

Module: Introduction

Page: Introduction

0.1

Introduction

Please give a general description and introduction to your organization

BARLOWORLD (BAW) distributes leading international brands and provides integrated rental, fleet management, product support and logistics solutions. BAW is listed on Johannesburg, London and Namibian Stock Exchanges. BAW has operations in 27 countries around the world, with 65% of its 19238 employees in South Africa.

Core group divisions comprise:

- Equipment (earthmoving and power systems);
- Automotive and Logistics (car rental, motor retail, fleet services, used vehicles and disposal solutions, logistics management and supply chain optimisation); and
- Handling (forklift truck distribution, agriculture equipment and SEM).

The group offers flexible, value adding and integrated business solutions to its customers. The group is backed by leading global brands such as Caterpillar, Hyster, Avis, Audi, BMW, Ford, General Motors, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others.

BAW is driven by the maxim of creating long term sustainable value for all its stakeholders. This requires BAW to operate, manage and report its activities in a harmonious manner balancing this without prejudicing the future of any of its stakeholders. BAW's commitment to creating long term value for all its stakeholders, driven by its Value Based Management approach, includes, inter alia:

- o Providing customers with integrated and environmentally sound solutions they require to meet their sustainable development objectives (including managing their impact on climate change);
- o Acting in the best interests of principals and representing them in a manner that reflects their sustainable development objectives;
- o Ensuring inspiring climate for employees to work in and within which all have equal opportunity to fulfil their aspirations and be proud ambassadors of the group;
- o Delivering sustainable returns to its shareholders that are not achieved at the expense of future generations; and
- o Being regarded as a responsible corporate citizen by all its stakeholders, including communities in which it operates.

This commitment is underscored by integrated management approach which requires accountability and responsibility for economic, social and environmental aspects of business activity. BAW has adopted a risk management approach, stakeholder engagement and strategic planning framework which allows for activities and management focus to be structured on the group's 6 strategic focus areas: Integrated customer solutions; People; Empowerment and transformation; Sustainable development; Financial returns and Profitable growth.

The sustainable development strategic focus area positions climate change response as central to the success of BAW's long term value creation objectives.

Although BAW's GHG emissions are fairly limited (197 489 tCO₂e scope 1&2 FY2012), it has placed significant focus on reducing emissions. The group has set an internal aspirational target of a 12% efficiency improvement for both its non-renewable energy consumption and GHG emissions (scopes 1 and 2) by 2014 from a

2009 baseline.

BAW understands that the use of its services and the products it distributes has an impact on the carbon footprint of its customers. As such, BAW strives to conduct its activities in a responsible manner and offer products and services that reduce its customers' carbon footprint and limit their exposure to climate change risks. An example of the group's commitment to assist customers in reducing emissions is the purchase of a 25% stake in **re-** which is an environmental solutions company. **re-** focuses on reducing, reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering the services of re- to its customers, BAW is assisting customers reduce their GHG emissions and by leveraging **re-**'s expertise and offerings, BAW strives to further reduce its internal GHG emissions.

The commitment to reducing emissions is further demonstrated by the rebuild and remanufacture operations within BAW. BAW has, to date, invested R250m and USD11m in South Africa and Russia, respectively, to increase its rebuild and remanufacture facilities. Through rebuilding and remanufacturing machines and components, BAW makes a significant contribution to emission reductions by extending the lifespan of equipment. In Caterpillar operations, these processes require some 50% to 60% less energy by reusing between 85% and 95% by weight of materials from the original product.

0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed

Sat 01 Oct 2011 - Sun 30 Sep 2012

0.3

Country list configuration

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response

Select country
Angola
Australia
Belgium
Botswana
Cape Verde
China
Congo, Democratic Republic of the
Germany
Ghana
Hong Kong
Lesotho
Malawi
Mozambique
Namibia
Netherlands
Portugal
Russia
Sao Tome and Principe
South Africa
Spain
Swaziland
United Arab Emirates
United Kingdom
United States of America
Zambia
Andorra
Zimbabwe

0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

ZAR (R)

0.6

Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry and companies in the information technology and telecommunications sectors should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email respond@cdproject.net.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

Further Information

Organisational boundaries for collection of data reflect those used for financial purposes to ensure alignment between financial, social and environmental management and reporting.

Data from operations in Ivory Coast, Democratic Republic of Congo, Siberia and Zimbabwe is not consolidated into financial and non-financial reporting since these are not companies over which BARLOWORLD exercises financial control. This is in line with the GHG Protocol Reporting Standard (financial control).

Module: Management [Investor]

Page: 1. Governance

1.1

Where is the highest level of direct responsibility for climate change within your company?

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a

Please identify the position of the individual or name of the committee with this responsibility

The group Risk and Sustainability committee, which is one of seven sub-board committees. The committee was established to assist the board in ensuring sound corporate governance, improving internal controls and monitoring company performance. The committee acts according to a written terms of reference approved by the board, which sets out its purpose, membership requirements, duties and reporting procedures. It assists the board in recognising all substantive sustainability, climate change, environmental and health and safety risks to which the group is exposed and in ensuring that the requisite management culture, practices, policies and systems are implemented and function effectively within the group. In giving consideration to Safety, Health and Environmental (SHE) aspects of the group, the committee receives SHE reports on a quarterly basis which includes climate change information such as emissions and energy usage as well as related efficiency improvement initiatives.

1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
Board chairman	Recognition (non-monetary)	Achievement of defined group sustainability objectives, energy efficiency and emissions reduction targets.
Director on board	Monetary reward	Applicable to executive directors. Achievement of defined group sustainability objectives, energy efficiency and emissions reduction targets.
Chief Executive Officer (CEO)	Monetary reward	Achievement of group strategy which incorporates sustainable development objectives such as energy efficiency and emission reduction targets. BAW provides incentives for management of issues related to climate change, which is incorporated into its sustainable development objectives. Management of this process is facilitated through an integrated performance scorecard system. Specifically included are the group's aspirational targets for improvements in energy efficiency and reduction in emissions intensity.
Other: Environment/sustainability managers	Monetary reward	Achievement of and reporting on defined sustainability initiatives/objectives, energy efficiency and emission reduction targets. BAW provides incentives for management of issues related to climate change, which is incorporated into its sustainable development objectives. Management of this process is facilitated through an integrated performance scorecard system. Specifically included are the group's aspirational targets for

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
		improvements in energy efficiency and reduction in emissions intensity.
Risk managers	Monetary reward	Achievement of and reporting on defined sustainability initiatives/objectives, energy efficiency and emission reduction targets. BAW provides incentives for management of issues related to climate change, which is incorporated into its sustainable development objectives. Management of this process is facilitated through an integrated performance scorecard system. Specifically included are the group's aspirational targets for improvements in energy efficiency and reduction in emissions intensity.
Facility managers	Monetary reward	Achievement of and reporting on defined sustainability initiatives and objectives which include energy efficiency and emission reduction targets/initiatives. BAW provides incentives for management of issues related to climate change, which is incorporated into its sustainable development objectives. Management of this process is facilitated through an integrated performance scorecard system. Specifically included are the group's aspirational targets for improvements in energy efficiency and reduction in emissions intensity.
Process operation managers	Monetary reward	Achievement of defined sustainability objectives, including energy efficiency and emission reduction targets. Daily responsibility of managing business divisions' environmental performance, in the context of the group's and divisional environmental and climate change policies, GHG and other relevant group standards, policies and protocols. BAW provides incentives for management of issues related to climate change, which is incorporated into its sustainable development objectives. Management of this process is facilitated through an integrated performance scorecard system. Specifically included are the group's aspirational targets for improvements in energy efficiency and reduction in emissions intensity.
All employees	Recognition (non-monetary)	Energy efficiency initiatives and related savings as well as improved waste management and increased recycling. Every employee is responsible for the sustainability of the organisation through the fulfilment of their respective roles in the context of the group's commitment to responsible custodianship of the environment.
Other: Divisional CEO's	Monetary reward	Energy efficiency and emission reduction initiatives and savings. Achievement of divisional strategy which incorporates sustainable development.

Page: 2. Strategy

2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

2.1a

Please provide further details

The group has integrated financial, social and environmental management practices and reporting to link financial profits with responsible use of natural resources and impacts on environment.

i. The scope of the process: Climate change risks are integrated into the company-wide risk management process. Climate change risks include regulatory, physical and other risks such as market-related and reputational risks.

ii. Assessment of risks and opportunities at a company level: Risks and opportunities, including those associated with climate change, are identified through detailed, robust systematic strategic planning, risk and opportunity assessment procedures. These procedures engage all levels of the organisation and involve continual review and reporting at management, executive and board levels. Identification and assessment of the risks and opportunities begins with divisional management at asset level. These risks and opportunities are reported to the group Risk and Sustainability committee. This committee assists the board in recognising all material risks and in ensuring that the requisite risk management culture, practices, policies and systems are progressively implemented and functioning effectively. Functions of the Risk and Sustainability committee include considering risk assessment results and determining trends, common areas of concern, emerging risks, and most significant risks for reporting to the board. The committee determines and recommends BAW's risk appetite for board approval. Through this process, initiatives are identified to address the risks and business continuity and disaster recovery plans for unscheduled events are developed. Internal audit also plays a significant role in reviewing processes, procedures and controls in the risk and opportunity management process. In the reporting year, climate change was identified as a key risk for the group. Risks are addressed through acceptance, transfer, avoidance or reduction strategies. Specific focus is placed on reducing emissions, associating with leading principals and geographic and industry diversification as ways of managing climate change risks. Opportunities are also identified, assessed and pursued if appropriate and commercially feasible. Aspects of these include providing environmentally sound customer solutions which assist customers in achieving their own environmental goals and objectives.

iii. Assessment of risks and opportunities at an asset level: Risks are identified through divisional risk assessment interventions such as internal audit and group risk services. These risks are recorded in divisional and group risk registers, comprehensively assessed and given residual risk scores. This results in a prioritisation of risks to allow for allocation of limited resources and for measurement of progress made. Risks are then responded to through acceptance, transfer, avoidance or reduction strategies, taking risk appetites and tolerance levels into consideration. Divisional management is responsible for ongoing monitoring and management of their operating companies' risks. The divisional risk register is submitted into the group Risk and Sustainability committee.

iv. Frequency of monitoring: The risks are monitored on a quarterly basis by divisional management. Formal reporting on risk to the group Risk and Sustainability committee takes place bi-annually.

v. Criteria for determining materiality: The materiality of the risk is evaluated in terms of probability, severity and potential impacts, as well as the quality of the existing control environment. All risks are given an inherent & residual risk scores.

vi. Reporting of results: The divisional management identifies the risks and report the risks to the group Risk and Sustainability committee which is a sub-committee of the board. This committee reports to the board. In terms of external reporting, the major risks are identified and a description of the risks and mitigation actions are included in the integrated report.

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes

i. Impact on the business strategy: BAW's strategic framework includes 6 focus areas to which executive teams give priority to ensure sustainable value creation for all stakeholders. Sustainable development, encompassing climate change, is one of the 6 strategic areas. Stakeholder engagement and consultation informs and guides group activities. This approach is institutionalised through structured strategic planning and risk management initiatives. The integration of strategy and sustainability is evident in group roles and responsibilities with both aspects covered in the portfolio of a group executive with responsibility for strategy and sustainability, ensuring an integrated approach to stakeholder value creation. BAW's strategic planning framework is cascaded throughout the organisation and appropriately adapted for each operation. BAW's strategic focus areas are supported by critical success factors, appropriate action plans and measurable performance indicators. The strategic intent of sustainable development is:

- o Achieve profitable growth by offering products and services which capitalise on emerging business opportunities, including climate change
- o Realise cost savings through energy efficiencies and other sustainable business practices
- o Enhance BAW's reputation by taking a leading role in these
- o Engage stakeholders to guide appropriately BAW's value propositions
- o Approach management and reporting in an integrated manner that entrenches accountability for economic, environmental and social activities
- o Aspirational 12% improvement in non-renewable energy and GHG emissions (scope 1 and 2) efficiencies by end of 2014 off a 2009 baseline year
- o MARSO (Measure, Avoid, Reduce, Switch, Offset) to minimise carbon and wider environmental footprints;
- o Provide solutions that create value for BAW's customers by assisting them to achieve their own sustainable development objectives, which include addressing climate change.

ii. Climate change influence on business strategy: BAW's strategy has been influenced by the following major aspects of climate change:

