EXXARO RESOURCES LIMITED







ABOUT THIS REPORT

This supplementary report complements and expands on information in the integrated report 2016 and mineral resources and ore reserves report. The 2016 suite of reports, and Global Reporting Initiative (GRI) index, is published on the Exxaro Resources website [www.exxaro.com]. The summarised group annual financial statements for the year ended 31 December 2016 and notice of annual general meeting were sent to shareholders, and are available online.

As with the integrated report, content is guided by our strategic objectives, legislative and regulatory requirements, including the Companies Act 71 of 2008, as amended (Companies Act), and the JSE Limited Listings Requirements (Listings Requirements), as well as global best-practice standards, including the International Integrated Reporting Council's framework for integrated reporting, United Nations Global Compact, the latest GRI guidelines (G4) and the King Report on Governance for South Africa 2009 (King III).

This report includes limited information on operations where we do not have management control but hold a significant equity interest or joint control, namely Cennergi (energy), Sishen Iron Ore Company (a subsidiary of Kumba Iron Ore Limited) and Tronox Limited (titanium dioxide). Following our August 2015 acquisition of Total Coal South Africa, renamed Exxaro Coal Central (ECC), we include limited sustainability data on these operations while the process of standardising systems and indicators is under way, although ECC's results have been integrated into group results from 2016.

DISCLAIMER

Opinions expressed in this report are, by nature, subject to known and unknown risks and uncertainties. Changing information or circumstances may cause Exxaro's actual results, plans and objectives to differ materially from those expressed or implied in any forward-looking statements.

Financial forecasts and data in this report are estimates which at times are based on reports prepared by experts who, in turn, may have relied on management estimates. Undue reliance should not be placed on such opinions, forecasts or data. No representation is made on the completeness or correctness of opinions, forecasts or data in this report. The company and its affiliates, advisers or representatives accept no responsibility for loss arising from the use of any opinion, forecast or data in this report. Forward-looking statements apply only from the date on which they are made and the company does not undertake any obligation to publicly update or revise its opinions or forward-looking statements to reflect new data or future events or circumstances. The financial information on which the forward-looking statements are based have not been audited nor reported on by Exxaro's independent external auditors.

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CONTACT

With ongoing feedback from a range of stakeholders, we are able to contextualise certain issues better for more informed understanding by readers. We welcome your suggestions, which should be directed to:

Hanno Olinger Manager: Sustainability Tel: +27 12 307 3359 Fax: +27 12 307 5327 Mobile: +27 83 609 1094 Email: hanno.olinger@exxaro.com Web: www.exxaro.com

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STRATEGIC PERFORMANCE DASHBOARD

Exxaro's strategic dashboard measures our key performance indicators (KPIs) across the sustainability capitals, from governance and compliance to best practice. The board and executive committee monitor the dashboard quarterly to ensure all sustainability-related risks and key metrics remain within our risk appetite.

For Exxaro, an integrated approach to sustainability and value creation for stakeholders lies in distilling every facet of our business (strategy, risk management, compliance KPIs, licence to operate, audits, assurance, performance measurement) into a coherent whole – focused on our stated goals.

Over the past five years, we have refined the way we do business to ensure the way we manage our strategy is both integrated and holistic. Key steps included:

 Implementing an integrated risk management framework, ensuring everyone clearly understands what is material to the company and why

- > Establishing a sustainability framework
- Identifying KPIs aligned with material issues, risks and our sustainability framework, each measured against a tolerance level or appetite set by our board
- > Linking the combined assurance plan with risks, material issues and KPIs.

The result of this process is a fully integrated strategic performance dashboard that gives the board and executive committee the most critical information required to measure and manage the company's strategy and performance. This also provides a transparent and consolidated view for stakeholders on our drivers for creating value and ensuring sustainability.

The tool we use to determine whether we are on track to achieve our objectives is the Exxaro strategic performance dashboard. As explained in the board review, this dashboard has built-in risk appetite thresholds to ensure the company's decisions in pursuing its strategic objectives are in line with the risk threshold which, as a whole, makes up the risk appetite of the group.

How to interpret the dashboard

> The dashboard lists all key performance indicators (KPIs) linked to a strategic priority/sustainability capital/strategic objective and material issue. Current performance and the status of the indicator (shown as a bulb) reflects whether the KPI is within our risk appetite thresholds. We aim to be within the target threshold: anything outside worst tolerable and target means we act outside our defined risk appetite in pursuing our strategic objectives. This will require additional controls or improving existing controls.

Example of KPI measure

> Exxaro has a strategic objective of improving our portfolio; one of many KPIs linked to this objective is core operating margin. Anything outside of worst tolerable and target will mean that we act outside our defined risk appetite in pursuing our strategic objectives and this will require additional controls or improving existing controls.

KPI current performance Current Legend KPI Performance (indicator) Core operating margin (%) 24% **KPI threshold** Threshold Possible waste/ KPI Out of appetite Worst tolerable **Best realistic** Target opportunity Core operating Less than 15% 20% margin 15% 15% and 20% 20% Possible waste/ Legend Out of Worst Best Target opportunity appetite tolerable realistic (exceeding target)

MATERIAL ISSUES FOR 2016

Each year, our material issues are distilled from a comprehensive process that includes internal and external stakeholder engagement combined with prudent risk management. Each material issue includes related high-level risks, as indicated:

Material issue	Related risks
Key customer dependency	 > Eskom > ArcelorMittal SA
Licence to operate	 Maintain a social licence to operate Legal and regulatory non-compliance Compliance to environmental legislation Mine rehabilitation Unavailability of water State intervention in the mining sector Acid mine drainage/decanting Geopolitical uncertainty
Capital allocation and execution	 Capital project execution Infrastructure access and capacity Lack of funding for infrastructure Inability to grow (pipeline shrinkage)
Business resilience	 > Price and currency volatility > Inability to be innovative > Cost competitiveness of products > Competition and product substitution > Unable to meet production demands > Stranded assets > Cyber security threats > Unavailability of energy > Inability of IT systems to support business > Climate-change concerns
Our people	 Safety Health Labour unrest Fraud and corruption Unavailability of critical skills



Dependency on key customers

		20	16	20	15	
KPI (as disclosed in dashboard)	Capital	Actual	Indicator	Actual	Indicator	Trend
Core operating margin (%)	Financial	24%		18%		\uparrow
Commodity diversification	Manufactured	Coal, ferrous mineral sands, energy		Coal, ferrous, mineral sands		\rightarrow

Licence to operate

		20	16	20)15	
KPI (as disclosed in dashboard)	Capital	Actual	Indicator	Actual	Indicator	Trend
Ownership at group level - mining charter	Social	52% 45,2%#		52%		\rightarrow
Employment equity (%) in top, senior and middle management at business units - mining charter	Social	58%		60%		\rightarrow
People living with disabilities - mining charter	Social	0,01%		1,2%		\checkmark
Human resources development (% payroll excl levies, incl internal and external training) - mining charter	Social	4,5%		6,8%		\checkmark
Women in mining (%) (internal target)	Social	20%		20%		\rightarrow
Preferential procurement - capital	Social	64%		40%		\uparrow
Preferential procurement - services	Social	78%		70%		\rightarrow
Preferential procurement - goods	Social	76%		77%		\rightarrow
BBBEE level (against BEE Act 53 2003)	Social	Level 4		Level 2		\rightarrow
Skills development - learning programmes for black people and people living with disabilities - target as % of payroll excluding mandatory sectoral training - BBBEE codes)	Social	2,41%		2,34%		<i>→</i>

As at 31 December 2016.

Licence to operate (continued)

		2016		2015		
KPI (as disclosed in dashboard)	Capital	Actual	Indicator	Actual	Indicator	Trend
Project delivery measure – LED projects per SLP (time variance from plan) – mining charter	Social	(13%)		Not reported to board	Not reported to board	\uparrow
Project delivery measure – LED projects per SLP (cost variance from plan) – mining charter	Social	(17%) (above budget)		Not reported to board	Not reported to board	\uparrow
Number of fatalities	Human	0		0		\rightarrow
Lost-time injury frequency rate (LTIFR) per 200 000 hours	Human	0,09		0,17		\uparrow
Lost-time injuries (LTIs)	Human	16		29		\uparrow
Occupational health incident frequency rate (OHIFR) per 200 000 hours - reported > Chronic obstructive airways disease (COAD) > Pneumoconiosis > Noise-induced hearing loss (NIHL) > Silicosis > Occupational TB	Human	0,35		0,36	P	
Reportable cases of environmental incidents	Natural	5 x level 2 O x level 3		18 x level 2 0 x level 3		\uparrow
Valid mining rights - % in place - mine works plan (MWP), environmental management plan (EMP) and SLP	Natural	98%		97%		1
Enforceable mining rights - based on conditions (% in place)	Natural	75%		98%		\checkmark

Licence to operate (continued)

		20	16	20)15	
KPI (as disclosed in dashboard)	Capital	Actual	Indicator	Actual	Indicator	Trend
Environmental authorisations (%) in place (validity) (integrated water use licence (IWUL), environmental impact assessment (EIA) and waste)	Natural	95%	P	>90%	Ø	^
Environmental authorisations (% compliance to conditions)	Natural	90%		<90%		\uparrow
Stoppage directives (including section 54 under MHSA, section 93 under MPRDA and directives under NWA and NEMA)	Natural	5		2		\checkmark
% environmental liability provisions in place (gap between immediate closure cost and rehabilitation funds available, including guarantees)	Natural	23%		67%	P	\checkmark
Material compliance to King III, full compliance to JSE Listings Requirements, Companies Act	Financial	100%		100%		\rightarrow

2015 scorecard reflects average across seven operational mining rights sites only and excludes ECC mines.

Capital projects

		20	16	20	15	
KPI (as disclosed in dashboard)	Capital	Actual	Indicator	Actual	Indicator	Trend
Capital project delivery measure (time and cost variance)	Manufactured	1,2%		Achieved		\checkmark
Country risk as per assessment criteria (key drivers physical security and security of tenure)	Manufactured	Done		Achieved		\rightarrow

Business resilience

	2016		2015			
KPI (as disclosed in dashboard)	Capital	Actual	Indicator	Actual	Indicator	Trend
Core operating margin (%)	Financial	24%		18%		\uparrow
Funds from operations to net debt	Financial	476%		2%		\uparrow
Annualised return on capital employed (ROCE) (%)	Financial	23%		6%		\uparrow
Annualised return on equity based on core headline earnings (HEPS) (%)	Financial	15%		4%		\uparrow
Annual core HEPS (cents per share short-term target)	Financial	1 457c		425c		\uparrow
Net debt to equity (%)	Financial	12%		23%		\rightarrow
Net debt to annualised EBITDA (x)	Financial	0,6		1		\rightarrow
EBITDA interest cover (x)	Financial	11		12		\rightarrow
People productivity (total tonnages handled/full-time employee (FTE) average) (% improvement from base)	Manufactured	(10%)		18%		\checkmark
People productivity (production tonnes/FTE) (% improvement from base)	Manufactured	(12%)		16%		\checkmark
Growth from coal commodities (% deviation from budget)	Manufactured	(12%)		(4%)		\checkmark
Core assets (priority 1 solutions) overall performance against service level agreement	Manufactured	99,8%		99,0%		\rightarrow
Asset availability of enterprise resource planning systems	Manufactured	99,6%		99,0%		\rightarrow

		20	16	20	15	
KPI (as disclosed in dashboard)	Capital	Actual	Indicator	Actual	Indicator	Trend
People who received HIV/Aids awareness training (% of group)	Human	*	-	18%		\rightarrow
% of employees who received awareness training and voluntarily tested for HIV/Aids	Human	*	_	50%		\rightarrow
% people tested positive, enrolled in HIV management programme and receiving ARV treatment	Human	*	-	26%		\rightarrow
HIV/Aids prevalence rate (%) compared to country prevalence rate	Human	*	_	4%		\rightarrow
Skills provision (% of internal appointment of critical skills)	Human	65%		82%		\checkmark
Skills retention (% turnover)	Human	5%		5%		\rightarrow

Our people

 \ast Not reported to sustainability, risk and compliance committee.



DETAILED GOVERNANCE DISCLOSURE

Application of King III

We maintained our application of King III in 2016. Our integrated report 2016 details our preparation for King IV.

Full application of King III and compliance with the Listings Requirements and Companies Act is a key performance indicator on our strategic dashboard.

Princ	siple	Comment						
Ethic	Ethical leadership and corporate citizenship							
1.1	The board should provide effective leadership based on an ethical foundation	Refer principle 2.3 under boards and directors						
1.2	The board should ensure that the company is and is seen to be a responsible corporate citizen	Refer principle 2.4 under boards and directors						
1.3	The board should ensure the company's ethics are managed effectively	Refer principle 2.5 under boards and directors						
Boar	ds and directors							
2.1	The board should act as the focal point for and custodian of corporate governance	The board operates in accordance with a detailed charter, based on King III. This charter deals with the roles, responsibilities and accountabilities of the board, among others. It meets at least four times a year and corporate governance best practice, trends and developments are standing agenda items. In addition, the board is informed of governance matters through ongoing development initiatives and sessions – refer principle 2.20.						
		A detailed annual plan ensures the board executes all its responsibilities and complies with its charter. The board charter, committee terms of reference as well as board and committee annual plans are reviewed and amended in November each year. In light of the planned implementation of King IV, however, the board agreed to postpone the standard annual review to coincide with the detailed review of all documents and practices to be completed for King IV readiness.						
		The board, as custodian of corporate governance, has made the office of the group company secretary responsible for implementing and monitoring compliance to associated best practices across the group. Our group company secretary and legal, Carina Wessels, is a member of the executive committee (exco); she reports directly to the CEO and has direct access to the chairman. She works closely with internal audit, the compliance and risk management functions, and chief audit executive to promote a culture of good governance and compliance in the group.						
2.2	The board should appreciate that strategy, risk, performance and sustainability are inseparable	 The board charter specifically emphasises the board's acknowledgement that strategy, risk, performance and sustainability are inseparable. The board gives effect to this philosophy by: Contributing to and approving the strategy annually, at which point past performance, key risks and sustainability matters are also debated Testing the strategy against Exxaro's long-term vision, values, business principles, ie the capitals framework and stakeholder expectations Satisfying itself that strategy and business plans do not result in risks that have not been thoroughly assessed and addressed by management and captured through the enterprise risk management process Identifying key performance and risk areas Ensuring the strategy will produce sustainable outcomes Considering sustainability as a business opportunity that guides strategy formulation Discussions on our strategic objectives further highlight the integration and importance of strategy, risk, performance and sustainability to stakeholders. 						
		The board and all committees also monitor the strategic performance dashboard, which has been scaled to acceptable and tolerable risk appetite measures for all material issues against all capitals in the broader sustainability framework. Each year the board and its committees also agree specific KPIs, in addition to activities detailed in the annual plans. This is a maturing process whereby the board can, in its annual evaluation, be specifically measured against actions the directors were required to take in that period (to support the company achieving its strategic objectives for that year). Although some 2016 indicators were still largely input-related, these continue to improve and mature to give stakeholders more meaningful information on the performance of the board on specific strategic issues. The KPIs for the board and each committee are disclosed in the integrated report 2016.						

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Principle		Comment
Boar	ds and directors (continued)	
2.3	The board should provide effective leadership based on an ethical foundation	We are driven by our desire to operate as a responsible corporate citizen and recognise that an ethical culture underpins corporate governance and contributes to our licence to operate. Exxaro and its board are committed to ensuring ethical and sustainable business practices, guided by our values. Our values are captured in our ethics and related policies, which are approved by the social and ethics (SE) committee on behalf of the board. Our ethics management practices (including anti-bribery and corruption initiatives) and processes are aligned with international best practice.
		Refer to the SE committee report for more detail.
2.4	The board should ensure that the company is and is seen to be a responsible corporate citizen	The board and management subscribe to the philosophy that corporate governance – built on an ethical and values-based foundation that considers the expectations of all stakeholders – permeates all business activities and enables us to achieve our short- and medium-term strategic objectives, while contributing to reaching Exxaro's vision.
		The board provides strategic guidance to Exxaro and ensures all decisions consider the immediate and long-term impact these have on the environment, the communities in which we operate, internal and external stakeholders and business sustainability in general.
		Individual directors are very aware of their obligation to fulfil their fiduciary duties, and to apply the principles of responsibility, accountability, fairness and transparency in decision-making and business execution.
		The board supports the group's brand and communications strategy which strives to effectively communicate its corporate citizenship.
		Refer page 47 for more detail on our expenditure on social and labour plans, uplifting and supporting our communities, as well as charitable projects and initiatives.
		Refer principle 2.11 for more information on stakeholder engagement.
		Exxaro has a board-approved political donations policy, which acknowledges that the primary purpose of these donations is to strengthen and consolidate democracy by ensuring diverse political parties are able to function effectively. The company believes the principle of multiparty democracy, as contained in the founding provisions of the Constitution of the Republic of South Africa 1996, deserves support by corporate South Africa.
2.5	The board should ensure the company's ethics are managed effectively	Exxaro remains committed to the highest standards of honesty, integrity and fairness. Ethics processes and policies are managed either by the general manager: risk, compliance and assurance or the group company secretary and legal.
		Established policies, on which employees are regularly trained and which are frequently reviewed, include: > Code of ethics > Whistleblowing > Conflicts of interest > Fraud investigation > Fraud prevention > Fraud response > Gifts and benefits from suppliers.
		We are confident that our robust policies and processes ensure full compliance with principle 10 of the United Nations Global Compact on anti-corruption, OECD recommendations on corruption, and international legislation and best practice.
		Refer to the SE committee report for more information, especially on anti-bribery and corruption training and computer-based ethics training.
2.6	The board should ensure the company has an effective and	Shareholders elect members of the audit committee, which comprises only independent non-executive directors, annually. The committee has detailed terms of reference.
	independent audit committee Section 3.84(d) of the Listings Requirements	It meets at least four times a year and meets with internal and external auditors independently of management at the first and third meetings of the year, to align with the annual and interim financial statements review cycle.
		Refer the audit committee report and chapter 3 on audit committees for more information.

Prine	ciple	Comment
Boai	rds and directors (continued)	
.7	The board should be responsible for the governance of risk	Although the board has delegated responsibility for the enterprise risk management framework and executing risk management initiatives and interventions to the SRC committee and management respectively, it retains accountability for risk governance, as expressly indicated in the board charter.
		The enterprise risk management framework, which considers the interrelationship between strategy, risk, performance and sustainability, guides the approach. This framework is frequently reviewed to incorporate new thinking and best practices.
		We were nominated for an award in 2016 by the International Institute of Risk Management for our innovation in risk management technology.
		Detailed risk reporting is presented to the SRC committee at least twice a year and it reports verbally and via its minutes to the board at each meeting. Risks are also discussed in detail at the annual board strategy session. Based on this information, as well as the annual internal audi review of the effectiveness of the risk management process, the board is comfortable with the efficacy of the enterprise risk management system and process.
		Refer chapter 4 on the governance of risk for more information.
2.8	The board should be responsible for information technology (IT) governance	An information management (IM) steering committee was established as a subcommittee of the audit committee in 2013 to assist the latter in discharging its responsibilities on the effective and efficient management of IT resources to achieve corporate objectives.
		The board-approved information and communications technology governance framework remains in force and reporting to the committee, inter alia, occurs against this framework.
		The independent external auditors, as part of their annual audit, provide assurance on the effectiveness of IT internal controls.
		Refer chapter 5 on the governance of IT for more information.
.9	The board should ensure the company complies with all applicable laws and considers adherence to non-binding	The board has adopted a policy that sets out our compliance framework, aligned with the standards of the Compliance Institute of South Africa. The compliance process is fully integrated in the enterprise risk management process. This ensures compliance risks are addressed with the same rigour as other categories of risk.
	rules, codes and standards	The SRC committee is charged, under its terms of reference, to review the compliance framework, process and all compliance risks as part of the enterprise risk management process
		The risk impact matrix, adopted by the board, specifically refers to compliance impacts that would prevent Exxaro from achieving its strategic objectives. To ensure the best overall risk coverage, standardisation and discharging the accountability of risk owners, the implementation of all mitigation techniques is coordinated centrally.
		Our combined assurance process is risk-based and, in 2016, specific emphasis was placed on assurance activities covering our most important compliance controls relating to 'licence to operate'. The following compliance assurance activities have been concluded and findings reported:
		 Compliance to mining charter, issued in terms of the Mineral and Petroleum Resources Development Act 28 2002 (MPRDA) BBBEE assurance Validity and enforceability of our mining rights.
		Compliance KPIs are part of our strategic performance dashboard. Specific tolerance levels hav been set within the overall risk appetite. Compliance KPIs and the overall efficacy of the process are reported to the SRC committee which, in turn, reports to the board verbally and via minutes at each meeting.
		In addition to management training, the board receives legislative and best-practice updates at each meeting, and in the twice-yearly governance session – refer principle 2.20 for more information.
		Exxaro received no material fines or penalties for non-compliance in 2016. Refer chapter 6 for more information.

Princ	iple	Comment
Boar	ds and directors (continued)	
2.10	The board should ensure there is an effective risk-based internal audit	The internal audit function is outsourced to EY. Its responsibilities are set out in an internal audit charter approved by the audit committee and reviewed annually. The charter entrenches the risk-based audit approach, reporting lines to the chief audit executive, unrestricted access to the information and resources of the company, chairmen of the audit committee and board, as well as adherence to the standards for the professional practice of internal auditing and the code of ethics of the Institute of Internal Auditors.
		EY liaises regularly with the general manager: risk, compliance and assurance, who is also the chief audit executive, and discusses the risk profile of the group and its business units to ensure a link between internal audit activities and risk profiles.
		Refer chapter 7 for more information.
2.11	The board should appreciate that stakeholders' perceptions affect the company's reputation	The board keenly understands the link between stakeholder perceptions and Exxaro's reputation. Stakeholder engagement is therefore a critical part of our business as it influences both stakeholder perceptions and our reputation. Refer to the integrated report for the specific board stakeholder-related KPI in 2016 and other sections in this report for further discussion of stakeholder-related matters.
		Refer the section on stakeholders and chapter 8 for more information.
2.12	The board should ensure the integrity of the company's integrated report	Functional owners are accountable to ensure the integrity of data and general information in the integrated report under the guidance and coordination of an editorial committee. PricewaterhouseCoopers Incorporated (PwC) assures key performance indicators and audits the summarised financial information.
		The SRC committee approves material issues to be included in the integrated report, as well as the overall narrative. The board, however, reviews and finally approves the content of the integrated report prior to publication.
		Refer chapter 9 for more information.
2.13	The board should report on the effectiveness of the company's system of internal controls	As in previous years, EY confirmed that the system of internal controls was satisfactory. On this basis, the audit committee confirmed and the board is satisfied with the effectiveness of the company's system of internal controls.
2.14	The board and its directors should act in the best interests of the company	The board strictly adheres to its fiduciary duties and duty of care and skill codified in the Companies Act. These are mirrored in the conflicts of interest policy, which also applies to directors. Directors are authorised to obtain independent advice in connection with their duties and liabilities through the group company secretary and legal.
		Conflicts are declared at each board meeting and conservatively interpreted: all conflicts (even those broader than the definition of personal financial interests) are treated in line with section 75 of the Companies Act.
2.15	The board should consider business rescue proceedings or other turnaround	The audit committee reviews financial information in detail and recommends specific action to the board if required. It regularly reviews the solvency and liquidity of the group, as well as the going-concern statement.
	mechanisms as soon as the company is financially distressed as defined in the Act	In addition, when considering and reviewing the provision of financial assistance to related and inter-related parties, as well as dividends payable, the board considers the solvency and liquidity of the group. During the year, the company met the solvency and liquidity test each time it was performed.
2.16	The board should elect a chairman who is an	The roles of the CEO and chairman are separate: Dr Len Konar is an independent non-executive director; the CEO is Mxolisi Mgojo.
	independent non-executive director. The CEO should not also fulfil the role of chairman	The role and responsibilities of the chairman are articulated in the board charter and further entrenched in the division of responsibilities policy.
	of the board	Based on an evaluation of his performance and ability to add value, the chairman is re-elected by the board annually.

