Module: Introduction

Page: Introduction

0.1

Introduction
Please give a general description and introduction to your organization

Launched in 1994, the MTN Group is a leading emerging markets multinational telecommunications group, The MTN Group invests significantly in advanced communications networks and operating in 22 countries in Africa and the Middle East and offering cellular network and fixed line access, as well as business solutions. This includes South Sudan where the MTN Group await the issuing of operating licence. The MTN Group, which has its headquarters in South Africa, is listed on the JSE Securities Exchange under the share code: "MTN", and is included in the JSE Socially Responsible Index (SRI). MTN recorded more than 189.3 million subscribers across its operations by 31 December 2012. This is a 15% increase from 160 million from the previous year. The Group operates in Afghanistan, Benin, Botswana, Cameroon, Cote d'Ivoire, Congo Brazzaville, Cyprus, Ghana, Guinea Bissau, Guinea Conakry, Iran, Liberia, Nigeria, Rwanda, South Africa, Swaziland, Sudan, South Sudan, Syria, Uganda, Yemen and Zambia. At the time of this submission, the Group reports on its operations in 20 countries, excluding Mascom Botswana and MTN Ethiopia on the basis of indirect ownership holding and recent acquisitions respectively.

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
Sun 01 Jan 2012 - Mon 31 Dec 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
Nigeria
Ghana
Cameroon
Congo Brazzaville
Guinea-Bissau
Iran, Islamic Republic of
Syrian Arab Republic
Yemen
Cyprus
South Africa
Uganda
Zambia
Swaziland

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.

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

Responsibility is with Group Board, which has delegated responsibility to Group Risk Management, Compliance and Corporate Governance Committee (overall sustainability). Overall environmental considerations are defined in the terms of reference of the Group Social and Ethics Committee, a function of the Group Board. The Group President and CEO has delegated executive responsibility to the Group Executive: Human Resources and Corporate Affairs.

Ms. Z Rehman is the Group Sustainability Manager and is responsible for all climate change and sustainability initiatives and issues at MTN. The Group Sustainability function focuses on building the foundations for a more sustainable business and implements environmental or social core business projects at both Group and operational level in partnership with business functions. Group Sustainability seeks to integrate material economic, environmental and social requirements, opportunities and risk management in core business strategic planning, implementation and performance management.

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	Incentivized performance indicator

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

a) Scope of process;

MTN evaluates how our economic performance is subject to our reliance on environmental, human, social, manufactured and financial capitals. Through the assessment of these five capitals it focuses our efforts and keeps MTN aware of our macro-operating impacts. This approach allows for embedding sustainability into the MTN Integrated Risk Management process. This will ensure that normal business decisions should deliver enhancements and maintenance of the sustainable five capitals (environmental, human, social, manufacturing and financial).

Group Business Risk Management (BRM) is responsible for the identification of Principal Risks from the Group Strategic Objectives and report regularly back to the Board. The BRM is a management forum which sits under three board committees notably the Audit, Risk management, Compliance and Corporate Governance and Executive committees.

MTN's is focused on building on the foundations for sustainable business performance through the reporting of MTN's performance management of the five capitals. The reporting will be aligned with key areas for implementation which are in alignment with the Group's vision, using the rule of materiality and impact. MTN Group's key environmental sustainability programs are energy, carbon and climate management, and electronic and electrical waste management. The risk of the pending carbon tax in South Africa and rising costs of energy, which will be further impacted by carbon legislation, are driving MTN's response around the climate change and greenhouse gas emissions.

b) **How climate change risks/opportunities are assessed at a company level.**

MTN recognises that there are both opportunities and risks associated with climate change, and as such conducted a qualitative assessment of potential risks. MTN has implemented an integrated risk and opportunity assessment process as recommended in the King III Code. The risks and opportunities are assessed by Group Investor Relations, Stakeholder Management, Company Secretarial, Human Resources, Business Risk Management, and Sustainability. Together they jointly assessed the top 23 risks faced by MTN, and ensured that appropriate material group-level environmental and social risks were also integrated and responses to risks formulated. Environmental risks are included in the top 23 risks reviewed and monitored by the Group. The results of the integrated assessment are reviewed and approved by the Group Executive and Group Board and a summary published in the Group's Integrated Business Report in 2012.

c) **How climate change risks/opportunities are assessed at an asset level**

The Group reviews and updates it Principle Risks in terms of an overall Business Risk Management framework. These "top-down' risks are then further assessed by MTN country/ operation Business Risk Managers, located in each operation /OpCo. Using a 'bottom-up' or country-specific approach. The local Business Risk Managers are then required to develop response strategies based on the nature and materiality of the risk to their specific operations.