- Reputation and responsibility: BAW is committed to conducting its activities in an environmentally responsible manner and being a responsible corporate citizen. Integration of climate change into the business strategy comes from the need to act responsibly and to conduct business in a transparent and ethical manner. BAW strives to manage the impacts (mitigate risks and maximize opportunities) to ensure that the group's reputation as a responsible corporate citizen remains untarnished. For this reason, BAW has implemented processes and systems to identify and manage climate change risks and to report, in a transparent and accurate manner, to its stakeholders.
- Increased operational costs: The proposed introduction of a carbon tax coupled with the increase in electricity and fuel prices has driven the need to improve energy efficiency, resulting in reduced GHG emissions against a business as usual scenario. In an effort to reduce the impact of a carbon tax, BAW has set an aspirational target to drive emission reductions. In achieving greater efficiencies, BAW also improves organisational resilience given price increases or disruptions in supply of fuel or electricity.
- Changes in customer expectations: The group's customers may require environmentally sound products that assist them in achieving their emission reduction targets. This has driven BAW and its leading international principals to develop new technologies, adapt existing technologies and offer new products and services that meet customer demands. For example, the need to assist customers to reduce their emissions led to the inclusion of 90 Honda Jazz Hybrid vehicles by Avis in its rental fleet.
- Opportunities: Climate change presents a number of opportunities, also influencing BAW's strategy. These include the development of new products and opportunities to differentiate the group's offering in light of the need to reduce emissions.

iii. Impact on short term strategy (3-5 years): Climate change has influenced short term strategy through the introduction of an aspirational emissions efficiency target which aims to improve emissions intensity by 12% in 2014 off a 2009 baseline. BAW's focus in the short term has been on the implementation of emission

reduction activities in pursuit of this aspirational target. Also, the group has adopted a MARSO approach to manage emissions. Initiatives in this regard include enhanced climate change data collection, reporting and communication processes and systems. Focus will be placed on refining these systems and processes in preparation for mandatory reporting and communicating the group's strategy on climate change with stakeholders. Also important are internal environmental awareness and communication initiatives, the implementation of energy efficiency initiatives which positively impact the group's emissions, new buildings incorporating environmentally beneficial aspects, recycling (including rebuild and remanufacture activities), waste disposal, and an enhanced employee value proposition incorporating environmental stewardship and responsible corporate citizenship.

iv. Impact on long term strategy (> 5 years, from 2014 to 2020): BAW has placed long term strategic focus on offering products and solutions that assist customers in achieving their environmental objectives and in reducing their GHG emissions. These products will also assist customers in terms of operational resilience and long term sustainability. Climate change has influenced BAW's long term strategy by increasing focus on development of more environmentally friendly products and service offerings and internal environmental stewardship initiatives. BAW is focused on product development to retain existing markets and to enter new markets. Embedded in the existing, short term and long term strategy is continued association with leading international brands and principals and diversification in terms of geographies and products. These aspects of BAW's strategy allow the group to mitigate many of the risks associated with climate change.

v. Strategic advantage over competitors: BAW has reduced its operational costs through implementation of emissions efficiency improvement projects in pursuit of the aspirational target. Not only have the implemented projects improved emissions efficiency, but they have also positively impacted on electricity and fuel consumption and related operational costs, and have improved organisational resilience. BAW has rebuild and remanufacture facilities which extends the lifespan of machines and equipment. Less energy is used to remanufacture than to produce a completely new product. Integrating climate change into the strategy has provided BAW with a competitive advantage in terms of product offering. BAW is continually developing and acquiring new products and offerings which enable customers to reduce their GHG emissions. One recent example of this is an investment into an environmental solutions company called re- which focuses on the reduction, reuse and recycling of waste in order to reduce emissions associated with waste disposal. BAW engages with world-class principals that are managing the risks and opportunities presented by climate change on a continual basis. Examples are provided below:

- Caterpillar Inc.'s 2020 internal and customer aspirational goals include a 20% reduction in customer GHGs, a 20% increase in customer energy efficiency and a 20% increase in customer materials efficiency by 2020. Offering emission-efficient products that reduce its customer's GHG emissions provides BAW with a competitive advantage.

- BWH's principal, NMHG, is the largest volume producer of zero emissions electric trucks in North America and offers lift trucks which operate on cleaner burning alternative fuels. NMHG's product offering allows BAW and its customers to remain competitive in an environment where fuel prices are increasing and carbon pricing is becoming a reality.

vi. Substantial business decisions: Investment (> R2m) was made in emission efficiency improvement projects within the group. BAW has invested in making new dealerships and buildings 'green' and energy efficient. BAW invested R250m and USD11m in rebuild and remanufacture facilities in South Africa and Russia, respectively. This investment was driven by the need to extend the life of equipment and reduce the number of components and machinery disposed of on an annual basis. This has a positive impact on emissions in the supply chain and less energy is used in the remanufacture process than in the production of a new machine or component. Avis added 90 Honda Jazz Hybrid vehicles to their fleet valued at some R23m. BAW acquired 25% of re-, an environmental solutions company.

2.2b

Please explain why not

2.3

Do you engage in activities that could either directly or indirectly influence policy on climate change through any of the following? (tick all that apply)

- Direct engagement
- Trade associations
- Other

2.3a

On what issues have you been engaging directly?

Focus of legislation	Corporate Position	Details of engagement	Proposed solution
Energy efficiency	Support	How BAW is engaging: BAW is concerned about climate change and appreciates the causal link between greenhouse gas emissions and global warming. BAW believes that improving energy efficiency, particularly non-renewable fossil fuels, benefits climate change and related policies. Accordingly, BAW was an early signatory to South Africa's Energy Efficiency Accord (EEA) with the South African Department of Minerals and Energy, and subsequently a signatory of the South African National Business Initiative's (NBI) Energy Efficiency Leadership Network's (EELN) Energy Efficiency Pledge. Other pledge signatories include BUSA and the Department of Energy. The company is a member of the EELN and has representation on the NBI's EELN Advisory Committee. Name of Legislation: various energy efficiency related initiatives and legislation. Geographies applicable: Predominately South Africa, but also in other geographies where BAW operates.	Through signing the EELN Pledge, BAW commits to: - Developing a Road map/ plan for improving energy efficiency in its operations, supported by the implementation of an appropriate energy management system. - Developing internal energy efficiency targets that are appropriate to its operations and activities and which respond proactively to, and are aligned with appropriate Government policies and strategies. - Reporting appropriately on efforts to promote energy efficiency and progress made towards set energy improvement targets in its operations within the parameters of national legislation. - Working with stakeholders on energy efficiency related issues to build capacity and develop the required skills to implement energy efficiency programmes and drive the required behavioural changes. The NBI consists of companies that provide leadership and peer support in achieving energy efficiencies and reducing emissions. The association also provides a platform for shared learning and best practice.

2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to influence the position?
Business Leadership South Africa	Consistent	Business Leadership South Africa (BLSA) is an independent association whose members represent South African big business leadership and major multinational investors. BLSA is mindful of the need to reduce emissions and use energy efficiently. However, they are equally mindful of the risk to growth and jobs posed by increasing electricity prices and the introduction of carbon taxes. BLSA seeks to engage constructively with government on these issues.	BAW's Chief Executive is on the board of BLSA and engages at such level.
The Road Freight Association (Board member)	Consistent	The Road Freight Association (RFA) is a facilitating body which influences the state of the industry, rates, upkeep of the road infrastructure, road safety, freight security, driver interests, cross-border transport, development funding for emerging operators, education, health, the fuel price, law enforcement, labour relations and many other issues related to road freight transport. One of the core values is sustainability and sustainable transport practices of which climate change forms a component thereof. The RFA recognizes the impact that climate change has on the industry and encourages the development and sharing of transport best practice that reduces the industry's impact on the environment and it engages with government on policy development as deemed appropriate.	BAW is represented on the board as well as in the carbon tax committee of this association. BAW's engagement at these levels includes input on sustainable transport and carbon reduction initiatives for the industry to consider.
Southern African Vehicle Rental and Leasing Association	Consistent	Southern African Vehicle Rental and Leasing Association (SAVRALA) is a self-regulating, member representative association. Sustainability is a strategic imperative for the industry but it relies on its members, many of whom are already part of major corporate organisations, to manage their carbon reduction programs and meet any legislative requirements. SAVRALA recognises the risks and opportunities presented by climate change on the industry and consequently facilitates the development of appropriate solutions, including giving guidance on policy development.	BAW is on the board of SAVRALA and provides input on all key issues facing the industry, including giving guidance on policy development.

2.3d

Do you publically disclose a list of all the research organizations that you fund?

2.3e

Do you fund any research organizations to produce public work on climate change?

2.3f

Please describe the work and how it aligns with your own strategy on climate change

2.3g

Please provide details of the other engagement activities that you undertake

Endangered Wildlife Trust (EWT): BAW funds EWT's projects and research through its annual membership fees. BAW supports the 6 strategic imperatives of the EWT's Conservation Strategy which are:

- Identify human-induced threats and the affected species in order to halt or reverse species decline.
- Ensure that the viability of threatened habitats and ecosystems is maintained.
- Develop innovative, economically viable alternatives to address harmful impacts to the benefit of people and biodiversity.
- Increase awareness and mainstream environmental considerations into the daily lives of people and decision makers.
- Explore and develop opportunities for mentorship and capacity building within the conservation sector.
- Provide a leadership role in ensuring efficient and adequate implementation, compliance and enforcement of conservation legislation.

WWF SA: BAW participates in climate change roundtables to discuss adaptation and mitigation scenarios and strategies, renewable energy and water conservation. The group engages with analytical and performance review initiatives and is a member to the Johannesburg Stock Exchange Socially Responsible Investment index and, responds to CDP's Climate Change and Water initiatives, and is a signatory to the United Nations Global Compact. BAW engages with other international organisations, agencies and thought leaders including the Global Responsible Leadership Initiative.

2.3h

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

BAW ensures that all engagements are consistent with its overall climate change strategy through ensuring that all relevant employees within the group understand and are aligned with BAW's position on climate change. BAW representatives on the various committees are appropriately mandated to ensure consistency. Internal meetings with these representatives are held on a regular basis (including individual discussions, monthly sustainability champion meetings, executive and management meetings). These meetings provide an opportunity for the representatives to provide feedback and to be informed on any changes to the group's position (if new regulation is released etc.). In this way, the representatives participate in structured feedback processes, are kept informed of the group's approach, and are able to communicate the group's position and strategy on climate change.

2.3i

Please explain why you do not engage with policy makers

Page: 3. Targets and Initiatives

3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Intensity target

3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
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3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
001	Scope 1+2	100%	12%	metric tonnes CO2e per unit revenue	2009	4.4	2014	It is an aspirational target & based on a "business as usual" scenario which tracks turnover as a proxy for business activity. It is not anticipated that the target will be achieved in a linear manner on an annual basis, but will be reached by the end of 2014. The intention is to focus attention & drive commitment to improving energy & emission efficiency with concomitant benefits of positively contributing to climate change & realising cost savings.

3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
001	Increase	30.4			It is anticipated that absolute emissions will increase by 30.4% at the end of the target period 2014 over the baseline 2009 but at a substantially lesser rate than a 'business as usual' scenario due in part to BAW's aspirational efficiency targets. Scope 3 emissions will increase with increased business activity. Emissions relating to business travel will continue to receive focus and should also increase at a lesser rate than 'business as usual.'

3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
001	60%	100%	Aligned with BAW's energy efficiency improvements, the FY2012 emissions intensity has improved 23% off the 2009 baseline year indicating that the group has exceeded by 48% its aspirational target of a 12% improvement. BAW will, however, continue with its initiatives to improve emission efficiency as the target remains based on intensity level at the end of the FY2014. In order to achieve the aspirational target, BAW continues to implement a number of initiatives that have a relatively quick payback. Consideration and prioritisation of more capital intensive projects has commenced in an effort to reduce our carbon emissions further.

3.1e

Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

Yes

3.2a

Please provide details (see guidance)

i. BAW invested R250m & USD11m in rebuild and remanufacture facilities in its Equipment operations in South Africa and Russia, respectively. This investment increases the capacity to rebuild and remanufacture machines and components. These operations extend the lifespan of equipment and result in significant emissions reductions. Less energy and materials are required to rebuild or remanufacture than to produce a new product, thus resulting in significant emissions

reductions.