Princ	iple	Comment
Boar	ds and directors (continued)	
2.17	The board should appoint the chief executive officer and establish a framework for	The board appointed Mxolisi Mgojo as CEO effective 1 April 2016. The CEO's role and responsibilities are articulated in the board charter and further entrenched in the division of responsibilities policy.
	delegation of authority	A detailed delegation of authority policy and framework, reviewed annually, indicate matters reserved for the board and those delegated to management.
		The remuneration committee (Remco) provides input on senior management succession planning.
2.18	The board should comprise a balance of power, with a majority of non-executive directors. The majority of non-executive directors should be independent	 The company has a unitary board structure, comprising executive, non-executive and independent non-executive directors (classified in accordance with the JSE Listings Requirements and King III): > Eight independent non-executive directors > Four non-executive directors > Two executive directors.
	Sections 3.84(b), (f) and (g) of the JSE Listings Requirements	To support Remco in its nomination process, the group company secretary and legal maintains a board matrix to ensure breadth and depth of skills and experience that support and enable the company's vision and strategy: new board nominations are assessed against gaps identified in the matrix.
		One third of non-executive directors retire by rotation annually.
		The memorandum of incorporation (Mol) does not restrict the board's ability to remove a director without shareholder approval.
2.19	Directors should be appointed through a formal process Sections 3.84(a) and (e) of the JSE Listings Requirements	In line with the board charter, Remco is responsible for vetting shareholder nominee directors and identifying suitable candidates to propose to the board for consideration and, with its support, to shareholders for election. In line with the Mol, one third of non-executive directors retire by rotation annually and their suitability for re-election is assessed by the board as a whole. Summarised résumés of directors standing for election and re-election are included in the integrated report 2016.
		New directors receive a detailed letter of appointment and undergo induction as discussed in 2.20.
2.20	The induction and ongoing training and development of directors should be conducted through formal processes	The formal induction programme is managed by the group company secretary and legal: new directors are informed of their duties and responsibilities, they meet with fellow board members and key executive and senior management, and information on the company is provided through extensive induction material, discussions and visits to material business units. All have continued access to key management members for information on Exxaro's operations.
		 The formal ongoing directors' development programme involves two full-day sessions during the year, visits to key business units, and the opportunity to attend outsourced training interventions as required. In 2016, these dealt with: Cyber security risks and global trends Legal developments in environmental regulations for mining Innovation in the mining industry Risk management: appetite and tolerance levels, impact on strategic performance dashboard Global mining industry research, trends and risks Disruption and the general impact on business Shareholder engagement: research, best practices and next steps Global business risk reviews Overview of key Listings Requirements for new directors.
		During the year, the SRC and SE committees visited Grootegeluk and some of its social and labour plan projects.
		In addition to formal sessions, directors receive group and industry news articles daily, as well as regular analyst reports.

Princ	iple	Comment			
Boar	ds and directors (continued)				
2.21	The board should be assisted by a competent, suitably qualified and experienced company secretary Sections 3.84(i) and (j) of the JSE Listings Requirements	 The board selected and appointed the group company secretary, Carina Wessels, in July 2011 and recognises her pivotal role in entrenching good corporate governance. All directors have access to her advice and services. The board has an established procedure for directors to obtain independent professional advice at the group's cost. Carina assists directors, board committees and their members in obtaining this advice. As stipulated by the JSE Listings Requirements, and in line with the board's established annual evaluation to consider and satisfy itself of Carina's competence, qualifications and experience, we again completed a detailed and formal process that: Evaluated her competence: score of 4.5 out of 5 Confirmed the suitability of her qualifications (page 56, integrated report), supplemented in 2016 with an LLM in extractive industry law in Africa (cum laude). She again exceeded her continued professional development requirements Confirmed her experience: over 15 years in the mining industry and 12 specifically in corporate secretariat positions. Carina does not serve as a director of the board based on displayed behaviours and her confirmation that she has not been restricted in any way in carrying out her obligations to act as the company's gatekeeper of good governance and that she has a direct channel of communication to the chairman and the other directors. She assumed executive accountability for legal from 1 January 2017. 			
2.22 The evaluation of the board, its committees and the individual directors should be performed every year		committees and the the integrated report 2016. vidual directors should			
2.23	The board should delegate certain functions to well- structured committees but without abdicating its own responsibilities Section 3.84(d) of the JSE Listings Requirements	Board committees assist the board in executing its duties, powers and authorities. The board delegates the required authority to each committee to enable it to fulfil its functions through formal board-approved terms of reference. Delegating authority to board committees or management does not mitigate or discharge the board and its directors of their duties and responsibilities. Refer to committee reports in the integrated report 2016.			
2.24	A governance framework should be agreed between the group and its subsidiary boards	All Exxaro subsidiaries adopt and comply with the detailed delegation of authority framework and policy, which stipulates the governance framework.			
2.25	Companies should remunerate directors and executives fairly and responsibly	See remuneration committee report for full details.			
2.26	Companies should disclose the remuneration of each individual director and certain senior executives	See remuneration committee report for full details.			
2.27	Shareholders should approve the company's remuneration policy	At the 2016 annual general meeting, 90,8% of shareholders voted in favour of the remuneration policy by means of a non-binding advisory vote. This resolution has again been incorporated into the notice for the 2017 annual general meeting.			

Princ	ciple	Comment				
Audi	t committees					
3.1	The board should ensure the company has an effective and independent audit committee	Refer principle 2.6 under boards and directors.				
3.2 Audit committee members should be suitably skilled and experienced independent non-executive directors		All three members are independent non-executive directors and the chairman of the board is not a committee member. The committee meets the academic qualifications and experience requirements stipulated in regulation 42 of the Companies Regulations, 2011. The chairman, Jeff van Rooyen, and Vuyisa Nkonyeni are chartered accountants. Changes in international financial reporting standards and related developments are submitted to the committee at each meeting. As with all directors, the committee is entitled to consult appropriate specialists as required.				
3.3	The audit committee should be chaired by an independent non-executive director	The chairman, Jeff van Rooyen, is an independent non-executive director and is elected by the board annually. He is always present at the annual general meeting.				
3.4	The audit committee should oversee integrated reporting	The committee, as well as the SRC committee, reviews the report and any summarised information prior to submission to the board. The committee functions as a reporting oversight body in support of the SRC committee, which has a wider mandate to govern company performance on risk and sustainability in general. PwC provides assurance over key performance indicators, disclosed in this report, and audits summarised financial information. The company issues reviewed interim financial statements.				
3.5	The audit committee should ensure a combined assurance model is applied to provide a coordinated approach to all assurance activities	The combined assurance framework, with its underlying model, was approved in 2012. The combined assurance forum is operating effectively and consists of the chief audit executive, acting as chairman, general manager of SHEC, and finance manager of the coal business, relevant functional representatives, and invitees from major assurance service providers in the group. The forum ensures assurance activities address specific regulatory requirements or can be linked to a material risk exposure. A combined assurance map, linking assurance to risks, assists in this process. To ensure all findings are tracked, reported and closed out, Exxaro uses a single assurance tracking platform. This gives management a single view of assurance findings, regardless of which service provider conducted the audit or review. Refer the section on combined assurance for more information.				
3.6	The audit committee should satisfy itself of the expertise, resources and experience of the company's finance function Section 3.84(h) of the JSE Listings Requirements	As required by the JSE Listings Requirements, the committee has satisfied itself of the finance function's resources, experience and expertise and appropriateness of the expertise and experience of the finance director.				
3.7	The audit committee should be responsible for overseeing internal audit	The audit committee is responsible for appointing the chief audit executive and he has unfettered access to its chairman and the chairman of the board. The committee approves the risk-based internal audit plan annually. EY, as independent internal auditor, submits detailed reports to each meeting, the chairman meets independently with internal audit and the committee meets with internal auditors and external auditors independently of management at the first and third meetings of the year, to align with the review of annual and interim financial statements.				
3.8	The audit committee should be an integral component of the risk management process	Although the coordination of enterprise risk management has been delegated to the SRC committee, the audit committee remains involved to express a view on the system of internal control and risk management, the assurance provided on material risks, and specifically retains accountability for financial and information technology risk.				

Princ	iple	Comment			
Audit	committees (continued)				
3.9	The audit committee is responsible for recommending the appointment of the external auditor and overseeing the external audit process	At the first meeting of each year, the committee assesses the suitability of the independent external auditor for reappointment, based on criteria in the Companies Act and JSE Listings Requirements, and makes such recommendation to shareholders at the annual general meeting. It approves the terms of engagement and remuneration of the independent external auditor and also assesses the quality and effectiveness of the external audit process. The independent external auditor submits detailed reports to each meeting, including any reportable irregularities.			
		As noted in the audit committee report, the company has an approved policy to regulate the use of non-audit services by the independent auditor. The policy differentiates between permitted and prohibited non-audit services and specifies a monetary threshold at which the committee considers approvals.			
		The chairman meets independently with external audit and the committee meets with internal and external auditors independently of management at the first and third meetings of the year, to align with the review of annual and interim financial statements.			
3.10	The audit committee should report to the board and	As discussed under principle 2.23, all committees report to the board through verbal feedback and submitting minutes at each board meeting.			
	shareholders on how it has discharged its duties	The audit committee report is included in the integrated report 2016 and in the group and company annual financial statements for the year ended 31 December 2016. The committee chairman is present at the annual general meeting to respond to any questions.			
The g	jovernance of risk				
4.1	The board should be responsible for the governance of risk	Refer principle 2.7 under boards and directors.			
4.2	The board should determine the levels of risk tolerance	In 2016, the board reviewed and approved the appropriate tolerance levels for each strategic key performance indicator. These tolerance levels have been incorporated in the strategic focus areas to ensure that neither too little nor too much risk is taken in pursuing Exxaro's strategy.			
		The company's impact scale has also been aligned to the tolerance levels. This ensures historical information can be reported and an assessment made whether the company has been acting in line with the predetermined risk appetite and whether it will continue doing so, considering the risk information.			
4.3	The risk committee or audit committee should assist the board in carrying out its risk responsibilities	The board has formally delegated responsibility for risk management to the SRC committee, with assistance from the audit committee on financial risk.			
4.4	The board should delegate to management the responsibility	Execution of risk management has been delegated to the risk, compliance and assurance department.			
	to design, implement and monitor the risk management plan	Refer principle 2.7 under boards and directors on the SRC process. The SRC committee comprises four independent non-executive directors. It meets four times a year and its performance is part of the annual board and committee evaluation.			
		Risk champions at all business units and service functions oversee entrenchment of the process. This includes ensuring risk owners continuously identify, assess, mitigate and manage risks within the changing risk profile of their operating environment. In addition, risk champions coordinate dedicated forums at business units and service functions which, in turn, escalate risks against defined parameters to similar forums at a consolidated commodity and group level.			
		The risk and compliance manager is responsible for reporting to the SRC and audit committees on financial and information technology risks.			
		Exxaro operates under a world-class information management system which ensures true transparency and accountability in managing risks and reporting on the effectiveness of mitigation techniques to ensure strategic objectives are achieved.			
4.5	The board should ensure risk assessments are performed on a continual basis	Formal risk assessments are conducted at least quarterly at all business units and service functions, in line with the detailed enterprise risk management framework.			

Princ	iple	Comment			
The g	overnance of risk (continued)				
4.6	The board should ensure that frameworks and methodologies are	The enterprise risk management framework, as far as reasonably possible, includes processes to prompt the identification of unpredictable risks, including events with high impacts and low probability that would cause severe business disruptions.			
	implemented to increase the probability of anticipating unpredictable risks	Exco and the board have access to risk reports compiled by thought leaders in the area of risk management and mining, and these are incorporated in the strategic risk register of the group. These risks are linked to specific strategic objectives and risk owners at executive level, coupled with relevant risk strategies, to ensure flexibility of the strategy in the changing environment in which Exxaro operates.			
4.7	The board should ensure management considers and implements appropriate risk responses	Although the board has delegated the responsibility for risk management, it reviews the top enterprise risks, including risk responses, annually, which would include a review of responses to exploit potential upside risk.			
4.8	The board should ensure continual risk monitoring by	Risk profiles of business units are discussed at monthly meetings, and operational risks reported quarterly to Exco for noting.			
	management	Commodity and regional risk profiles are also compiled, and consider the strategic objectives of the commodity and region.			
4.9	The board should receive assurance on the effectiveness of the risk management process	The risk and compliance manager, through reporting to the SRC committee, assures the board that risk management is entrenched in Exxaro's operational activities. In addition, EY assures the board on the effectiveness of the risk management process annually.			
4.10	The board should ensure there are processes in place enabling complete, timely, relevant, accurate and accessible risk disclosure to stakeholders	Top enterprise risks are disclosed in the integrated report 2016. Significant issues are disclosed in media reports and on JSE Stock Exchange News Service (SENS) throughout the year, as deemed appropriate. EY has reported to the audit committee on the effectiveness of the risk management process and the committee, in turn, expressed a view on the process on behalf of the board.			
Gove	rnance of information technolo	pgy			
5.1	The board should be responsible for information technology (IT) governance	Refer principle 2.8 under boards and directors.			
5.2	IT should be aligned with the performance and sustainability objectives of the company	The objective of the IT strategy is to align all underlying systems to truly integrate strategy, governance, risk, compliance, performance and sustainability. The 2016-2020 strategy to achieve these objectives has been approved by the IM steering committee, which monitors progress.			
5.3	The board should delegate to management the responsibility for implementation of an IT governance framework	Implementation of the governance framework has been delegated to the IM department, with oversight by the IM steering committee.			
5.4	The board should monitor and evaluate significant IT investments and expenditure	Information and communication technology (ICT) acquisitions fall within the same capital-approval parameters as other projects and, based on value, are elevated to the board. The IM steering committee vets potential projects and initiatives prior to decisions being taken or recommended to subsequent levels, in line with the capital expenditure parameters.			
		The IM steering committee reviews the total IM portfolio annually and the execution of the portfolio twice per annum.			

Princ	iple	Comment			
Gove	rnance of information technolo	ogy (continued)			
5.5 IT should form an integral part of the company's risk management		The enterprise risk management framework includes assessing and managing all ICT risks, and the risk impact matrix specifically refers to IT-related impacts, which form part of any risk assessment.			
		Exxaro operates under a world-class IM system which ensures true transparency and accountability in managing risks and reporting on the effectiveness of mitigation techniques to ensure strategic objectives are achieved.			
		An IT disaster recovery policy and procedures are in place and tests are performed monthly: all tests in 2016 were successful.			
		The IM steering committee monitors and ensures compliance with ICT-related legislation and best practice.			
5.6	The board should ensure information assets are managed effectively	All electronic information assets are managed effectively. Employee access to relevant information is strictly controlled through an effective authorisation process. All electronic information is backed up daily as per policy and procedures and stored off-site.			
		The company has successfully set up the IT enterprise landscape to facilitate compliance to the impending commencement date of the Protection of Personal Information Act 4 2013 and the group company secretary and legal has been appointed as the information officer in terms of this Act.			
5.7	A risk committee and audit committee should assist the board in carrying out its IT	The audit committee, through reporting by the IM steering committee, considers ICT risks and mitigating actions, which are managed in line with the overall enterprise risk management framework.			
	responsibilities	A number of IT systems are used to improve audit efficiency, inter alia, as discussed in principle 3.5 under audit committees, Exxaro uses a single assurance tracking platform, ITM. This allows management a single point of entry to manage assurance findings, regardless of the service provider that conducted the audit or review.			
Com	pliance with laws, rules, codes	and standards			
6.1	The board should ensure the company complies with applicable laws and considers adherence to non-binding rules, codes and standards	Refer principle 2.9 under boards and directors.			
6.2	The board and each director should have a working understanding of the effect of applicable laws, rules, codes and standards on the company and its business	Information on laws, rules, codes and standards are shared with directors regularly through documentation and governance sessions – refer principle 2.20 under boards and directors.			
6.3	Compliance risk should delegate to management the implementation of an effective compliance framework and processes	Refer principle 2.9 under boards and directors and 6.4 under compliance with laws, rules, codes and standards.			

Princ	ciple	Comment			
Com	pliance with laws, rules, codes	and standards (continued)			
6.4	The board should delegate to management the implementation of an effective compliance framework and	Implementation is delegated to the risk, compliance and assurance department. All management teams at business units have received training on the enterprise risk management process, including compliance risk management. Compliance risks form part of the risk registers of all operations, including those of regional management, Exco and the board.			
	processes	Combined assurance mapping has also been completed on all material compliance risks at every business unit and results form part of their management action plans, as well as the risk-based internal audit plan.			
		Compliance forms part of the ethics and related policies. Compliance KPIs are reported to the SRC committee quarterly. During the reporting period, there were no instances of material non-compliance by the company or its directors.			
		The risk and compliance manager is Saret van Loggerenberg and her qualifications include a BLC, LLB and LLM (Eur). She is also a fellow of the Institute of Chartered Secretaries (FCIS). She is supported by risk specialists and reports to the general manager: risk, compliance and assurance who is a standing invitee on the Exco, SRC, audit and SE committees.			
Inter	nal audit				
7.1	The board should ensure there is an effective risk-based internal audit	Refer principle 2.10 under boards and directors.			
7.2	Internal audit should follow a risk-based approach to its plan	Refer principle 2.10 under boards and directors.			
7.3	Internal audit should provide a written assessment of the effectiveness of the company's system of internal control and risk management	Refer principle 2.13 under boards and directors.			
7.4	The audit committee should be responsible for overseeing internal audit	Refer principle 3.7 under audit committees.			
7.5	Internal audit should be strategically positioned to achieve its objectives	Internal audit reports to the chief audit executive, who is a standing invitee to Exco, audit, SRC and SE committees.			
Gove	erning stakeholder relationship	S			
8.1	The board should appreciate that stakeholders' perceptions affect a company's reputation	Refer principle 2.11 under boards and directors.			
8.2	The board should delegate to management to proactively	The primary management of stakeholders has been delegated to the executive head: stakeholder affairs, with support from all executive committee members and management in general.			
	deal with stakeholder relationships	To date the company has actively engaged with its range of stakeholders, and to bring best practice and consistency to this arena, in 2014 it adopted the AccountAbility 1000SES stakeholder engagement standard which serves as a benchmark for good quality engagement. The standard uses the principles of inclusivity, materiality and responsiveness and guides the process of mapping stakeholders, linking material issues to relevant stakeholders, among other items.			
		The group strives to engage openly and proactively with stakeholders, and issues and requests from stakeholders are responded to as part of ongoing engagement programmes.			
		Further information appears in the integrated report 2016.			

Princ	iple	Comment			
Gove	erning stakeholder relationship	s (continued)			
8.3	The board should strive to achieve the appropriate balance between its various stakeholder groupings, in the best interests of the company	The group has identified its stakeholder groups and appropriate managers are assigned to build these relationships. The intention is to promote two-way engagement so that the group and stakeholders understand one another, and a communication strategy provides support and offer opportunities in this regard.			
8.4	Companies should ensure equitable treatment of shareholders	Exxaro fully complies with the Listings Requirements on disclosing information to shareholders. A detailed securities-dealing and information policy sets out strict rules around material price- sensitive information and its disclosure. Any material price-sensitive information and other relevant information is published on SENS in accordance with the Listings Requirements. All queries from shareholders are handled by the group company secretary and legal or investor relations. Only information available in the public domain is disclosed.			
8.5	Transparent and effective communication with stakeholders is essential for building and maintaining their trust and confidence	The board supports the group's communications strategy, which is guided by principles that include being approachable, genuine and principled. The group strives for honest and clear communication and uses various communication channels such as media relations, advertising, integrated reporting and its website to reach stakeholders timeously and effectively.			
8.6	The board should ensure disputes are resolved as effectively, efficiently and expeditiously as possible	Dispute-resolution clauses are included in all Exxaro's general contract conditions and based on the principle of internal resolution between the parties as a first means of addressing disputes, after which arbitration would be used if the matter remains unresolved. The board considers serious disputes and considers the company's position and best legal recourse.			
Integ	rated reporting and disclosure				
9.1	The board should ensure the integrity of the company's integrated report	Refer principle 2.12 under boards and directors.			
9.2	Sustainability reporting and disclosure should be integrated with the company's financial reporting	The process of integrated reporting continues to mature and improve. The board comments on the company's financial results and going-concern status in the annual financial statements.			
9.3	Sustainability reporting and disclosure should be independently assured	Refer principle 3.4 under audit committees.			



REMUNERATION AND NOMINATION COMMITTEE



The integrated report contains the Remuneration and Nomination Committee Report which prefaces this section.

Key issues

Notable matters in the review period included:

- > The Exxaro improvement project (EIP) was initiated to address the rapidly changing commodity environment in which the company operates, and to take measures to ensure its future sustainability. The final EIP addressed seven key areas:
 - Implementation of a revised governance model
 - Establishment of a new operating model
 - Implementation of a simplified service delivery model
 - The need to reduce cost of support services
 - The requirement to review and, where appropriate, adjust the business portfolio
 - Investigate and implement external resourcing opportunities
 - Redefined focus on innovation
- > To implement EIP proposals, Exxaro had to follow the requirements of section 189 of the Labour Relations Act 66 1995, as amended (LRA), to deal with affected and impacted employees. This was finalised at the end of 2016
- > In 2016, voluntary severance packages (VSPs) and retrenchments due to the EIP and closures at Inyanda, Arnot and Tshikondeni mines were a salient feature of the operating environment. The table below reflects the impact of the EIP and mine closures in 2016, in terms of all retrenchments and voluntary severance packages taken up

	Retrench- ments	VSPs	Total
Number	505	430	935*

* Numbers in this table might differ from other information reflected elsewhere in this report, depending on focus or period covered.

- > Wage agreements for Exxaro Coal (Pty) Ltd and Exxaro Coal Mpumalanga (Pty) Ltd were concluded in 2015 for a two-year period. Wage adjustments in 2016 for the bargaining category of stated employers therefore reflect agreed clauses in the respective wage agreements
- > Wage negotiations for Coastal Coal (Pty) Ltd were conducted in 2016 with AMCU and implemented accordingly
- > Exxaro Coal, Exxaro Coal Mpumalanga, Coastal Coal and Ferroland Grondtrust (Pty) Ltd will begin formal wage negotiations in mid-2017.

Remuneration report

This report elaborates on Exxaro's remuneration policy for non-executive directors, executive directors, prescribed officers, senior management and all other employees. The way Exxaro remunerates employees reflects the dynamics of the market and the context in which the company operates. It is aligned to the strategic direction and specific value drivers of the respective businesses, supporting the philosophy of operational excellence, continuous improvement and innovation.

Remuneration plays a critical role in attracting and retaining high-performing individuals and is aimed at reinforcing, encouraging and promoting superior performance. Remuneration is fully integrated into other management

processes such as performance management and group human resources policies.

Our vision for rewards is to provide simple, integrated, holistic solutions, common messages and a package differentiated from the market, for Exxaro to attract, retain and energise talented, high-performing people.

Remuneration philosophy statement

We believe our people are one of the key competitive sources of value and that achieving corporate goals and business objectives must be supported by the way we reward people for their contribution. We primarily remunerate people for the value they add to Exxaro, making remuneration a vital part of the total employee offering.

Remuneration practices continue to:

- > Support the business strategy of Exxaro
- > Support the Exxaro people strategy
- > Support the importance of skills, knowledge and experience, applied in context
- > Inspire superior performance of the organisation, teams and individuals
- > Encourage the development of skills required for future company needs
- > Are based on the principle of sharing in the success of the company
- > Target the attraction of the right talent to fit organisational needs
- > Be designed to retain high-quality talent with the optimum mix of skills
- > Align employee engagement to Exxaro's vision and mission through the total employee offering (both financial and non-financial rewards)
- > Differentiate appropriately through various reward practices and processes, based on job outputs and contribution
- > Comply with clauses prohibiting discrimination in the Constitution of the Republic of South Africa (Act 108 of 1996, as amended) (the Constitution), and the Employment Equity Act (Act 55 of 1996, as amended) (EEA)
- > Allow maximum flexibility in terms of the use and reward of the workforce
- > Provide maximum choice for individuals in structuring their reward
- > Establish accountability and ownership of the reward process with line management
- > Ensure a balance between affordability and quality of life for employees.

