Module: Introduction

Page: Introduction

0.1

Introduction
Please give a general description and introduction to your organization

Aspen Holdings Limited, listed on the Johannesburg Stock Exchange, is one of the largest pharmaceutical manufacturers in the Southern Hemisphere and one of the top 20 generic manufacturers worldwide. Aspen is a supplier of branded and generic pharmaceuticals in approximately 100 countries across the globe and of consumer and nutritional products in selected territories. Sustainability is engrained in Aspen's culture. In his message on Sustainability in the 2011 Annual Report, Aspen's Group Chief Executive, Stephen Saad, stated:
"Aspen remains resolute in adding value to stakeholders by manufacturing and supplying high quality, affordable medicines to its worldwide customer base. Aspen continues to invest in a pipeline of relevant products to address disease treatment in its key regions. In support of its commercial strategy, the Group has invested more than R2 billion over five years in enhancing and diversifying its world-class manufacturing facilities in South Africa. The continuous improvement programmes at the facilities have given due consideration to environmental management and health and safety projects."

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
Thu 01 Jul 2010 - Thu 30 Jun 2011

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
South Africa

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)

0.5

Please select if you wish to complete a shorter information request

0.6

Modules

As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry 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 be marked as default options to your information request. 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

No further information.

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

Social and Ethics Committee and Audit and Risk Committee
This committee is responsible for monitoring the Group's activities with regards to environment (including climate change), health and public safety, including the impact of the Group's activities and of its products and services in compliance to Regulation 43(5)(iii) of the Companies Act 2008.

1.2

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

No

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator

Further Information

Aspen shall consider developing incentive schemes for climate change related targets, which are likely to be financial based schemes.

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 (see guidance)

a. The scope of the process
The Group's risk management philosophy aims to support, inter alia, regulatory compliance, legislative compliance, specific customer requirements, over and above product responsibility as regulated by pharmaceutical governing authorities. The Group also assesses the impact of environmental risks and opportunities on business operations. Inherent risk mitigating activities are applied by management on a day-to-day basis.
b. How risks/ opportunities are assessed at a company level and c. at asset level

Risks are assessed at a reporting entity level per risk indicator. Risk indicators are consolidated to arrive at aggregated Group risks per risk indicator. Climate risks identified through the Group Risk Management Process and reported to the Audit & Risk Committee are communicated to the Social & Ethics Committee where relevant. Sustainability indicators (see f. below) are reported to the Board of Directors on a quarterly basis. Aspen is on the SRI and Aspen's 2011 Annual Report received a B-Level certification from GRI. Through the Group's risk management process, the Audit & Risk Committee monitors compliance and initiatives towards responsible environmental management on a bi-annual basis. In this way, sustainability objectives are integrated into the risk management process and monitored by the Board collectively.
The Board's Social and Ethics Committee is further responsible for monitoring the Group's activities with regards to environment, health and public safety, including the impact of the Group's activities and of its products and services in compliance to Regulation 43(5)(iii) of the Companies Act 2008. There is a strong and committed focus on continuous improvement programmes at the South African manufacturing facilities. These include water recycling and electricity conservation projects which are aimed at achieving targeted reductions per project and subsequently reduce our GHG emissions.
d. The frequency of monitoring
The formal risk reporting process is conducted bi-annually. Actual risk mitigation activities take place on a day-to-day basis, including monitoring and measurement programmes. The Group's National SHE Department ensures environmental internal and external audits annually to monitor adherence to environmental management standard operating procedures as well as to environmental legislation.
e. Criteria for determining materiality/priorities
The Group's social and environmental key performance indicators (sustainability indicators) are selected with reference to their materiality to the Group's objectives. The sustainability indicators are reviewed by the Board/Social and Ethics Committee on an annual basis and updated where necessary.
SHE Risk Assessment Procedure: A qualitative risk assessment is conducted using a systematic approach for the identification and assessment of all safety, health and environmental risks. All activities, processes, plant machinery and energy sources are taken into consideration under normal, abnormal and emergency conditions. Three parameters, i.e. severity, occurrence and exposure are used to calculate both raw and residual risks.
In order to include climate change and carbon emissions as an exclusive parameter within the risk process described above. Aspen is developing a central carbon data management database which will allow continuous and systematic monitoring of carbon data. This will also allow for the designation of risks and opportunities based on analysis of collected GHG/carbon data.
The results are presented to the Head of South African Operations and action plans are compiled to implement the controls to manage these risks. SHE Management action plans are monitored and reported on a monthly basis in SHE management meetings.
f. To who are the results reported
Significant and high risks at both the inherent and residual risk level are reported to the Audit & Risk Committee on a bi-annual basis. This forms part of Aspen's formalized risk reporting process. In addition, a formalized sustainability reporting process is in place which is aligned to the Global Reporting Initiative (GRI) as well as to the JSE's Social Responsibility Index requirements. The Group's material issues and related Key Performance Indicators (KPIs) are reported to the Board's Audit & Risk Committee on a quarterly basis. Material issues and related KPI's which are reported to and monitored by the Committee include:
Conserving scarce resources
Volume of electricity consumed
Volume of water used
Responsible management of the environment
Volume of greenhouse gas emissions (Scope 1 and Scope 2)
Volume of waste recycled
Sustainability indicators are reported to the Board of Directors on a quarterly basis.
Please see attached SHE and Environmental Policy for Aspen Pharmacare