- ii. Rebuild and remanufacture of Caterpillar component and machines require some 50% to 60% less energy by reusing between 85% and 95% by weight of the materials from the original product. Some 70% of Caterpillar components are rebuilt. The Hyster remanufacturing process recovers some 50% of original components whilst rebuilt engines are 50% more efficient in terms of energy.
- iii. The emission reductions are determined as the difference between the energy consumption required to produce a new machine or component and the energy consumption required to rebuild or remanufacture the machine or component. This energy saving is then multiplied by the appropriate emission factor.
- iv. The rebuild and remanufacture process could allow BAW to access CERs. However, given the current carbon market price, the cost to monetize the emission reductions is higher than the benefit from the sale of the CERs.
 - i. BAW acquired a 25% shareholding in re- which is a waste management company. re- focuses on reducing, reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering the services of re- to its customers, BAW is assisting customers reduce their GHG emissions.
 - ii. re- provides customers with an estimate of emissions avoided through the use of their services. Generally, recycling of 1 kg of cardboard results in the avoidance of 0.38 tCO₂e. Similarly, recycling plastic bags results in a reduction of 2.2 tCO₂e per kg.
 - iii. The emission reductions are quantified by calculating the emissions avoided as a result of reuse or recycling of waste.
 - iv. The purchase of a shareholding in re- allows BAW and its customers to reduce emissions associated with waste disposal. This reduction could potentially be monetized into CERs. However, given the current carbon market price, the cost to monetize the emission reductions is higher than the benefit from the sale of the CERs.
 - i. BAW Equipment distributes Caterpillar earthmoving equipment. Caterpillar Inc. has developed a number of energy efficient and low emitting technologies, for example, the Cat 988H Performance Plus Wheel Loader update, the new Positive Flow Control hydraulics and the 3 additional fuel-saving modes of operation enable additional fuel savings to be realised. ii. The Cat 988H Performance Plus Wheel Loader update increases productivity by 10% for the same energy consumption. The new Positive Flow Control hydraulics has demonstrated fuel savings of up to 5%.
 - iii. The saving is based on a reduction in fuel consumption multiplied by the emission factor for the fuel. The actual emissions saving is dependent on the customer's use of the Caterpillar vehicles.
 - iv. The equipment is used by BAW's customers. The energy efficient nature of the equipment enables the users to access CERs or ERUs.
 - i. BAW Handling's principal NMHG generally offers the most energy efficient equipment (energy use per load moved) of any manufacturer. Electric trucks incorporate systems that recapture energy when braking and lowering loads. Improved product design results in less weight and improved efficiency. Hyster is investigating advanced, more efficient battery chemistries and technologies to reduce energy consumption and carbon emissions.
 - ii. The Hyster Reachstackers / Big Trucks saves up to 15% in fuel (with related emissions reductions) against competitor trucks, similarly the new Fortens range LPG forklifts save up to 15% in fuel.
 - iii. The saving is based on a reduction in fuel consumption multiplied by the emission factor for the fuel. The actual emission saving is dependent on the customer's use of the Hyster vehicles.
 - iv. Use of such equipment enables customers to reduce their carbon footprints and provides the potential to access CERs or ERUs by engaging in the carbon market and monetizing their emission reductions.
 - i. In BAW Automotive division, motor retail operations represent leading global vehicle manufacturers which continue to develop and introduce energy efficient and low emitting hybrid and electric vehicles. Avis included 90 Honda Jazz Hybrid vehicles in its car rental fleet in FY2012. All fleets include latest vehicle models and technology, which results in general improvement in energy efficiency and emission reductions.
 - ii. 33gCO₂/km avoided.
 - iii. The avoided emissions are determined by the difference between the emissions from a hybrid Honda Jazz and the emissions from a standard Honda Jazz. Emission standards were sourced from the Honda website.
 - iv. Use of such equipment enables customers to reduce their carbon footprints and provides the potential to access CERs or ERUs by engaging in the carbon market and monetizing their emission reductions.

3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and implementation phases)

Yes

3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	8	
To be implemented*	4	
Implementation commenced*	3	
Implemented*	26	
Not to be implemented	0	

3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Energy efficiency: Building services	Scope 2 voluntary: Installation of occupancy sensors on HVAC and lighting systems at facilities in Boksburg. The expected lifetime is greater than 3 years.	51.45	54594	21649	<1 year
Energy efficiency: Building services	Scope 2 voluntary: Installation of occupancy sensors on HVAC and lighting systems at facilities in Isando. The expected lifetime is greater than 3 years.	34.10	36183	251110	1-3 years
Energy efficiency: Processes	Scope 2 voluntary: Replacement of a 75kW Compressor with a 15kW Sullair ShopTek ST1500 Unit. The expected lifetime is greater than 3 years.	378.17	255360	130000	1-3 years
Energy efficiency: Building services	Scope 2 voluntary: Automotive Toyota Stellenbosch: Solar Water Heater installed for staff ablutions. Hydroboil installed for instant hot water. The expected lifetime is greater than 3 years.		2580	46000	1-3 years
Energy efficiency: Building services	Scope 2 voluntary: Automotive Toyota Stellenbosch: Power factor correction equipment installed. The expected lifetime is greater than 3 years.		158171	50000	1-3 years
Energy efficiency: Building services	Scope 2 voluntary: Automotive Toyota Stellenbosch: Intelligent switching system installed. Night switching for dedicated showroom display & security controlled by Intellibus. Energy Efficient lighting and motion sensors installed. The expected lifetime is greater than 3 years.		108941	134837	1-3 years
Energy efficiency: Building fabric	Scope 2 voluntary: Light-coloured roof sheeting for thermal reflection was installed in a number of operations. Roof insulation for thermal insulation was also installed to reduce HVAC energy requirements. Light external wall colours were used for thermal reflection. Installation of skylights and translucent sheeting to increase natural lighting and reduce electricity consumption. The expected lifetime of these activities is greater than 3 years.				
Energy efficiency: Building	Scope 2 voluntary: A number of operations have done the following: • Inverter units installed on HVAC. The expected lifetime is greater than 3 years. • Installation of Power Perfector to reduce electricity consumption by reducing voltage. • Installation				

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
services	of light sensor and energy efficient lighting. • Unused air-conditioning and lighting switched off The expected lifetime of all of these activities is greater than 3 years.				
Behavioral change	Scope 2 voluntary: BAW Equipment UK: Released communications to employees to re-educate them on ways and means to save energy within the company. BAW uses a noticeboard specifically for Energy Saving, showing various information and sharing ideas. No expected lifetime applies to the communication initiative – it is an ongoing initiative.				
Other	Scope 3 voluntary: Reduction of GHG emissions by converting product transported by road to rail in Zambia. The expected lifetime is greater than 3 years.	1754	1498095	0	<1 year

3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Compliance drives investment in emission reduction activities. BAW ensures full compliance with regulatory requirements/standards and has established targets in support of these. Carbon pricing schemes (both introduced and planned) have driven investment in emission reduction projects. BAW has introduced an aspirational target to improve emissions efficiency and is actively implementing emission reduction projects to reduce the impact of a carbon price (current and in the future). BAW was an early signatory to South Africa's Energy Efficiency Accord (EEA) with the South African Department of Minerals and Energy, and subsequently a signatory of the South African National Business Initiative's (NBI) Energy Efficiency Leadership Network's (EELN) Energy Efficiency Pledge. The company also participates in Business Unity South Africa's climate change forum and has representation on the NBI's EELN Advisory Committee both of which assist to keep the company informed of leading practice, policies and regulatory changes.
Dedicated budget for energy efficiency	Costs of energy efficiency initiatives are not at this stage generally ring-fenced but incorporated into standard budgets and on-going cost base of BAW divisions. However, BAW has implemented and is considering implementing a number of energy efficiency projects. In FY2012, BAW spent over R2m on energy efficiency projects.

Method	Comment
Dedicated budget for low carbon product R&D	BAW's divisions and principals are engaged in the development of new products and offerings that reduce emissions. For example, the development of the CINO (Combined Inventory and Network Optimisation) tool, the CAST-CO2 software, the Green Trailer, and the new Power business unit's offering which provides energy efficiency, energy demand management and emissions management services to customers.
Dedicated budget for other emissions reduction activities	Costs of emission reduction activities are not at this stage generally ring-fenced but incorporated into standard budgets and on-going cost base of BAW divisions. Currently BAW uses the MARSO approach: Measure, Avoid, Reduce, Switch and, finally, Offset. Dedicated budgets for offsetting, if and when appropriate, are likely to be a consideration. Most divisions are within the MAR processes and are investigating the Switch and Offset options. BAW has implemented a number of emission reduction projects during FY2012. These projects have cost over R2m.
Employee engagement	Internal and external communication strategies have been developed. Employee engagement is used as a means to drive behaviour change that will result in greater awareness and energy savings. Specific employees are appointed as sustainability champions in order to communicate and liaise at division level, monitor, measure and report usage/emissions. Communication on initiatives and progress, as well as pertinent relevant information is through management meetings, performance ownership meetings, 'green' community of practice meetings, publications, intranet sites, screen savers, posters, exhibitions and newsletters. Communications initiatives share information on energy consumption/ emissions/ costs by branch or division and disseminate information on best practice. A key aspect of BAW's employee value proposition is environmental stewardship. BAW is committed to training and upskilling. BAW has a human resources practice which is constantly engaged in ensuring that it manages, retains and recruits the required skills and key talent. Sustainability is a module on the BAW Leadership Development Programme (LDP) attended by prospective leaders of the organisation.
Financial optimization calculations	Incorporated into feasibility studies and capital vote applications. Financial optimization drives investment in emission reduction projects as it considers the capital cost of projects against the energy cost savings achieved over the project life. All new property developments to incorporate sustainable "green building" principles which are based on optimal financial calculations. Operations have switched to more environmentally friendly methods with improved financial returns such as retrofitted lighting. As a Logistics division business offering, operational efficiency is linked to network optimisation which in turn results in increased revenue.
Internal price of carbon	The cost of carbon is used in the decision-making process for emission reduction activities. The proposed carbon tax in South Africa, the existing carbon tax in Australia and the regulation in the UK are considered when evaluating the feasibility of various emission reduction projects. The basic drivers to reduce energy consumption and carbon emissions include increasing energy costs and carbon taxes.
Internal incentives/recognition programs	Group, division, team and individual aligned key performance indicators, scorecards and awards are used to drive investment in improved energy efficiency and emission reduction activities.
Other	Functional responsibilities are managed through a group-wide, integrated performance scorecard system which includes defined climate change related objectives. BAW has set an aspirational target of a 12% efficiency improvement in carbon emissions by 2014 off a 2009 baseline year. This target drives investment in energy efficiency and emission reduction projects.
Partnering with governments on technology development	SA government is involved in the bringing about the 'green economy.' BAW partners with government where possible to assist with the development of new technologies. For example, the Dedicated Transport division, within Logistics, initiated a project where they collaborated with the CSIR and other partners in designing a more energy efficient and ergonomic vehicle

Method	Comment
	which can carry a higher payload and be streamlined enough in its design to reduce the fuel consumption and ultimately the emissions (currently projected at 7% reduction per trip, Johannesburg to Durban). The fleet has been expanded to include an additional five units in FY2012.
Marginal abatement cost curve	BAW does consider the least cost option in terms of reducing emissions. However, it is not only about least cost, but also about operational requirements. Other factors, apart from cost, are considered in the business case when considering investment in emission reduction projects. Whilst not being pursued or implemented yet, emissions trading could reduce the group's or group companies' overall cost of compliance with emission constraints by taking advantage of differences in marginal abatement costs across different emission sources. It could drive investment in emission reduction projects. This is dependent on the recovery of the carbon market and the success of new market mechanisms created.

3.3d

If you do not have any emissions reduction initiatives, please explain why not

Page: 4. Communication

4.1

Have you published information about your company's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section reference	Attach the document
In mainstream financial reports (complete)	3, 16, 21, 26-27, 34, 37, 42, 45, 46, 48, 50, 52, 55, 57, 58, 59, 60, 61, 86, 87, 88, 89, 90	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/intergrated-report-2012.pdf
In voluntary communications	Not in public domain: JSE profile	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-

Publication	Page/Section reference	Attach the document
(complete)		IdentifyAttachment/http___www.jse.co.pdf
In voluntary communications (complete)	GRI Environmental section (EN1-30) pages 1- 17	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Environmental.doc
In voluntary communications (complete)	GRI Strategy and Analysis section (1.1-1.2) page 1, 2, 3, 4, 6, 8	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Strategy and analysis.doc
In voluntary communications (complete)	GRI Governance section (4.1-4.17) page 4, 13, 15	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Governance.doc
In voluntary communications (complete)	GRI Society section (SO1-10) page 3, 4	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Society.doc
In voluntary communications (complete)	Not in public domain: Briefing Barloworld issue 07, Page 4	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Briefing Barloworld Issue 07.pdf
In voluntary communications (complete)	Not in public domain: Briefing Barloworld issue 09, Remanufacture centre, Page 2	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Briefing Barloworld Issue 09.pdf
In voluntary communications (complete)	Not in public domain: Briefing Barloworld issue 10, Page 3	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Briefing Barloworld Issue 10.pdf
In voluntary communications (complete)	Not in public domain: Briefing Barloworld issue 12, Page 2	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Briefing Barloworld Issue 12.pdf
In voluntary communications (complete)	Not in public domain: Briefing Barloworld issue 17, Page 4	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Briefing Barloworld Issue 17.pdf
In voluntary communications (complete)	Not in public domain: Briefing Barloworld issue 18, Page 2	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Briefing Barloworld Issue 18.pdf
In voluntary communications (complete)	ESG Publication: Issue no. 1, page 148	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/ESG.pdf
In voluntary communications (complete)	Food and Trees website: http://www.trees.co.za/announcements/barloworlds-environmental-ethos-benefits-communities.html	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/http___www.trees.co.pdf

Publication	Page/Section reference	Attach the document
In voluntary communications (complete)	Business Day Annual 2012: Pages 42, 64, 104, 228	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Business Day 2012.pdf
In voluntary communications (complete)	Barloworld UNGC COP 2012: Pages 10 to 14 (Link: http://www.barloworld.com/docs/policies-and-disclosures---new/barloworld-ungc-cop-gri-aligned-december-2012.pdf?sfvrsn=0)	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Barloworld-UNGC-cop-gri-aligned-december-2012.pdf