Reward framework and components

The reward strategy is aligned with the company strategy and its execution, along with an emphasis on operational excellence. We believe this will in turn maximise Exxaro's performance and effectiveness, thus increasing shareholder returns.

Each component of the Exxaro reward strategy is developed with a specific intent and purpose.

Reward component: What?	Rationale: Why?			
Guaranteed remuneration and benefits	 > Remunerate for job-specific outputs and requirements – considering the principle of equal pay for work of equal value > Attract and retain high-performing individuals > Differentiate on the basis of individual performance and contribution to Exxaro > Quality of life 			
Short-term incentives	 Meeting stretched company or individual targets Create a culture of superior performance Enhance team performance 			
Long-term incentives	 Attract and retain high-performing talent Align individual, team and organisational performance with shareholder expectations Create a culture of sustainable performance 			
Reward and recognition	 Support and reinforce a culture of belonging, performance and acknowledgement 			
Strategic separation	 > Retrenchment > Voluntary separation packages > Space-creation packages 			

Remuneration mix

The remuneration mix reflects the relative proportions of pay represented by guaranteed, variable and share income pay and will be meaningfully linked to job type and the nature of expected outcomes.

- > Guaranteed remuneration + short-term incentives + long-term incentives = total remuneration
- It includes all guaranteed items such as basic salary, employer medical health scheme contribution and employer retirement fund contribution and guaranteed allowances. This will be pitched at the market median (50th percentile) for full performance
- > Variable remuneration includes cash incentive pay-outs, circumstantial remuneration and recognition rewards. The time frame for awarding variable remuneration is typically one year or less, except where a portion of the payment may be deferred to a later period. This type of incentive will be pitched at the market median (50th percentile)
- > Long-term incentives are paid as equity in the company, with specific performance conditions to be met at the end of a specific time interval, typically three years. This incentive will be pitched at the upper quartile of the market (75th percentile).

The company will adopt suitable levels of variable pay, where appropriate, so that enhancements to value-based achievement are encouraged and rewarded.

Remuneration guiding principles

The principles discussed below apply to all remuneration policies and practices.

Implementation differs due to the nature of the labour force and is split between employees who are part of collective bargaining and those who fall outside these structures including executives, all management levels and employees not part of any recognition agreement or sectoral determination.

Remunerating individuals who fall within the scope of collective bargaining is determined through wage negotiations under different recognition agreements, the LRA and Exxaro's employee relations strategy.

Internal parity

Exxaro supports the principle of fair and equitable remuneration, equal pay for work of equal value, as per chapter 2 of the Employment Equity Act (EEA), the regulations in section 6(4) of the EEA on the criteria and methodology for assessing work of equal value and the code of good practice on equal pay/remuneration for work of equal value (the code).

Employees are remunerated against the outcome of a structured job-evaluation process that determines the relative value of the job.

Remuneration may differ due to individual performance, measured by results the employee achieved against agreed objectives or any other justifying factors as indicated in the code.

Remuneration differentiation is monitored and reported as necessary.

Market competitiveness

Exxaro manages remuneration to ensure market competitiveness in attracting and retaining individuals with the required knowledge, skills and experience to further its objectives.

Remuneration is analysed by benchmarking against the appropriate market remuneration value established per job family and grade, applicable to the mining industry and specific business-related industries. This is done annually.

We accept the principle of skills demand and supply in the market and remuneration is therefore formulated to be flexible enough to attract and retain the required knowledge, skills and experience throughout business, economic and commodity cycles. Where scarce competencies are identified, individuals are paid in line with the relevant specialist markets.

The aim is for total remuneration to be on the 50th percentile of the market, for full performance.

Remuneration ranges

Role levels, job-evaluation results and market medians form the basis of remuneration range structures (pay scales). Broad-band remuneration ranges with minimum and maximum values allow for flexibility, based on market trends and performance.

Remuneration ranges are reviewed at least annually to ensure ongoing market competitiveness.

Remuneration packages and benefits

Exxaro manages remuneration on the basis of individual guaranteed total cost to company, to determine market competitiveness.

Market remuneration trends inform the design of variable and circumstantial remuneration schemes.

All employees are entitled to the same range of benefits appropriate to their role level and specific circumstances.

Non-bargaining employees have flexibility in structuring their remuneration within certain company and legislative limitations.

Reward for performance

Organisational and individual performance is the basis for all remuneration, supported by a robust performance management process (only applicable to the management and specialist category of employees and corporate non-management and specialist category of employees).

Exxaro remunerates and rewards commitment to both organisational and individual performance.

Employees are expected to deliver performance proportionate with the reward offered.

Remuneration-setting process

The executive head, human resources obtains remuneration mandates from Exco and Remco on behalf of line management. Mandates consider the ethics of remuneration as outlined below.

Company performance and affordability

Exxaro's ongoing sustainability is key in determining remuneration levels and mandates. Exco and Remco assess the performance of the organisation, consequent affordability of mandates, impact of the total labour bill on the cost profile, as well as Exxaro's sustainability.

Remco, at its sole discretion, may overrule any of these principles, if necessary, for the sustainability of the organisation.

Economics and ethics of remuneration

Pay equity is an increasingly visible ethical and sustainability theme, with the focus on measuring and monitoring the remuneration range between the workforce and executive pay.

In 2016, Remco made recommendations to the organisation on measurements that should be used in reporting to the committee in future. This year-on-year assessment will confirm the extent of control the company maintains over the pay range. The committee will ensure measures are in place to manage the remuneration range between the workforce and executive pay.

Communicating remuneration issues

Remuneration and performance expectations are communicated clearly and frequently to employees and broader stakeholder groups to establish clear reward expectations.

	Employee categories				
Remuneration		Bargaining category			
elements	Executive management	Senior management	Middle management	Junior management	
	F band	E band	DU and DM band	CU and DL band	A – CM band
	Notional cost of employment or basic salary	Annual adjustment > Performance > External market > Internal parity > Affordability	> External market> Internal parity		
Guaranteed remuneration	Benefits	> Medical health s	 > Retirement fund: employer and employee contributions > Medical health scheme: employer and employee contributions > Housing: company housing or allowances/subsidies applicable to 		
	Circumstantial remuneration	 > Job-specific > Skills scarcity > Severance payments 			

Exxaro remuneration: overview

	Employee categories					
Demonstra		Bargaining category				
Remuneration elements	Executive management	Senior management	Middle management	Junior management		
	F band	E band	DU and DM band	CU and DL band	A – CM band	
	Short-term incentives	 Individual perfo Strategic busing First tier on budge Second tier above 	 Special performance reward: Individual performance base: 18 – 33% Strategic business targets: 67 – 82% First tier on budgeted operational target achievement Second tier above target improvement incentives: Capped at 30% of Exxaro's above-budget improvement 		Not applicable	
Variable		Deferred bonus plan (EM and above) Share match		Not applicable		
remuneration		Long-term incenti	entive scheme (DM and above)		Not applicable	
	Long-term incentives	Long-term		g phased out, no new	Not applicable	
		Not applicable			A five-year employee share option scheme (Mpower 2012) effective from 1 July 2012 until 31 May 2017	

Remuneration policy application

Executive remuneration mix

The graph below indicates the potential remuneration mix for executives in 2016:



Note: Short-term incentive: indicates potential earnings Long-term incentives: indicate face value of offer.

The graph below indicates the actual remuneration mix for executives in 2016:



Note: Impacted by 2013 LTIP not vesting.

The graph below indicates the actual remuneration mix for executives in 2016 (including face value of 2016 LTIP offer):



The guaranteed versus variable remuneration (potential) of the executive directors (CEO and FD) are roughly split at 60% variable and 40% guaranteed.

Guaranteed remuneration

Management and specialist category

Employees in this category, including executives, are remunerated on a total-package approach. Guaranteed remuneration adjustments to employees are aligned to fundamental principles:

- > Remuneration is based on performance through individual performance contracting and assessment
- > External competitiveness: the market median per job family and level is used to determine remuneration competitiveness
- > Internal equity: same job with same performance should equate to same pay (excluding circumstantial remuneration)

 Affordability: all salary account-related mandates are first included in the Exxaro financial forecasting model, to determine affordability.

2016 Salary increases

Management and specialist categories

All executives and employees in the DM band and above received a 3,5% increase effective 1 April 2016. Employees in the DL band and below (including corporate non-management and specialist) received an average increase of 5,5%.

On average, the salary increase effective April 2016 for these categories resulted in a year-on-year increase of 4,5%.

Bargaining-unit employees

A two-year wage agreement from June 2015 to June 2017 was reached with all unions with collective bargaining rights. The final adjustment for 2016 was 7,5%.

Bargaining-unit employees have received increases of between 0,5% and 1,5% per annum higher than management and specialist category employees over the years.

Benefits

Contributions to retirement funds and medical health schemes are made by both employees and employers.

In terms of family-friendly benefits, Exxaro provides four months' paid maternity leave, and all employees qualify for group personal accident cover.

Retirement funds

Retirement fund contributions are made according to specific conditions of employment and fund rules for the different levels and categories of employees. Employer and employee contributions are reflected in note 14.3 of the annual financial statements.

All employees are members of one of the following retirement funds:

Fund description*	Employee contribution range %	Employer contribution range %	Total contribution range %
Sentinel Funds	7,50 - 13,20	12,50 - 20,52	20,00 - 28,02
Exxaro Pension and Provident Funds	7,00 - 8,00	10,00 - 15,00	17,00 - 23,00
Iscor Employees Umbrella Provident Fund	7,00 - 8,00	10,00 - 15,00	17,00 - 23,00
Mine Workers Provident Funds	8,00 - 10,70	12,50 - 15,00	20,50 - 24,65

* Exxaro-accredited retirement funds are defined-contribution funds.

Medical health schemes

Employees may annually elect to belong to any of the following medical schemes, as applicable to the relevant employers:

Business unit	Exxaro Coal Mpumalanga	Exxaro Coal	Exxaro Resources Ltd (including management and specialist employees in subsidiary companies)	Exxaro (other non- management and specialist employees)
Fund names	Bonitas	Bonitas	Bonitas	Bonitas
	Discovery WCMAS*	Discovery	Discovery	
	Sizwe	Sizwe	Sizwe	Sizwe
	Umvuzo	Umvuzo	Umvuzo	Umvuzo
Employee contributions	50%	50%	40 – 50%	40%
Employee contributions	50%	50%	(included in net cost of employment (NCOE) package)	60% capped

* Exxaro Coal Mpumalanga migrated all former WCMAS members with effect from 1 January 2017 to Discovery Health Medical Scheme, after following due process.

Exxaro does not provide any post-retirement medical benefits. The post-retirement benefit obligation disclosed in the annual financial statements recognises a past practice (in Eyesizwe) that was discontinued with the creation of Exxaro in November 2006.

Contributions to medical funds, cost against income, are also reflected in note 14.4 of the annual financial statements.

Short-term incentives

Exxaro strives to create a culture of powering possibilities, based on the belief that people can make the difference and are a major asset in delivering business results. Incentive schemes are focused on Exxaro's strategic objectives.

The following schemes, based on individual, business unit and commodity and group-level performance, are in place: The two-tier performance incentive (STI)

The two-tier performance incentive was created to reinforce a performance culture and applies to all full-time employees. The basis for paying this incentive is on-target business unit performance and group improvement targets.

> First tier

The first tier is a line-of-sight incentive based on achieving the business unit's net operating profit target, cost target and/or production target (with certain negative modifiers). The pay-out is capped at 8,33% of annual gross remuneration for all full-time employees of every business unit, commodity, services and corporate office department. On average, 7,66% of the potential 8,33% was paid in 2016 based on the specific business unit's target achievement. No other production bonuses exist in the company.

> Second tier

The second tier is based on exceeding the budgeted group net operating profit target. The target for 2016 was an improvement up to 30% above budget (with certain negative modifiers) and actual performance was a 71% improvement above budget. On average, 8,85% of the potential maximum of 10,00% of annual gross remuneration was paid to all employees in 2016.

Individual performance reward (SPR)

This scheme applies to employees in the middle, senior and executive management categories.

A short-term incentive scheme focused on the individual is used to augment the performance management process and retention strategy and ensure market competitiveness on short-term variable remuneration. The threshold for this scheme is 90% achievement of the objective and it only pays out 0%, 90% or 100%. The basis for paying this incentive rests on achieving specific agreed individual measures and/or group targets. Specific agreed measures for the individuals who respectively occupied the CEO and FD positions in the review period are shown overleaf.

CEO short-term incentives 2016 (SA Nkosi) 1 January – 31 March 2016							
Schem	e				Performance		
Special	l performance reward	Weight	Potential maximum % of NCOE	Target	Proportion of target achieved	Actual % of NCOE paid/ to be paid	
Individu	ual target						
Mayoko finalisation		66.070/	07.00/	100	90%	07.00/	
	Executive transition	66,87%	37,0%	100	100%	37,0%	
Two-tie	er short-term incentive						
Tier 1	Coal NOP 70%; corporate service departments' scorecard 30% (negative modifier for production tonnages)	15,05%	8,33%	100%	97,7%	8,14%	
Tier 2	Exxaro consolidated NOP (negative modifier for production tonnages)	18,07%	10,00%	130%	97,8%	9,78%	
Total		100,00%	55,33%	54,92%			
Individu	ual/company performance split	34/66					

CEO short-term incentives 2016 (MDM Mgojo) 1 April – 31 December 2016						
Scheme Performance						
Special	I performance reward	Weight	Potential maximum % of NCOE	Target	Proportion of target achieved	Actual % of NCOE paid/ to be paid
Individu	ual target					
	Feedback on finalisation of Eskom contract			100		
	Digitisation and innovation strategy	66,87%	37%	100	100%	37%
	Implementation of improvement project	00,0770	57 /0	100		
	Business of tomorrow			100		
Two-tie	er short-term incentive					
Tier 1	Coal NOP 70%; CSD scorecard 30% (negative modifier for production tonnages)	15,05%	8,33%	100%	97,7%	8,14%
Tier 2	Exxaro consolidated NOP (negative modifier for production tonnages)	18,07%	10,00%	130%	97,8%	9,78%
Total		100,00%	55,33%	54,92%		
Individu	ual/company performance split	34/66				

FD short-term incentives 2016 (WA de Klerk) 1 January – 30 June 2016						
Schem	e				Performance	
Specia	I performance reward	Weight	Potential maximum % of NCOE	Target	Proportion of target achieved	Actual % of NCOE paid/ to be paid
Individ	ual target				ĺ	
	Provide guidance and support to all new Exco members	63,58%	32%	100%	100%	32%
Two-tie	er short-term incentive					
Tier 1	Coal NOP 70%; CSD scorecard 30% (negative modifier for production tonnages)	16,55%	8,33%	100%	97,7%	8,14%
Tier 2	Exxaro consolidated NOP (negative modifier for production tonnages)	19,87%	10,00%	130%	97,8%	9,78%
Total		100,00%	50,33%	49,92%		
Individ	ual/company performance split	34/66	I	L		

	FD short-term incentives 2016 (PA Koppeschaar) 1 July – 31 December 2016						
Schem	e				Performance		
Special	performance reward	Weight	Potential maximum % of NCOE	Target	Proportion of target achieved	Actual % of NCOE paid/ to be paid	
Individu	ual target						
To the extent that a monetisation decision is taken by the board, ensuring that a plan is in place to start monetising the Tronox shareholding in the most efficient manner		63,58%	32%	100%	100%	32%	
	Ensure current BEE structure is unwound efficiently and new structure put in place according to schedule			100%	100%		
Two-tie	r short-term incentive						
Tier 1	Coal NOP 70%; CSD scorecard 30% (negative modifier for production tonnages)	16,55%	8,33%	100%	97,7%	8,14%	
Tier 2	Exxaro consolidated NOP (negative modifier for production tonnages)	19,87%	10,00%	130%	97,8%	9,78%	
Total		100,00%	50,33%		·	49,92%	
Individu	ual/company performance split	34/66					

Long-term incentives

Exxaro makes general share offers to participants once a year under the following approved schemes:

- > Exxaro share appreciation right scheme (SAR) (phased out, no new allocations made since 1 April 2012)
- > Exxaro long-term incentive plan (LTIP)
- > Deferred bonus plan (DBP).

The 2016 annual general meeting (AGM) accepted a special resolution that the aggregate number of shares that may be allocated under all management share schemes be adjusted from 30 000 000 (10%) to 18 000 000 (6%). The aggregate number of shares issued at 31 December 2016 are reflected:

Aggregate number of shares allocated under managerial share schemes as at 31 December 2016*

Share incentive scheme	Number of shares
Share appreciation right scheme	954 827
Long-term incentive plan	10 545 028
Deferred bonus plan	277 864
Total aggregate number of shares	11 777 719

* Includes options held by individuals who moved to Tronox and ECC, where awards were made prior to move.

The table summarises Exxaro's long-term incentives and details of awards granted and cancelled between 31 December 2015 and 31 December 2016. The grant price was based on the volume-weighted average price (VWAP) of the previous business day.

Plan	Quali- fication (employee Paterson band)	Date imple- mented	Rights/ shares on 31 Dec 2015	Maximum award per individual	Perform- ance condition	Vesting period	Grants in 2016	Grants cancelled in 2016	Total grants from inception to 31 Dec 2016
Share appreciation rights	DM – FU*	01/03/2007	1 814 681	45 474	HEPS**	3 years	0	52 665	9 987 282
Long-term incentive plan	DM – FU*	01/03/2007	8 952 939	377 181	HEPS 33,33% Retention (subject to ESG*** targets) 33,34%, TSR [‡] 33,33%	3 years	4 329 363	2 653 944	18 406 961
Deferred bonus plan	EM – FU*	31/08/2007	254 879	34 047	Achieving long-term incentive goal	3 years	101 369	18 334	525 314

* Includes executive directors

** Headline earnings per share

*** Environmental, safety and governance

‡ Total shareholder return

Share appreciation right scheme

Participants are awarded a conditional right to receive shares equal to the value of the difference between the share price at the time the rights were granted and the share price when the rights are exercised (on condition the shares appreciate in value). This scheme is being phased out and no new allocations have been made since 1 April 2012.

Grant limits	Employees on Paterson band DM – FU
Vesting period	Three years. If the performance condition is met, share appreciation rights vest and participants have to exercise their right within seven years from the date of offer
Performance conditions	Headline earnings per share (HEPS) set by Remco
Other	SARS awards not exercised within seven years lapse
Number of participants	206

The last awards made for the period 1 April 2011 to 31 March 2012 were tested, but no vesting took place and participants did not receive any benefit.

Long-term incentive plan (LTIP)

The LTIP provides for conditional awards in shares after three years from the date of grant, provided certain conditions are met.

Grant limits	Employees on Paterson band DM – FU
Vesting period	Three years, subject to achieving performance conditions over a three-year performance period
Performance conditions	HEPS 33,33%, retention (subject to ESG targets) 33,34%, TSR 33,33%
Number of participants	544

All short-term incentives awards, once vested, are settled from a market purchase of shares. Grants made for the period 1 April 2013 to 31 March 2016 were tested, and 0% of the grant vested because the HEPS target was not achieved.

Deferred bonus plan (DBP)

On receipt of a short-term incentive and special performance reward payments, participants are able to use part of their after-tax incentive to acquire shares (pledged shares) in Exxaro with a matching award on the vesting date.

Grant limits	Employees on Paterson EM and above
Vesting period	Three years
Performance conditions	To qualify, employees must have achieved their long-term incentive goal of which a portion (50% for EM, 90% for EU and above) can then be used towards this scheme
Retention conditions	If shares (DBP only) are held for the pledge period of three years and participants remain in service, shares will be matched at the end of the three-year period
Other	Pledged shares are held in escrow until the vesting date, but participants receive full dividends and may dispose of the shares, thereby sacrificing the commensurate portion of future matching shares
Number of participants	55

For detail on executive directors and prescribed officers' long-term incentives, see page 29.

Mpower 2012 (Exxaro employee share option scheme)

The Mpower 2012 scheme was implemented on 1 July 2012 and runs for a five-year period until 31 May 2017. Employees on Paterson grades D lower and below qualify to participate. Employer companies in the Exxaro group made capital contributions of R75 000 for each qualifying employee to enable the share subscription. Each qualifying employee on 1 July 2012 received 387 shares. Employees joining after the commencement date receive a pro-rated number of shares. On 31 December 2016, there were 6 147 beneficiaries participating in the scheme.

In addition, in May and October 2016, Mpower 2012 paid R3,3 million in dividends (total payment) to beneficiaries. Participants received dividend payments based on number of units held in the scheme.

Mpower 2012 will unwind on 31 May 2017. In March 2017, participants will be required to select a settlement option (cash pay-out or taking ownership of the shares) in line with the allocation each member holds. Settlement, either way, will be finalised in June or July 2017.

Remuneration of executive directors, non-executive directors and prescribed officers Directors

Information on the remuneration of executive directors and non-executive directors appears in the directors and prescribed officers' remuneration report on page 27.

Prescribed officers

Recommended practice, in line with King III (2.26.2) as well as newly published King IV, is to disclose the salaries of the six most highly paid employees who are not directors. In Exxaro, these individuals are also prescribed officers, as defined in the Companies Act 71 2008, as amended, and hence full disclosure of the remuneration of prescribed officers appears in the directors' report on page 27.

Dr CJ Fauconnier Chairman: Remuneration and nomination committee



Macro-economic review

	Real GDP growth rate (%)			
Geography	2016	2017		
Eurozone	1,7	1,6		
World	2,5	2,9		
Russia	(0,3)	1,0		
Brazil	(3,6)	0,1		
South Africa	0,3	1,1		
India	7,0	7,2		
Japan	1,0	1,1		
China	6,7	6,5		
United Kingdom	1,8	1,6		
United States	1,6	2,3		

Emerging markets, currencies and commodity prices regained some lost ground in early 2016. Main drivers included looser monetary policy from the People's Bank of China (PBOC), coupled with hopes of better-than-expected Chinese economic growth and a slower tightening in United States (US) monetary policy. These contributed to marginal improvements in prospects for some developing countries.

However, subdued real global economic growth of 2,5% was recorded in 2016. New economic and political shocks, such as Brexit (the June 2016 UK referendum that favoured leaving the European Union and all the attendant realignments), rebalancing China's slowing economy, commodity exporters adjusting to a protracted decline in trade, evolution of demographics and productivity growth as well as geopolitical and political uncertainty limited higher economic activity for the past year. In response, major central banks have either increased monetary stimulus or delayed tightening.

Despite the high levels of political and economic uncertainty, economic fundamentals point to a modest acceleration in world economic growth in 2017.

China's real economic growth slowed marginally in 2016, down from 6,9% in 2015 to 6,7%. Besides industrial sector excess capacity, a glut of housing inventory and a debt bubble, China's economic slowdown is also due to the structural transition from heavy manufacturing and resource industries to an economy more oriented to service and technology sectors. The Bank for International Statements warned that with China's debt-to-GDP ratio at 255%, double that in 2008, the risks of a financial crisis in the next three years have risen. In 2017, the expectation is for **US** economic growth to remain supportive of the world economic growth outlook, albeit on mixed signals of potential weakness in the world's largest economy. However, solid gains in employment and real disposable income will support real consumer spending. Real GDP annual growth for 2017 is expected to be around 2,3%, much higher than the 1,6% in 2016, but reflecting a more protracted inventory correction and less robust outlook for residential investment.

Turning to **Europe**, Brexit and election risks will hamper growth in 2017, from 1,8% in 2016 to 1,7%. Brexit negotiations between the United Kingdom and European Union will begin in 2017 and could be quite contentious as the exit process will heighten business and consumer uncertainty, reduce investment in the UK, and periodically upset financial markets. Several elections are due in 2017, notably France and Germany, while some governments remain vulnerable (Spain, Italy). As a result, growth in UK (1,6% from 1,8% in 2016) and eurozone (1,6% from 1,7%) economies is expected to slow.

In Japan, fiscal and monetary stimulus will maintain growth around 1% for 2017.

Rising commodity prices will assist the **Brazilian** and **Russian** economies to return to positive, albeit weak, growth in 2017. However, deteriorating trade growth is a headwind for the emerging world, especially Asia. The World Trade Organisation (WTO) reported that world trade volume growth in 2016 declined to 1,7% (from 2,7% in 2015) and this trend is expected to continue in 2017. Emerging markets, which rely on exports as an engine of growth, will be challenged.

