could cause business interruptions. The reduced availability of water could also interrupt its business and could have health impacts.



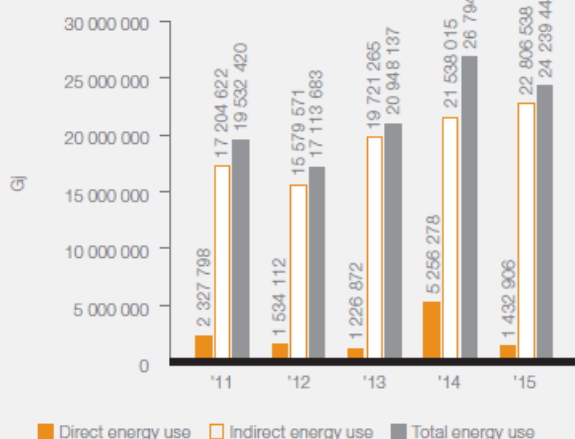
See the [Stakeholder engagement](#) section on our website for more information on our stakeholder impact and engagement with government, our investors and business partners.

The Venture's energy consumption

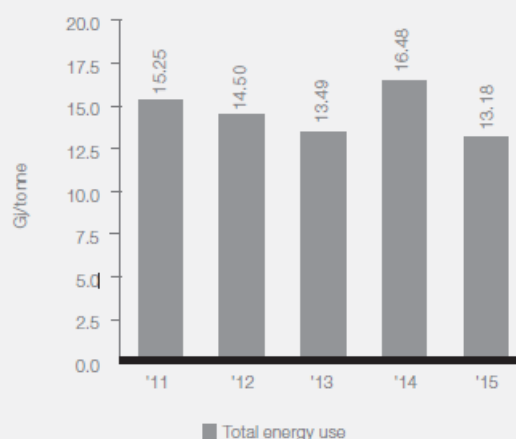
Total energy consumption in the Venture's operations decreased by 10% year-on-year despite an increase in production year-on-year. The reason is due to energy efficient Lion II operating at full capacity in 2015. The energy use per tonne of ferrochrome produced decreased from 16.48Gj/tonne to 13.18Gj/tonne mainly as a result of Lion II being operational and decreased chrome

ore production.

The Venture's energy usage



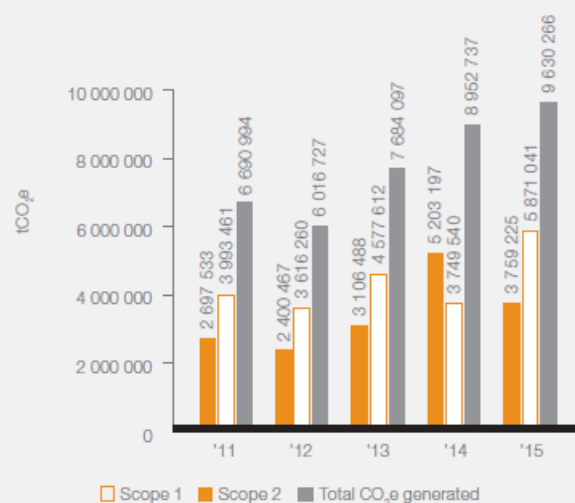
Energy use per tonne of ferrochrome produced



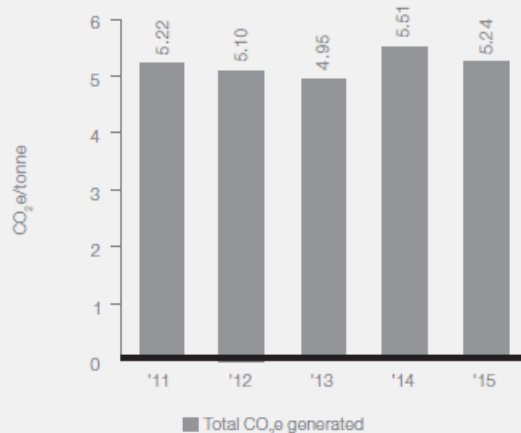
The Venture's emissions

The Venture's total Scope 1 (direct) and Scope 2 (indirect) emissions increased from 8.9 million tCO₂e in 2014 to 9.6 million tonnes in 2015. The increase in greenhouse gas emissions in 2015 was due to increased production. The CO₂e generated per tonne of ferrochrome produced, however, decreased due to the energy efficient Lion II being fully operational.