Module: Risks and Opportunities [Investor]

Page: 5. Climate Change Risks

5.1

Have you identified any climate change risks (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
1	General environmental regulations, including planning	BAW identifies the predominate use of fossil-fuel based energy in its supply chain, operations products and solutions as a risk to itself and its supply chain. Essentially all BAW customer solutions are fossil fuel based, thus any change in the regulatory environment that impacts on the price, availability or levels of consumption of fossil fuels will impact pervasively on the group. Examples include the introduction of carbon pricing, caps on emissions levels or the introduction of air pollution limits. This could potentially reduce the competitiveness of products and services and also increase the cost base. This would negatively affect BAW's competitive position and sustainable value creation potential. Two potential impacts were identified for this risk, namely: 1. Increased cost based. 2. Reduced demand for goods/services. The most significant of these impacts was assessed as "Reduced demand for goods/services".	Reduced demand for goods/services	1-5 years	Direct	More likely than not	High
2	Carbon taxes	Globally there is a trend towards implementing carbon prices. The introduction of a carbon price in the countries in which BAW operates would negatively impact on operational costs. In Australia, a carbon tax was introduced on 1 July 2012. The carbon price is fixed at A\$23 per tCO ₂ e in 2012-13, rising at 2.5% plus inflation per year for three years. This carbon tax, coupled with Government's long term commitment to reduce emissions by 80% by 2050 from 2000 levels, will place significant cost pressure on operations in Australia and customers. South Africa is planning on implementing a carbon tax in January 2015. The carbon tax policy paper indicates a carbon tax on scope 1 emissions of R120 per tCO ₂ e with a 10% per annum increase for 5 years. There will be a tax-free threshold of 60% initially. This means that most companies will only pay for 40% of their emissions. This tax free threshold will be reduced over time. Not only will BAW be paying directly for their carbon emissions through the carbon tax, there will also be indirect cost implications through increased prices of electricity and fossil fuels as well as 'pass-through' costs from the supply chain. Four potential impacts	Increased operational cost	1-5 years	Direct	Virtually certain	Low-medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		were identified for this risk, namely: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most significant of these impacts was assessed as "Increased operational cost".					
3	International agreements	Under the second commitment period of the Kyoto Protocol a number of countries made commitments to reduce emissions. Examples include: - South Africa's voluntary commitment to a significant emissions reduction target of 34% by 2020 and 42% by 2025, dependent on technical and financial assistance. It is believed that the greater part of responsibility for achieving this target will be passed on to the private sector. With many of its operations in SA, this target could have a significant impact on BAW. It is also possible that South Africa along with other developing countries will take on mandatory reduction targets in the new global agreement on climate change which is anticipated to come into effect in 2020 and will replace the Kyoto Protocol. These mandatory targets will affect business and could impact BAW's operations and increase the cost of doing business. - The European Union has a target to reduce GHG emissions by 20% by 2020 off 1990 levels or a quantified emission limitation or reduction objective of 80%. Climate change and emission reduction legislation is already in place in a number of EU member states such as the UK. These commitments are pushed down onto businesses that operate within these respective countries. - Australia's quantified emission limitation or reduction objective under the Kyoto Protocol was 99.5% of 1990 levels by 2020. This represents a significant commitment that is expected to be achieved through a carbon price. BAW's Australian operations are already subject to taxes on carbon emissions. Commitments made by countries under these international agreements are typically pushed down onto business in the form of carbon taxes or penalties. Both of which can negatively affect the operational costs of BAW. An example is the carbon tax that has been recently implemented in Australia. Three potential impacts were identified: 1.	Increased operational cost	1-5 years	Direct	Likely	Low-medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		Increased operational cost. 2. Reduced demand for goods and services. 3. Reduced stock price. The most significant of these impacts was assessed as "Increased operational cost".					

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk and (iii) the costs associated with these actions

BAW has identified climate change and environmental stewardship as one of the group's top risks in FY2012. This includes climate change and related physical risks due to changing weather patterns; regulatory risks associated with GHG emissions; financial risks resulting from carbon taxes; operational risks due to constraints in energy supply and the availability of natural resources, such as water. The overarching management response to risks related to climate change includes minimizing exposure through in-depth risk assessments and strategic responses and ensuring organizational resilience through aligned and integrated management activities and policies. These include:

- Implementation of non-renewable energy and GHG emissions efficiency improvement targets.
- Association with leading principals, provision of products and solutions with reduced environmental footprint and which assist customers in achieving their sustainable development objectives. BAW has developed strong relationships with its principals and suppliers which facilitates information sharing about local market conditions and trends, including information on climate change issues, including regulatory environments and emission standards, which assists its principals in developing customer solutions that differentiate and expand their product ranges.
- Geographic and industry diversification. BAW has operations in 27 countries which reduces the impact of geographically-related climate change risks (such as physical and regulatory risks). BAW has three major divisions (Equipment, Automotive and Logistics, Handling). Within each division, there are a number of different operations and business activities. This enables the group to reduce the impact of climate change risks related to specific business activities. The overarching management response applies to all risks. Specific risk mitigation interventions for each identified risk are detailed below:

Risk1:

- i. Inherent risk value of below R250m with a residual risk value of below R60m.
- ii. Minimise exposure through in-depth risk assessments and strategic responses. Ensure organisational resilience through aligned and integrated management activities and policies. These include:
 - Implementation of non-renewable energy and GHG (scope 1 and 2) emissions efficiency improvement targets and focus on water stewardship.
 - Association with global leading principals and brands, provision of products and solutions with reduced environmental footprint and which assists customers achieve their sustainable development objectives.
 - Geographic and industry diversification. BAW operates across 27 countries and has a diverse range of customer offerings across six identified strategic growth segments.
 - Awareness, anticipation and appropriate action through participation in and representation on corporate/business groups and organisations that provide feedback

on proposed legislation. Monitoring the development of regulation enables BAW to be prepared for its implementation. An example is BAW's investment into its equipment remanufacture and rebuild facilities in Russia and South Africa, addressing potential life-cycle and waste management regulations.

iii. The investment costs associated with the implementation of energy and emissions reduction projects exceeded R2m for the reporting period. Membership costs for three organisations amounted to some R450000 in FY2012. Other costs associated with managing this risk are incorporated in the operational cost base of the company and its principals. These costs are either part of the relevant product and equipment offering available from principals and therefore included in the normal 'cost of sales' which were R46bn for the reporting period; or the costs are part of initiatives which are commercially sensible as they result in reduced long term operating costs.

BAW invested R250m and USD11m in rebuild and remanufacture facilities in South Africa and Russia, respectively which aims to extend the lifespan of machinery and equipment, thus minimising waste. BAW acquired a 25% shareholding in re- which is a waste management company, which will, amongst other internal benefits, assist BAW in being prepared for any new waste regulations.

Risk 2:

i. Inherent risk value of below R60m and residual risk value of below R30m. In South Africa, depending on offset opportunities, BAW could pay R4.27m in additional tax on its scope 1 emissions, using the FY2012 numbers. Should the tax-free threshold be reduced over time then BAW could pay over R10.68m in a carbon tax. BAW's Australian operations paid A\$20863 in a carbon tax since implementation in July 2012 through to September 2012. BAW will be exposed indirectly to the carbon tax through increased prices of electricity and fossil fuels. For South Africa, initial indications are that this cost will be some R3m at initial tax-free threshold levels. If the tax-free threshold is reduced over time then this would increase to over R7.5m in a carbon tax. For illustrative purposes, considering that majority of its emissions are from South Africa, if a carbon tax of R120 per tonne had to be implemented across the group, then BAW could pay over R23m for its total global scope 1 and 2 emissions.

ii. The group is focused on improving emissions efficiency against a business as usual scenario as a method of minimizing the impact of a carbon tax. In 2009, the group implemented an aspirational target of a 12% efficiency improvement in non-renewable energy and GHG emissions (scope 1 and 2) by 2014 from a baseline year of 2009. The group has invested into a number of energy, and consequently emission reduction, initiatives and has embarked on carbon offset programmes. Measurement and verification is essential to understanding and managing the impact of a carbon tax. For this reason, BAW continues to have its scope 1 and 2 GHG emissions assured by their group external auditors.

iii. The investment costs associated with the implementation of energy and emissions efficiency improvement projects exceeded R2m for the reporting period. Costs relating to group's current carbon offset programme were R1.17m in FY2012. In the FY2012, the cost incurred for assurance services for non-financial indicators (including energy and emissions) was estimated to be some R0.5m.

Risk3:

i. Inherent risk value of below R45m and residual risk value of below R20m.

ii. The group is focused on improving emissions efficiency against a business as usual scenario as a method of minimizing the impact of the carbon taxes and penalties that could arise from these global agreements. In 2009, the group implemented an aspirational target of a 12% efficiency improvement in non-renewable energy and GHG emissions (scope 1 and 2) by 2014 from a baseline year of 2009. The group has invested into a number of energy, and consequently emission reduction, initiatives and has embarked on carbon offset programmes. Measurement and verification is essential to monitoring progress against set targets which are introduced as a result of these agreements. For this reason BAW continues to have its scope 1 and 2 GHG emissions verified by their group external auditors. Typically targets under these international agreements are country-specific and therefore geographic diversification assists in mitigating the risk in this regard. BAW has signed the Energy Efficiency Leadership Network (EELN) Pledge with the Department of Energy in South Africa and also participates in CDP's Climate Change and Water disclosure projects.

iii. The investment costs associated with the implementation of energy and emissions efficiency improvement projects exceeded R2m in the reporting period. Costs relating to group's current carbon offset programme were R1.17m in FY2012. In the FY2012, the cost incurred for assurance services for non-financial indicators (including energy and emissions) was estimated to be in excess of R0.5m.

5.1c

Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
4	Change in mean (average) temperature	Changes in mean temperatures could affect the working environment requiring additional expenditure on temperature control equipment, HVAC system and related energy consumption. Changes in mean temperatures could directly impact arable land patterns. This could result in reduced demand for goods and services from the agriculture sector which would impact on BAW. These changes could also lead to shifting settlement patterns as a result of farming moving outside of current production areas. The group will be negatively affected if these settlements or communities move outside of BAW's distribution areas. Five potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. 5. Wider social disadvantages. The most significant of these impacts was assessed as "Reduced demand for goods/ services".	Reduced demand for goods/services	6-10 years	Direct	Likely	Medium-high
5	Change in precipitation extremes and droughts	Flooding could damage company infrastructure, stock and negatively affect operations including field servicing, operation of plant, equipment and vehicles. Drought would also negatively affect operations through water shortages, water price increases and operational inconvenience. Both flooding and droughts may require expenditure on infrastructure to overcome related difficulties. If severe, they may ultimately require changes to existing business model or relocation. Flooding and droughts could increase insurance premiums which would increase the cost base of company. Floods and droughts can have a significant impact on the agricultural industry resulting in crop damage and shifting arable land areas. This could result in a reduction in demand for BAW's agricultural products. Similarly, these would also impact the group's supply chains and customers negatively affecting demand and supply. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most significant of these impacts was assessed as "Reduced demand for goods/	Reduced demand for goods/services	Current	Direct	Likely	Medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
6	Uncertainty of physical risks	<p>services".</p> <p>Uncertainty surrounding physical risks creates uncertainty in the business environment. This results in a cautious approach and the inability to firmly commit to business decisions already taken or business decisions to be taken on issues such as competitive products, services and customer offerings, sectors in which to operate, business models and optimal locations. This cautious approach is adopted not only by BAW but by its principals and customers as well resulting in an inability of medium to long term decision making, e.g. strategic direction, selection of product ranges, strategic partnerships, etc. The uncertainty as to the timing and extent of extreme weather events could also result in increased insurance premiums. The diversified nature and location of BAW's operations requires that the group monitors physical risks and implements mitigation measures across a number of geographies, resulting in increased costs. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced capital availability. 4. Reduced demand for goods / services. The most significant of these impacts was assessed as "Reduced demand for goods/services".</p>	Reduced demand for goods/services	Current	Direct	Unlikely	Medium-high
7	Change in mean (average) precipitation	<p>Water is required for washing and cleaning of equipment, plant and motor vehicles. Changes in mean (average) precipitation levels could result in shortages and consequential price increases of water which could increase operational costs. Investment in water storage and treatment infrastructure to alleviate the impact of water shortages. Water shortages will impact on BAW's ability to clean vehicles and equipment which may impact on customer satisfaction and result in reduced demand. Changes in mean precipitation levels and resulting floods or droughts could impact on BAW's customers, including mining operations, impacting on the demand for goods/services. Increased precipitation may negatively affect safety levels and increase vehicle collisions which could increase insurance premiums. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most</p>	Increased operational cost	1-5 years	Direct	Likely	Low-medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		significant of these impacts was assessed as "Increased operational cost".					
8	Snow and ice	Severe snow and ice as a result of climate change could result in unsafe working environments and ultimately stop operations. Temperatures below safe operating ranges for plant, equipment and vehicles could halt operations. Severe snow and ice could result in increased expenditure on energy and equipment required for heating and defrosting. Customers would be similarly affected. These would also impact BAW's supply chains negatively affecting supply with concomitant restraints on BAW's ability to provide its integrated customer solutions. Frequent snow and ice may negatively affect safety levels and increase vehicle collisions which could increase insurance premiums. A specific example is the BAW Russian operations where fuel lines need to be replaced to prevent freezing which could result in operations being stopped. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most significant of these impacts was assessed as "Increased operational cost".	Increased operational cost	Current	Direct	More likely than not	Low-medium
9	Tropical cyclones (hurricanes and typhoons)	Cyclones and other extreme weather events would cause physical damage to facilities, result in unsafe working environments and ultimately stop operations. Customers would be similarly affected. BAW's supply chains could also be impacted; negatively affecting supply with concomitant restraints on the group's ability to provide its integrated customer solutions. Weather events can have a direct and indirect cost for the group. For example, a hailstorm can damage infrastructure and vehicles resulting in expenditure on repairs. A hailstorm would also damage vehicles not owned by Avis and require Avis to provide vehicles to customers of insurance companies who have a rental option on their policies. This could result in revenue loss as Avis has rental agreements with insurers which have lower than market rates. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most significant of these impacts	Inability to do business	Current	Direct	Likely	Low