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes (see guidance)

Climate change is integrated into the business through energy consumption and waste reduction. The South African Operations, sets objectives and targets for energy reduction and energy efficiency to reduce Scope 2 emissions.
The progress of these initiatives are monitored and reported monthly as well as in the Sustainability and Annual reports.
Aspen Pharmacare is in the process of identifying and incorporating climate change effects and risks into the existing business continuity plans. Electricity and water have been identified as scarce resources and cognisance is taken of potential electricity and water shortages and the impact thereof to the Group's business continuity. This will be rolled out to all facilities within Aspen Global which include Brazil, Mexico, Kenya, Tanzania, Australia and Germany once it's finalized.
An important component of the short term strategy is employee awareness of environmental and climate change issues. Aspen has embarked on awareness training and refresher training every year for all employees to understand global climate change concerns and how they as individuals can mitigate the impacts through small habitual changes. Noticeably, there has been increased awareness on all sites on energy saving and wastage awareness. All employees participate in World Environment Day celebrations.
The company as a whole has embarked on the installation of energy saving lights in office areas, warehouses and selected areas within the factories. In the Port Elizabeth Quality Control laboratory, all high wattage lights were replaced with energy efficient lights which use approximately 50% less power. Lights in the main administration building were retrofitted and on/off motion detectors were installed in the administration office area in Port Elizabeth. In addition, timers were installed on rotoclones which facilitates the switching-off of motors over weekends and when the rotoclones are not in use. The heat recovery function on chilled water units was used to heat up water, which is then used to provide heating for ventilation and air conditioning systems for the facility. This has replaced the use of electrical heaters. In total more than 444 120 kwh were saved through these initiatives.
In East London and Johannesburg, all fused high wattage lights are being replaced with energy efficiency lights in the warehouses as required. As part of a broader facility upgrade and expansion project at FCC [Aspen's Cape-Town based facility], steps are being taken to install energy efficient equipment and electrical systems.
Reducing waste to landfill is one the strategies Aspen has adopted to minimize climate change impacts. Through maximising recycling opportunities, the land filling of waste has decreased significantly with an average of 25% of waste being recycled at our Port Elizabeth and East London facilities and a significant 70% being recycled at our Nutritional plant. This was primarily achieved through effective waste separation and environmental awareness training campaigns for all employees. Specific projects are underway to identify all printed waste/reject components from the packing departments and warehouses that could be defaced (shredded) and recycled to prevent recovery and reduce land filling.
Reducing water consumption forms part of Aspen's initiatives to reduce environmental impact.
In the Port Elizabeth plant, the manufacturing facility has 2 Reverse Osmosis (RO) plants for water purification. In normal operation, the plants reject up to 30% water which was initially discharged as effluent. The RO project entailed the re-use of this water for other utilities' processes, e.g. cooling towers which each require approximately 40KL of water /day and ablution facilities. Normally these utilities draw water directly from Municipal supply. Although the reject water cannot fully satisfy the cooling tower requirements, it is supplementary. The project has yielded up to 13% less water drawn from Municipal supply.
In alignment to relevant regulations governing the manufacture and supply of products, air filtration systems are in place at the manufacturing facilities. These air handling systems purify incoming air into the manufacturing facilities to prevent product contamination. The air handling systems also purify extracted air to eliminate any emissions into the atmosphere. Aspen measures fugitive/process emissions (NOx, SOx, VOCs and particulate matter) every 3 years; very minute quantities have been recorded (not detectable in some instances).