A risk report is compiled by local Head of Business Risk Management and presented to both the local operations's CEO and Audit and Risk Compliance Committee in 2013, through specific Carbon, Climate and Energy training, we have included a focus on the physical, regulatory and financial risks to ensure that key functions within each operation can improve their understanding and knowledge with respect to assessing and putting in place mitigation plans for these risks

d) **Frequency of monitoring;**

Risks are reported to the operation's executive or management committee on a monthly basis, on a quarterly basis to the Group Business Risk Management function and Group Business Risk Management Committee, and are managed on an ongoing operational basis. On a yearly basis at an country level each MTN operating country is requested to complete a questionnaire that is focused on climate change risks and opportunities.

e) **Criteria for materiality/priorities;**

To determine materiality MTN take the following sources into account:

- Feedback from internal and external stakeholders that review the annual sustainability report.

- Engagement with external stakeholders via the addresses sustainability@mtn.com and investor_relations@mtn.co.za.
- Communications with media organisations, civil society and community-based organisations, our own customers, and general members of the public.
- Feedback and engagement with the JSE SRI, the CDP, and MTN's own investors who consult us or assess our responsible business performance.
- Information from third party questionnaires and assessments of our publicly reported performance by university organisations and other third parties not commissioned by MTN.
- Our own internal review and research processes including industry, peer and global developments, and our risk and audit management processes.

Those issues which are highlighted of highest importance through the qualitative risk and opportunity process and which have an impact on our business are included in the Integrated Report 2012 and Energy and Carbon is listed in the category of high importance for the MTN Group.

f) **To whom are the results reported.**

The Head of BRM of each operation submits a consolidated report referencing applicable issues identified of high importance by MTN Group (Energy and Carbon is included in the category of issues) to the MTN Group EXCO and Group Risk and Compliance Committee. The results of MTN's integrated risk and opportunity assessment are reviewed and approved by the Group Executive and Group Board and published in the Group's Integrated Business Report in 2012.

2.2

Is climate change integrated into your business strategy?

No

2.2a

Please describe the process and outcomes

2.2b

Please explain why not

Partial integration is underway through energy efficiency and e-waste initiatives in the business, and through innovation and product development, and integrated risk reporting. We are embedding sustainability in our organisation by establishing links with core risks, networks and technology, and opportunities for innovation,

realising efficiency and generating revenue. The operations are aware of the cost and implications of traditional energy use.
However, complete integration from a business planning and strategic intervention design and implementation remains work in progress. Progress towards full integration includes the following:

• Through the process of conducting the carbon footprint, and through the high level discussion of climate risk, it is evident that there are definite elements of the Group business strategy which relate to climate change, and which will be individually listed and linked in the future (currently some climate change risks such as business continuity and broad environmental trends are already listed in the Group's risk universe under classifications other than environmental/ climate change). Listing these in a special environmental/ climate change category, expanding on the critical risks, and setting executive-level Group targets will help gather the necessary resources to address this in a more climate-focused manner internally (as compared to the current cost-focused manner), which coupled with the cost focus, will accelerate the positive results of efforts to reduce emissions
•

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)

Yes - Other

2.3a

On what issues have you been engaging directly?

Focus of legislation	Corporate Position	Details of engagement	Proposed solution

.

2.3b

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

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?

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
N/A

2.3g

Please provide details of the other engagement activities that you undertake
MTN is an active member of The National Business Initiative (NBI) which is a voluntary group of leading national and multi-national companies. As a collective group of NBI member they are working together towards sustainable growth and development in South Africa through partnerships, practical programmes and policy engagement. MTN supports the NBI in advocating for the collective role of business in support of a stable democracy, growing economy and healthy natural environment. MTN's membership to the NBI provides us with direct links to the WBCSD. In addition, the MTN Group has signed up to the United Nations Global Compact, and has for the past three years reported business performance against the United Nations Global Reporting Initiative. The Group is also a member of the GSMA Mobile Energy Efficiency initiative, a voluntary industry initiative aimed at determining the relative energy efficiencies of in-country mobile network operators.

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?

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?

No, there is no Group Target. However some MTN countries of operation have taken the initiative after completing the GHG training provided by MTN Group and set local county targets to drive their own initiatives. MTN Congo Brazzaville has set an 18% emission reduction target per year, MTN Cyprus has set a 10% target to reduce diesel consumption and to minimize total CO2e emissions by 10% and MTN Zambia has set a 10% emissions reduction target per BTS site in 2013.