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		was assessed as "Inability to do business".					
10	Change in temperature extremes	Changes in temperature extremes impacts on working conditions and has safety implications for BAW employees. It could require investment in new HVAC (capital expense) and temperature control equipment to ensure that the employees are able to work in a comfortable and safe environment. This risk will also give rise to more frequent use and maintenance of existing HVAC equipment, resulting in increased operational costs. Three potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Inability to do business. The most significant of these impacts was assessed as "Increased operational cost".	Increased operational cost	1-5 years	Direct	Likely	Low
11	Sea level rise	Sea level rise could damage harbour infrastructure and disrupt low-lying areas and industries, with negative consequences on BAW's supply chains as significant amount of plant and equipment are transported by sea. Optimal and efficient routes may be affected impacting on BAW competitive advantage. Two potential impacts were identified: 1. Reduced demand for goods / services. 2. Inability to do business. The most significant of these impacts was assessed as "Reduced demand for goods/ services".	Reduced demand for goods/services	>10 years	Direct	Likely	Low

5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

As mentioned, there are overarching methods of managing risks presented by climate change. In terms of physical risks presented by climate change, BAW uses diversification and engagement with world class principals as risks management methods. BAW operates in 27 countries around the world. This geographical diversification minimizes the physical risks associated with climate change as these risks tend to be contained to specific regions or to differ by region. Engagement with leading international brands and ongoing engagement with these organisations, provides BAW with confidence in the fact that its suppliers are aware of and are managing the physical risks presented by climate change. Specific risk management detail is provided:

R4:i. Inherent risk value below R180m and a residual risk value below R45m. **ii.** BAW manages the risks of increased costs associated with the need for additional air-conditioning by installing and maintaining energy efficient and adequate HVAC units in its operations. Close relationships with leading world class principals and the geographical and industry diversification of the group reduces the impact of changing agricultural and settlement patterns as changes in mean temperature are typically contained to specific region/s and impacts specific operations over different timescales. Close relationships with principals and customers enable BAW to understand the needs of customers and the risks to which they are currently or are likely to be exposed and to respond accordingly. The impact is further mitigated by on-going monitoring and a robust strategic planning process. **iii.** These costs are incorporated into the ongoing operational activities and cost base of the group. As an example, BAW has spent over R150000 on HVAC units in the reporting year. This cost was incorporated into the ongoing operating costs of the group.

R5:i. Inherent risk value below R100 mill and a residual risk value below R20m. A division within BAW has valued the risk associated with floods and droughts at R1m as a consequence of decreased demand for products in the agricultural sector. **ii.** BAW insures for any physical and consequential damages. All BAW facilities maintain business plans that incorporate emergency response actions and business continuity. The geographic diversification of BAW and its supply chains minimises this risk as flooding and droughts are typically confined to specific regions at any given time. Industry diversification is also another method of managing the risk. BAW operates across a number of industry segments which spreads the risk and reduces the impact associated with floods and droughts on the group. **iii.** Significant insurance cover is provided at group level which extends to physical damage and consequential damages. The costs of this insurance was approximately R30m.

R6:i. Inherent risk value below R60m and a residual risk value below R30m. **ii.** BAW insures for any physical and consequential damages. All BAW facilities maintain business plans that incorporate emergency response actions and business continuity. Close relationships with leading world class principals and the diversified nature of the group also reduce the impact of the risk. Ongoing engagement with customers allows BAW to understand customer concerns in an uncertain environment. **iii.** Significant insurance cover is provided at group level which extends to physical damage and consequential damages. The cost of this insurance was approximately R30m. Costs associated with mitigation controls are not ring-fenced but incorporated into ongoing activities, revenue and cost bases of BAW companies.

R7:i. Inherent risk value below R45m and a residual risk value below R10m. **ii.** BAW insures for any physical and consequential damages. Apart from insuring for any physical damages resulting from changes in precipitation, the group continues to implement water reduction initiatives to curb the impact of water shortages and potential price increases. In FY2012, BAW recycled 15% of the water used in the group, up from 10.6% in FY2011. BAW maintains close relationships with customers and principals. This allows BAW to understand customers' exposure and requirements as well as to collaborate with principals to adapt products to address customers' needs. **iii.** BAW insurances includes physical damage associated with changes in mean (average) precipitation levels, for example floods and droughts. The cost of this insurance was approximately R30m. BAW has invested significantly in water recycling and rainwater harvesting systems. For example, one Motor Retail dealership has implemented rainwater harvesting at a cost of R455030 to reduce water withdrawal from the municipal water supply.

R8:i. Inherent risk value below R30m and a residual risk value below R10m. **ii.** BAW insures for any physical and consequential damages. All BAW facilities maintain business plans that incorporate emergency response actions and business continuity. Close relationships with leading world class principals and the geographical and industry diversification of the group reduces the impact of the risk as snow and ice are typically contained to specific region/s and impacts only on specific operations. **iii.** Significant insurance cover is provided at group level which extends to physical damage and consequential damages. The cost of this insurance was approximately R30m. An example is the replacement of fuel lines in equipment in Russian operations to prevent freezing at a cost of some USD1000 per machine.

R9:i. Inherent risk value below R25m and a residual risk value below R5m. A division within BAW has valued the risk associated with floods and droughts at R1m, as a consequence of decreased demand for products in the agricultural sector. Hail is an example of an extreme weather event. Hail damage from one specific hailstorm in South Africa resulted in some R5m in repair costs for the rental fleet. **ii.** BAW insures for any physical and consequential damages. All BAW facilities maintain business plans that incorporate emergency response actions and business continuity. Close relationships with leading world class principals and the geographical and industry diversification of the group reduces the impact of the risk as it is typically contained to specific region/s and impacts specific operations. **iii.** Significant insurance cover is provided at group level which extends to physical damage and consequential damages. The cost of this insurance was approximately R30m.

R10:i. Inherent risk value below R25m and a residual risk value below R5m. **ii.** BAW manages the risks of increased costs associated with the need for additional air-conditioning by installing and maintaining energy efficient and adequate HVAC units in its operations. In terms of mitigating the impact of this risk on the health and safety of its employees, health and safety committees are established across the group. Management consults with the committees with a view to initiate,

develop, promote, maintain and review measures to ensure the health and safety of all employees and visitors. BAW has employee wellness programmes which provide ongoing health services to employees to ensure that employees' health needs are met. **iii.** These costs are incorporated into the ongoing cost base of the group. An example is the cost for HVAC units. BAW has spent over R150000 on HVAC units in the reporting year. This expenditure formed part of the ongoing operational costs of the business. BAW has spent R406232 and R121693 on employee wellness programmes for South Africa and the rest of Africa, respectively. The expenditure on wellness programmes is also part of the ongoing operating costs of the business and are not ring-fenced in terms of climate change. **R11.i.** Inherent risk value below R25m and a residual risk value below R5m. **ii.** The geographic diversification of BAW and its supply chains minimises this risk as it is typically confined to specific regions. BAW operates in 27 countries. Damage to harbour infrastructure usually results from a combination of sea level rise and extreme weather events which generally only occur in one specific region at a given time. **iii.** No additional costs. These costs are incorporated into the ongoing operational activities and cost base of the group.

5.1e

Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
12	Changing consumer behaviour	Shifts in consumer preference to locally sourced products with a reduced carbon footprint may affect group's logistics business, as well as other products supplied by group. In addition, there are competitive risks from suppliers who may enter the market with technologies, products and services with greater energy and emission efficiencies or lower impacts on the environment.	Reduced demand for goods/services	1-5 years	Direct	Likely	High
13	Other drivers	Given growing public awareness on issues such as climate change, environmental stewardship activities need to be an important aspect of employee value proposition in order to attract and retain talent. Insufficient attention to this aspect results in the inability to attract and retain the required talent which could result in a lack of skills and, therefore, the inability to do business. Two potential impacts were identified: 1. Increased operational costs. 2. Inability to do business. The key impact identified for this risk is "Inability to do business".	Inability to do business	Current	Direct	Likely	Medium-high
14	Other drivers	There may be risks associated with shareholder or public activism arising from climate change issues resulting in financial and reputational risks for companies that might inadvertently fall foul of regulations or public opinion. Reputational damage could negatively affect commercial standing and activity of group as well as its ability to attract and retain key talent.	Reduced demand for goods/services	Current	Direct	About as likely as not	Medium-high

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		Reputational damage could result in a reduced demand for goods and services. Three potential impacts were identified: 1. Reduced demand for goods / services. 2. Reduced stock price valuation. 3. Inability to do business. The most significant of these impacts was assessed as "Reduced demand for goods/ services".					
15	Fluctuating socio-economic conditions	A loss of business confidence may result due to climate change events as financial and social consequences add to inflationary pressures and detrimentally affect morale, standards of living, etc. This would affect demand for BAW's products and services. Changes in human settlement patterns, as well as in financial and insurance markets, could take place as a result of climate change and this would impact on long term strategic decisions such as business models and locations and how capital and human resources are allocated, accessed and managed. Two potential impacts were identified: 1. Reduced demand for goods / services. 2. Wider social disadvantages. The most significant of these impacts was assessed as "Reduced demand for goods/ services".	Reduced demand for goods/services	1-5 years	Direct	Unlikely	High
16	Other drivers	Climate change could increase the spread of disease which could have a negative impact on the health of employees. This could pose a risk to the organisation and would need to be managed through health and safety structures and functions, e.g. impacts on employee wellness and assistance programmes will need to be considered and addressed. Additional staff costs will also be incurred if the health impacts result in prolonged leave of absence. Two potential impacts were identified: 1. Increased operational cost. 2. Wider social disadvantages. The most significant of these impacts was assessed as "Increased operational cost".	Increased operational cost	1-5 years	Direct	More likely than not	Medium
17	Increasing humanitarian demands	Taxes to fund humanitarian needs and CSI/socio-economic development spend could increase as a result of climate change impacts on vulnerable communities. Companies are increasingly being viewed as co-responsible with elected governments for remedying socio-economic problems. Two potential impacts were identified: 1. Increased operational cost. 2. Wider social disadvantages. The most significant of these	Increased operational cost	1-5 years	Direct	More likely than not	Low-medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		impacts was assessed as "Increased operational cost".					

5.1f

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

Risk 12: i. Inherent risk value below R350m and a residual risk value below R35m. ii. BAW is widely diversified across products and customers and offers a range of products including a number of low emission technologies. BAW's principals are committed to developing new technologies that meet emission requirements, adapting existing technologies to meet these requirements and assisting customers in reducing their carbon footprints. BAW has also developed a new offering in the form of BAW Power which assists customers in managing risks posed by energy security and cost. BAW assists customers in reducing their emissions by introducing hybrid vehicles in the Avis rental fleet. Avis included 90 Honda Jazz Hybrids in FY2012. iii. No additional costs. Costs associated with providing a wide product range and developing new products are incorporated into the ongoing operational activities and cost base of the group. In some cases, the costs associated with developing new products may be covered in the group's 'cost of sales' which was some R46bn for the reporting period. For example, BAW included 90 Honda Jazz Hybrids in its Avis car rental fleet in FY2012, valued at some R23m. These costs are part of the ongoing costs of the car rental business.

Risk 13: i. Inherent risk value of below R300m and a residual risk value of below R30m. ii. A key aspect of BAW's employee value proposition is environmental stewardship. BAW is committed to training and upskilling. BAW has a human resources practice which is constantly engaged in ensuring that it manages, retains and recruits the required skills and key talent. In addition, BAW has processes in place to ensure the effective management of risks and opportunities presented by climate change. BAW publishes GHG emissions and actions to reduce the impact of climate change on the organization. Group employees are encouraged to be part of climate change initiatives through inclusion of climate change aspects in employee scorecards. Consistent and ongoing interaction with stakeholders assists BAW in ensuring that it is meeting expectations and that stakeholders are aware of what BAW is doing to manage the risks presented by climate change. iii. These costs are incorporated in the ongoing salary and recruitment costs as well as training spend. Total training spend in FY2012 was R156.6m. This includes investment in training staff on climate change.