Greenhouse gas emissions (GHGs)



CO₂e generated per tonne of ferrochrome produced



NATURAL CAPITAL: ENVIRONMENT

Environment includes the natural resources and processes needed by an organisation to produce its products.

MATERIAL ISSUES

- Water
- Air emissions
- Waste
- Biodiversity and land use

As Merafe's corporate office has a limited impact on the environment this section of our report focuses on the Venture's

environmental approach, impact and performance. We rely on the Venture's effective environmental policies and procedures to ensure our investment is managed responsibly.

KEY POINTS

The Venture's total water usage decreased in 2015 due to the greater utilisation of UG2 and lower ore production

There were **no high-potential environmental risk incidents** in the Venture in 2015

The Venture had no environmental fines, penalties or prosecutions in 2015

An integrated approach to environmental responsibilities

The Venture's long-term success depends on prioritising environmental issues and integrating environmental responsibility into its strategic planning, management systems and day-to-day operations. Management accountability is central to Glencore's integrated approach, which reviews its environmental risks and opportunities annually as part of its business strategy and planning process. Each site has a comprehensive environmental management system in place. The system provides access to aspects and the impact of all activities, from pre-feasibility to the operational phase, including closure and rehabilitation. The Venture's objective is to ensure environmental legal compliance, optimise its monitoring and measurement practices and to minimise and manage any waste and emission generation in an environmentally responsible manner. Environmental responsibilities are clearly included into legal appointments and job descriptions.

Water

Water is a finite and precious natural resource essential to the sustainability of the communities in which the Venture works. It is also necessary for its mining and metallurgical processes.

Water use and availability

The Venture's operations work with the Department of Water and Sanitation (DWS), local communities, local authorities, the farming community and other industry users to ensure the sustainability of water resources and equitable access to water resources for stakeholders.

The availability of water is a key consideration when the Venture plans the expansion or construction of an operation. It uses the results of the environmental and social impact assessments (ESIAs) it undertakes to guide its decision-making and to ensure it has the least possible impact on local water resources during the various phases of its projects.

All the Venture's operations have water conservation plans. They have previously set water intensity targets and have measures in place to help them be as water efficient as possible. In addition its operations are identifying possible water reduction projects.

The water use in the Venture increased in 2015 as a result of higher production.

Waste management and effluent and biodiversity management

Metallurgical mines and smelters produce distinct wastes that need to be dealt with in a specific manner. A significant amount of non-hazardous waste is produced and all our operations are required to have waste management strategies in place to reduce, reuse, recycle and responsibly dispose of the waste they generate. The Venture does not transport, import, export or treat waste deemed hazardous under the Basel Convention Annex I, II, III and VIII.

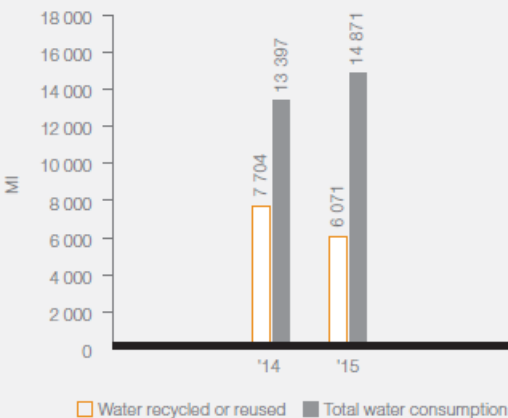
How the Venture disposes of waste also depends on the local opportunities to recycle or reuse waste. Accredited service providers dispose of the waste the Venture is unable to recycle in a responsible manner. Materials currently recycled include scrap metal, paper, wood and conveyor belts.