2.2b

Please explain why not

2.3

Do you engage with policy makers to encourage further action on mitigation and/or adaptation?

Yes

2.3a

Please explain (i) the engagement process and (ii) actions you are advocating

Where relevant, the Aspen's Senior Executive, Strategic Trade and Development, represents the pharmaceutical industry in matters impacting climate change. At COP 17, Aspen made a commitment to participate in the Energy Efficiency Leadership Network (EELN).
Inauguration of this forum is pending.

Further Information

Furthermore, through the Group Risk and Sustainability function, awareness is maintained of developments relevant to climate change which has a potential impact on the pharmaceutical industry.

Attachments

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/2.Strategy/Enviro Principles Display Version May 2011.pdf

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/2.Strategy/SHE Policy Display version May 2011.pdf

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?

No

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

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

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	Comments

3.1d

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

ID	% complete (time)	% complete (emissions)	Comment

3.1e

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

Aspen Pharmacare is in the early stages of measuring emissions and has not yet set formal emissions reduction targets. Aspen's approach is first to measure and monitor emissions accurately and establish the trends, before setting any emission targets. Currently, a number of energy and water reduction projects are in place at all our facilities. These projects will in turn gradually reduce our absolute GHG emissions each year for the next 5 years. However, due to the anticipated growth of the company, Aspen's emissions could increase, hence affecting emissions intensity. No calculations have been made thus far to measure the impact and rate of business expansion in relation to energy reduction initiatives, i.e. GHG emissions.

3.2

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

No

3.2a

Please provide details (see guidance)

3.3

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

Yes

3.3a

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

Stage of development	Number of projects	Total estimated annual CO2e savings (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*	2	
Implemented*		
Not to be implemented		

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	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Behavioral change	a) Creating an awareness of switching off lighting and air-conditioning when not in use and emphasising on energy saving. Purchase of low energy lighting instead of high wattage. b) Reduction on Scope 2 emissions c) Voluntary activity d) Implemented and ongoing	21	0	0	<1 year
Other	Installation of motion sensors a) Switching off lighting and air-conditioning when not in use. Purchasing low energy lighting instead of high wattage b) Reduction on Scope 2 emissions c) Voluntary activity d) Implemented and ongoing	14	0	480000	1-3 years

3.3c

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

Method	Comment
Compliance with regulatory requirements/standards	It is Aspen Pharmacare's policy to comply with regulatory requirements and international standards. Although there is no specific climate change legislation in South Africa, Aspen Pharmacare prioritises healthcare, environmental and other legislation.
Dedicated budget for energy efficiency	Continuous improvement projects are included in budgets and have approved capital expenditures. Dedicated budget for implementation of ISO14001 system

3.3d

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

Further Information

No further information.