Risk 14: i. Inherent risk value of below R180m and a residual risk value of R20m. ii. BAW engages with stakeholders on an ongoing basis in order to manage its reputation and to ensure that it is meeting stakeholder expectations. BAW has implemented reporting systems for climate change data. This data is assured by the group external auditors to provide confidence in the numbers for stakeholders. BAW reports its GHG emissions and management of climate change risks and opportunities to stakeholders. BAW is involved in advertising in the area of sustainability in order to inform stakeholders of its efforts in terms of climate change. BAW represents world class principals that strive to minimise the climate change impacts of their products and services. For example, Caterpillar Inc.'s aspirational 2020 internal and customer goals include a 20% reduction in customer greenhouse gases (GHG's), a 20% increase in customer energy efficiency and a 20% increase in customer materials efficiency by 2020. Staying ahead of developments in the market and representing international leading brands allows BAW to uphold its reputation as a responsible corporate citizen. Additionally, BAW responds to the CDP's Climate Change and Water disclosure questionnaire on an annual basis, which emphasises its commitment to responding responsibly to climate change and to transparent reporting to its stakeholders. iii. No additional costs. These costs are incorporated into the ongoing operational activities and cost base of the group. For example, in the FY2012, the cost incurred for assurance and sustainability advertising was estimated to be in excess of some R1m.

Risk 15:i. Inherent risk value of below R120m and a residual risk value of below R30m. **ii.** BAW is in constant contact with customers in order to understand the pressures customers are experiencing and to assist in alleviating these pressures and providing solutions that meet customers' needs. Strategic planning processes and scenario planning processes are in place with BAW which also assist in managing this risk. Furthermore, this risk is managed by:

-Geographic and industry diversification of BAW. BAW operates across 27 countries and has a diverse range of customer offerings across six identified strategic growth segments.

-Inflationary pressures can be carefully monitored and managed as appropriate.

-Monitor customers' ability to spend and access credit.

-Reduce working capital.

-Limit capital expenditure and improve cashflow.

-Secure adequate committed borrowing facilities

iii. No additional costs. These costs are incorporated into the ongoing operational activities and cost base of the group.

Risk 16:i. Inherent risk value of below R60m and a residual risk value of below R5m. **ii.** BAW is actively involved in managing the health and safety of its staff. BAW believes that it is every employee's right to work in a healthy and safe environment. To this end, health and safety committees are established across the group. A number of employee wellness and support programmes are in place, including medical aid schemes and assistance programmes. These programmes will assist in mitigating and managing the health impacts of climate change on BAW's staff. BAW Equipment has on-site clinics in South Africa and Spain. These provide primary health care and occupational health services to employees, including confidential and anonymous counselling and assistance on any issue that could affect productivity and wellbeing. Other divisions have appropriate resources. The logistics business has an employee 'wellness line' in place for its South African employees and their families. The corporate office in South Africa has wellness days when employees can undergo a number of health-related assessments and tests, and receive advice. In Equipment southern Africa, five occupational health personnel provide counselling on various communicable diseases. An occupational health section on their intranet is available to all employees. The employee wellness programmes include access to various counsellors and related professionals on a national basis. BAW engages regularly with employees to determine if there are any concerns that need to be addressed. This allows BAW to put in place systems and processes to ensure that staff needs are met. **iii.** These costs are incorporated into the ongoing operational activities and cost base of the group. For example, in FY2012, BAW spent R406232 and R121693 on employee wellness programmes for South Africa and rest of Africa, respectively.

Risk 17:i. Inherent risk value of below R30m and a residual risk value of below R15m. **ii.** The group strives to be responsive to the interests and concerns of its local communities. This approach is underpinned by a value-based management philosophy which commits the group to creating sustainable value for all of its stakeholders, including playing a meaningful role in society through active corporate citizenship. Development partnerships are established and investments made in interventions which address the foremost problems in society. Donations are made at various divisional and business unit levels, often linked to their communities, industry, products or workplaces. BAW is involved in a number of CSI initiatives and the link between these initiatives and climate change is expected to become increasingly clear over time. BAW is already engaged in tree planting through Food and Trees for Africa which has a positive impact on reducing emissions and, at the same time, supporting communities. **iii.** The group allocates a minimum of 1% of its net profits after tax to CSI. In FY2012, BAW spent R17m on CSI. This is expected to increase as a result of climate change impacts on vulnerable communities. Whilst CSI spend is quantifiable, the key controls explained above do not result in any additional costs nor are these costs ring-fenced as it is part of the ongoing operational costs.

5.1g

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1h

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1i

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Page: 6. Climate Change Opportunities

6.1

Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

6.1a

Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
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ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
1	General environmental regulations, including planning	BAW has the opportunity to differentiate from competitors by implementing internal initiatives which reduce emissions and by adapting existing and developing new solutions which assist customers to reduce their emissions. Potential exists for establishment of new business units offering supplementary or complementary products, services and solutions. Three potential impacts were identified for this opportunity: 1. Reduced operational cost. 2. Increased demand for existing goods / services. 3. New products/ business services. The most significant of these impacts was assessed as "Increased demand for existing goods / services".	Increased demand for existing products/services	1-5 years	Direct	More likely than not	High
2	Product efficiency regulations and standards	Customers are increasingly requesting products and solutions which assist them in achieving their energy and emission reduction targets. Supported by its principals, BAW is committed to providing leading products and solutions that enable customers to meet their sustainable development objectives. The increased need for low emitting and energy efficient products could result in increased demand for BAW's products. Two potential impacts were identified for this opportunity: 1. Increased demand for existing goods / services 2. New products/ business services The most significant of these impacts was assessed as "Increased demand for existing goods / services". Three potential drivers were identified for this opportunity, namely; 1. Air pollution limits. 2. Product efficiency regulations and standards. 3. Fuel/ Energy taxes and regulations. These drivers give rise to the similar opportunities and responses.	Increased demand for existing products/services	Current	Direct	More likely than not	High
3	Voluntary agreements	Efforts to meet group's commitments in terms of Energy Efficiency Leadership Network Pledge have given BAW companies a head start in embedding energy efficiency and climate change in policy, strategies and operations. As a result, the group is better informed on climate change issues and is well positioned to engage on existing and emerging	Reduced operational costs	Current	Direct	Virtually certain	Medium

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		climate-change regulations. Two potential impacts were identified for this opportunity: 1. Increased demand for existing goods / services. 2. Reduced operational costs. The most significant of these impacts was assessed as "Reduced operational costs".					

6.1b

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

Opp 1:

i. Estimated opportunity up to R120m.

ii. Opportunities are identified through BAW's strategic planning and stakeholder engagement processes. Through association with global leading principals and brands, BAW is able to provide products and solutions with reduced environmental footprint and which assists customers achieve their sustainable development objectives. The group also develops leading integrated customer solutions and offerings including supply chain optimisation and energy efficiency. Examples include: BAW Handling's principal, NMHG, whose brands include Hyster, commitment to sustainable development. All its American and European manufacturing facilities have achieved ISO 14001 certification. NMHG is the largest volume producer of zero emissions electric trucks in North America and offers lift trucks which operate on cleaner burning alternative fuels such as LPG, CNG and clean diesel. BAW Logistics has developed a 'green trailer' (Truck and trailer) and CAST-CO2 products which respectively increase fuel and emission efficiency, optimise supply chains and minimise carbon emissions.

iii. The costs associated with developing the opportunities form part of the ongoing costs of the business or are part of the product offering and form part of the normal 'cost of sales' which was R46 billion in the reporting period. For example, 'Green trailers' (Truck and trailer) were designed with improved aerodynamics at a cost of R588000. This cost was incorporated into the operating costs of the business.

Opp 2:

i. Estimated opportunity up to R120m.

ii. BAW is constantly evaluating the market and liaising with customers to understand their needs. Driven by the need to meet customer requirements, Avis included 90 Honda Jazz Hybrids in its car rental fleet. In this way, Avis is assisting customers to reduce emissions. BAW engages with principals to develop new products and adapt existing offerings to be more efficient. For example, the new Cat® 349E hydraulic excavator delivers more engine and hydraulic horsepower than its predecessor, and averages five percent improved fuel efficiency in typical applications. The 349E operates on either ultra-low-sulfur diesel fuel (ULSD), or a blend of ULSD and 20% biodiesel, and meets stringent U.S. Environmental Protection Agency Tier 4 Interim emissions standards. Caterpillar's acquisition of MWM Holding GmbH (MWM), a leading global supplier of sustainable, natural gas and alternative-fuel engines significantly expands customer options for sustainable power generation solutions. The ability to supply natural gas engines and turbines to complement the traditional diesel engines results in one of the broadest engine offerings in the industry. Caterpillar Inc.'s aspirational 2020 internal and customer goals include a 20% reduction in customer greenhouse gases (GHG's), a 20% increase in customer energy efficiency and a 20% increase in customer materials efficiency by 2020. BAW established a new business unit focused on providing

customers with solutions to their energy security and energy efficiency challenges. BAW acquired a 25% shareholding in re- which is a waste management company. re- focuses on reducing, reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering the services of re- to its customers, BAW is assisting customers reduce their GHG emissions. BAW's Logistics business, collaborated with the CSIR and other partners in designing a more energy efficient and ergonomic vehicle which can carry a higher payload and be streamlined enough in its design to reduce the fuel consumption and ultimately the emissions (currently projected at 7% reduction per trip, Johannesburg to Durban). The fleet has been expanded to include an additional five units in FY2012. BAW Logistics has also developed CAST-CO2; a product which optimises supply chains and minimise carbon emissions. BAW's investment into its equipment remanufacture and rebuild facilities in Russia and South Africa, addressing potential life-cycle and waste management regulations. In caterpillar operations, these processes require some 50% - 60% less energy by reusing between 85% and 95% by weight of materials from the original product. Some 70% of Caterpillar components are rebuilt. The Hyster remanufacture process recovers some 50% of original components while rebuilt engines are some 50% and 67% more efficient in terms of energy and labour respectively. Approximately 90% of a scrapped lift-truck can be reclaimed.

iii. The costs associated with developing the opportunities form part of the ongoing costs of the business or are part of the product offering and form part of the group's 'cost of sales' which was R46 billion in the reporting period.

For example:

1. BAW included 90 new Honda Jazz Hybrids, in its Avis car rental fleet, valued at some R23m. In this specific example, the cost of the new vehicles forms part of the ongoing costs of the car rental business.
2. The 'Green trailers' (Truck and trailer) were designed with improved aerodynamics at a cost of R588000. This cost was incorporated into the operating costs of the business.
3. BAW invested R250m and USD11m in rebuild and remanufacture facilities in South Africa and Russia, respectively which aims to extend the lifespan of machinery and equipment, thus minimising waste and carbon emissions.

Opp 3:

i. Estimated opportunity up to R25m.

ii. Being an early signatory to Energy Efficiency Leadership Network Pledge and generally an early adaptor of standards and legislation, the group has a head-start on monitoring, measuring and reporting its energy and emissions. In this way, BAW will be prepared for any mandatory reporting and the introduction of carbon taxes. This could result in a competitive advantage for the group. BAW has implemented and will continue to implement energy and emissions reduction activities. This will reduce the group's operational costs and provide a competitive advantage..

iii. BAW spent over R2m in FY2012 on the implementation of energy, and consequential emissions, reduction activities.

6.1c

Please describe the opportunities that are driven by changes in physical climate parameters

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
4	Change in mean (average) precipitation	Decreases in available water and water shortages as a result of climate change presents an opportunity for the group as its water recycling and water efficiency measures already in place will increase its resilience and reduce its operational costs relative to its competitors. Two potential impacts were identified for this opportunity: 1. Reduced	Reduced capital costs	1-5 years	Direct	Likely	Low-medium

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		operational cost 2. Increased demand for existing goods / services The most significant of these impacts was assessed as "Reduced operational cost". Two opportunity drivers were identified: 1. Change in mean (average) precipitation 2. Change in precipitation pattern These drivers give rise to the similar opportunities and responses.					
5	Change in mean (average) temperature	Shifts in weather and temperature patterns and related effects of these on local ecologies might open up new tourism destinations, increased arable land and result in the establishment of new settlements which may open up new territories and markets for the group's products and services.	Increased demand for existing products/services	6-10 years	Direct	Likely	Medium-high
6	Change in precipitation extremes and droughts	Flooding could damage infrastructure and droughts could negatively affect communities requiring relocation or development of infrastructure to mitigate effects. These would create a demand for group's equipment and other offerings including BAW's Logistics offering.	Increased demand for existing products/services	Current	Direct	Likely	Medium-high
7	Snow and ice	Extreme snow and ice events may result in increased demand for BAW's products and services for power generation, repair and replacement of damaged infrastructure, plant and equipment, servicing, clearing and removal. This may positively affect demand for BAW's products and services as the group is well-positioned to provide the required solutions which include vehicles, plant and equipment.	Increased demand for existing products/services	Current	Direct	About as likely as not	Medium
8	Other physical climate opportunities	Damaged infrastructure resulting from extreme weather events such as cyclones will need to be repaired. Damaged plant, equipment and vehicles will need to be replaced. Logistics solutions will be required to facilitate these aspects. In addition, uncertainty surrounding physical risks may create a demand for precautionary expenditure on infrastructure, standby plant and equipment for power generation. This could increase the demand for the group's customer offerings.	Increased demand for existing products/services	1-5 years	Direct	Likely	Low-medium
9	Other physical climate opportunities	Sea level rise combined with extreme weather events may result in damage to infrastructure, requiring rebuild and repair activity. This may positively affect demand for BAW's products and services as the group is well-positioned to	Increased demand for existing products/services	>10 years	Indirect (Supply chain)	Likely	Low

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		provide the required solutions which include vehicles, plant and equipment.					