The **Indian** economy, lifted by the prospects of structural reforms, remains on a path of modest acceleration, with growth projected to continue outpacing that of China in 2017 and beyond. India's real GDP growth outlook for 2017 is 7,2% compared to China's 6,5%.

South Africa's economic growth outlook for 2017 remains subject to a number of headwinds - impact of dry weather conditions, policy uncertainty, the low-growth trajectory and falling business confidence levels. The key risks for 2017 remain the anticipated slow economic growth of around 1%, albeit edging up from 0,3% in 2016, weakening government finances and deteriorating domestic politics and policies perceived to harm confidence. Against all these issues, South Africa managed to escape a sovereign credit rating downgrade to subinvestment grade in 2016. The rand exchange rate is expected to remain vulnerable in 2017.

EXECUTIVE MANAGEMENT'S FOCUS (CONTINUED)

Commodity review

The review period was characterised by the significant impact of government policy on commodity markets. Chinese government stimulus and strict implementation of supply reforms have changed the dismal outlook that prevailed for commodities in late 2015, especially coal.



Coal

In 2016, coal markets changed considerably. After years of weakness, these showed some life, surprising many observers. Globally, weather disruptions, production cuts, above-average seasonal demand and supply reforms (most notably the 276 operating days per annum policy implemented by the Chinese government), caused thermal and hard coking coal (HCC) prices to surge by 104% to US\$101/t (free on board or FOB Richards Bay) and 303% to US\$311/t (FOB Australia), respectively.

In September, China's national development and reform commission introduced a domestic production control mechanism to keep domestic thermal coal prices in a range of RMB460 - 500/t. This policy intervention was relaxed later in the same month, effectively now allowing 791 (instead of 74 announced on 8 September) selected thermal coal mines nationwide to revert to the 330 operating days per annum policy, initially only for the fourth quarter of 2016 then extended to 31 March 2017, in an effort to stabilise prices and guarantee some winter supply, among others. These policy interventions focused on thermal coal rather than HCC. The uncertainty of China's policy moves will continue to add some volatility to 2017 coal markets. At the very least, events of 2016 have shifted the base for both thermal and HCC prices higher. As a result, the 2017 metallurgical coal spot price is expected to average US\$160/t (FOB Australia) and spot steam coal (6 000kcal/kg net as received or NAR) at around US\$75/t (FOB Richards Bay).

Iron ore

Global iron ore markets remain challenged, with seaborne supply in 2016 lagging expectations due to logistical issues and therefore slower ramp-ups. This supported sinter fines prices of above US\$50 per dry metric tonne (dmt) (cost and freight or CFR China) for most of the year. The ramp-up of several sizeable global projects will accelerate net supply growth from early 2017.

In 2016, global steel demand increased 0,8% to 1,6 billion tonnes, after contracting by 3,9% in 2015, mainly due to a better-than-expected performance in China and continued growth in emerging markets. China steel demand declined by 1%, while demand from other emerging countries expanded 2%. Demand growth in developed countries was 0,2%.

These trends are expected to continue in 2017, with global steel consumption forecast to grow by 1,4% to 1,63 billion tonnes.

The global iron ore industry has been very responsive to lower prices (albeit with a lag). Production displacements continue, fundamentally supporting the expected rebalancing in the medium to long term. For 2017, the iron ore fines spot price is expected to average US\$75/dmt (CFR China) as idled capacity limits sustainable price increases in the current environment.

Mineral sands and TiO, pigment

In 2016, on balance, market conditions seem to have turned. The US and Europe had a robust paint season, while restocking activity continued in Asia. Latin America remains weak, with an improvement only expected in 2017. As a result of inventory declines and robust demand, for the first time since 2011/12, product price increases were successfully introduced for an early-stage recovery.

This momentum is expected to continue into 2017, as global producers remain disciplined in managing inventories and no feedstock shortages emerging.

OPERATIONAL REVIEW

Stakeholder engagement

Philosophy and policy

Building long-term relationships with our stakeholders establishes the context within which we can operate successfully and create value for all parties with a direct and indirect stake in our business through sustainable development programmes.

Specific goals shape our interactions in building mutually beneficial relationships with our stakeholders:

- > Obtain support for operational and strategic plans, and the performance of the business
- Proactively manage the risk, opportunities and reputation of the company
- > Understand stakeholder expectations, and create and deliver relevant, beneficial value
- > Build mutual trust and respect
- > Promote the well-being of society.

Stakeholder engagement is a cornerstone of our business philosophy (refer integrated report) while a formal stakeholder engagement framework is incorporated into our corporate governance approach. Equally, stakeholder relationship management and communication are strategic activities in achieving our development and growth objectives and play a critical role in risk management and identifying opportunities. We embrace the universal principles of engagement, namely:

- > Transparency open agenda and information exchange
- > Accountability emphasis on governance
- > Legitimacy recognise that stakeholders have valid needs and expectations
- > Mutual respect engage with dignity.

We follow the AccountAbility AA1000SES stakeholder engagement standard to guide the development of our capabilities and activities. This standard is a basis for a generally applicable, open-source framework for designing, implementing, assessing and communicating the quality of stakeholder engagement.

In addition to the principles of AA1000SES, our stakeholder engagement activities are guided by:

- > King Report on Corporate Governance for South Africa 2009 (King III)
- > Global Reporting Initiative guidelines
- > Companies Act 71 2008, as amended
- > International Integrated Reporting Committee (IIRC) reporting framework.

Material issues in 2016 are disclosed in the integrated report and, where these impacted on stakeholder relationships, the issue and our response summarised below.

Material issue	Stakeholder	Issue	Response	Next milestone
Key customer dependency	Eskom	Arnot mine: termination of coal-supply agreement (CSA)	Exxaro and Eskom negotiating mine-closure provisions (rehabilitation trust, mine closure and post-closure costs) Parties in arbitration (mine- closure provisions are Eskom's responsibility under coal-supply agreement or CSA)	 > Estimating full cost of closure and post closure > Eskom's acceptance of these costs > Awaiting Eskom's statement of defence
		Matla mine: Eskom delay in providing capital for development of mine 1 (and other capex requirements)	Exxaro's decision to invoke mediation clause in CSA created sense of urgency. Capital for mine 1 approved by Eskom board, submission made to Department of Public Enterprises (DPE) and National Treasury. Site visit by DPE	> Receive investment decision from DPE
		Medupi CSA: Eskom stockpile space expected to be full in Q1 2017, meaning it may not meet offtake levels in CSA addendum 9	Eskom creating additional stockpile space. Grootegeluk finalising contingency planning	 Detailed offtake plan discussion with Eskom. We expect Eskom to have additional capacity in 2H 2017
	ArcelorMittal South Africa (AMSA)	Financial viability of AMSA and potential impact on coal sales volumes	Monitoring progress of AMSA business restructuring and engaging management to anticipate potential severe impacts	Ongoing monitoring. We have observed how AMSA has engaged with its key stakeholders to address this concern, eg 10% import tariff protection. We have also observed the global turnaround in steel prices

Stakeholder engagement in 2016

OPERATIONAL REVIEW (CONTINUED)

Material issue	Stakeholder	Issue	Response	Next milestone
Licence to operate	Federation for a Sustainable Environment (FSE)	Belfast water licence (IWUL) appeal	IWUL appeal: Minister of Department of Water and Sanitation uplifted suspension of IWUL, and licence is now active	 Exxaro is free to implement IWUL as per project plan
	Highlands Organic (Pty) Ltd	Rezoning appeal: Highlands approached High Court contesting township board authority to hear appeal	High Court ruled in March 2017 that Nkangala municipality has jurisdiction to hear appeal	 Nkangala municipality to decide on appeal against rezoning our Belfast project
Capital projects	Department of Energy	Coal baseload independent power producer (IPP) procurement programme (CBIPPPP) designed to procure new coal-fired power stations operated by IPPs	Exxaro's Thabametsi's mine development* aligned to meet CBIPPPP process	 > Power station obtained preferred bidder status in October 2016 > IPP developer working towards achieving financial close > High Court judgment issued in March 2017 in favour of Earth Life Africa's appeal** against the Thabametsi IPP power station environmental authorisation (EA). Minister of Environmental Affairs to now consider EA taking cognisance of climate impact assessment (CIA) report
Business resilience	Transnet Freight Rail (TFR)	Increase rail capacity to handle potential increase in volumes from Waterberg	Ongoing engagement with TFR on rail development progress, and negotiating a Waterberg rail agreement to secure future capacity	 Approval of Waterberg rail agreement to secure capacity
	Department of Mineral Resources (DMR)	Optimising our coal portfolio may mean disposing of some commercial and tied operations	Our strategy is to maintain large-scale, long-life coal assets. We believe non-core assets will be better managed in a different structure and contribute to industry transformation	 Packages for disposal to be structured and considered by Exco and board Obtain DMR support for section 11 approvals (transfer of mining right, and considering impact of draft mining charter) Eskom approval for disposal of tied operations
	Shareholders	Regulatory compliance (mining charter) Shareholder dilution Protect share price Replacement BEE transaction	Comprehensive presentations to minority shareholders to present options and develop optimal solution	 Continued engagement to ensure support for a sustainable structure General meeting to approve structure

* The notice to proceed is a contractual obligation and doesn't determine when mining activities must commence. Mining activities commence once the mine works programme is approved, and the mining right is awarded and executed, and the mining right has been registered.

** The High Court judgment in favour of Earth Life Africa's appeal against the Thabametsi IPP environmental authorisation (EA). Minister of Environmental Affairs to reconsider including the climate impact assessment (CIA).
OPERATIONAL REVIEW (CONTINUED)

Material issue	Stakeholder	Issue	Response	Next milestone
Our people	Employees	 Exxaro improvement project (section 189 consultation process on retrenchments and staffing new structure): Implementation and communication of our strategy Governance model Operating model (including role clarification) Transitioning employees into the new way of working (leadership, team and culture interventions) 	Implementation completed as per project plan: 94 forced retrenchments at end- November (40 transitional roles). Three retrenched employees filed disputes with the CCMA, which are unresolved after conciliation	 > Employees with unresolved disputes need to apply to the labour court for further legal remedy. Exxaro awaits court referral documentation on all three matters. We believe our approach to the improvement project in terms of consultation and implementation will assist in managing these disputes > Implementing and embedding the new operating model > Culture initiatives focusing on leaders, workforce of the future and employee engagement
	Unions	Ensuring positive relationships	Ongoing employer/union forums, engaging with union leadership	 Continued positive interaction and issue resolution through formal engagement structures
	Communities	Integrate our efforts between employees and their families, and communities Enhanced enterprise development through operating and capex budget	Ensure risk management strategies/policies are understood throughout Exxaro and by our communities. Allocate capital more efficiently by strategically focusing on projects that can close the gap, eg Exxaro people development initiative, focused on education and skills development Collaboratively achieve cost savings through better management of community resources	Conduct socio-economic development assessment to identify and evaluate potential risks and opportunities, which should be adapted and integrated into company policies and standards, and managed against Exxaro's governance standards

OPERATIONAL REVIEW (CONTINUED)

External economic, environmental and social standards

In constantly aiming to benchmark itself against global best practice, Exxaro endorses a number of voluntary external standards, charters and principles, including:

- > United Nations Global Compact (signatory)
- Millennium Development Goals, and new Sustainable Development Goals
- > Carbon and water disclosure projects (CDP)

Broader industry participation

As an active stakeholder in the mining industry, Exxaro participates in shaping appropriate policies in South Africa through many channels, including:

- > The Chamber of Mines of South Africa
- > JSE Limited and Computershare forums
- > National Energy Regulator of South Africa (NERSA)
- > Energy intensive users group (EIUG)
- > National electricity response team (NERT)
- > Energy efficiency accord under the technical committee facilitated by the National Business Institute (NBI)
- > Industry energy policy-influence workshops
- > World Wildlife Fund (WWF) round table event
- South African Chamber of Commerce and Industry's (SACCI) electricity dialogue
- > SANBI (South Africa National Biodiversity Institute)
- National Business Initiative for a coordinated response to issues such as climate change and water, and related national priorities.

Exxaro is also involved in the initiatives of:

- South African Independent Power Producers Association (SAIPPA)
- > Coaltech 2020
- > Fossil Fuel Foundation
- > Peace Parks Foundation (donated over R12 million to date)
- SA Centre for Carbon Capture and Storage with international and local partners
- Clinton Foundation
- > Mpumalanga Coal Producers Community Development Forum.

Developing the body of knowledge

We are committed to developing the body of knowledge at tertiary level. In 2016, we again provided support and funded chairs in selected disciplines:

> Unisa: Exxaro chair in business and climate change promotes and advances related research, teaching and advocacy-orientated community engagements, especially in developing economies. Key research themes include business response to climate change in key industry sectors in South Africa (mining, finance and insurance, retail, agriculture and automotive), and green economies and green jobs.

- Wits: Exxaro chair in global change and sustainability - provides a research platform of global significance and local impact, fostering informed and innovative actions for adaptation and mitigation strategies for sustainability in the rapidly changing southern African region. Key research themes include sustainable urbanisation, healthy and productive ecosystems, and sustainable communities post mining (post-mining ecology and economy).
- > Pretoria: Exxaro chair in business and biodiversity leadership - focuses on thought leadership in the interface between business and biodiversity. Key research themes include implementation of voluntary ecosystem valuation, identifying and evaluating business responses to biodiversity in Exxaro and other industries, land rehabilitation, and linking biodiversity with environmental management and issues such as climate change and water, particularly wetlands.
- > Pretoria: Exxaro chair in energy efficiency participates at the forefront of research activities in energy efficiency to deliver world-class research and educational outputs. Key research themes include mining system components, design efficiency in capital projects, mine engineering for energy efficiency, cogeneration using waste heat to produce electricity for the same or related processes in those operations, smelter technology and efficiency, clean development mechanism (CDM) and carbon trading (carbon footprint and carbon-neutral study), as well as the low-carbon economy, and energy efficiency measurement, verification, baseline determination and evaluation.

Co-sponsorships

- > Pretoria: chair in the centre of excellence for maintenance engineering - equips engineering students to address maintenance challenges in industry, and ensure outstanding quality in maintenance-related science and engineering.
- Pretoria: Exxaro/Kumba chair in geology enhances undergraduate, honours and post-graduate training of geoscientists, as well as research activities.
- > South African Minerals to Metals Research Institute (SAMMRI), a collaboration between mining industry members and the Department of Science and Technology to develop high-level technical skills for the extractive industry by sponsoring research projects at tertiary institutions aimed at industry needs.
- > The Mineral Education Trust Fund was founded by the Chamber of Mines to attract, retain and develop undergraduate teaching staff, create academic centres of excellence, focus on departments that deliver in terms of quality and foster collaboration. It focuses on metallurgy, chemical mining engineering and geology. Exxaro contributes annually to the fund.

SAFETY AND HEALTH

Our business depends on the safety of our people, and we will not rest until we consistently achieve our safety goals through collective responsibility, commitment and ongoing focus. As part of this focus, all operational business units have international health and safety accreditation (OHSAS 18001).

Our ultimate target remains zero injuries and fatalities. To reach this goal, we review our LTIFR target annually based on prior performance, and apply stringent management protocols, programmes and systems. Every lost-time injury is investigated by the business unit manager, while all fatalities and highpotential incidents are investigated by a skilled committee, headed by an independent chairperson. Findings are reported to the executive committee and sustainability, risk and compliance committee and escalated to the board if required. Each business unit tracks its adherence to standards and legislation through a programme of self-assessments and corporate audits.

In risk-specific terms, the leading cause of injury remains lifting, materials handling and vehicle safety. While key risks differ by operation, our major challenges are vehicle incidents, energy and machinery isolation, and risk awareness and discipline at all levels. As skills shortages exacerbate these challenges, we concentrate on training on-the-job to ensure sufficient trained people are in appropriate positions in our work areas.

Operations falling under the Mine Health and Safety Act (1996) have elected representatives on safety and health committees from management and operator level. Health topics included in formal agreements with trade unions cover HIV/Aids, occupational tuberculosis (TB), noise-induced hearing loss and dust.

Our vision for health and hygiene is to create a workplace with no adverse effects on our employees and surrounding communities. We understand the health risks posed by the mining industry, and the importance of programmes to reduce new cases of occupational diseases and ensure a healthy workforce:

- A healthy workforce enables Exxaro to achieve its strategic objectives. Employees are able to access healthcare services through their medical aid schemes, occupational health services, HIV/Aids and TB programmes
- Workplace hazards that could affect the health of employees are identified, detected early, prioritised and prevention programmes implemented
- Our medical surveillance programmes are continually strengthened to ensure our employees remain healthy and productive.

Safety

Highlights

- No work-related fatalities since July 2014: Exxaro completed 30 consecutive months without a fatality by December 2016 - having proved we can reach our target of zero, this is a powerful incentive to all our teams to maintain this outstanding performance
- Record lost-time injury frequency rate (LTIFR) decreased from 0,17 to 0,09, in 2015, a 47% improvement
- 7 of 13 operations worked a calendar year without a lost-time injury (LTI), and 12 business units achieved the LTIFR target of 0,15
- Focused programme rolled out to empower safety, health and environmental representatives with the knowledge to identify risks better and contribute more effectively to reducing safety risks in the workplace.

Lowlights

Regrettably, Exxaro received the highest number (5) of section 54 instructions in 2016 (2015: 2), but all were resolved with the authorities.

Safety performance

Exxaro's target was zero fatalities and an LTIFR (per 200 000 hours worked) of 0,15 for 2016. We achieved an outstanding LTIFR performance of 0,09, exceeding the four-year rolling target of 0,15 by 47%.

To the end of December 2016, the group recorded another outstanding performance by operating for 30 months without a fatality. This followed our first fatality-free year in 2013, a rolling 12-month fatality-free period in 2014, and a rolling 24-month fatality-free period by July 2016, proof that our target of zero fatalities is attainable, and that no death is acceptable.

Programmes to improve our safety performance include:

- > Reviewed emergency preparedness and response at our operations to ensure alignment with DMR guideline
- > After completing the Global Minerals Industry Risk Management (GMIRM) course for top and senior management two years ago, we have implemented safety improvement plans derived from this course
- > The use of visible felt leadership (VFL) is a tool to increase management's visibility in the workplace and communication to employees has improved as a result
- > We continue to empower SHE representatives with relevant skills through a focused training programme.

With the support of government, the Chamber of Mines and Exxaro's recognised unions, this focus is producing tangible results. By year end, seven operating units had worked for 12 months without a lost-time injury.

In 2016, the group was served with five section 54 notices, all amicably resolved with the authorities.

SAFETY AND HEALTH (CONTINUED)









OCCUPATIONAL HEALTH AND HYGIENE

Highlights

- > Community programme for HIV/Aids
- Integrated wellness programme for employees.

Lowlights

Potential impact of chronic diseases of lifestyle on people's health and safety in the workplace.

Key health and hygiene indicators are reported to the executive committee monthly, quarterly and annually. Regular reporting enables management to monitor the risk identification and assessment process, comply with legislation and reporting requirements, and track the implementation of programmes against set targets.

In 2016, we made further progress on several major healthrelated projects, including:

Developed a high-level business plan, in collaboration with Ernst & Young, for community-orientated programme on HIV/Aids and TB. These will be managed by community-based peer educators in Emakhazeni local municipality

Exxaro - reported occupational diseases (cumulative)

- Rolled out personal protective equipment (PPE) for women in mining throughout our operations to comply with guidelines promulgated in September 2015
- > Introduced an integrated wellness programme for employees in August 2016.

Occupational diseases Reported occupational diseases

Reported cases are those newly diagnosed and submitted to the authorities to confirm whether they are work-related and eligible for compensation under related legislation.

In 2016, Exxaro reported 52 cases of occupational diseases (2015: 60): 26% were cases of TB, 18% noise-induced hearing loss (NIHL), 9% pneumoconiosis and chronic obstructive airways diseases (COAD). This overall improvement reflects our focus on occupational risk exposure profiles to further reduce the incidence of occupational diseases.

2016	ECC	2015	2014	2013	2012	2011	2010	2009
17	6	15	16	8	22	47	12	11
5	3	15	12	37	24	31	23	2
-	_	_	_	_	7	_	-	-
4	1	1	4	2	_	2	-	1
26	10	18	20	40	65	53	52	6
-	_	_	-	-	-	2	2	-
-	-	1	-	-	-	1	-	-
-	-	-	-	-	-	-	1	-
52	20	60	52	87	118	137	90	20
	5 - 4 26 - -	5 3 4 1 26 10 	5 3 15 - - - 4 1 1 26 10 18 - - - - - - - - - - - 1	5 3 15 12 - - - - 4 1 1 4 26 10 18 20 - - - - - - - - - - - - - - - - - - 1 - - - 1 -	5 3 15 12 37 - - - - - 4 1 1 4 2 26 10 18 20 40 - - - - - - - - - - - - 1 - - - - 1 - - - - - - - - - - - -	5 3 15 12 37 24 - - - - 7 4 1 1 4 2 - 26 10 18 20 40 65 - - - - - - - 1 - - - - - - 1 - - - - - 1 - - - - - 1 - - - - - - - - -	5 3 15 12 37 24 31 - - - - 7 - 4 1 1 4 2 - 2 26 10 18 20 40 65 53 - - - - - 2 - - - - 2 2 - - - - 2 2 - - - - 2 2 - - - - 2 2 - - - - 2 2 - - - - - 2 - - 1 - - - 1 - - 1 - - - 1	5 3 15 12 37 24 31 23 - - - - 7 - - 4 1 1 4 2 - 2 - 26 10 18 20 40 65 53 52 - - - - 2 2 2 - - 1 - - 2 2 - - 1 - - 1 - - - 1 - - 1 - - - - - - 1 - - - - - - 1 - - - - - - 1 -

Accepted occupational diseases

These are cases where the condition is demonstrably work-related and accepted for compensation. In 2016, Exxaro had 11 occupational disease cases accepted for compensation: three for TB, three for NIHL, five for pneumoconiosis and three for COAD.

Mining sector targets on noise and silicosis

In 2003, the mining sector set targets to eliminate silicosis and noise-induced hearing loss:

Noise	Silicosis	Current status
 Reduce NIHL to less than 10% per individual by 2008 Reduce noise from equipment to under 110dB(A) by 2013 	 > By December 2008, 95% of all exposure measurement results <0,1mg/m³ for respirable crystalline silica > Eliminate silicosis by 2013 	 In 2016, Exxaro had: O cases of silicosis accepted 23 cases of employees with hearing loss (including ECC).

We continue to implement hearing conservation and dustcontrol programmes to reduce the number of new occupational diseases.

Chronic diseases of lifestyle

Chronic diseases of lifestyle - the so-called lifestyle diseases - have rapidly overtaken occupational diseases as the primary global health risk for companies. In South Africa, a recent Human Sciences Research Council (HSRC) study noted alarming data for people living with chronic diseases who do not change their lifestyle:

- Roughly two of every five deaths are attributable to these diseases
- > Some 40% of related deaths among men occur before age 60
- > More than seven in ten women above 35 are overweight
- Among children, obesity and being overweight were highest in the two- to five-year group
- A contributing factor is spiralling consumption of packaged foods high in calories, saturated fats, animal proteins, sugars and salt
- > Physical activity levels are low lack of exercise in adults is another contributory factor.

Apart from HIV, chronic diseases are fast becoming the primary cause of death. In a survey covering the Exxaro group, the following conditions were identified:

- > Diabetes
- > Hypertension
- Heart disease.

Based on the survey information, we integrated the prevention and control of chronic diseases into our workplace health programmes. This is supported by case management and monitoring the progress of individuals with chronic diseases. Awareness programmes on healthy living are ongoing.

For the review period, medical surveillance identified 51 new diabetes cases and 184 hypertensive employees and contractors.

HIV/Aids and TB

The prevalence of HIV/Aids across Exxaro is currently estimated at 6%, well below the industry and national average. With appropriate education, counselling and support, 92% of our workforce (excluding contractors) voluntarily tested between 2010 and 2015, and more are seeking treatment.

We recorded a 169% improvement in the number of employees and contractors enrolled on the HIV/Aids programme to 1 978 in 2016 (2015: 733), with 3 129 employees and contractors on antiretroviral treatment (ART).