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 other places than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section Reference	Identify the attachment
In annual reports (complete)	Summary of CDP response, Page 122	Aspen Pharmacare Holdings Limited Annual Report 2011

Further Information

Please attached - the section on Emissions Management extracted fromt the Annual Report 2011.
The full Annual Report for Aspen Pharmacare (2011) is available from the links:
2011 Annual report: http://financialresults.co.za/2011/aspen_ar2011/
2011 Annual report download: http://financialresults.co.za/2011/aspen_ar2011/downloads.php

Attachments

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Sustainability report - Emissions.pdf

Module: Risks and Opportunities [Investor]

Page: 2012-Investor-Risks&Opps-ClimateChangeRisks

5.1

Have you identified any climate change risks (current or future) that have 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

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
1.	International agreements	International agreements such as the Kyoto Protocol and the subsequent Copenhagen Accord and Cancun Agreement are likely to influence future South African legislation. This in turn would have an impact on Aspen's environmental management protocols. Aspen has implemented energy management and monitoring programmes.	Increased operational cost	1-5 years	Direct	More likely than not	Medium
2.	Carbon taxes	South Africa's national GHG emissions are mainly as a result from the use of coal energy. National reduction targets may have an impact on existing and new permissions as well as potential energy costs. The Minister of Finance has announced that a carbon tax is highly likely in the near future. Depending on the structure of this tax, the magnitude of impact could be material, especially if Eskom, the electricity producer, is taxed and the costs are passed onto consumers (especially industrial consumers)	Increased operational cost	1-5 years	Direct	Virtually certain	Medium
3.	General environmental	Electricity and water are regarded as scarce resources in South Africa. Water regulations may become stricter	Reduction/disruption in production capacity	1-5 years	Direct	About as likely as not	Medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
	regulations, including planning	due to climate change related effects in precipitation patterns. The National Climate Change Response Green Paper has been released for comment in 2010 The finalisation of this document may provide further insight into the environmental regulations that may become stricter due to climate change related effects.					
4.	Uncertainty surrounding new regulation	Time frames for regulatory reform in South Africa are not yet clear but regulatory uncertainty remains a potential risk to operations.	Other: Uncertainty and the resulting steps required.	6-10 years	Direct	More likely than not	Medium
5.	Fuel/energy taxes and regulations	Potential imposition of electricity usage targets in the future under the Power Conservation Programme (PCP) and subsequent penalties have been proposed if the limits are exceeded.	Other: Financial penalties	1-5 years	Direct	Very likely	Medium
6.	Product labeling regulations and standards	In the pharmaceutical industry, product labelling is controlled by strict regulatory requirements. There is no risk in the next 3-5 years.	Increased operational cost	6-10 years	Direct	About as likely as not	Low

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

1. International Agreements
(i) The financial potential implications of this risk cannot be quantified until there is greater certainty on the legislated application of the documented intent.
(ii) Methods used to manage the risk
In alignment to emerging trends in sustainability management related to climate change, Aspen is positioned to respond to current and future requirements.
In alignment to the Companies Act 2008 and King III, the Aspen Board has delegated its responsibility for environmental management to the recently formed Social and Ethics Committee. In alignment with Regulation 43 (5) (ii) of the Companies Act 2008, the Social and Ethics Committee is responsible for ensuring compliance to relevant regulations and/or promoting alignment to best practice governing: to Regulation 43 (5) (3) of the Companies Act which refers to: environment, health and public safety, including the impact of the activities of the affected SA subsidiaries and of their products and services. As a responsible corporate citizen, the Social and Ethics Committee has undertaken to extend the scope of this compliance requirement to all Group subsidiaries in addition to its affected SA subsidiaries. The Social and Ethics Committee's terms of reference are in alignment to the Ten Principals of UN Global Compact. Through Principals 7, 8 and 9 of the UN Global Compact, Aspen undertakes to support a proactive approach to environmental challenges to undertake initiatives to promote greater environmental responsibility,