6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

Opp 4:

i. Estimated opportunity up to R10m. The financial implications of the opportunity are associated with the cost savings as a result of recycling and rainwater harvesting initiatives. For example, Toyota Stellenbosch saved some R50800 from the implementation of rainwater harvesting facilities.

ii. BAW continues to implement initiatives to conserve water and improve water use efficiency at its operations. Water monitoring systems are in place at most major sites to allow monitoring of consumption trends, identification of anomalies and mitigation against excessive and/or unnecessary use. BAW is committed to more efficient water consumption through reduced use, increased recycling and water-harvesting initiatives. BAW installed rain water harvesting, water treatment to allow for re-use and water saving equipment and appliances at its Toyota dealership in Stellenbosch, South Africa. The investment required was R455030 and cost saving thus far is R50080. Rainwater harvesting allows for water to be captured and used on-site and reduces the impact of water shortages or supply interruptions. BAW has also installed water storage tanks at its Head Office in South Africa to secure supply. In FY2012, BAW recycled 15% (up from 10.6% in FY2011) of the water used in the group. BAW continues to look for areas of improvement in terms of managing water.

iii. The costs are associated with investment in recycling and rainwater harvesting facilities. For example, Toyota Stellenbosch implemented rainwater harvesting at a cost of R455030.

Opp 5, 6, 7, 8 and 9

Opportunities 5, 6, 7, 8 and 9 are dealt with collectively as the methods used to manage these opportunities and the associated costs are similar.

i. The financial implications of these opportunities are different and as follows:

Opp 5: Estimated opportunity up to R20m.

Opp 6: Estimated opportunity up to R45m.

Opp 7: Estimated opportunity up to R30m.

Opp 8: Estimated opportunity up to R150m

Opp 9: Estimated opportunity up to R10m.

ii. Identification and realisation of the above opportunities driven by changes in physical climate parameters are embedded in ongoing management activities of the group which includes decentralised local attention, as well as group consolidation and review.

iii. It is usually difficult to quantify costs directly relating to addressing climate change issues as they are not ring-fenced but incorporated into ongoing activities and cost base of BAW companies. Generally these include: costs associated with the identification, assessment and operationalising of new opportunities; additional investment in vehicles, plant and equipment, investment in appropriate water recycling initiatives, and in sourcing and/or up-skilling human resources. These together with costs incurred in developing and offering products and services that address climate change, environmental footprint, energy and emission efficiencies are regarded as part of operational cost base.

6.1e

Please describe the opportunities that are driven by changes in other climate-related developments

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
10	Changing consumer behaviour	Climate change has the potential to change consumer preferences. Shifts in consumer preferences leading to increased demand for more energy (and emission) efficient products and services. BAW has the opportunity to capitalise on this by continuing to supply required products to the market and by developing new products that meet customers' needs.	Increased demand for existing products/services	1-5 years	Direct	Likely	High
11	Reputation	BAW has the opportunity to gain more market share as a result of protecting their reputation by managing climate change risks and opportunities effectively. This is further supported by a skills base and products/services which satisfy significant customers in all regions that require the same high standards in their products, levels of service and environmental commitments. It is also supported by its willingness to behave in an ethical and responsible manner to ensure that risks are fairly and equitably managed, in an era where the general trend may be for parties to attempt to avoid or pass-on risks associated with climate change.	Increased demand for existing products/services	Current	Direct	More likely than not	Medium-high
12	Other drivers	BAW has the opportunity to be part of disseminating best practice in terms of managing climate change risks and opportunities. There are opportunities to expedite information sharing and activities regarding climate change with other companies, non-governmental organisations and government agencies through relevant and appropriate forums.	Wider social benefits	Current	Direct	Likely	Low

6.1f

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

Opp 10:i. Estimated opportunity up to R180m.

ii. BAW is constantly evaluating the market and liaising with customers to understand their needs. The group engages with principals who have developed a number of energy efficient products. BAW established a new business unit focused on providing customers with solutions to their energy security and energy efficiency challenges. BAW acquired a 25% shareholding in re- which is a waste management company. re- focuses on reducing, reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering the services of re- to its customers, BAW is assisting customers reduce GHG emissions. BAW has also included 90 new Honda Jazz Hybrid vehicles in its Avis car rental fleet. This investment assists customers in reducing emissions.

iii. The costs associated with developing the opportunities form part of the ongoing costs of the business or are part of the product offering and form part of the normal 'cost of sales' which was R46 billion in the reporting period. For example, BAW included 90 Honda Jazz Hybrid vehicles in its Avis car rental fleet, valued at some R23m. In this specific example, the cost of the new vehicles forms part of the ongoing costs of the car rental business.

Opp 11

i. Estimated opportunity up to R100m.

ii. BAW engages with stakeholders on an ongoing basis in order to manage its reputation and to ensure that it is meeting stakeholder expectations. BAW has implemented reporting systems for climate change data. This data is assured by the group external auditors to provide confidence in the numbers for stakeholders. BAW reports its GHG emissions and management of climate change risks and opportunities to stakeholders. BAW is involved in advertising in the area of sustainability in order to inform stakeholders of its efforts in terms of climate change. BAW represents world class principals that strive to minimise the climate change impacts of their products and services. For example, Caterpillar Inc.'s aspirational 2020 internal and customer goals include a 20% reduction in customer greenhouse gases (GHG's), a 20% increase in customer energy efficiency and a 20% increase in customer materials efficiency by 2020. Staying ahead of developments in the market and representing international leading brands allows BAW to uphold its reputation as a responsible corporate citizen. Additionally, BAW responds to the CDP's Climate Change and Water disclosure questionnaire on an annual basis, which emphasises its commitment to responding responsibly to climate change and to transparent reporting to its stakeholders.

iii. No additional costs. These costs are incorporated into the ongoing operational activities and cost base of the group. For example, in the FY2012, the cost incurred for assurance and sustainability advertising was estimated to be in excess of some R1m.

Opp 12

i. The opportunity does not have a direct financial value. By sharing best practice, BAW is able to assist other companies and organisations on their journey to manage climate change and reduce emissions. The value is tied up with the learnings that other companies take from BAW's experiences.

ii. BAW is involved in a number of trade associations through which it is able to share best practice. One such committee is the Energy Efficiency Leadership Network Advisory Committee. Through this committee, BAW is able to share their experience regarding energy efficiency projects. Another such organization is the National Business Initiative. BAW is a founding partner to this voluntary, non-mandated business coalition which facilitates the role of business in society through national, strategic policy interventions, projects with a catalytic development impact and strengthening institutions.

iii. Membership fees are paid for belonging to various trade associations. For example, BAW spent in excess of some R450000 in the reporting period on membership fees in respect of three institutions.

6.1g

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1h

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1i

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]

Page: 7. Emissions Methodology

7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Wed 01 Oct 2008 - Wed 30 Sep 2009	107905	91148

7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

7.2a

If you have selected 'Other', please provide details below

7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	0.07477	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Motor gasoline	0.07069	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Residual fuel oil	0.06858	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Liquefied petroleum gas (LPG)	0.06396	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Natural gas	0.05710	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Electricity	1.03665	metric tonnes CO2e per MWh	Southern Africa (Eskom (2010 AR))
Electricity	0.738	metric tonnes CO2e per MWh	Rest of Africa (DEFRA/DECC/GHG 2010)
Electricity	0.54284	metric tonnes CO2e per MWh	United Kingdom (DEFRA/DECC/GHG 2010)
Electricity	0.487	metric tonnes CO2e per MWh	Europe (DEFRA/DECC/GHG 2010)
Electricity	0.92	metric	Australia (Australia Dept of Climate)

Fuel/Material/Energy	Emission Factor	Unit	Reference
		tonnes CO2e per MWh	
Electricity	0.57831	metric tonnes CO2e per MWh	North America (eia.doe.gov/cneat/electricity/epa)
Electricity	0.9143	metric tonnes CO2e per MWh	Middle East & Africa (DEFRA/DECC/GHG 2010)

Further Information

Please refer to attachment for full factors. The factors above are rounded to 2 decimal points as per formatting requirements. Also worth noting is that all consumption per the various categories of energy sources, with the exception of electricity, are first converted into Gigajoules using the energy conversion factors (as attached), then multiplied by the relevant carbon emissions factor. Electricity (MWh) consumption is multiplied directly by the respective regional carbon emissions factor to give the carbon emissions (tCO2e)

Attachments

[https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/7.EmissionsMethodology/barloworld-2012-ghg-conversion-factors.pdf](https://www.cdproject.net/sites/2013/29/1529/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/7.EmissionsMethodology/barloworld-2012-ghg-conversion-factors.pdf)

Page: 8. Emissions Data - (1 Oct 2011 - 30 Sep 2012)

8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Financial control

8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

118335

8.3

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

79154

8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

No

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
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8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
Less than or equal to 2%	Other: Human error	Scope 1 emissions are independently assured and reporting of emission and underlying energy consumption is monitored, reported at group level and trends are benchmarked quarterly. However, internal audits have identified the risk of capturers at business unit level misinterpreting units of measure and magnitude of billed energy consumption. Reporting systems have been automated to eliminate any consolidation errors. Ongoing monthly meetings with divisional sustainability champions also provide a platform to highlight any analytical anomalies that may be identified.	Less than or equal to 2%	Other: Human error	Scope 2 emissions are also independently assured and checked as per the process adopted for scope 1 emissions. As with scope 1 emissions, internal audits have identified the risk of capturers at business unit level misinterpreting units of measure and magnitude of billed energy consumption. Reporting systems and meetings have been put in place with the objective of eliminating any errors.

8.6

Please indicate the verification/assurance status that applies to your Scope 1 emissions

Third party verification or assurance complete

8.6a

Please indicate the proportion of your Scope 1 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.6b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document
Limited assurance	ISAE3000	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-8.6b-C3-RelevantStatement/intergrated-report-2012 assurance.pdf

8.6c

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
------------	--------------------------------------	-------------------	------------------------

8.7

Please indicate the verification/assurance status that applies to your Scope 2 emissions

Third party verification or assurance complete

8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.7b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document
Limited assurance	ISAE3000	https://www.cdproject.net/sites/2013/29/1529/Investor CDP 2013/Shared Documents/Attachments/Investor-8.7b-C3-RelevantStatement/intergrated-report-2012 assurance.pdf

8.8

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

8.8a

Please provide the emissions in metric tonnes CO2

Page: 9. Scope 1 Emissions Breakdown - (1 Oct 2011 - 30 Sep 2012)

9.1

Do you have Scope 1 emissions sources in more than one country?

Yes

9.1a

Please complete the table below

Country/Region	Scope 1 metric tonnes CO2e
Australia	3096
Europe	10654
Asia Middle East (AME)	599
North America	2782
Russia	2467
Africa	98737

9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division

9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Equipment	26318
Automotive and Logistics	80247

Business division	Scope 1 emissions (metric tonnes CO2e)
Handling	11742
Corporate	28

9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
----------	--

9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
----------	--

9.2e

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)
-----------------	--

Further Information

Please note that Africa relates to Southern Africa.

Page: 10. Scope 2 Emissions Breakdown - (1 Oct 2011 - 30 Sep 2012)

10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

10.1a

Please complete the table below

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)
Australia	3579	3890	
Europe	5485	10968	
Asia Middle East (AME)	1473	1612	
North America	1171	2024	
Russia	1038	2132	
Africa	66408	65552	

10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division

10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions (metric tonnes CO2e)
Equipment	21802
Automotive and Logistics	53229
Handling	3630
Corporate	493

10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions (metric tonnes CO2e)
----------	--

10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions (metric tonnes CO2e)
----------	--

10.2d

Please break down your total gross global Scope 2 emissions by legal structure

Legal structure	Scope 2 emissions (metric tonnes CO2e)
-----------------	--

Further Information

Please note that Africa relates to Southern Africa.