OCCUPATIONAL HEALTH AND HYGIENE (CONTINUED)

We are also making headway in slowing the spread of HIV/Aids (see table below). Between January 2013 and December 2016:

HIV/Aids awareness

Year	Attended information session	Tested	% tested	Employees testing positive	Enrolled at Dec (cumulative)	On ARVs
2013	5 853	3 756	64	314	545	521
2014	5 732	2 804	49	261	675	481
2015*	11 759	4 158	35	252	453	452
2016*	18 845	6 497	34	80	221	1 675
Total	42 189	17 215	41	907	1 894	3 129

* Includes contractors.

Tuberculosis

Deputy president Cyril Ramaphosa launched a national campaign on World TB day in March, themed as *Ending South Africa's TB epidemic: accelerating our response in key populations.*

The national initiative ties in with the major TB screening campaign launched late in 2015 by the departments of health and of mineral resources, the four primary mining unions (AMCU, NUM, Solidarity, UASA) and the Chamber of Mines. Known as Masoyise iTB, the goal is to reduce TB incidence in mines and in mining regions, working towards specific targets:

- > Target 1: Every mine employee to be screened for TB each year
- Target 2: Every mine employee to be offered voluntary counselling and testing (VCT) for HIV each year
- > Target 3: Extend contact tracing into mining communities
- > Target 4: Support to small mines
- > Target 5: Support to mine contractors.

Exxaro's aim is to provide all employees with information, diagnosis and treatment of TB. Our focus on preventing TB infection and disease by:

- > Improving identification of new TB cases
- > TB infection control
- > Workplace policies on TB and HIV
- > Prevention of drug-resistant TB
- > Reducing TB-related stigma
- Addressing related lifestyle changes, eg nutrition, alcohol, smoking and stress.

Each of our business units will have an ongoing education and awareness programme spanning TB, HIV and other lifestyle health issues. It will be rolled out in formal training sessions, induction programmes as well as awareness campaigns.





Employee wellness

Exxaro's employee assistance programme ensures that any of our people facing difficulties have access to an external counselling service. This is a preventive measure that helps employees manage personal concerns, and assists management in minimising productivity issues.

During the year, our people again used this service for:

- > Financial issues
- > Personal and emotional difficulties
- > Family matters
- > Work-related challenges
- > Dependency on substances.



PEOPLE

Highlights

- > Exxaro's talent pipeline and feeder schemes enabled over 950 jobless youth to obtain occupational qualifications, in-service training and employment
- Ensuring Exxaro receives tax benefits and SETA grant benefits of over R35 million in the training and development programmes.

Lowlights

> Organisational restructuring has strained employee morale.

Our people are our greatest source of value and Exxaro's regular inclusion in various top-employer rankings illustrates the depth of our commitment to enriching their lives.

A comprehensive suite of policies covers employment, labour relations, occupational health and safety, training and education, diversity and equal opportunity. Our aim is to provide working conditions that are safe and healthy, opportunities that are enriching and an environment conducive to performance.

Supported by the leading practices developed in recent years, Exxaro concentrates on exceeding compliance targets in South Africa through training and development to optimise individual potential, maximise equality and safety in the workplace, meet our employment equity targets and improve living standards in our stakeholder communities. Collectively, our initiatives contribute to reducing the shortage of skills in our industry.

The shortage of specific skills in South Africa remains a particular challenge. A mining sector-specific and national plan aim to address critical or scarce competencies. As such, attracting, developing and retaining these skills is a priority for Exxaro as a mining company, and a competitive advantage. This is the driving force behind our feeder schemes, currently benefiting over 950 people.

Specific strategies ensure the accelerated learning and development of black people, women and people with disabilities, including:

- > Fast-tracking those with leadership and management potential
- > Occupation-based skills programmes
- > Formal study assistance
- > Adult education
- > People and self-management skills
- > Learnerships
- > Bursaries and internships.

Skills development

Given the importance of skills in our industry, we endeavour to invest an appropriate amount of total salaries and wages each year on developing our people. In 2016, we spent R178 million on training, or 5,4% of payroll (2015: 6% or R184 million):

- > R90 million was for job-related operational and technical training at business units, including operator training and mobile equipment licences. This amounts to 148 500 training sessions using our e-learning platform, classroom and practical on-the-job training to satisfy mainly core training needs directly linked to operations, as well as the requirements of the Mine Health and Safety Act (MHSA). This includes training contractors as required by the MHSA, as well as section 101 of the Mineral and Petroleum Resources Development Act (MPRDA)
- > R84 million was spent on the talent pipeline, comprising bursaries, internships, learnerships and skills programmes based on our need for core and key skills. Viewed from the perspective of outcomes, we examine key areas across the skills value chain to determine which actions will ensure the right skills are available at the right time. R46 million of this is spent on artisans/miners per year

 R3,7 million goes to developing targeted employees in management development programmes, leadership development, postgraduate studies and support-function development.

We encourage our people to take joint responsibility for managing their career growth. We provide financial assistance to permanent employees with potential to further their education through part-time studies of recognised, approved courses. When we nominate people to attend programmes, these are fully sponsored (tuition, examinations, travel, accommodation and study leave).

Skills and human resources development

Rm	2016	2015	2014	2013	2012
Total training	178	184	221	200	177
HDSA training	150	152	180	161	134
HDSA training as					
% of total payroll	4,5	5,0	6,8	6,5	5,5

Current and future skills requirements

To meet our current and future skills requirements, we invest in our existing employees, future employees, and in the communities that provide our labour. At present, 99% of Exxaro's labour is sourced in South Africa and, at any operation, over 70% is sourced from host communities. Our education, bursar and skills development initiatives are geared to empower local communities to compete for positions in the company.

Graduate programme

Our three-year professionals-in-training programme blends academic theory with the work environment. Each graduate has a mentor who supervises exposure to operational, leadership and management training on the job. Mentors also assist with fulfilling registration requirements for relevant governing bodies and professional associations. In 2016, there were 51 professionals-in-training (2015: 64) throughout Exxaro in a R18,3 million programme. Of these interns, 40% are women and 64% are black, and over 90% were placed throughout the group.

Bursary programme

There are currently 61 bursars studying at South African institutions at a cost of R6,6 million per annum. Over two-thirds are black South Africans and 36% are women.

As part of the Exxaro people development initiative, we granted eight bursaries in 2016 to school-leavers interested in technical disciplines such as engineering (metallurgical, chemical, mechanical, electrical, industrial, mining or civil), mine surveying and geology. Candidates must be grade 12 students from Exxaro communities who want to study for a technical degree or diploma. The total annual cost of this programme is R1,7 million.

Training

Training and development initiatives across the group are based on a comprehensive needs analysis, incorporating business strategy, identified skills gaps, succession-planning, employee career progression and employment equity plans.

We offer sponsored engineering learnerships at our acclaimed Grovos training centre in Lephalale. We also sponsor engineering and mining learnerships at Colliery Training College (CTC, where Exxaro is a shareholder) in eMalahleni, Mpumalanga. As part of our feeder schemes, we provide sponsored formal and practical training in core skills programmes including operators for plant, maintenance and mobile equipment.

Our Grootegeluk and Matla mines are accredited (Mines Qualifications Authority or MQA) training providers in selective mining and engineering disciplines. This enables our people to be trained, declared competent and obtain their MQA certification in-house.

Literacy and numeracy

Functional literacy is an important issue in an industry where communicating on safety is often in written form. All employees with qualifications below NQF level 1 are given the opportunity to become functionally literate. Candidates are screened and counselled to ensure informed decisions, and where employees complete training in their own time, there is an incentive scheme for each level completed.

Exxaro pays for voluntary adult education and training (AET) programmes at all operations, investing R1,8 million in 2016 (2015: R1,5 million). We have accredited AET training centres at Grootegeluk (partnership with external provider) and Matla, while accredited external providers are used by other business units.

In 2016, 45 employees and 71 non-employees or people from our communities enrolled in AET programmes. Over 1 250 employees have passed one or more AET levels since the inception of this programme.

As 86% of Exxaro's total workforce now holds a qualification of NQF 1 and above, communication is more effective, particularly on safety issues.

Scholarships

In 2016, two scholarships were awarded to medical students from our communities. At the end of their academic programme, these students are expected to practise in communities where Exxaro operates for a specified period.



Talent management

The imperative of talent management in a subdued economy

It has never been so evident that South Africa has a growth problem. Our economy is, at present, manifestly incapable of expanding at the rate required to meaningfully lower unemployment and reduce inequality. At the same time, our industry has been criticised for restructuring and closing operations to weather the global commodity downturn, with the resultant loss of jobs.

Exxaro is obviously not immune to these challenges. We have responded by reviewing our operating model and optimising our structures, predominantly across the corporate centre and support services. Our aim was to develop a structure that is fit for purpose, nimble and ensures our sustainability.

The key focus in 2016 was staffing new organisational structures with the right candidate in the right position. We successfully filled 60% of positions with internal talent while the balance was sourced through the talent pipeline of leaners and professionalsin-training as well as external appointments. Four senior appointments were made internally in 2016. The new CEO, Mxolisi Mgojo, assumed office in April. In consultation with the board, he appointed new members to the executive committee from the internal succession plan: Riaan Koppeschaar as finance director, Dr Nombasa Tsengwa as executive head: operations and Vanisha Balgobind as executive head: human resources.

Effective talent management and leadership remain the most pressing human capital issues in such challenging times. With several mine closures under way - some planned (Inyanda, Tshikondeni) and some unexpected (Arnot) - Exxaro has focused on minimising retrenchments through mechanisms such as voluntary severance packages while retaining the skills that underpin our operations. As the Exxaro improvement project unfolds to ensure the group's sustainability, our people remain a strategic imperative.

Leadership development

Exxaro offers a wide selection of management and leadership development opportunities, and integrates these into a comprehensive framework aligned to business goals. Leadership development remains a strategic enabler in our talent management strategy. Our *incredible leadership* model underpins leadership development and integrates both credible and incredible leadership behaviours into a comprehensive framework aligned to business goals and reflected through our strategy.

In 2016, Exxaro trained 94 employees on the basic management programme, 53 on the first-line management programme and nine on the middle management programme. These programmes have been very successful in familiarising employees with leading business and management principles, and will be augmented by coaching and mentoring programmes in the year ahead.

To minimise the impact of restructuring on individuals, in 2016 we developed a change management programme to equip our leaders with the skills required to manage change through uncertain times, with workshops across the group aimed at maximising both leadership and personal effectiveness. Through a combination of group and individual coaching sessions, leaders were able to help employees gain deeper insight into the need for adjustment and change. Leadership workshops also assisted employees with their personal journeys and helped them commit to change.

Employee engagement

In 2016, Exxaro again participated in the prestigious Deloitte's Best Company To Work For survey, which benchmarks employers of choice in South Africa and Africa across industries and size categories. Exxaro achieved the excellence rating that certifies it as a competitive employer against the Deloitte benchmark standards:

- > Exxaro achieved an employee engagement score of 74,47%
- > Our employees scored in the 'high excellence' range for job satisfaction, an important element of organisational commitment and capacity to perform well.

Exxaro also scored highly on operational effectiveness, values and culture, and work relationship with manager.

These results indicate a healthy and competitive work culture. Importantly, they reflect the actual work experience as rated by our total workforce and not a segmentation of specific groups. Our aim is to steadily improve our rating, reflecting the group-wide emphasis on performance in a healthy employee climate that attracts and retains talent. By benchmarking ourselves in this way, we continually address gaps in the way we work, understanding that continuous improvement is the only way to ensure we remain an employer of choice.

Employee/management relations

Constructive engagement remains the cornerstone of our approach to organised labour. All our trade-union engagement structures are functioning well and are a vital conduit for managing issues raised. In addition, our employee relations strategy provides an effective framework for maintaining a healthy workplace climate.

Our policies and procedures are developed within the framework of relevant labour legislation, and employees are managed individually and collectively.

Some 78% of our employees are represented by affiliated unions recognised by Exxaro subsidiaries: primarily National Union of Mineworkers (NUM), Solidarity, Association of Mineworkers and Construction Union (AMCU) and the Food and Allied Workers Union (FAWU).

Recognised unions



We concentrate on maintaining sound relations with employees in bargaining units by engaging with their representatives. This is based on a pluralist approach to trade-union recognition through formal agreements. Negotiations for wages and conditions of employment are conducted through in-house forums and the Chamber of Mines. In 2016, we successfully concluded a wage agreement with AMCU for our coastal coal region, without any negative labour implications. There were no other collective bargaining processes in 2016, as we still have valid two-year agreements for Exxaro Coal and Exxaro Coal Mpumalanga.

Our disciplinary codes are based on the principle of fairness as required by labour law, and our supervisors have the skill to implement the codes. A key focus for 2016 was to build employee relations competency among all stakeholders to foster a healthy climate. Various skills workshops and training were conducted with unions, employee relations managers and line leaders. Confirming the commitment from all parties to build solid relationships, our external (CCMA) referral rate has decreased by 33%.

In consultation with our labour stakeholders, we concluded a number of section 189 (retrenchment) closure processes across Exxaro in 2016, including Exxaro Coal Central, Arnot and, more recently, the Exxaro improvement project (EIP), which focused on support services across the business.

The EIP was the catalyst for reviewing the Exxaro business model and although the initial worst-case scenario highlighted the possibility of 565 retrenchments, we finished the process with only 94 retrenchments. This number could drop if employees currently in transitional roles (deferred retrenchments) are able to secure alternative permanent employment. Although these processes are challenging, our relationships with all stakeholders were a key factor in their successful outcome.

Share ownership

Mpower 2012, our employee share-ownership plan, was implemented in July 2012: 7 290 participants each received 387 units worth R75 000 at the time, regardless of remuneration level or years of service. All employer companies in the group contributed cash to the trust to purchase shares, meaning there is no loan to repay so Mpower 2012 participants enjoy potential growth and profit from the outset. This plan runs until May 2017 and new qualifying employees received a pro-rated number of units.

Under Mpower 2012, 6 147 participants received dividends totalling R3,3 million for the review period, and R59 million was paid as distributions to good leavers (2015: R5,3 million and R23 million respectively).

Employment equity

Ten years into our journey as one of the largest black-owned mining companies in South Africa, we continue to benefit from developing the skill levels of our workforce and enabling progress as the cornerstone of our commitment to meeting our transformation objectives. Employment equity is just one way to realise this commitment, supported by continuous diversity programmes and engagement at our business units.

Our employment equity strategy is founded on detailed plans developed by each business unit in consultation with its employees and unions. By following these plans, each unit ensures that recruitment and skills development are managed responsibly, advancing transformation without affecting existing positions. Each business unit has a dedicated senior manager for employment equity, as well as an employment equity forum that is actively involved in developing, monitoring and communicating employment plans.

These plans are due for review in 2017, when we will assess our progress over the last five years and implement measures to meet our targets and address areas of concern. We will also consider the alignment of our targets to other legislative guidelines such as the revised mining charter and BBBEE codes.

The breakdown of our annual employment equity reports, as submitted to the Department of Labour, is shown below.

	Ma	ale	Fen	nale	Тс	tal			
Category	% black	Number	% black	Number	% black	Number	Target black	Total %	Target HDSA
Top management	66,67	2	0,00	0	66,67	2	50,00	66,67	50,00
Senior management	29,76	25	10,71	9	40,48	34	37,00	48,81	43,00
Middle management	38,22	245	17,00	109	55,23	354	47,00	73,95	59,00
Junior management	48,47	1 190	16,25	399	64,73	1 589	57,00	74,09	80,00
Women						1 373	10,00	19,48	
People with disabilities						95	2,00	1,35	

As submitted to the Department of Labour on 31 December 2016.

Exxaro workforce by category and region

Exxaro's staff complement was 6 648 at 31 December 2016 (2015: 7 610), split into employees in bargaining units (81,4%) and the management and specialist category (18,6%).

	Bargaining unit					Management and specialist					
Region	Male	% of work- force	Female	% of work- force	Total	Male	% of work- force	Female	% of work- force	Total	Grand total
Expatriate		0,00				2	0,03	1	0,02	3	3
Foreign	58	0,87	3	0,05	61	7	0,11			7	68
Gauteng	61	0,92	13	0,20	74	241	3,63	212	3,19	453	527
KZN	34	0,51	16	0,24	50	2	0,03			2	52
Limpopo	2 082	31,32	422	6,35	2 504	357	5,37	89	1,34	446	2 950
Mpumalanga	2 230	33,54	499	7,51	2 729	240	3,61	79	1,19	319	3 048
Grand total	4 465	67,16	953	14,34	5 418	849	12,77	381	5,73	1 230	6 648

For 2016, Exxaro's average employee turnover rate was 5,1% (2015: 4,7%), due to death, resignation, dismissal, voluntary severance/section 189s and disability. The turnover rate by employee group is shown below:

Breakdown of turnover by level

	Terminations Jan – Dec 2016				
	Number	% of workforce			
Top management	1	0,02			
Senior management	2	0,03			
Middle management	36	0,54			
Junior management/skilled	125	1,88			
Semi-skilled	155	2,33			
Unskilled	21	0,32			
Total	340	5,11			

Breakdown of turnover by gender



Breakdown of turnover by race



Turnover per age group



Remuneration

Our remuneration policy (page 21) includes guaranteed and variable components. These are critical to attract, motivate and retain the high-performing and talented individuals required to build a sustainable business.

There is no discrimination between the salaries of men and women in the bargaining-unit category as collective agreements determine specific guaranteed minimum salaries. In the management and specialist category, individual salaries are strictly based on contracted performance.

Eliminating discrimination and resolving grievances

As an employer, Exxaro is firmly committed to the concept and practice of equal opportunity, irrespective of race, religion, gender, health status, sexual preference or nationality.

Our corporate values guide the way we do business, and discrimination on any grounds is not acceptable. Managers and supervisors are continuously trained on appropriately applying disciplinary measures should the need arise.

Human rights

Exxaro complies with labour legislation in South Africa and International Labour Organisation guidelines. As a signatory to the United Nations Global Compact, we encourage freedom of association and collective bargaining, ensure child labour is not tolerated and that forced or compulsory labour is not practised.

The group's compliance with legislation and international conventions was audited by our internal auditors and confirmed in the prior period.

Our induction programmes educate employees about human rights. Policies on discrimination, harassment and racism are in place, as are structures to protect employees' human rights in the workplace. Security personnel are fully trained on human rights aspects relevant to each operation. Refresher courses also cover human rights issues.

Women in mining

In Exxaro, women make up 20% of the workforce, and we focus on attracting women through our talent pipelines. Although this is a challenge, women comprise 28% of young professionals-intraining, 34% of our full-time bursars in engineering and mining at universities.

In the third quarter of 2016, we participated in a survey by the Commission for Gender Equality. The focus of the survey was to qualitatively and quantitatively assess gender mainstreaming in the mining industry. Our participation provided the opportunity to showcase our initiatives in advancing representation and addressing issues related to women.

Housing

In line with our mining charter obligations and our business needs, we have focused on homeownership under a long-term housing strategy.

Since introducing a mortgage repayment subsidy for first-time homebuyers who are permanent employees in 2009 - a period marked by the unprecedented scarcity of bank mortgage finance - 312 employees have benefited. The first-time homeownership capital assistance programme has proven to be a key enabler of homeownership among our employees. Our R125 000 capital assistance allows employees to significantly reduce the amount of their mortgage, improving affordability. This has assisted employees on specific salary grades to become homeowners, with 202 benefiting to date.

To comply with the mining charter, over the past six years, Exxaro has converted all its hostels into single-quarter accommodation or family units, improving the quality of life for over 920 employees.

While our housing policy focuses on homeownership, bargaining-unit employees receive a housing or living-out allowance. The housing allowance is paid to employees with a registered bond (2016: 1 246) and the living-out allowance to those renting accommodation (2016: 3 739).

Community education

In 2016, 62 community members were enrolled for ABET programmes through Exxaro initiatives.

Learner development and teacher development programmes are in place at Grootegeluk, North Block Complex, Inyanda and Leeuwpan. These are conducted by volunteers/teachers to support learners and teachers in mathematics, physical science, English and career guidance:

- > Grootegeluk: Over 600 learners from 16 schools benefited from the first phase of the holiday school programme in Lephalale and surrounding villages. This is part of a broader education initiative that includes Saturday and holiday classes in key subjects and career guidance, as well as teacher and principal development programmes. A number of other programmes have been implemented: a whole school development initiative at Mabalane Seleka Technical School (including infrastructure upgrades, resourcing, and staffing assistance); funding to improve literacy among hearingimpaired learners at Sedibeng School for the Deaf.
- Inyanda: As part of its social and labour plan, Inyanda launched a similar programme with extra classes for grade 10, 11 and 12 learners from Pine Ridge Combined School in the Klarinet community on Saturdays and school holidays to improve pass rates. The project was initiated with the consent of the Department of Basic Education, and will provide a steady flow of local learners suitable for our bursary and artisan programmes. The school's pass rate in matric improved from 76% in 2013 to 92% in 2015.
- Leeuwpan: Over 1 500 grade 10 to 12 learners from five local schools received extra tuition in mathematics, physical science, life sciences, accounting, geography and economics.
- > North Block Complex: Over 300 grade 12 learners from eight schools in the Emakhazeni circuit benefited from a Saturday and holiday school programme; training was conducted for grade 9 teachers to improve annual pass rates in mathematics and English; and science practicals were conducted for grade 11 learners. As a result, the pass rate improved from 71% in 2013 to 87% in 2015.

COMMUNITIES

Highlights

- > Increased investment of R49 million
- > Nearly **R400 million** spent over 10 years.

Ten-year chart

In line with the mining charter's definition of sustainable development, Exxaro understands and supports the importance of balancing economic benefits with social and environmental needs. Accordingly, we integrate all these factors into our planning, implementation and decision making.

The 2015 amended BBBEE codes place greater emphasis on the enterprise and supplier development elements. This has driven an integrated internal approach, leveraging synergies across Exxaro's business functions to accelerate and maximise the positive impact of our community development initiatives.

Our approach is guided by our vision for an integrated socioeconomic development strategy:

Use the strength of our business to collaboratively foster empowered communities that can access and participate in more socio-economic possibilities. Implementing this strategy rests on: > Good governance

- > Good governance
- > Valuable partnerships
- > Effective and continuous monitoring and evaluation
- > Policies, procedures and tools
- > Sufficient organisational capacity and capabilities.

To realise our vision, we have developed an integrated enterprise and supplier development policy, strategically focused on creating entrepreneurial employment in South Africa to address poverty, unemployment and inequality.

Internal restructuring will support increased coordination, integration and information-sharing. Each business unit has appointed a stakeholder manager to ensure focused, effective and efficient implementation of the stakeholder engagement strategy.

Corporate and SLP projects in 2016

Focus areas



Education has always been a primary focus area for Exxaro, building a pipeline to future talent and as a catalyst for developing local employable skills. In the past two years, education has accounted for 43% and 48% of our total community spend (R31 million and R27 million in 2015 and 2016, respectively).

To maximise the social value we create, the Exxaro People's Development Initiative (EPDI) Trust, which focused on developing our people internally, is now the accountable (oversight) body that governs and tracks all community-focused education and skills initiatives. We believe this change will ensure we deliver meaningful and sustainable projects.

	Project	Focus area	2016 (R)	Period	Total for period	SROI*
Corporate	Mineral Education Trust	Education	2 517 150	2015 – 2020	5 165 214	0,88
	Ethics Institute of South Africa	Governance	150 000	2016 – 2018	150 000	
	Wits University – Exxaro chair in global change	Education	500 000	2011 – 2016	3 205 000	
	Exxaro People Development Initiative	Education	800 000	2015 – 2020	800 000	
	University of Pretoria – Exxaro chair in energy efficiency	Education	2 014 399	2012 – 2016	8 591 464	
	University of Pretoria – Exxaro chair in geodynamics	Education	102 600	2014 – 2016	205 200	
	National Business Initiative	Membership	147 240	No contract	287 469	
	Peace Parks Foundation	Sustainable development	1 000 000	2012 - 2021	5 000 000	
	Cotlands	Health and welfare	344 813	2014 – 2016	976 990	
	Beeld Kinderfonds	Health and welfare	500 000	2012 – 2017	1 525 000	2,47
	David Tabernacle piggery project	Enterprise development	1 005 695	2016 once-off	1 005 695	

* SROI - Social return on investment measures the triple bottom-line benefits to economy, environment and people. It measures change that matters to stakeholders. Exxaro's benchmark is to invest in projects with an SROI of 1,5 and more. When this approach was introduced, SLPs had already been developed and commitments made to projects.