The largest volume of waste the Venture produces is mineral waste, which includes waste rock removed to expose ore. This waste can be placed in disused opencast or underground operations, reused during site rehabilitation or stockpiled. Tailings and slag from processing ore and concentrates, are recycled or reused whenever possible.

The Venture recycles UG2 ore, a waste product of the platinum refining process, using it to make chromite pellets which are used in its ferrochrome smelters.

As a result of increased production, the Venture's mineral waste produced increased from 3 607 266 tonnes in 2014 to 4 108 799 tonnes in 2015.

The Venture's water usage



Mineral waste

2015

2014

2013

2012

2011

Category	tonnes	tonnes	tonnes	tonnes	tonnes
Mineral waste — produced	4 108 799	3 607 757	3 758 266	4 806 050	5 007 406
Non-mineral waste — disposed	4 539	1 701	1 380	2 793	6 351

Incidents and compliance

It is always the Venture's aim to have no environmental incidents at its operations. It monitors, reports, investigates and remediates any incidents that occur and applies lessons learnt to prevent similar incidents in the future. Its operations are required to report any environmental high potential risk incidents (HPRI), including near-misses, that could have resulted in a category 4 or 5 incident, even when the actual impact was less significant. Environmental incidents recorded at the Venture's operations include incidents that occur as the result of contractor activity.

The Venture has had no environmental fines, penalties or prosecutions at its operations for the past nine years. The Venture achieved its goal of no category 3, 4 or 5 incidents recorded in its operations in 2015 and no category 4 or 5 incidents have been recorded in the Venture's operations for the past nine years.

Environmental incidents	2015	2014	2013	2012	2011
Category 1 - negligible (causing negligible, reversible environmental impact, requiring very minor or no remediation)	110	111	95	89	76
Category 2 - minor (causing minor, reversible environmental impact, requiring minor remediation)	27*	11	14	8	7
Category 3 - significant (causing moderate, reversible environmental impact with short-term effect, requiring significant remediation)	0	0	0	0	0
Category 4 - major (causing serious environmental impact, with medium-term effect, requiring significant remediation)	0	0	0	0	0
Category 5 - disastrous (causing disastrous environmental impact, with long-term effect, requiring major remediation)	0	0	0	0	0

* Increased focus on reporting of these incidents

The Venture's emissions

Category	2015 tonnes	2014 tonnes*	2013 tonnes	2012 tonnes	2011 tonnes
NOx (oxides of nitrogen)					
Stack emissions (total mass)	561	188	215	222	159
SOx (oxides of sulphur)					
Stack emissions (total mass)	3 927	2 943	2 724	2 549	2 365
Total particulates					
Stack emissions (total mass)	1 683	1 515	1 608	1 608	2 166

Increase in 2015 due to higher production

* restated

Material risk factors

There are no foreseen material risk factors that could affect the validity of the current mineral resource and mineral reserve statement. All the legislative requirements have been met with respect to the rights to mining and prospecting for which the mineral resources and mineral reserves have been reported. All the operating mines are mining under new order, executed, mining rights. The prospecting rights of all the prospecting areas have been converted to new order prospecting rights.

Product stewardship

The Venture monitors and addresses the impacts and risks associated with the use of its products throughout their life cycles, including during stages outside of its control, such as use, recovery, recycling and disposal.

It works with national and international industry associations, its customers and suppliers to understand the environmental health and safety risks of its products and to find ways to mitigate these risks.

In terms of Registration, Evaluation and Authorisation and Restriction of Chemicals (REACH), all the products the Venture exports to countries in the European Union have been pre-registered, with the relevant pre-registration certificates and numbers available. The Venture is also actively involved in REACH.

No products produced by the Venture, or their packaging materials, were reclaimed during 2015.

To ensure the quality of its products the Venture aligns its systems with the requirements of ISO 9001:2008 and some of its smelters are certified. Its laboratories are ISO 17025 accredited, which ensures that the methods and equipment it uses are accurate.



Perfomance

Manufactured
capital

Perfomance



Abridged mineral resources and mineral reserves
statement

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ANNUAL REPORT 2015

FORWARD LOOKING STATEMENT