Page: 11. Energy

11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

11.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
-------------	-----

Energy type	MWh
Fuel	447531
Electricity	86178
Heat	0
Steam	0
Cooling	0

11.3

Please complete the table by breaking down the total 'Fuel' figure entered above by fuel type

Fuels	MWh
Diesel/Gas oil	326189
Motor gasoline	113954
Residual fuel oil	0
Liquefied petroleum gas (LPG)	725
Liquefied Natural Gas (LNG)	6663

11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comments
No purchases or generation of low carbon electricity, heat, steam or cooling		

12.1

How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

12.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	13.1	Decrease	Despite an 18% increase in activity levels, emissions have not grown as much as could be expected due in part to emission reduction activities and energy consumption patterns. Using a revenue based 'business as usual' calculation, it is estimated that these activities contributed to a reduction of 24 682 tCO2e, which represents 13.1% of the emissions reported last year.
Divestment			
Acquisitions			
Mergers			
Change in output	17.52	Increase	Using a revenue based 'business as usual' calculation, it is estimated that increased activity levels would have resulted in an increase of approximately 17.5% in scope 1 and 2 emissions.
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

12.2

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
3.4	metric tonnes CO2e	unit total revenue	10.53	Decrease	The decrease in emissions intensity from 3.8 in FY2011 to 3.4 in FY2012 was impacted by emission reduction activities. Revenue increased by 18% in the 2012 financial year. Despite this level of increased activity, the increase in emissions was limited to 4%. The relatively low increase in emissions against the 18% increase in activity underscores the positive effect of the emission reduction activities implemented during the 2012 financial year.

12.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
10.27	metric tonnes CO2e	FTE employee	1.48	Increase	Business activity and resulting emission levels in the reporting period increased at a faster rate than the employee complement. Emission efficiency initiatives contributed to the relatively small increase per employee.

12.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.0184	metric tonnes CO2e	Other: Rental Days	6	Decrease	BAW recognises that emissions from car rental activities are central to its customer offerings and strives to reduce these by providing fuel efficient vehicles in the fleets and having low-emission and hybrid vehicles available for rent. Car rental operations in South Africa produced 90 333 tCO2e (FY2011: 86 661 tCO2e) of scope 3 emissions, which represents an increase of 4.24% in absolute emissions from FY2011. However, rental days increased by 11% during the same period. Overall, this represents a 6% improvement in emissions intensity per rental day in FY2012 compared with FY2011 underscoring the efficiency of new technologies and the reduced emissions profile of the rental fleet. Mileage per rental day also impacts this intensity measure.

Page: 13. Emissions Trading

13.1

Do you participate in any emissions trading schemes?

No, but we anticipate doing so in the next 2 years

13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

BAW has adopted a MARSO (Measure, Avoid, Reduce, Switch, Offset) approach to managing its consumption of energy and emissions from fossil fuels: Measure, Avoid, Reduce, Switch energy sources if feasible and, finally Offset emissions. Group companies that choose to become carbon neutral or which exceed local emission limits could consider buying emissions credits from entities or projects which are able to stay below their own designated limits and reduce emissions. Emissions trading will be considered once all other MARS approaches have been implemented. Emissions trading would be considered to reduce the overall cost of compliance with any emission constraints by taking advantage of differences in marginal abatement costs across different emission sources. Participation in the Clean Development Mechanism is dependent on the recovery of the carbon market and if feasible and the appropriate opportunities were identified, Barloworld would consider investing in emission reduction projects.

13.2

Has your company originated any project-based carbon credits or purchased any within the reporting period?

Yes

13.2a

Please complete the table

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose, e.g. compliance
Credit Purchase	Coal mine/bed CH4	Tieling Coal Mine Methane Capture project in China	VCS (Voluntary Carbon Standard)	14753	14753	Yes	Voluntary Offsetting
Credit Purchase	Energy efficiency: households	Basa Magogo - Light it up Improved Cooking Technique	Gold Standard	9835	9835	Yes	Voluntary Offsetting

Page: 14. Scope 3 Emissions

14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Relevant, not yet calculated				These emissions principally include those resulting from the combustion of fossil fuels (consumption of energy) by suppliers in the manufacturing process of products purchased by BAW. The group has not yet formally quantified emissions from its supply chain, but it appreciates that these could be significant and is starting to consider carbon reporting and management in the supply chain. BAW would work closely with principals to appropriately evolve this over time. These are not currently being included in reporting.
Capital goods	Relevant, not yet calculated				This refers to emissions associated with the manufacturing of the capital equipment (e.g. rental fleets, trucks) of which BAW divisions use to provide logistical service. This equipment has an extended life so that it is regarded as fixed assets. Emissions from this source have not yet been quantified, but could be significant. BAW is starting to consider carbon reporting and management in upstream and downstream activities. Given the diversified nature of the group, this reporting is relatively complex and would commence with significant suppliers with entrenched sustainability practices and reporting.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, not yet calculated				This refers to emissions associated with the production of electricity and fuels consumed by BAW. This includes emissions such as those associated with the mining of coal to produce electricity that is used by BAW and the refining of liquid fuel used (petrol and diesel). These emissions are not being quantified currently, but it

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
					is anticipated that they may be significant.
Upstream transportation and distribution	Relevant, not yet calculated				This includes emissions from the transportation of goods purchased/acquired by BAW, e.g. the transportation of equipment and vehicles from the supplier to BAW's sites. These emissions are not being quantified currently, but it is anticipated that they may be significant. BAW is starting to consider carbon reporting and management in upstream and downstream activities. Given the diversified nature of the group, this reporting is relatively complex and would commence with significant suppliers with entrenched sustainability practices and reporting.
Waste generated in operations	Relevant, not yet calculated				This relates to the emissions generated in the group's waste disposal activities. The group recycled 224 kg of paper and 132386 kg of tyres. For indicative purposes; recycling of 1 kg of cardboard results in the avoidance of 0.38 tCO2e.
Business travel	Relevant, calculated	6048	The methodology followed to estimate the emissions involve multiplying activity data for mode of transport (e.g. km travelled) by an applicable emission factor for that mode of transport (e.g. tCO2e/km). The modes of transport included in the reported figure is limited to business travel using aircraft. The GHG Protocol Corporate Value Chain Accounting and Reporting Standard was used.	100%	The emissions associated with business travel include those from the combustion of the fuels consumed in road and air business travel. Currently only business air travel is reported.
Employee commuting	Relevant, not yet calculated				Employee commuting emissions include those associated with the travel of employees between their homes and work from employee-owned vehicles and public transport. These have not been estimated to date.
Upstream leased assets	Not relevant, explanation				The majority of these emissions are already appropriately included in BAW's direct carbon

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
	provided				footprint.
Investments	Not relevant, explanation provided				BAW has a number of joint ventures, including Bartrac Equipment, Electro Motive Diesel Africa (Pty) Limited, Barloworld Maponya (Pty) Ltd and Finalair SA. Data from joint venture operations are not consolidated into financial and non-financial reporting since these are not companies over which BAW exercises financial control. The emissions from these operations are not considered to be significant when compared to BAW's total group emissions.
Downstream transportation and distribution	Relevant, not yet calculated				This includes emissions from the transportation of goods sold by BAW, e.g. the transportation of equipment and vehicles to customers' sites. These emissions are not being quantified currently, but it is anticipated that they may be significant. BAW is starting to consider carbon reporting and management in upstream and downstream activities. Given the diversified nature of the group, this reporting is relatively complex and would commence with significant suppliers with entrenched sustainability practices and reporting.
Processing of sold products	Not relevant, explanation provided				BAW is a distributor of leading global brands. Accordingly, there is no processing of sold goods.
Use of sold products	Relevant, calculated	90333	These emissions are from the combustion of fossil fuels in the use phase of the BARLOWORLD product. The emissions would be estimated by multiplying an activity data (e.g. either consumption of fuel or km travelled) by an appropriate emission factor. The GHG Protocol Corporate Value Chain Accounting and Reporting Standard was used.	50%	It is in accordance with the concept of product stewardship to report on the emissions of the product use phase. The emissions currently being reported are for sale of Avis Rent a Car's products, namely, vehicle rentals. The reported figure relates to Avis Rent a Car South Africa only.
End of life	Relevant, not				Not undertaken at present. Component Rebuilds

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
treatment of sold products	yet calculated				extend life of plant and equipment and mitigate emissions associated with building of new equipment and machinery.
Downstream leased assets	Relevant, not yet calculated				This includes emissions from assets leased by BAW to customers, e.g. leased fleet vehicles, equipment and machinery. These emissions are not being quantified currently, but it is anticipated that they may be significant. BAW is starting to consider carbon reporting and management in downstream leased assets.
Franchises	Not relevant, explanation provided				The group has a limited number of franchisees through its Avis operations. The emissions from these operations are not considered to be significant against BAW's total group emissions.
Other (upstream)					
Other (downstream)					

14.2

Please indicate the verification/assurance status that applies to your Scope 3 emissions

No third party verification or assurance

14.2a

Please indicate the proportion of your Scope 3 emissions that are verified/assured

14.2b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document

14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

14.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Use of sold products	Change in output	4.24	Increase	The absolute increase in emissions (from 86 661 tCO ₂ e in FY2011 to 90 333 tCO ₂ e in FY2012) is a result of 11% increase in rental days over the same period. This represents a 6% improvement in emissions intensity per rental day in FY2012 compared with FY2011 underscoring the efficiency

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
				of new technologies and the reduced emissions profile of the rental fleet. Mileage per rental day also impacts this intensity measure.
Business travel	Other: Improved reporting	26.87	Increase	The annual increase in scope 3 emissions from air travel (from 4767 tCO2e in FY2011 to 6048 tCO2e in FY2012) indicates improved reporting rather than increased travel, as data for FY2011 was incomplete. The group is continuing to refine this aspect of their reporting.

14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers
Yes, our customers

14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

BAW represents and engages with leading international Original Equipment Manufacturers (OEMs) and brands such as Caterpillar, Hyster, Avis, Audi, BMW, Ford, General Motors, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. Relationships throughout the supply chain are guided by BAW's governance framework that includes its Code of Ethics, Worldwide Code of Conduct, related policies and commitment to legal compliance. Interactions are also informed by the group's strategic framework, including the commitment to being a leader in sustainable development and the identification of competitive advantage through offering customer solutions that assist customers in achieving their sustainable development objectives, facilitate a transition to low carbon economies and expand into related opportunities. Methods of engagement include dealer, dealer council and licensee meetings; principals' conferences; formal reporting and information sharing; ongoing informal contact and product launches. BAW engages with all principals on an ongoing basis. The material issues raised during engagements include product issues and innovation; market positioning; financial and other performance review; customer issues and satisfaction; sustainable development and climate change matters; market information and supply chain empowerment. Customers are engaged on an ongoing basis which informs the basis of the group's customer value proposition and integrated solutions. Such engagement includes extensive surveys, personal contact and engagement, site visits and open communication platforms. BAW strives to provide customer solutions that assist customers achieve their own sustainable development objectives including energy and emission efficiency improvements. Success is measured by the outcomes of these engagements. Positive outcomes resulting from engagements include successful relationships with mutual value maximized; leading products, services and customer solutions; retained distribution rights; mitigation of an

identified key risk, supply chain optimization and expanded preferential procurement and empowerment. Stakeholder requirements, commercial sensibility, organisational sustainability and responsible corporate citizenship are some of the aspects considered in prioritizing engagements.

14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Number of suppliers	% of total spend	Comment
		The group engages with a number of suppliers, of which the most significant regarding climate change issues, are its principals. These include Caterpillar, Hyster, Avis, Audi, BMW, Ford, General Motors, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. BAW's principals account for majority of its upstream scope 3 emissions from its value chain. The group's cost of sales, which includes its spend with principals, was some R46bn in the FY2012. BAW has developed strong relationships with its principals which facilitate information sharing about local market conditions and trends, including information on regulatory environments and emission standards, and assists its principals in developing customer solutions that differentiate and expand their product ranges.

14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
Managing the impact of regulation in the supply chain	BAW represents leading international brands and principals such as Caterpillar, Hyster, Avis, Audi, BMW, Ford, General Motors, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. Their extensive sustainability reporting and engagement with the group informs its risk management and strategic planning processes, and as it allows for the group to put in place mitigation strategies for material risks, including regulatory risks, in its supply chain.
Managing physical risks in the supply chain	BAW represents leading international brands and principals such as Caterpillar, Hyster, Avis, Audi, BMW, Ford, General Motors, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. Their extensive sustainability reporting and engagement with the group informs its risk management and strategic planning processes, and as it allows for the group to put in place mitigation strategies for material risks, including physical risks, in its supply chain.
Stimulating innovation of new products	BAW represents leading international brands and principals such as Caterpillar, Hyster, Avis, Audi, BMW, Ford, General Motors, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. These leading companies are responsible corporates, which share BAW's commitment to sustainable development and responsible long term value creation for stakeholders. In doing so, they strive to improve energy and emissions efficiencies for both themselves and their customers. This is one of the key focus areas

How you make use of the data	Please give details
	of engagement with principals. BAW collaborates with its principals to provide integrated customer offerings incorporating the latest energy efficient and low emissions technology which mitigates customers' climate change risks, assists them in achieving their environmental stewardship as well as their sustainable development objectives.

14.4d

Please explain why not and any plans you have to develop an engagement strategy in the future

Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

Christopher Whitaker
 Executive: Strategy and Sustainability
 Barloworld Limited

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