and undertakes to promote the development of environmentally friendly technologies.
Furthermore, the Board monitors environmental KPI's on a quarterly basis as mentioned in Section 2.1a. These KPI's represent those issues which are considered to have a material impact on the sustainability of the Group.
To this end, a Group Risk and Sustainability Manager has been appointed to integrate the Group's sustainability objectives into business practices. As a result, measuring and reporting systems have been implemented throughout the Group to coordinate environmental management disclosure requirements. The Environmental Specialist, a member of Aspen's National SHE Department, is a resource dedicated to support the effective monitoring, measuring and reporting of Aspen's environmental management initiatives at the South African manufacturing facilities.
(iii) Costs associated with these actions:
Costs can be attributed to the resources in the Group dedicated to environmental management and reporting. Costs specifically related to environmental management cannot be ring-fenced as these resources form part of the Safety, Health & Environment Management, the Group Risk Management ,as well as business unit operational management structures.
2 Carbon Taxes
(i) The potential financial implications of the risk before taking action
Reports refer to a rate of R120 per ton of CO_2 for emissions above the proposed 60% threshold. Using this guideline, a calculation could be done with reference to Aspen's reported CO_2e emissions. However, in order to prepare a meaningful calculation, cognisance needs to be taken of the impact of carbon taxes on electricity costs as well as on supply chain costs (fuel and transportation). More clarity would also be needed on the prescribed consolidation approach (equity share or control). Owing to the uncertainty around intended application of the proposed legislation, no calculations have been performed.
(ii) Methods used to manage the risk
Aspen's Risk and Sustainability and Tax/Treasury departments are responsible for monitoring developments regarding carbon taxes. Aspen will initiate consultation with its external tax auditors on this matter during May 2012 to obtain an understanding of the potential inherent risks to the business.
(iii) Costs associated with these actions:
No costs have yet been incurred in this regard.
3 General environmental regulations
(i) The potential financial implications of the risk before taking action
Owing to the reliance on Eskom for energy in South Africa, Eskom costs for electricity are expected to be increased at above inflationary prices on an annual basis. For the period under review, Aspen's electricity cost increased by 28%. Electricity accounts for 7% of operating costs at the South African facilities. Hence, the impact of the 28% increase in electricity had an approximate impact of 1.96% on operating cost.
The inflation in water costs are directly related to increases in municipal charges. However, these are mitigated, to some extent, by usage reduction and recycling projects in place.
(ii) Methods used to manage the risk
In response to energy and water scarcity, continuous improvement projects are in place at the facilities are committed to reduce electricity and water consumption. Please refer to the conservation projects as disclosed in Aspen's 2011 Annual Report and in Section 3.1e and 3.3b.
(iii) Costs associated with these actions:
The costs associated with the installation of motion detectors was approximately R480 000, and the cost of investment in the reverse osmosis water recycling systems was approximately R230 000
4 Uncertainty surrounding new regulation
(i) The potential financial implications of the risk before taking action
The financial implications of this risk cannot be quantified until there is greater certainty on the legislation.
(ii) Methods used to manage the risk
In alignment to emerging trends in sustainability management related to climate change, Aspen is positioned to respond.
(iii) Costs associated with these actions:
Costs can be attributed to the resources in the Group dedicated to environmental management and reporting. Costs specifically related to environmental management cannot be ring-fenced as these resources form part of the Safety, Health & Environment Management, the Group Risk Management , as well as

business unit operational management structures.
5 Fuel and Energy Taxes
Points outlined for Carbon Taxes also relate to fuel and energy taxes
6. Product Labelling regulations and standards
(i) The potential financial implications of the risk before taking action
As the amendment of packaging of products is regulated by pharmaceutical regulatory authorities, there are currently no envisaged projects in this regard. Consequently, no financial implications are required to be quantified
(ii) Methods used to manage the risk
Legislative developments and promulgations are being monitoring through a web-based legal register. Regulatory requirements in various supplied territories are monitored and adhered to.
(iii) Costs associated with these actions:
No direct costs have been incurred to date