Corporate commitment/ social and labour plan (SLP)

COMMUNITIES (CONTINUED)

				social and lab	our plan (SLP)	
	Project	Focus area	2016 (R)	Period	Total for period	SROI*
Grootegeluk	Business incubator	Enterprise development	1 217 850	2013 – 2017	5 255 447	
	Mogolo Academy civil skills	Skills development	4 857 163	2013 – 2017	11 197 410	2,95
	Education programme	Education	2 811 852	2013 – 2017	21 130 911	1,81
	Mmashakane poultry farm	Agriculture	1 026 104	2013 – 2017	1 026 104	1,65
	DNC – agricultural academy	Enterprise development	372 221	2013 – 2017	2 193 829	
Tshikondeni	Makuya Feedlot	Agriculture	93 945	2008 – 2012	1 965 530	
	Rotangiwa (Musunda) Citrus	Agriculture	108 098	2008 – 2012	2 441 252	1,12
	Sanari	Skills development	70 502	2008 - 2012	2 212 713	0,02
North Block	Brick plant	Enterprise development	35 044	2008 - 2012	1 761 630	
Complex	Education programme	Education	1 209 259	2013 – 2017	5 484 274	
	Housing project	Infrastructure	768 814	2008 – 2012	5 687 354	0,52
	Belfast project borehole	Infrastructure	572 405	2013 – 2017	652 541	
	Siyathuthuka	Agriculture	63 270	2008 - 2012	1 786 916	
Arnot	Mafube housing project	Infrastructure	1 998	2008 - 2012	10 013 905	0,52
	Education programme	Education	1 731 881	2015 – 2020	5 029 072	1,81
	DZD project	Enterprise development	251 479	2015 – 2020	286 686	
	Hydroponics project	Enterprise development	48 000	2008 - 2012	2 476 059	0,5
Leeuwpan	VKLM FET College	Skills development	1 322 949	2015 – 2020	6 819 199	
	Education programme	Education	1 069 858	2015 – 2020	10 074 780	1,81
Inyanda	Education programme	Education	504 354	2013 – 2017	3 935 291	1,81
	Klarinet Library	Infrastructure	31 580	2013 – 2017	32 200	
	Klarinet sport field	Infrastructure	4 372 223	2008 – 2012	9 501 559	0,63
	Butterfields Bakery	Enterprise development	232 394	2008 – 2012	4 764 745	
	Inyanda artisan development project	Skills development	130 000	2013 – 2017	148 200	
Matla	Boilermaking project (mechanical construction – CTFSS)	Supplier development	77 656	2008 – 2012	891 870	
New Clydesdale Colliery	Kriel bakery project	Enterprise development	73 700	2013 – 2017	1 148 788	
	Total approved		32 167 397		144 830 298	
			1		1	

Corporate commitment/

* SROI - Social return on investment measures the triple bottom-line benefits to economy, environment and people. It measures change that matters to stakeholders. Exxaro's benchmark is to invest in projects with an SROI of 1,5 and more. When this approach was introduced, SLPs had already been developed and commitments made to projects.

COMMUNITIES (CONTINUED)

Education and skills development

North Block Complex

Our current academic programme is presented by the Department of Basic Education and involves eight schools in the Waterval Boven circuit (Mpumalanga):

- Learner development (grade 12 learners, 25 days, nine subjects) - 350 grade 12 learners attended Saturday classes and holiday camps
- Teacher development (two four-day workshops per year) -40 teachers benefited.

Grootegeluk

Exxaro supports the local school for learners with special needs:

> An iPad programme was rolled out to 26 learners with hearing disabilities and 70 special-needs learners.

Community-based artisan development programme (Inyanda)

This project targeted learners not normally accommodated by traditional artisan development programmes after we agreed with the Klarinet community to provide training for truckoperator licences. With advertising and facilitation by community leaders, CVs were submitted to Exxaro. All 32 beneficiaries passed:

> Excavator 9, grader 7, dozer 5 and front-end loader 11. Dump-truck training was provided as a second licence.

Mogolo Skills Development Academy (Grootegeluk)

- > 1 593 local community members trained to date (800 committed)
- > In 2016, 468 were trained in civil skills (33), ABET (65), business skills (29) and computer skills (341).

Infrastructure

Upgrade of water reticulation system (Belfast)

After Nkangala district municipality conducted a borehole audit, officials expressed a dire need for assistance with implementation, and Exxaro fast-tracked this SLP project to build relationships with the authorities. With five sites prioritised by the municipality, a contractor was appointed and four sites were completed (one had to be excluded because of land claims while another proved to have very little groundwater). Exxaro is completing the final site.

Constructing houses in Emakhazeni municipality (Belfast)

Although houses were completed in 2014, because of financial constraints in the municipality, Exxaro committed to installing water-supply and sewer systems (R1,9 million). We also repaired defects caused by weathering and repainted; 20 houses were handed over to the municipality in July 2016.

Enterprise and supplier development

Grootegeluk

For over two years, Grootegeluk and Shanduka Black Umbrellas have worked together to support small and medium enterprises (SMEs).

- In Exxaro, nine SMEs were enrolled in a full incubation programme and one in pre-incubation. The programme is focused on business acumen, operational support and business mentoring.
- > 264 new jobs were created (235 suppliers, 29 LED SMEs).

Robust criteria govern acceptance onto the programme which, coupled with solid mentoring, raise the success rate. In addition, benchmarks are set for each SME's sustainability – ranging from ability to pay salaries to net asset value. At present, 70 – 80% of Exxaro's participating SMEs have met compliance or sustainability requirements. Our aim is for 100% compliance by graduation.

Two SMEs will graduate in 2017 and the balance in 2018.

Sustainable procurement

In our supply chain, we focus on procuring goods and services from suppliers that demonstrate commitment to sustainable business practices and support our compliance to the mining charter. We also consider the future alignment of the charter with the dti codes of good practice and aim to achieve the objectives of both sets of legislative requirements.

Exxaro has identified HDSA procurement, with increased focus on local procurement and supplier engagement as key elements of sustainable procurement. In terms of supplier engagement, we communicate a code of conduct on our website that includes purchase orders and request-for-quotation processes.

The outcome of our commitment to procuring from BEE entities (including black-owned, -empowered, woman-owned) is reflected in our improved performance in the services category of the charter, shown below.





COMMUNITIES (CONTINUED)

Measured against mining charter definitions, Exxaro spent R6,8 billion in 2016 with qualifying BEE entities, exceeding procurement targets for capital, services and consumables as shown below. We therefore comply with the criteria of the DMR scorecard at enterprise level.



Supporting entrepreneurship

Early November marks global entrepreneurship week, the world's largest celebration of innovative ideas, job creation and transforming ideas into reality, driving economic growth by empowering the lives of those in the community. It aims to inspire people through local, national and global activities to explore their potential as self-starters and innovators.

Exxaro collaborated with Shanduka Black Umbrellas to cultivate entrepreneurship by providing a platform for innovators and start-ups to present their business ideas to potential investors to secure finance to start or expand their operations.

Individuals from Mokuranyane, Witpoort, Ga-Seleka, Ga-Shongoane, Onverwacht, Marapong and areas across Lephalale (home to our Grootegeluk operations) were challenged to present a business case addressing major problems and challenges currently faced in Lephalale. Over 50 companies entered the competition, 20 were selected for interviews, where they substantiated the viability of their business through its value proposition, and five shortlisted.

- > Botsalanong Traders R20 000 seed capital
- > Puno Business Laptop
- > St Vincent Pizza One year's worth of incubation.

Supplier development

Exxaro has ten suppliers being developed as part of the Shanduka Black Umbrellas incubator. Top-performing SMEs were recognised at the Shanduka Black Umbrellas national development awards in July 2016. These prestigious awards showcase the excellent progress made by South African black entrepreneurs at the forefront of transforming the SME sector.

The overall award went to Hula Minerals Processing and Engineering from the Lephalale incubator, and part of the supplier development programme at Grootegeluk. This company also received the Best Shanduka Black Umbrellas Ambassador award. Part of the prize is a sponsored MBA through Regenesys Business School.



OUR ENVIRONMENT

Highlights

- > All operations **now have integrated water** use licences (IWULs)
- > Environmental licence for Glisa water treatment plant obtained.

Lowlights

> Delays in finalising appeals lodged against some projects such as Thabametsi and Belfast.

Natural resources like water, air, biodiversity and land are central to our business. We focus on responsible use by conserving natural resources and reducing the burden of pollutants on the environment through:

- > Ensuring all activities are properly authorised
- > Complying with all statutory environmental requirements as a minimum
- > Using energy and water as efficiently as possible
- > Conducting activities responsibly from the twin perspectives of compliance and natural resource use
- > Actively participating in voluntary benchmarks, such as the global carbon and water disclosure projects
- > Developing innovative policies and programmes to address environmental impacts and use of natural resources.

Comprehensive group standards have enhanced the implementation of legal requirements and sustainable use of natural resources. These include management standards for air quality, water, energy, rehabilitation and mine closure, and environmental incident management and reporting.

All Exxaro's business units have ISO 14001 accreditation, reflecting the global industry standards in place to minimise environmental impacts.

All our South African operations have environmental management programmes (EMPs) as required under the Mineral and Petroleum Resources Development Act (MPRDA) and National Environmental Management Act (NEMA). These are key indicators in ensuring Exxaro remains a sustainable business. We also adopt the precautionary principle entrenched in NEMA in evaluating the environmental impacts of business opportunities.

All our operations have now been granted integrated water use licences (most Exxaro business units need more than one licence).





ENERGY	WATER	WASTE
Energy management procedure	Water management procedure	Waste management procedure (including classification)
Energy efficiency plans	Water management plans	Waste authorisation
CO ₂ emissions reports	Water-related risk assessment	Waste transporting, transportation and disposal procedure
Responsive resource utilisation	Water efficiency plans	Waste management and reporting
Targets	Water authorisation	Waste efficiency reports
Climate change	Financial impact of water	
Energy efficiency reports	management/treatment. Water monitoring and reporting	

ECOLOGY	CLOSURE AND ONGOING REHAB	LAND MANAGEMENT	AIR
Biodiversity management procedure	Mine closure and ongoing rehabilitation procedure	Land management procedure	Air quality authorisations (AEL)
Biodiversity impact management	Integrated mine closure plan	Land management procedure	Air quality management procedure
Biodiversity management plans	Financial provision	Operational land management plan	Air quality impact assessment
Ecological effect impact procedure	Closure objectives - management plans	Land disposal strategy	Air quality management plans
ECR authorisation	Mine closure impact assessment	Land management efficiency reports	Air quality monitoring and reporting
Biodiversity monitoring and reporting	Ongoing rehabilitation monitoring and reporting		Stakeholder forum
Ecology efficiency reporting	Closure and ongoing efficiency reports		Energy efficiency reports

Building blocks to exceed compliance levels

After a strategic review of key environmental risks from Exxaro's operations, we have identified the building blocks required to ensure consistent compliance and, in time, to exceed regulatory minimums where possible.

Legal compliance

South African mining companies are heavily regulated, with compliance centred on receiving, converting and retaining all mining rights. To ensure we continue to meet legal requirements as a minimum, compliance across Exxaro is monitored by two board-mandated entities: the sustainability, risk and compliance committee as well as the social and ethics committee.

Running all our operations with approved EMPs is fundamental to our sustainability and legal compliance. Some EMPs are being updated to align to the MPRDA and to include new developments. As applications for various projects are at different stages of regulatory assessment, we continuously engage with the relevant authorities, agencies and other stakeholders to expedite these licences. In 2016, one environmental authorisation (under NEMA) was granted for Grootegeluk.

Exxaro received no environmental stoppage directives during the review period. No fines were issued.

Status of integrated water use licences

In 2016, we completed the lengthy process of migrating our authorisations to the National Water Act (1998). All Exxaro operations now have the required integrated water use licence.

Incident reporting

Using a standardised reporting system, all business units manage incidents effectively, resulting in a safer and more sustainable work environment. In 2016, five level 2 incidents occurred and were reported to the relevant authorities. Corrective actions to remedy the incidents and prevent recurrence were approved by authorities prior to implementation. There were no significant (level 3) incidents in 2016.

Environmental incidents - group

	Lev	el 1	Lev	vel 2	Level 3		
Business unit	2016	2015	2016	2015	2016	2015	
Arnot	16	48	3	7	-	-	
Char plant	-	-	-	-	-	-	
Durnacol	-	_	-	-	-	-	
Grootegeluk	23	24	1	1	-	-	
Hlobane	-	-	-	-	-	-	
Leeuwpan	25	19	-	-	-	-	
Matla	156	46	-	10	-	-	
North Block Complex	6	-	-	-	-	-	
Tshikondeni	2	-	1	-	-	-	
Total	228	137	5	18	0	0	

Level 1: Minor impact and/or non-compliance

Level 2: Intermediate impact and/or non-compliance

Level 3: Major impact and/or non-compliance



Environmental incidents - level 2

Business unit	Description	Receiving environment	Response		
Grootegeluk	March Late reporting on two 2015 incidents of exceeding effluent values in the warehouse waste-water treatment protocol	In 2015, the warehouse waste-water treatment plant did not comply with the effluent quality limit set in the waste licence. However, at that stage, effluent was contained in the system with no pollution of the environment	Incidents were reported to the authorities in March 2016. After investigation, mitigating measures were implemented and findings presented to the authorities		
Arnot	April Vehicular incident caused oil spill, affecting 10 shaft incline	Possible groundwater pollution	Sawdust applied to spillage, all contaminated material disposed of in hazardous skips and area cleared		
	May Oil spillage caused by moving machinery, affecting 10 shaft lamp room	Possible ground pollution	Sawdust applied to contaminated area. All affected material disposed of in hazardous waste skip		
	June Water from northern pit at Mooifontein decanting into neighbouring property	Possible ground/water pollution	Urgent sample taken to laboratory for analysis, and area supervisors informed. After investigation to establish the root cause, action plans implemented to prevent reoccurrence		
Tshikondeni	July Five oil tanks at Mutale shaft workshop were removed by Total SA, and contents emptied outdoors	Possible soil pollution	External expert instructed to contain the spillage and Total SA informed		

Air quality

As a mining group, air quality remains a risk to Exxaro on several levels, particularly dust and other pollutants such as particulate matter (PM) including PM_{10} and $PM_{2.5}$ from opencast operations. Accordingly, we focus on: > Minimising impact on the receiving environment

- > Full legislative compliance
- > Air quality management planning
- > Risk management
- > Monitoring, measurement and reporting.

Air quality management initiatives

Objectives	Critical success factors	What	When	Progress
Compliant, sustainable air quality management system, operated and controlled by trained specialists at business units	Integrated air quality management planning in core operational processes	Baseline assessments Impact assessments Optimise monitoring programme	Fourth quarter 2016 Fourth quarter 2016	Baseline assessments and impact assessments completed in business units as part of the group-wide air quality management initiative

Long- and short-term goals for air quality management

Goals	Target	Progress 2016
Initiating $\rm PM_{\rm 10}$ and $\rm PM_{\rm 2.5}$ monitoring at business units close to sensitive receptor areas	2017	Monitoring initiated in some business units
Redesigning dust fallout and PM ₁₀ monitoring networks in our business units, in line with mining schedules. This will ensure fair representation and accuracy of monitored data	2016	Dust fallout networks redesigned in all business units
Meteorological monitoring to ensure availability of surface data for temperature, wind direction, wind speed, and more. This data will be used for dispersion modelling, baseline characterisation, dust fallout monitoring and reporting, etc	2017	Meteorological stations purchased by some business units, with a commitment to purchase more
Ensuring compliance to air quality standards and guidelines in the country	Ongoing	Most business units currently monitor dust fallout. Results are assessed for compliance to national dust regulations

Emissions from mining operations

Daily measures ensure we address the challenges of Exxaro's dust-generating activities (blasting, drilling, crushing and screening, vehicle convoys, materials handling and wind erosion of exposed operational areas). These include applying dustsuppressant agents on haul roads, watering secondary unpaved operational roads, vegetating topsoil stockpiles and overburden material.

All mining operations monitor daily dust-fallout rates and results are assessed against national regulations. Although our operations are classified under the non-residential limit, some are close to residential areas. As such, we track our compliance against the more stringent residential limit (600mg/m²/day) instead of the non-residential limit ($1200mg/m^2/day$) to minimise the impact on residents.

We continue to concentrate on improving our mitigation measures for operational activities that contribute significantly to dust. This will ensure fallout dust is reduced to the residential limit.

Comparing Exxaro's dust-fallout rate against the regulated non-residential and residential limit, no operation exceeded the two allowable annual limits in 2016.

Dust fallout - 2016

Target	2016	2015	2014	2013	2012
Coal: 300mg/m²/day	169	173	335	351	480

Residential limit (600mg/m²/day) -January - December 2016



Non-residential limit (1 200mg/m²/day) - January -December 2016



Climate change and carbon footprint

Definitions and context
 Scope 1: Direct greenhouse gas (GHG) emissions, measured in tons of carbon dioxide equivalent (tCO₂e) from sources owned or controlled by Exxaro, eg emissions from diesel, petrol, gas and anthracite combusted in day-to-day mining operations Scope 2: GHG emissions from electricity generation by Eskom, purchased by Exxaro Scope 3: Emissions outside our control but emanating from our products or activities, eg a customer burning coal sold by Exxaro.
The scope 1, 2 and 3 emission protocol provides a common measurement platform to compare firms, aggregate data to national level and compare countries.

common measurement platform to compare firms, aggregate data to national level and compare countries. South Africa has set arguably the most aggressive carbon abatement targets of any developing country: to reduce emissions by 34% below business-as-usual by 2020, and 42% by 2025.

Carbon footprint

Operational activities are guided by our climate change response strategy. A dedicated steering committee oversees related improvement projects and activities, and ensures these are aligned with Exxaro's climate change position statement.

This supports a clear understanding of the risks and opportunities presented by energy and emissions in the broader sense, and enables operations to focus on managing energy, emissions and other climate change-related issues.

Our energy and carbon measurement, data management, accounting and reporting is maturing. Exxaro reports carbon emissions through CDP South Africa (the local arm of the international benchmark carbon and water disclosure projects), where we remain among the leading companies by reporting on scope 1, 2 and 3 emissions.

We base our accounting and reporting for GHG emissions on the Greenhouse Gas Protocol (www.exxaro.com), and have elected to use the operating control accounting approach for emissions.

Greenhouse gas emissions

2016	2015	2014	2013
271,7	235,2	229,8	236
501,0	521,9	557,6	525
772,6	757,1	787,0	761
2,1	3,9	3,4	(0,4)
71 651	73 847	74 768	69 737
(2,9)	1,2	7,2	(1,3)
	271,7 501,0 772,6 2,1 71 651	271,7 235,2 501,0 521,9 772,6 757,1 2,1 3,9 71 651 73 847	271,7 235,2 229,8 501,0 521,9 557,6 772,6 757,1 787,0 2,1 3,9 3,4 71 651 73 847 74 768

* Scope 2: Electricity-based emissions are derived from the grid emission factor for South Africa (0,94t CO₂e/MWh).

** Scope 3: Reported emissions are based on emissions from the use of product sold by Exxaro plus transmission and distribution losses from the South African grid derived from Eskom's emissions factor for electricity sold (1,03t CO₂e/MWh) and the grid emission factor for South Africa (0,94t CO₂e/MWh). Reported emissions represent over 99% of Exxaro's scope 3 emissions.



Diesel and electricity are Exxaro's primary sources of energy. Total energy consumed decreased by 4% in 2016 to 4 193 151 gigajoules (GJ), due to a 5% reduction in electricity and 3,7% reduction in diesel.

Carbon disclosure

The CDP is a UK-based global climate change reporting system. This data provides valuable insights into corporate strategies and helps channel investment to companies adhering to sustainable carbon and emissions management.

Exxaro participates in two programmes: CDP Climate Change (since 2008) and CDP Water. To facilitate our reporting under the climate change programme, we manage a central data repository that records energy consumption, energy intensity performance, carbon emissions measurement and cost performance in each business unit and the group. This database is externally audited and assured each year.

Energy management

Our coal operations account for almost all energy consumption in the group after divesting of the mineral sands and base metals businesses in recent years. As part of Exxaro's energy and carbon management programme, our coal operations have focused on reducing energy consumption, including projects to specifically increase the efficiency of diesel and electricity use.

Specific energy-intensity improvement targets were set for each operation in 2016. These targets formed part of relevant managers' remuneration-linked performance contracts and further absolute emission reductions are expected from these initiatives in future.

Energy consumption by source by business unit

GJ		Elec	tricity			Diesel			Petrol			
Business unit	2016	2015	2014	2013	2016	2015	2014	2013	2016	2015	2014	2013
Coal	1 866 155	1 974 254	2 039 476	1 923 707	2 267 922	2 356 217	2 120 656	2 128 526	6 946	8 836	8 947	7 066
Year-on-year												
change (%)	(5)	(3,3)	6,0	1,4	(3,7)	10,0	(0,4)	(4,2)	(21)	(1,3)	26,6	(6,8)
Arnot	105 818	179 071	188 557	183 733	45 300	38 133	16 235	20 989	1 314	1 198	925	2 010
Char plant	-	-	-	-	1 992	5 192	4 547	5 857	194	-	-	-
Durnacol	410	504	551	612	1 377	1 583	1 711	1 903	38	203	279	211
Grootegeluk	1 206 146	1 230 955	1 183 010	1 008 230	1 104 930	1 188 660	1 061 859	905 312	1 378	1 954	2 520	1 592
Hlobane	72	68	119	86	1 437	1 320	1 334	1 376	137	138	117	51
Inyanda	30 989	24 563	27 328	28 397	40 251	98 830	103 487	119 968	-	-	-	-
Leeuwpan	93 424	97 333	90 112	85 576	598 367	622 920	595 468	539 944	-	-	-	14
Matla	394 957	389 466	449 492	434 560	112 252	97 850	107 524	84 530	3 847	4 049	4 336	3 187
North Block												
Complex	24 448	28 296	27 094	26 867	360 670	296 835	189 710	267 426	-	-	-	-
Tshikondeni	9 890	16 337	56 740	92 560	1 287	4 896	38 655	162 690	98	1 295	769	-
Corporate	52 530	24 530	96 106	88 013	550	1 989	2 358	137	200	180	302	2 573
Year-on-year												
change (%)	(115)	(74)	9,2	(1,8)	(72)	(18,6)	1 621	(87,2)	12	(67,8)	(88,3)	(14,9)
AlloyStream	1 787	-	53 939	35 672	-	-	1 426	-	-	-	-	46
FerroAlloys	28 410	5 147	19 606	19 638	475	842	564	114	7	-	-	15
Head office	17 696	254	17 039	27 216	24	27	31	24	193	180	201	2 511
R&D	4 637	1 413	5 522	5 486	50	1 120	338	-	-	-	101	-
Total	1 918 685	1 998 785	2 135 581	2 011 719	2 268 542	2 358 206	2 123 014	2 128 665	7 146	9 016	9 249	9 638
Year-on-year												
change (%)	(4,0)	(6,8)	6,2	1,2	(3,8)	10,0	(0,3)	(4,2)	(20)	(2,6)	(4,0)	(9,1)

Site	Ot	ther energy s	sources (GJ))		Total energ	y used (GJ)	
Business unit	2016	2015	2014	2013	2016	2015	2014	2013
Coal	3 851	5 198	8 583	692	4 137 998	4 335 669	4 168 714	4 059 990
Year-on-year change (%)	(26)	(39)	114, 0	56,5	(4,5)	3,9	2,7	(1,6)
Arnot	670	606	462	-	151 919	217 810	205 255	206 732
Char plant	-	23	583	347	1 825	5 214	5 131	6 204
Durnacol	38	102	142	_	1 992	2 188	2 404	2 726
Grootegeluk	961	1 726	1 698	262	2 312 037	2 421 341	2 246 567	1 915 396
Hlobane	71	70	63	-	1 580	1 458	1 516	1 514
Inyanda	-	_	-	_	71 240	123 393	130 815	1 483 364
Leeuwpan	-	_	-	-	691 791	720 253	685 579	625 534
Matla	2 013	2 024	2 275	75	509 221	489 341	559 291	522 352
North Block Complex	-	_	-	_	385 118	325 131	216 803	294 292
Tshikondeni	98	647	3 359	7	11 275	21 880	98 754	255 257
Corporate	2 073	1 953	62 363	52 378	55 153	28 473	160 827	143 101
Year-on-year change (%)	7	96	19,1	(26,2)	94	(464,8)	12,4	(13,1)
AlloyStream	-	_	58 504	51 171	1 787	-	113 869	86 890
FerroAlloys	1 973	_	1 156	1 183	30 859	21 199	21 326	20 950
Head office	97	125	2 440	7	17 817	1 066	19 510	29 757
R&D	3	1 828	263	17	4 690	6 207	6 123	5 503
Total	5 924	7 151	70 946	530 070	4 193 151	4 364 142	4 329 542	4 203 091
Year-on-year change (%)	(17,0)	(90,0)	33,8	(25,7)	(4,0)	0,8	3,0	(2,1)

Diesel consumption

Diesel is the most significant energy source in our coal operations, consuming over 50% of energy alone, slightly ahead of energy from electricity consumed in 2016. The electricity and diesel intensity in 2016 per total tonnes mined was respectively 14MWh/kt and 1756/kt with the latter reflecting rehabilitation activities at most of our mines.