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
1.	Change in mean (average) precipitation	Climate change may result in water scarcity in some areas in which Aspen operates.	Reduction/disruption in production capacity	1-5 years	Direct	Likely	Medium
2.	Induced changes in natural resources	Although the IPCC predicts possible rising crop yields associated with global temperature increases of 1-2 degrees in some high latitude regions, falling crop yields are expected in many areas of the world for temperature changes greater than 1 degree. This may affect raw material production, food security, forestry and agricultural industries.	Reduction/disruption in production capacity	>10 years	Indirect (Supply chain)	About as likely as not	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

Apart from water and energy scarcity as discussed above, no other physical climate parameters directly and materially impact Aspen's operations.
1. Changes in average precipitation
(i) The potential financial implications of the risk before taking action
The financial implications cannot be quantified as the impact will be determined by the severity of the water shortage.
(ii) Methods used to manage the risk
In response to energy and water scarcity, continuous improvement projects are in place at the facilities to recycle water. Please refer to the conservation projects as disclosed in Aspen's 2011 Annual Report and in Section 3.1e and 3.3b.
(iii) Costs associated with these actions:
The costs associated with the installation of reverse osmosis systems water recycling was approximately R230 000
2. Induced changes in natural resources
(i) The potential financial implications of the risk before taking action
The financial implications have not been quantified as the risk is remote
(ii) Methods used to manage the risk
The Procurement department manage relationships with key suppliers and sufficient interaction takes place to keep abreast of any risks facing suppliers which could indirectly impact Aspen. In addition, alternative suppliers for key active pharmaceutical ingredients are registered in order to diversify the risk of reliance on a single supplier of material. Commodity trends are monitored to identify and mitigate foreseeable risks impacting sustainability of raw material supply.
(iii) Costs associated with these actions:
No costs have been directly incurred to this end

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

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

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

a. No other climate related risks have been identified
b. No costs have been associated with these risks.
d. Geographical areas considered - South African Operations
e. In the next 1-5 years

Further Information

Further information with regard to our sustainability projects is provided in Section 3. Please see attached section from the Annual Report 2011.
Please attached - the section on Emissions Management extracted fromt the Annual Report 2011.
The full Annual Report for Aspen Pharmacare (2011) is available from the links:
2011 Annual report: http://financialresults.co.za/2011/aspen_ar2011/
2011 Annual report download: http://financialresults.co.za/2011/aspen_ar2011/downloads.php

Attachments

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/5.ClimateChangeRisks/Sustainability report - Emissions.pdf

Page: 2012-Investor-Risks&Opps-ClimateChangeOpp

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

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

6.1b

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

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

6.1d

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

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

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

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

a. No substantive regulatory opportunities have been identified.
b. None have been identified as a crucial benefit to the company
d. Geographic areas considered - South African Operations
e. In the next 1-5 years

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

a. No substantive physical opportunities have been identified.
b. Most physical attributes results in negative impacts and none have been identified as a crucial benefit to the company
d. Geographic areas considered - South African Operations
e. In the next 5-10 years

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

a. No other substantive opportunities have been identified.
b. None have been identified as a crucial benefit to the company
d. Geographic areas considered - South African Operations
e. In the next 5-10 years

Further Information

No further information.

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)
Thu 01 Jul 2010 - Thu 30 Jun 2011	11544.59	95492.22

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

7.2a

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

Not applicable.

7.3

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

Gas	Reference
CO2	IPCC Second Assessment Report (SAR - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	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	2.67	kg CO2 per litre	DEFRA Guidelines
Motor gasoline	2.32	kg CO2 per litre	DEFRA Guidelines
Kerosene	2.54	kg CO2 per litre	DEFRA Guidelines
Electricity	1.03	Other: kg CO2 per KWh	ESKOM South Africa
Other: Heavy Furnace Oil	2.32	kg CO2 per litre	DEFRA Guidelines

Further Information

Please see attached documents including Aspen carbon footprinting excel sheet and the DEFRA guidelines and emission factors used

Attachments

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/7.EmissionsMethodology/Aspen Carbon Footprinting.xlsx
https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/7.EmissionsMethodology/DEFRA_GUIDELINES_GHG_CONV.XLS

Page: 8. Emissions Data - (1 Jul 2010 - 30 Jun 2011)

8.1

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

Operational control

8.2a

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

11544.59

8.2b

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

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment

8.2c

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

Gross global Scope 1 emissions (metric tonnes CO2e) – Part 1 Total	Comment

8.2d

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 2

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment

8.3a

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

95492.22

8.3b

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e)	Comment

8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO2e) - Total Part 1	Comment

8.3d

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

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment

8.4

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

8.4a

Please complete the table

Reporting Entity	Source	Scope	Explain why the source is excluded

8.4

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

Yes

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
Woodmead and Durban Office Parks	Scope 1 and 2	Data not available at this stage.
Fine Chemicals Cooperation	Scope 1 and 2	FCC is a separate entity and Aspen's environmental principles are in the process of being rolled out at this facility.

8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and Scope 2 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
More than 5% but less than or equal to 10%	Assumptions Metering/ Measurement Constraints Other: Published Emission Factors	Published emission factors were used, hence accuracy of these could not be verified. Data used is also dependent upon the accuracy of Municipal bills and service provider information and reports.	More than 5% but less than or equal to 10%	Assumptions Metering/ Measurement Constraints Other: Published Emission Factors	Published emission factors were used hence accuracy of these could not be verified. Data used is also dependent upon the accuracy of Municipal bills and service provider information and reports.

8.6

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

Not verified or assured

8.6a

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

8.6b

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

Level of verification or assurance	Relevant verification standard	Relevant statement attached

8.7

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

Not verified or assured

8.7a

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

8.7b

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

Level of verification or assurance	Relevant verification standard	Relevant statement attached

8.8

Are carbon dioxide emissions from the combustion of biologically sequestered carbon (i.e. carbon dioxide emissions from burning biomass/biofuels) relevant to your company?

No

8.8a

Please provide the emissions in metric tonnes CO2e

Further Information

No further information.

Page: 9. Scope 1 Emissions Breakdown - (1 Jul 2010 - 30 Jun 2011)

9.1

Do you have Scope 1 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

9.1a

Please complete the table below

Country	Scope 1 metric tonnes CO2e

9.2

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

By facility
By activity

9.2a

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

Business Division	Scope 1 metric tonnes CO2e

9.2b

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

Facility	Scope 1 metric tonnes CO2e
Port Elizabeth	8637.90
East London	2089.67
Johannnesburg (Nutritionals)	817.02

9.2c

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

GHG type	Scope 1 metric tonnes CO2e

9.2d

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

Activity	Scope 1 metric tonnes CO2e
Company Owned Mobile transport	89.69
Stationary Fuel Combusion	457.20
Fugitive Emissions	6897.66
Other: Non Kyoto Emissions	4100.04

Further Information

Please see attached Excel sheet on Aspen's calculations.
Scope 1 emissions sources are standby generators, boilers, HFCs (refridgerants) and company vehicles and trucks. Scope 1 emissions includes fugitive emissions from non-Kyoto gases. Aspen's Environmental Management Principles Protocol is in the process of being rolled out in Brazil, Mexico, Venezuela, Germany, Tanzania, Kenya, Mauritius and Dubai.

Attachments

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/9.Scope1EmissionsBreakdown(1Jul2010-30Jun2011)/Aspen Carbon Footprinting.xlsx

Page: 10. Scope 2 Emissions Breakdown - (1 Jul 2010 - 30 Jun 2011)

10.1

Do you have Scope 2 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

10.1a

Please complete the table below

Country	Scope 2 metric tonnes CO2e

10.2

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

By facility
By activity

10.2a

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

Business division	Scope 2 metric tonnes CO2e

10.2b

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

Facility	Scope 2 metric tonnes CO2e
Port Elizabeth	65973.54
East London	13743.34
Nutritionals	15775.34

10.2c

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

Activity	Scope 2 metric tonnes CO2e
Electricity	71598.40
Steam	23893.82

Further Information

Please see attached Excel sheet for the calculations and emission factors.