Energy consumption

		Electrici	ty (MWh)		Production (kt)			Electricity intensity (MWh/kt)				
	2016	2015	2014	2013	2016	2015	2014	2013	2016	2015	2014	2013
Coal	518 376	566 521	566 521	534 363	37 030	40 969	37 203	37 332	12,86	13,83	15,95	14,3
Change (%)	(6,0)	(3,2)	6,0	1,4					1,0	(13,0)	11,5	5,2
Arnot	29 394	49 742	52 377	51 037		1 401	1 440	1 633	-	35,5	36,4	31,2
Char plant	-	-	-	-	54	48	127	91	-	-	-	-
Durnacol	114	139	153	170	-	-	-	-	-	-	-	-
Grootegeluk	335 041	341 932	328 614	280 064	22 601	25 554	18 838	17 813	14,8	13,4	17,4	15,7
Hlobane	20	19	33	24	-	-	-	-	-	-	-	-
Inyanda	8 608	6 823	7 591	7 888	-	1 035	1 633	1 992	-	6,6	4,7	4,0
Leeuwpan	25 951	27 037	25 031	23 771	3 774	2 202	24 434	2 240	6,9	12,3	10,2	10,6
Matla	109 710	108 185	124 859	120 711	7 900	7 858	9 513	10 133	13,9	13,8	13,1	11,9
New Clydesdale	-	2 128	4 576	17 524	-	-	-	419	-	-	-	41,8
North Block	6 791	7 860	7 526	7 463	2 701	2 871	2 602	2 668	2,4	2,7	2,9	2,8
Tshikondeni	2 747	4 538	15 761	25 711	-	-	154	343	-	-	102,5	74,9

Diesel consumption in coal operations

		Diesel (kℓ)			Production (kt)			Diesel consumption intensity (ℓ/kt)				
	2016	2015	2014	2013	2016	2015	2014	2013	2016	2015	2014	2013
Coal	65 052	64 520	57 477	58 236	37 030	40 969	37 203	37 332	1 756	1 574	1 547	1 560
Change (%)	1,0	10,9	(1,3)	(4,2)					11,6	1,7	(0,83)	(0,4)
Arnot	1 243	1 043	444	574		1 401	1 440	1 633	-	744	309	352
Char plant	55	142	124	160	54	48	127	91	1 019	2 897	979	1 754
Durnacol	38	43	47	52	-	-	-	-	-	-	-	-
Grootegeluk	30 231	35 521	28 833	24 769	22 601	25 554	18 838	17 813	1 338	1 390	1 531	1 391
Hlobane	39	36	37	38	-	-	-	-	-	-	-	-
Inyanda	1 101	2 704	2 831	3 282		1 035	1 633	1 992	-		1 734	1 648
Leeuwpan	16 371	17 043	16 292	14 773	3 774	2 202	2 444	2 240	4 337	7 736	6 666	6 594
Matla	3 071	2 677	2 942	2 313	7 900	7 859	9 513	10 133	389	341	309	228
New Clydesdale	-	-	3	507	-	-	-	419	-	-	-	1 210
North Block	9 867	8 121	4 867	7 317	2 701	2 871	2 602	2 668	3 653	2 828	1 870	2 764
Tshikondeni	35	134	1 058	4 451	-	-	154	343	-	-	6 875	12 968

As expected, we are realising further benefits from specific electricity-management projects initiated in prior periods. For example production has increased 4,4% while overall energy intensity from electricity decreased by 1% and increased by 11,6% for diesel. This shows that efficiency projects focused on electricity are starting to bear consistent benefits and there is high level of awareness within the organisation. Diesel consumption and efficiency interventions are more complex. The ever-expanding mining operations and increased rehabilitation activities result in a slight increase in diesel consumption. Future efficiency activities will focus more on reducing diesel consumption per tonne of production.

Carbon emissions



Carbon emissions by source

(kt CO ₂ e)	2016	2015	2014	2013	2012
Electricity	501,0	521,9	557,6	525,3	518,9
Year-on-year change	(4,0%)	(6,8%)	6,1%	1,2%	0,6%
Source proportion	66,5%	68,9%	70,7%	68,8%	68,9%
Diesel	168,2	174,8	155,9	157,8	164,8
Year-on-year change	(3,0%)	10,8%	(1,2%)	(4,2%)	2,7%
Source proportion	22,1%	23,1%	20,0%	20,8%	21,6%
Fugitive emissions	84,9	56,6	67,6	77,9	
Year-on-year change	50,0%	(19,4%)	(5,8%)	(7,8%)	3,9%
Source proportion	11,0%	7,5%	8,6%	9,4%	10,2%
Other sources	3,7	3,7	6,2	2,4	
Year-on-year change	1,0%	(40%)	6,9%	147,3%	11,5%
Source proportion	0,5%	0,5%	0,8%	0,8%	0,3%



Greenhouse gas emissions by business unit and source

kt CO ₂ e		Purchased electricity			Diesel					
Business unit	2016	2015	2014	2013	2016	2015	2014	2013		
Coal	487,3	515,5	532,5	502,3	168,2	174,7	155,8	157,8		
Year-on-year change (%)	(5,0)	(3,3)	11,0	1,4		10,8	(1,3)	(4,2)		
Arnot	29,4	46,8	49,2	48,0	3,4	2.8	1,2	1,6		
Char plant	-	-	-	-	0,1	0,4	0,3	0,4		
Durnacol	0,1	0,1	1,4	0,2	0,1	0,1	0,1	0,1		
Grootegeluk	335,0	321,4	308,9	263,3	81,9	88,1	78,1	67,1		
Hlobane	0,02	-	-	-	0,1	0,1	0,1	0,1		
Inyanda	8,6	6,4	7,1	7,4	3,0	7,3	7,7	8,9		
Leeuwpan	26,0	25,4	23,5	22,3	44,4	46,2	44,2	40,0		
Matla	109,7	101,7	117,4	113,5	8,3	7,3	8,0	6,3		
North Block Complex	6,8	7,4	7,1	7,0	26,7	22,0	14,1	19,8		
Tshikondeni	2,7	4,3	14,8	24,2	0,1	0,4	2,9	12,1		
Corporate	13,7	6,3	25,1	23,0	0,04	0,2	0,2	0,01		
Year-on-year change (%)	(118)	(74,9)	9,1	(1,8)	(120)	-	1 900	(88)		
AlloyStream	0,5	-	14,1	9,3	-	-	0,01	_		
FerroAlloys	7,4	4,8	5,1	5,1	0,04	0,1	0,04	0,01		
Head office	4,6	0,2	4,4	7,1	0,002	-	_	_		
R&D	1,2	1,3	1,4	1,4	0,002	0,1	0,03	-		
Total#	501,0	521,8	557,6	525,3	168,2	174,9	155,9	157,8		
Year-on-year change (%)	(4,0)	(6,4)	6,2	1,2	(3,0)	12,2	(1,2)	(4,2)		

* Other sources include explosives, petrol, paraffin, Sasol gas, LP gas and limestone.

Total scope 1 and scope 2 emissions.

We remain focused on reducing Exxaro's carbon footprint in line with our commitment to reduce energy consumption and improve energy efficiency. Given the fast changing legislative environment and the coming into effect of the carbon budgets and carbon tax, reduction of GHGs is a business imperative as it has the potential to impact the financial performance of the organisation.

2016 total GHG emissions by scope (t CO2e) Arrows indicate year-on-year movement

	Scope 1	Scope 2	Scope 3	Total
Business unit	271 657†	500 990∔	71 651 101∔	72 423 748∔
Arnot	3 415	27 630	2 528	33 573
Durnacol*	105	107	10	222
Grootegeluk	110 813	314 938	42 184 273	42 610 024
Hlobane*	111	19	2	132
Inyanda*	2 984	8 092	740	11 816
Leeuwpan	56 850	24 394	7 091 626	7 172 870
Mafube	14 856	-	2 957 506	2 972 361
Matla	42 630	103 128	14 345 577	14 491 335
North Block				
Complex	39 497	6 384	4 902 102	4 947 983
Reductants	148	-	165 247	165 394
Tshikondeni*	102	2 582	236	2 921
AlloyStream*	-	467	-	467
Corporate				
centre	9	4 621	422,7	5 052
FerroAlloys	134	7 418	678,7	8 231
R&D	4	1 211	110,8	1 325

* Operations in closure.

Water management

Water is a strategic natural resource for South Africa, and key to our business. The Exxaro water management policy therefore defines our commitment to the sustainable use of water, with a strong focus on efficiency through reuse and recycling. This policy is aligned to the legislative environmental framework governed mainly by the National Water Act 36 1998. In support of the Act, the Department of Water Affairs has issued an integrated water resource management hierarchy that prioritises mine and waste management decisions and actions.

This hierarchy informs both our policy and strategy on mine and waste water management as:

- > Pollution prevention
- > Minimise environmental impacts
- > Maximise water reuse and reclamation
- > Responsible water discharge and disposal
- > Water treatment.

Translating policy into action, our management standard on water for mining and industrial use articulates our commitment to develop and implement an effective integrated water and waste management plan across the lifecycle of a mine. This includes planning, construction, operation, decommissioning, closure and rehabilitation phases. The standard reflects management's vision to:

- Ensure a cost-effective integrated approach to water management
- > Be environmentally responsible
- > Be ecologically sustainable.

Fugitive emissions	Other s	ources*					
	Other sources*			Total emissions [#]			
2016 2015 2014 2013 20 1	6 2015	2014	2013	2016	2015	2014	2013
84,9 56,6 67,6 71,8 3,	3 ,59	3,1	3,0	743,9	750,4	758,9	735,0
(19,4) (5,9) (7,8)	13,6	3,3	150	(0,9)	1	3,3	(0,6)
- 0,4 0,4 0,4 0 ,4	0,04	0,1	0,2	31,0	50,0	50,8	50,1
		-	-	0,14	0,4	0,4	0,4
		-	-	0,21	0,2	0,3	0,3
26,7 17,5 15,5 14,7 2,	2,28	2,2	1,8	425,8	429,3	404,8	347,0
		-	-	0,13	0,1	0,1	0,1
- 0,7 0,9 1,0		-	-	11,1	14,4	15,7	17,3
12,1 2,5 2,7 2,3 0,	9 0,52	0,4	0,3	81,2	74,6	70,8	65,0
34,2 34,0 44,9 43,8 0,	3 0,14	0,2	0,2	145,8	143,1	170,4	163,8
12,0 1,5 1,5 1,5 0,	'9 0,57	-	-	45,9	31,4	21,7	28,3
– – 1,8 3,8 0,0 0	0,04	0,2	0,5	2,7	4,7	19,7	40,5
0	,1 0,1	3,16	2,80		6,6	28,4	25,8
		12,9	145		(77)	10,1	4,7
		2,9	2,6	0,5	-	17,1	11,9
0,	0,09	0,06	0,06	7,6	5,0	5,2	5,2
0,0	0,01	0,17	0,17	4,6	0,2	4,6	7,3
		-	-	1,2	1,4	1,5	1,4
84,9 56,6 67,6 71,8 3,	2 3,69	6,2	5,8	758,0	757,0	787,4	760,8
50 (16,3) (5,9) (7,8) 1	,0 (40,5)	6,9	147	0,13	(4)	3,5	(0,4)



These management standards are enacted by adhering to the Department of Water and Sanitation's best practice guidelines on:

- > The integrated water and waste management plan
- > Stormwater management planning
- > Water and salt balances
- > Water monitoring systems
- > Water reuse and reclamation
- > Pollution control dams
- > Environmental performance indicators.

Progress

Water management is integral to our licence to operate and, in recent years, we have made considerable progress on our focus areas, notably:

- > Our vision, strategy and policy for water management
- > Data management that facilitates water accounting and reporting
- > Regulatory compliance
- > Improving skills and knowledge in water management
- > Water and related technology solutions
- > Water business opportunities
- > Stakeholder engagement
- > Communications.

A comprehensive programme is entrenching responsible and sustainable water management across Exxaro. It concentrates on relevant water-use and related risk issues - from security of supply to water efficiency and water-cost management - and manages these within current and anticipated regulatory compliance requirements. This is supported by continually enhancing our competence in water-management issues through company-wide research and skills development. We also reinforce awareness of water issues through ongoing communication and training.

While numerous strategic initiatives have been identified to reach specific five-year goals, our strategy also articulates aspirational goals that include becoming self-sufficient in our operational water requirements and becoming a leader in water technology solutions.

Under a holistic strategy, we are managing water-related risks, minimising impacts, and operating efficiently through reduction, reuse and recycling. Most of our operations have water conservation plans that support the national strategy to ensure equitable distribution of water resources that allows for business growth and protection (sustainable use).

We are also committed to protecting and improving water quality by ensuring the water we discharge is the same or better than the original. Central to this are the three water treatment plants planned for our Mpumalanga region as part of our long-term water management strategy. These plants will have total capacity to treat 17,5 mega litres per day. The plant at Matla has been commissioned and performance tests are under way (case study). The second plant is being commissioned at North Block Complex, and became fully operational late in 2016. The plant at Arnot is being planned as part of mine-closure activities.

Our prime focus is optimising the use of recycled water. The plant at Matla is already supplying potable water to the mine.

Innovative passive water treatment systems are being evaluated by our R&D department in collaboration with the University of the Free State and the Technology Innovation Agency. As part of a long-term solution to water management including post-closure, Exxaro has developed a new treatment plant for acid mine drainage. Based in Belfast, the plant effectively treats major contaminants found in acid mining wastewater using a low-cost and low-maintenance passive water treatment system. This patented technology is capable of producing water of a quality accepted for drinking purposes by the South African National Standards (SANS) 241:2006 and 2011 regulation. The pilot plant exploration is complete and we are considering it as part of mine-closure plans.

We continue to collaborate with other mining houses through a local research institution on a project to develop appropriate technology to deal with waste from planned water treatment plants. This will enhance the efficiency of the waste treatment process and mitigate potential exposure linked to waste management.

Water use monitoring and measurement

Exxaro monitors and reports against the ESG reporting categories of global stock exchanges, in turn aligned to definitions and environmental categories in the GRI's mining and metals sector guidelines. Our data also correlates to the reporting format of the annual submission to the CDP-Water, where we remain among the leaders in disclosure (www.exxaro.com).

To facilitate disclosure, we maintain a centralised database. Our water accounting methodology includes measuring water volumes and water quality against efficiency and intensity targets, water-use permit conditions and internal benchmarks and trends. While the accuracy of water measurement, monitoring and reporting has improved significantly in recent years, on-site operational challenges remain.

The focus in 2016 was on maintaining progress at larger water-withdrawing operations while rolling out initiatives at other operations. Water-withdrawal intensity targets were introduced in 2013. As monitoring and reporting against these targets matures, we plan to include these targets in the performance contracts of relevant managers by 2018.

Water withdrawal performance

Exxaro decreased water withdrawals by 4% in 2016, mainly due to water-saving initiatives at Grootegeluk, where the aim is to reduce fresh water intake from Mokolo and maximise the use of pit water. Other business units, including head office, show a slight reduction in water withdrawals, reflecting the ongoing commitment to operational efficiency.



Water withdrawal performance

			Water with	drawals (k	2)		Product	tion (kt)		Water	withdrawa	l intensity	· (ℓ/t)
Business unit	Water source	2016	2015	2014	2013	2016	2015	2014	2013	2016	2015	2014	2013
Coal		8 025 452	8 372 045	6 912 951	8 024 612	37 030	40 969	37 611	37 332	217	205	184	215
Year-on-year													
change (%)		(4)	21	(14)	6	(9,6)	8,9	0,7		6,1	11,2	(14,5)	
Arnot	Potable water supplier	341 773	532 320	562 110	559 480		1 401	1 440	1 633		380	391	343
Char plant	Supplied by Grootegeluk	29 335	29 343	89 939	82 388	54	48	127	91	541	614	750	905
Durnacol*	Municipal supply: potable	439	24 120	24 787	26 808								
Grootegeluk*	Potable water supplier	5 589 988	5 870 059	3 871 449	4 512 003	22 601	25 554	18 838	17 813	247	230	192	253
Hlobane*	Municipal supply: potable	675	612	819	1 820								
Inyanda**	Water abstraction: Dam	232 876	217 766	337 361	298 448		1 035	1 632	1 992		210	207	150
Leeuwpan	Water abstraction: borehole	117 134	185 984	114 907	174 044	3 774	2 202	2 444	2 240	31	84	47	78
Matla	Potable water supplier	1 493 114	1 316 137	1 305 935	1 324 667	7 900	7 858	10 374	10 133	189	167	126	131
New													
Clydesdale**	Water abstraction: river		7 497	11 101	55 149				419				132
North Block													
Complex	Municipal supply: potable	31 685	29 057	26 648	28 637	2 701	2 871	2 602	2 668	12	13	10	11
Tshikondeni	Water abstraction: river and dam	188 433	159 150	567 845	961 168			154	343			2 707	2 802

* Mines in closure.

** Mines sold.

Water withdrawal performance (non-mining sites)

			Water withdrawals (kℓ)					
Business unit	Water source	2016	2015	2014	2013			
Corporate office		88 873	93 863	156 006	154 089			
Year-on-year change (%)		(5)	(40)	1	36			
AlloyStream	Municipal: potable – invoiced	13 507		69 907	45 058			
FerroAlloys	Municipal: potable – invoiced	23 006	32 841	18 560	18 822			
Head office	Municipal: potable – invoiced	49 521	56 560	62 806	87 047			
R&D	Municipal: potable – invoiced	2 839	4 462	4 733	3 162			
Total		8 114 325	8 465 908	7 068 957	8 240 594			
Year-on-year change (%)		(4)	20	(14)	(33)			

Water management reporting from business units is not subject to audit review.

In 2016, coal operations accounted for 99% of our water withdrawals. Total withdrawals by these operations decreased 4% in tandem with slightly lower production, leading to a slight decrease in water intensity (water withdrawals relative to production). Water intensity for 2016 compares to 2013, despite increased activities, underscoring our commitment to water stewardship.



Hazardous waste management

Waste management is a key compliance indicator in Exxaro's social licence to operate. Our group standard enforces use of the waste management hierarchy, which in turn promotes waste prevention or minimisation, reuse, recycling, recovering energy and ensuring safe disposal of waste in line with the National Environmental Management: Waste Act 59 2008 and supporting legislation.

The total weight of hazardous waste generated at our managed coal operations in 2016 was 4 101 tonnes (2015: 1 814 tonnes). The significant increase in volumes removed reflects the planned clean-up operation at a business unit to increase efficiency in the sewage treatment plant. This contributed to much higher volumes in June 2016, as it involved removal of contaminated soil by an external contractor and responsible disposal into a registered landfill. ECC operations produced small amounts of waste in 2016 (126t hazardous waste).



Recycling stations in some business units divert all suitable waste currently being sent to landfill sites for potential and practical reuse options that make economic sense.

We are also exploring opportunities with industrial partners and research institutions to use viable solutions in converting waste into renewable energy.

As example, Grootegeluk has embarked on a project to recycle waste tyres, which will be stockpiled in a new area before they can be removed to processing facilities. This area is east of the pit, and was registered and demarcated as a waste area (covering some 2,6ha) by the Department of Environmental Affairs in April 2014.

Based on records of scrapped tyre sizes, an estimate of the capacity of the designed stockpiles was determined, and a predicted lifespan of the facility calculated. Taking the current backlog of tyres that require stockpiling into account, together with projections for scrap tyres, we estimate the facility will have capacity to accept tyres at the current rate for almost three years.

Currently, waste tyres are temporarily stored in a dedicated area. Considering current mine expansions, the amount of waste tyres generated is expected to increase over the next few years (below). There are currently an estimated 1 500 waste tyres stored on the mine.



Grootegeluk has issued an open enquiry/bid for proposals from service providers to recycle the tyre backlog. Similarly, we are engaging with Recycling and Economic Development Initiative of South Africa (Redisa) to collect the tyres the mine bought after the Redisa plan became effective in late 2012.

Recycling waste tyres has clear benefits over final disposal to landfill, including:

- > Saving natural resources and energy
- > Reducing the costs of waste management
- Reducing environmental impacts, demand for landfill airspace and other associated costs
- Generating income and job-creation opportunities for the poor and unemployed.

Biodiversity

Biodiversity means species diversity and species richness in an ecological environment. In Exxaro, our goal is to conserve biodiversity for future generations by sustainably using the resources of our mining operations and South Africa's natural resources.

To reach this goal, we have developed biodiversity action plans for our business units. In addition, our comprehensive biodiversity management standard will be revised in 2017. The guiding principles include the best-practice standard on wetland offsets (Wetland Offsets: A Best Practical Guideline for South Africa 2014), as well as the mining and biodiversity guideline (Mainstreaming biodiversity into the mining sector. DEA, DMR, Chamber of Mines, SA Mining and Biodiversity Forum and SANBI, 2013).

Approximately R7 million was spent in 2016 on biodiversity. Some R12 million was spent in 2016 on biodiversity management, including wetland offsets, delineation and wetland studies, as well as biomonitoring.

In addition to complying with legislation and best practice, we aim to develop a competitive advantage through conservation and re-establishing resilient ecosystems that underscore our commitment to duty-of-care principles.

The principles of these guidelines are already incorporated into our planning and execution phases. As example, the principles of best-practice standard were used in several projects to avoid constructing infrastructure in a sensitive wetland area.

Our detailed management standard guides business units in developing infrastructure, aiming to:

- > Ensure a cost-effective integrated approach to biodiversity management
- Be environmentally responsible in protecting and managing biodiversity
- > Be ecologically sustainable by ensuring biodiversity-rich areas are contained within mining right areas, to manage and monitor protected and threatened Red Data species, and control declared category 1, 2 and 3 invasive plants.

Exxaro has evaluated and identified all protected vegetation units with important conservation targets and listed as protected by the national spatial biodiversity assessment report.

Exxaro also references the mining and biodiversity guideline (M&BG, 2013), the Mpumalanga biodiversity sector plan (2014), and the national freshwater ecosystem priority areas (NFEPA

2011) guidelines during proposed expansion and new projects. Information from these guidelines is considered during desktop ecological and wetland studies and includes detailed sitespecific assessments to confirm the accuracy of the guidelines.

Any negative impact on biodiversity reduces the ability of communities to gather biological resources, produce biomass, decompose and recycle essential nutrients. There is increasing evidence that biodiversity increases the stability of ecosystem functions through time.

Climate change is also a major threat to global biodiversity: rising atmospheric carbon dioxide and therefore temperatures will affect species ranges, seasonal growth cycles and weather. Major extinctions are predicted as climate change drastically alters the biology of many species.