The Port Elizabeth and Johannesburg data included data for purchased steam. The following conversion was used to convert steam to KWh.
Steam is produced at 8barg.
The specific enthalpy of steam at 8 barg is 2031kJ/kg.
1 tonne/hr of steam is 1000/3600 kg/sec of steam
Available power from 1tonne/hr =2031 x 1000/3600 kJ/sec =564kJ/sec =564kW
Therefore 1 tonne steam =564kWhr

Aspen's Environmental Management Principles Protocol is in the process of being rolled out in Brazil, Mexico, Venezuela, Germany, Tanzania, Kenya, Mauritius and Dubai.

Attachments

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/10.Scope2EmissionsBreakdown(1Jul2010-30Jun2011)/Aspen Carbon Footprinting.xlsx

Page: 11. Emissions Scope 2 Contractual

11.1

Do you consider that the grid average factors used to report Scope 2 emissions in Question 8.3 reflect the contractual arrangements you have with electricity suppliers?

Yes

11.1a

You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO2e

11.1b

Explain the basis of the alternative figure (see guidance)

11.2

Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?

No

11.2a

Please provide details including the number and type of certificates

Type of certificate	Number of certificates	Comments

Further Information

No further information.

Page: 12. Energy

12.1

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

More than 5% but less than or equal to 10%

12.2

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

Energy type	MWh
Fuel	2268.59
Electricity	69513.01
Heat	0
Steam	23197.88
Cooling	0

12.3

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

Fuels	MWh
Diesel/Gas oil	203.83
Motor gasoline	170.43
Kerosene	1469.75
Residual fuel oil	424.58

Further Information

Please see attached conversion calculations. CDP Technical Notes, i.e. units of measure and conversion of fuel data to MWh were used for fuel densities and calorific values.

Attachments

https://www.cdproject.net/Sites/2012/69/1069/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/12.Energy/Aspen Scope 1 Conversions Calcs.xlsx

Page: 13. Emissions Performance

13.1

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

This is our first year of estimation

13.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment

13.2

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
122	metric tonnes CO2e	unit total revenue	0	N/A	Aspen is considering this year as its base year (June 2010 - July 2011) since DEFRA emissions factors were utilised and included steam values for Nutritionals facility in Johannesburg.

13.3

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
56	metric tonnes CO2e	FTE Employee	0	N/A	Sum of Scope 1 and 2 emissions (107,036.81), and then divided that number divide that number by the total no of FTE employees (1892) = tonnes CO2 per FTE employee. Aspen is considering this year as its base year (June 2010 - July 2011)

13.4

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	metric tonnes CO2e		0	N/A	Not calculated exclusively for the facilities reported for in this report.

Further Information

No further information.

Page: 14. Emissions Trading

14.1

Do you participate in any emission trading schemes?

No, and we do not currently anticipate doing so in the next two years

14.1a

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

14.1b

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

14.2

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

No

14.2a

Please complete the following 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

Further Information

No further information.

Page: 2012-Investor-Scope 3 Emissions

15.1

Please provide data on sources of Scope 3 emissions that are relevant to your organization

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
Waste generated in operations	2734.02	Waste (excluding recycled waste) disposed in landfills. Emission factor source - Austalian Government, Department of Climate change and Energy, National Greenhouse Account	Figure provided.

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
		factors, July 2011.	
Business travel	4963.20	Provided by service provider - Travel agency.	Figure provided.
Purchased goods & services	176.77	Water supply from the Municipality. Emission Factor source - Friedrich, Pillay & Buckley 2007 "The use of LCA in the water industry and the case for an environmental performance indicator." Water SA, Vol. 33	Figure provided.

15.2

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

Not verified or assured

15.2a

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

15.2b

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

Level of verification or assurance	Relevant verification standard	Relevant statement attached

15.3

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

No, this is our first year of estimation

15.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment

Further Information

No further information.

Module: Sign Off

Page: Sign Off

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

Dr Morne Geyser
Aspen Head of South African Operations.