Environmental liabilities and rehabilitation Internal annual updates

All business units annually review their financial provisions. They also consider amendments to rehabilitation plans and closure objectives based on regular EMP performance assessments. The cost estimates of activities in the concurrent and final-closure rehabilitation programme are reviewed and adjusted where necessary.

Water-related liabilities are calculated by site according to predicted decanted water quality and quantity. Treatment solutions are constantly questioned to include the latest technologies available.

In November 2015, the DMR published the financial provisioning regulations 2015 for implementation. These contain more onerous and detailed requirements than previously required by the MPRDA. Numerous interactions with the Chamber of Mines and industry subsequently took place to clarify uncertainties in the regulations. In September 2016, the minister published amendments to the regulations and a consultative process is under way to finalise this legislation.

Risk-based external reviews

In the first quarter each year, our sustainability department and each business unit perform a risk analysis based on the group environment and risk assurance process, with risks reported to appropriate management in terms of Exxaro's governance process. Where mines are eligible for an external review, these are conducted under commercial agreements with competent third parties.

Concurrent rehabilitation plan

All business units have a detailed concurrent rehabilitation plan and supporting material (plan, schedule and budget). These are revised and updated at least annually. The mine manager or person in charge of a site reports on any deviation from the rehabilitation programme (reasons and how this affects future activities; financial provisions; corrective steps to rectify the deviation, especially to prevent financial shortfalls accumulating and closure liabilities rising).





Liabilities

At 31 December 2016, total land disturbed was 10 746ha and total rehabilitated 2 536ha. The Exxaro Environmental Rehabilitation Fund (EERF) provides for most liabilities, while additional bank guarantees are taken out to provide for new developments and cover any shortfalls in financial provisions. Environmental rehabilitation liabilities are updated biannually for internal reporting at interim and financial year end, and submitted annually to the DMR.

Estimated closure costs per mine (R)

Mines as per financial statements for the year to 31 Dec 2016	DMR office	Estimated immediate closure cost	Estimated life-of-mine closure cost	Trust fund balance	Guarantee(s)	Further contribution required over remaining life	Remaining life (yrs)
Grootegeluk mine							
(including char plant area)	Limpopo	2 538 801 322	1 605 397 019	313 751 438	1 220 579 756	1 291 645 581	30
Thabametsi	Limpopo	-	885 334 883	0	885 334 883	0	30
Tshikondeni	Limpopo	127 770 893	127 770 893	158 205 629	0	0	0
Gravelotte	Limpopo	680 716	680 716	0	35 149 158	0	0
Glisa	Mpumalanga	231 647 871	220 847 871	196 222 731	20 200	24 625 140	1
Eerstelingsfontein	Mpumalanga	32 348 286	30 779 511	0	3 084 950	30 779 511	2
Paardeplaats	Mpumalanga	-	87 707 305	0	87 707 305	0	0
Strathrae	Mpumalanga	86 243 652	80 540 742	82 113 556	0	0	0
Belfast	Mpumalanga	-	80 000 000	0	80 000 000	0	30
Leeuwpan MR 157	Mpumalanga	409 567 780	199 890 304	79 475 537	33 936 929	120 414 767	13
Leeuwpan MR 171	Mpumalanga	-	0	0	146 433 408	0	0
Dorsfontein East	Mpumalanga	496 019 338	307 363 441	75 782 861	49 361 262	239 206 261	13
Dorsfontein West	Mpumalanga	220 592 559	231 654 674	39 152 033	5 565 625	192 502 640	15
Forzando North	Mpumalanga	128 351 717	134 441 904	64 665 927	8 668 425	69 775 976	5
Forzando South	Mpumalanga	153 864 544	177 126 209	40 974 672	43 315 271	136 151 537	22
Tumelo	Mpumalanga	8 716 861	8 716 861	8 716 862	3 000 000	(1 901 490)	0
		4 434 605 539	4 178 252 333	1 059 061 246	2 602 157 172	2 103 199 924	

EERF earned R240 million in 2016, which includes cash contributions, interest earned on investments and fair-value adjustments. The fund has recorded 29% growth from an opening balance of R819 million in January 2016 to R1 059 million in December 2016. In addition, the group had bank guarantees of R2 602 million in place at year end. Updating these provisions biannually highlights potential rehabilitation alternatives that could decrease the long-term closure liabilities of mines.

Mine closure

Exxaro had six operations in active closure in 2016 - Arnot, Tshikondeni, Durnacol, Hlobane, Strathrae and Gravelotte. The following closure-planning process is used:

Integrating stages of mining and mine-closure planning



Source: Guidelines for Preparing Mine Closure Plans, May 2015 Department of Mines and Petroleum and Environmental Protection Authority, Western Australia.

All closure activities are executed against risk-based principles. As several Exxaro mines are nearing their end of life, mineclosure planning is already in place to ensure the process complies with the latest legislative requirements.

Social closure principles

While most closure planning relates to technical or engineering issues and the associated financial planning, social aspects are the most important part of mine closure. This includes aspects such as:

- Equipping employees with portable skills that will allow them to pursue alternative employment and participate in meaningful economic activity
- > Develop and implement a communication plan for employees
- > Effective training for staff on their roles and responsibilities in implementing and managing the mine closure plan
- Communities will be affected by mine closure while they may not be directly affected by environmental management strategies, health and safety issues and possible employment opportunities related to proposed strategies should be considered
- Socio-economic activities around the mine need to continue in its absence

- Conducting socio-economic impact assessments to identify the needs and expectations of all relevant stakeholders as well as economic impacts
- Assisting members of host communities affected by closure to acquire skills to participate in economic activities and provide the opportunity to use infrastructure not needed by the mining operation for their benefit
- > Ensure communities have the opportunity to maintain, but preferably improve, their quality of life
- Align the closure process with community expectations. The closure plan must be in line with the requirements of that mine's social and labour plan, developed in terms of section 25 of the MPRDA
- Develop and implement an engagement plan for all relevant stakeholders (community, government, NGOs and others)
- > Assist mine owners/operators achieve liability-free closure within a reasonable timeframe
- > Effective implementation of the closure plan requires company and management commitment.

Mineral resources and reserves

Please refer to Exxaro's comprehensive mineral resources and reserves report on this website (www.exxaro.com).

GRI REFERENCE TABLE

This index includes the latest GRI guidelines (G4) and 2009 mining and minerals sector (MM) supplement. Indicators are crossreferenced to either the integrated report or supplementary report on this website, and those externally assured are marked.

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report
Strategy	and analysis		
G4-1	Statement from the most senior decision-maker of the organisation about the relevance of sustainability and Exxaro's strategy for addressing this	16 - 19, 28	
G4-2	 Description of key impacts, risks, and opportunities in two concise narratives: The organisation's key impacts on sustainability and effects on stakeholders Impact of sustainability trends on the long-term prospects of the organisation 	16 – 19	
Organisat	ional profile		
G4-3	Name of the organisation	Cover	
G4-4	Primary brands, products, and services	10, 11	
G4-5	Location of the organisation's headquarters	92	
G4-6	Number of countries where Exxaro operates, and names of countries with significant operations or specifically relevant to sustainability topics covered in the report	6	
G4-7	Nature of ownership and legal form	6	
G4-8	Markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries)	8 – 11	
G4-9	Scale of the organisation	6	
G4-10	 > Total employees by employment contract and gender > Total number of permanent employees by employment type and gender > Total workforce by employees and supervised workers and by gender > Total workforce by region and gender 		45 45 45 45
G4-11	Percentage of total employees covered by collective bargaining agreements		43
G4-12	Describe Exxaro's supply chain		49
G4-13	Report any significant changes in reporting period to size, structure, ownership or supply chain	38	49
G4-14	Report whether and how the precautionary approach or principle is addressed	62	
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which Exxaro subscribes or endorses		36
G4-16	Memberships of associations (eg industry associations) and national or international advocacy organisations		36
Identified	material aspects and boundaries		
G4-17	 > List all entities included in Exxaro's consolidated financial statements > Report any entity included in Exxaro's consolidated financial statements but not covered by the report 	4	
G4-18	 Process for defining the report content and aspect boundaries Explain how Exxaro has implemented the reporting principles for defining report content 	4	
G4-19	Material aspects identified in the process for defining report content	25, 37	3
G4-20	For each material aspect, report the aspect boundary in the organisation	4	3
G4-21	For each material aspect, report the aspect boundary outside the organisation	4	3
G4-22	Effect of restating any information in previous reports, and reasons	NA	3
G4-23	Report significant changes from previous reporting periods in the scope and aspect boundaries	NA	

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report
Stakehol	der engagement		
G4-24	Stakeholder groups engaged by Exxaro	22	33 - 35
G4-25	Report the basis for identifying and selecting stakeholders with whom to engage	4	33 - 35
G4-26	Approach to stakeholder engagement, including frequency of engagement by type and group, and indicate whether any engagement was undertaken specifically as part of the report preparation process	22	33 - 35
G4-27	Key topics and concerns raised through stakeholder engagement, and how Exxaro has responded, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns	22	33 - 35
Report p	rofile		
G4-28	Reporting period for information provided	Inside cover	
G4-29	Date of most recent report (if any)	Inside cover	
G4-30	Reporting cycle	Inside cover	
G4-31	Contact point for questions on the report or its contents	1	
GRI cont	ent index		
G4-32	 > Report 'in accordance' option Exxaro has chosen > Report GRI content index for chosen option > Report reference to external assurance report 	4	Index page 68
Assuran	e e		
G4-33	 Policy and current practice on seeking external assurance for the report Scope and basis of external assurance Relationship between Exxaro and assurance providers Report whether board or senior executives are involved in seeking assurance for sustainability report 	4 86 – report of PwC Integrated report	
Governar	ice	1	
G4-34	 Governance structure of Exxaro, including committees of the board Identify any committees responsible for decision-making on economic, environmental and social impacts 	41 43 - 52	
G4-35	Process for delegating authority for economic, environmental and social topics from the board to senior executives and other employees		9 – 20
G4-36	Report whether Exxaro has appointed an executive-level position with responsibility for economic, environmental and social topics and whether post holders report directly to the board	Yes	
G4-37	Processes for consultation between stakeholders and board on economic, environmental and social topics. If consultation is delegated, explain to whom and any feedback processes to the board	41	
G4-38	Composition of the board and its committees by: > Executive or non-executive > Independence > Tenure > Each individual's significant other positions and commitments, and nature of commitments > Gender > Membership of under-represented social groups > Competencies relating to economic, environmental and social impacts > Stakeholder representation	32 - 35	
G4-39	Report whether the chair of the board is also an executive officer	No	
G4-40	 Nomination and selection processes for the board and its committees, and criteria used, including: Whether and how diversity is considered Whether and how independence is considered Whether and how expertise and experience in economic, environmental and social topics are considered Whether and how stakeholders (including shareholders) are involved 	45	

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report
Governan	ce		
G4-41	 Board processes to ensure conflicts of interest are avoided and managed. Report whether these are disclosed to stakeholders, including, as a minimum: Cross-board membership Cross-shareholding with suppliers and other stakeholders Existence of controlling shareholder Related-party disclosures 		12
G4-42	Board and senior executives' roles in developing, approving and updating Exxaro's purpose, value or mission statements, strategies, policies and goals for economic, environmental and social impacts	41	9 – 20
G4-43	Measures to develop and enhance the board's knowledge of economic, environmental and social topics		9 – 20
G4-44	 > Processes for evaluating board's performance on governing economic, environmental and social topics > Report whether such evaluation is independent or not, and its frequency > Report whether such evaluation is a self-assessment 	42	
G4-45	 > Board's role in identifying and managing economic, environmental and social impacts, risks and opportunities, including implementing due-diligence processes > Report whether stakeholder consultation is used to support the board's identification and management of these impacts, risks and opportunities 	42	9 – 20
G4-46	Board's role in reviewing the effectiveness of Exxaro's risk management processes for economic, environmental and social topics	42	9 – 20
G4-47	Frequency of board reviews of economic, environmental and social impacts, risks and opportunities	49	
G4-48	Highest committee or position that formally reviews and approves Exxaro's integrated and supplementary report and ensures all material aspects are covered	43, 51	
G4-49	Process for communicating critical concerns to the board	24	
G4-50	Nature and number of critical concerns communicated to the board and mechanism(s) used to resolve them	24 - 27	
G4-51	 > Remuneration policies for the board and senior executives > Report how performance criteria in the remuneration policy relate to the board and senior executives' economic, environmental and social objectives 	46	21 - 30
G4-52	 > Process for determining remuneration > Report whether remuneration consultants are involved, whether they are independent of management and any other relationships they have with the organisation 		21 - 30
G4-53	Report how stakeholders' views are sought and considered on remuneration, including results of votes on remuneration policies and proposals		21
G4-54	Ratio of annual total compensation for Exxaro's highest-paid individual to median annual total compensation for all employees (excluding highest-paid individual)	Not reported	
G4-55	Ratio of percentage increase in annual total compensation for Exxaro's highest-paid individual to median percentage increase in annual total compensation for all employees (excluding highest-paid individual)		25
Ethics an	d integrity		
G4-56	Describe values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics	50	9 – 20
G4-57	Internal and external mechanisms for seeking advice on ethical and lawful behaviour, and matters of organisational integrity, such as helplines or advice lines	50	
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behaviour, and matters of organisational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines	50	

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report	External assurance Marked with √
Aspect: Ec	onomic performance			
G4-EC1	Direct economic value generated, distributed and retained Countries of operation that are candidate to/compliant with Extractive Industries Transparency Initiative (EITI)			
G4-EC2	Financial implications and other risks and opportunities for Exxaro's activities due to climate change		55	
G4-EC3	Coverage of Exxaro's defined-benefit plan obligations			
G4-EC4	Financial assistance received from government	Zero		
Aspect: Ma	rket presence			
G4-EC5	Ratios of standard entry-level wage by gender compared to local minimum wage		25	
G4-EC6	Proportion of senior management hired from local community		25	
Aspect: Inc	lirect economic impacts			
G4-EC7	Development and impact of infrastructure investments and services supported	66	47	
G4-EC8	Significant indirect economic impacts, including extent of impacts	17	47	
Aspect: Pr	ocurement practices			
G4-EC9	Proportion of spending on local suppliers at significant locations of operation		49	

Environme	Environment						
Aspect: Ma	Aspect: Materials						
G4-EN1	Materials used by weight or volume	Not reported					
G4-EN2	Percentage of materials that are recycled input materials	Not reported					
Aspect: En	ergy						
G4-EN3	Energy consumption in Exxaro	63	57				
G4-EN4	Energy consumption outside Exxaro		Not reported				
G4-EN5	Energy intensity		58				
G4-EN6	Reduction of energy consumption		56				
G4-EN7	Reductions in energy requirements of products and services	64	56				
Aspect: Wa	ter						
G4-EN8	Total water withdrawal by source		60 - 63				
G4-EN9	Water sources significantly affected by withdrawal		60 - 63				
G4-EN10	Percentage and total volume of water recycled and reused	65	62				

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report	External assurance Marked with √
Aspect: Bio	odiversity			
G4-EN11	Operational sites owned, leased, managed in/adjacent to protected areas and areas of high diversity value outside protected areas		65	
G4-EN12	Significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas		65	
MM1	Land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated		65	
MM2	Number and percentage of sites identified as requiring biodiversity management plans according to stated criteria, and number (percentage) of those sites with plans in place		65	
G4-EN13	Habitats protected or restored		65	
G4-EN14	IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk		65	
Aspect: Em	- nissions			
G4-EN15	Direct greenhouse gas (GHG) emissions (scope 1)	63	56	V
G4-EN16	Energy indirect GHG emissions (scope 2)	63	56	√
G4-EN17	Other indirect GHG emissions (scope 3)	63	56	V
G4-EN18	GHG emissions intensity		56	
G4-EN19	Change in GHG emissions (scope 1 and 2)	64	56	
G4-EN20	Emissions of ozone-depleting substances		56	
G4-EN21	NOx, SOx and other significant air emissions		56	
Aspect: Eff	luents and waste			
G4-EN22	Total water discharge by quality and destination		Not reported	
G4-EN23	Total weight of waste by type and disposal method		64	
ммз	Total amounts of overburden, rock, tailings and sludges, and associated risks	Not reported		
G4-EN24	Total number and volume of significant spills		53, 54	
G4-EN25	Weight of transported, imported, exported or treated waste deemed hazardous under Basel Convention annex I, II, III and VIII, and percentage of transported waste shipped internationally	Not applicable		
G4-EN26	Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by discharges of water and runoff	Not applicable		
Aspect: Pr	oducts and services			
G4-EN27	Extent of mitigating environmental impacts of products and services		51 - 67	
G4-EN28	Percentage of products sold and packaging materials reclaimed by category	Not applicable		
Aspect: Co	mpliance			
G4-EN29	Value of significant fines and number of non-monetary sanctions for non- compliance with environmental laws and regulations		Zero	

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report	External assurance Marked with √
Aspect: Tra	ansport			
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for Exxaro's operations, and transporting members of the workforce		56	
G4-EN31	Total environmental protection expenditures and investments by type		Not reported	
Aspect: Su	pplier environmental assessment			
G4-EN32	Percentage of new suppliers screened using environmental criteria		Not measured	
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain, actions taken		Not measured	
Aspect: En	vironmental grievance mechanism	·		·
G4-EN34	Number of grievances about environmental impacts filed, addressed and resolved through formal mechanisms		53	

Aspect: E	nployment			
G4-LA1	Number and rates of new employee hires and employee turnover by age group, gender and region		45	
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations		Not reported	
G4-LA3	Return to work and retention rates after parental leave, by gender		Not reported	
Aspect: L	abour/management relations			
G4-LA4	Minimum notice periods on operational changes, including whether specified in collective agreements		43	
MM4	Number of strikes and lock-outs exceeding one week's duration	Zero		
Aspect: O	ccupational health and safety			
G4-LA5	Percentage of workforce represented in formal joint management-worker health and safety committees that monitor and advise on occupational health and safety programmes		37	
G4-LA6	Type and rates of injury, occupational diseases, lost days and absenteeism, and total work-related fatalities, by region and gender	74	38, 39	Fatality frequency rate, LTIFF
G4-LA7	Workers with high incidence/risk of diseases related to their occupation		39	OHIFR
G4-LA8	Health and safety topics covered in formal agreements with trade unions		37	
Aspect: Ti	aining and education			
G4-LA9	Average hours of training per year per employee by gender and employment category	76	41	
G4-LA10	Programmes for skills management and lifelong learning that support continued employability and assist employees in managing career endings		41 - 43	
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and employee category		41 - 43	
		1		

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report	External assurance Marked with √
Aspect: Div	versity and equal opportunity			
G4-LA12	Composition of governance bodies and breakdown of employees by category according to gender, age group, minority group membership and other indicators of diversity	35	44	
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant location		41 - 43	
Aspect: Su	pplier assessment for labour practices			
G4-LA14	Percentage of new suppliers screened using labour practices criteria	Not measured		
G4-LA15	Significant actual and potential negative impacts for labour practices in the supply chain and actions taken	Not measured		
Aspect: La	bour practices grievance mechanisms			
G4-LA16	Number of grievances about labour practices filed, addressed and resolved through formal mechanisms		Zero	
			'	
Human rigi	nts			
Aspect: Inv	/estment			
G4-HR1	Number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Not reported		
G4-HR2	Total hours of employee training on human rights policies or procedures about aspects of human rights relevant to operations, including the percentage of employees trained	Not measured		
Aspect: No	n-discrimination			
G4-HR3	Total number of incidents of discrimination and corrective actions taken		Zero	

G4-HR3	Total number of incidents of discrimination and corrective actions taken		Zero		
Aspect: Fre	Aspect: Freedom of association and collective bargaining				
G4-HR4	Operations and suppliers identified where the right to exercise freedom of association and collective bargaining may be violated or at significant risk, measures taken to support these rights		Zero		
Aspect: Ch	ild labour				
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour		Zero		
Aspect: Fo	rced or compulsory labour				
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, measures taken to contribute to the elimination of all forms of forced or compulsory labour		Zero		
Aspect: Se	curity practices				
G4-HR7	Percentage security personnel trained in Exxaro's human rights policies or procedures relevant to operations	Outsourced function			
Aspect: Inc	Aspect: Indigenous rights				
G4-HR8	Number of identified incidents of violations involving the rights of indigenous peoples in the reporting period	Not applicable			
MM5	Number of operations in/adjacent to indigenous peoples' territories, percentage with formal agreements with indigenous peoples' communities	Not applicable			

Indicator	GRI G4 – general standard disclosures	Integrated report	Supplementary report	External assurance Marked with √		
Aspect: As	sessment					
G4-HR9	Number and percentage of operations subject to human rights reviews or impact assessments		46			
Aspect: Su	pplier human rights assessment					
G4-HR10	Percentage of new suppliers screened using human rights criteria	Not measured				
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain, actions taken	Not measured				
Aspect: Hu	Aspect: Human rights grievance mechanisms					
G4HR-12	Number of grievances about human rights impacts filed, addressed and resolved through formal mechanisms		Zero			

Society					
Aspect: Lo	cal communities				
G4-S01	Community engagement, impact assessments, and development programmes		47 - 50		
G4-S02	Percentage of operations with significant actual and potential negative impacts on local communities		47 - 50		
MM6	Number and description of significant disputes on land use, customary rights of local communities and indigenous peoples		Zero		
MM7	Extent to which grievance mechanisms were used to resolve disputes on land use, customary rights of local communities and indigenous peoples, and outcomes		Not applicable		
Aspect: Art	tisanal and small-scale mining				
MM8	Number (and percentage) of company sites where artisanal and small-scale mining takes place on or adjacent to the site; associated risks and actions to manage and mitigate these risks		Zero		
Aspect: Re	settlement				
ММ9	Sites where resettlements took place, number of households resettled, and how livelihoods were affected	Not reported			
Aspect: Clo	sure planning				
MM10	Number and percentage of operations with closure plans		65 - 67		
Aspect: An	ti-corruption				
G4-S03	Operations assessed for risks related to corruption and significant risks identified	50			
G4-S04	Communication and training on anti-corruption policies and procedures		9 – 20		
G4-S05	Confirmed incidents of corruption and actions taken	50			
Aspect: Public policy					
G4-S06	Total value of political contributions by country and recipient/beneficiary		Zero		
Aspect: An	ti-competitive behaviour				
G4-S07	Number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices, and outcomes	Zero			

Indicator Aspect: Co	GRI G4 – general standard disclosures	Integrated report	Supplementary report	External assurance Marked with √
Aspect. Co				1
G4-S08	Value of significant fines and number of non-monetary sanctions for non- compliance with laws and regulations	Zero	Zero	
G4-S09	Percentage of new suppliers screened using criteria for impacts on society	Not measured		
G4-S010	Significant actual and potential negative impacts on society in the supply chain and actions taken	Not measured		
Aspect: Gr	ievance mechanisms for impacts on society			
G4-S011	Number of grievances about impacts on society filed, addressed and resolved through formal mechanisms	Not reported		

Product re	sponsibility					
Aspect: Cu	istomer health and safety					
G4-PR1	Significant product and service categories for which health and safety impacts are assessed for improvement	Not reported				
G4-PR2	Incidents of non-compliance with regulations and voluntary codes on health and safety impacts of products and services during their lifecycle, by type of outcome	Not applicable				
Aspect: Pr	oduct and service labelling					
G4-PR3	Type of information required by Exxaro's procedures for product and service information and labelling, and percentage of significant categories subject to such information requirements	Not applicable				
G4-PR4	Number of incidents of non-compliance with regulations and voluntary codes	Not applicable				
G4-PR5	Results of surveys measuring customer satisfaction	Not applicable				
Aspect: M	aterials stewardship					
MM11	Programmes and progress on materials stewardship		51 - 53			
Aspect: M	arketing communications					
G4-PR6	Sale of banned or disputed products	Not applicable				
G4-PR7	Number of incidents of non-compliance with regulations and voluntary codes on marketing communications, including advertising, promotion and sponsorship, by type of outcome	Not applicable				
Aspect: Cu	Aspect: Customer privacy					
G4-PR8	Number of substantiated complaints on breaches of customer privacy and losses of customer data	Zero				
Aspect: Co	mpliance					
G4-PR9	Value of significant fines for non-compliance with laws and regulations on provision and use of products	Not applicable				

BASTION GRAPHICS





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