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

N/A

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

N/A

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

N/A

3.1d

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

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

N/A

3.1e

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

i). MTN Group have not yet met the objective of setting energy cost and greenhouse gas emissions of their 2012 business operations as the baseline by which to measure reduction efforts as inadequate data prevents MTN from setting a greenhouse gas emission baseline to set targets against.

ii. MTN are actively using a number of solutions to reduce the use of energy and our greenhouse gas impact. The largest areas of MTN Group energy consumption remains the network base station sites, switches and data centres. MTN continues to focus efforts to reduce energy consumption and improve efficiencies within these areas. We expect our reported emissions to increase in 2013 to between 10% and 20%, as we improve the depth and extent of data collected and reported by existing MTN country operations, by ensuring the remaining MTN countries of operations which have not historically reported commence reporting in 2013, and in line with network growth management plans. We also expect a material shift in Scope 1 emissions to Scope 3 emissions, as some MTN countries of operation are in the process of selling off and leasing network tower operations.

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)

Integrated Energy, Climate and Carbon-Related Opportunity Management process:
MTN is aware of the potential of mobile phones to transform emerging markets. ICT-based products and value-adding services in the health, agriculture, insurance, commerce and automation through smart solutions and machine-to-machine applications have the potential to transform the lives of the more than 189 million subscribers (customers) and communities MTN services across Africa and the Middle East.
The power-balance between mobile operators and consumers is changing. Impetus for innovation comes from our social and natural environment. There is increasing global awareness around society's environmental impact, particularly energy and water resources. The potential of global ICT and telecommunications to support social and environmental requirements is globally acknowledged by organisations such as the United Nations and the International Telecommunications Union.
MTN is cognisant of the International Telecommunications Union and Global e-Sustainability Initiative's Smart 2020 report which indicates that opportunity for the ICT sector to fulfil a positive role with respect to de-carbonisation and smart solution provision, and has started to offer these solutions. MTN are aware that ICT can help other industries reduce their environmental impact while maintaining business as usual, and that as a result of ICT dematerialisation, integration & M2M services can help industries save 7.8 GtCO2e and €600 Billion in OPEX by 2020 alone. MTN has launched a set of cloud computing services that will help companies manage their energy, human resource and maintenance costs.

MTN has been working to develop Machine 2 Machine (M2M)solutions that help our customers manage their environmental impact. M2M technology uses on-property sensors to detect any event which might have an impact on business operations. Whether the issue is air quality at mining operations, temperature changes on farms or public tampering with power lines at energy plants, M2M technologies let our customers know of events that impact their operations and the environment immediately and accurately through a combination of wireless, wired or hybrid GSM communications. This helps to reduce response times, damage or loss to assets, related productivity and revenue losses, pre-empting evacuations and equipment failure, preventing downtime, and helps maintain or reduce costs and environmental impact of businesses. MTN's fleet monitoring and mobility solution has been helping freight and transport companies reduce the direct and possible theft costs of diesel and petrol through smart monitoring, and enables scope 1 and scope 3 greenhouse gas emissions. Our smart electricity metering solution eliminates human errors, improves data quality and security, and helps monitor tampering of energy generation or use operations. MTN's Air Quality Reader, which is fully compliant with local air quality legislation, captures ambient air quality readings 24 hours a day, within a 50km radius. Air is monitored for the levels of sulphur dioxide, nitrogen dioxide, carbon monoxide, ozone, particulate matter of certain aerodynamic diameters, benzene and lead. This enables our customers to make important air quality decisions quickly, helping to keep areas clean of harmful pollutants. MTN water monitoring is a solution that monitors business' water usage. Using a water meter's standard pulse outputs, real time reporting on flow rates helps users develop patterns of consumption. Any variations

(eg leakages causing increased water use, or dam water levels exceeding pre-set limits) trigger alarms with escalation via SMS and email, helping address problems, and reducing water wastage.

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		
To be implemented*		
Implementation commenced*		
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 (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Other	South Africa: Implementation of: * cleaner fire suppression gas on new technical facilities. Global Warming Potential is less Novec = 1.0 HFC227ea = 3220	Not yet calculated			
Energy Efficiency: Processes	South Africa: Implementation of: * free cooling system on newly built technical facilities, * upgrade of mechanical and electrical system (5 switches), * optimise energy consumed by the radio equipment at 200 sites, * battery cabinet active cooling at 260 sites, and * replacement of circuit breakers on the 529 TFMC owned BTS sites	4 000 000	22 000 000 ZAR		>3years
Energy Efficiency	South Africa - A site monitoring trial has been extended to cover 200 sites. The potential cost savings on installed sites arise from logical control of generator and battery runs to optimize diesel consumption	An estimated reduction of 10-15% emissions per site.		None necessary	Trial
Energy Efficiency	Swaziland - Initiatives implemented: * 2 trial solar projects, * 1 trial hydrogen fuel cell project, and * a trial wind project	Trials so no available data			>12years
Energy Efficiency	Nigeria - Initiatives implemented include: * 2,660 diesel generator and hybrid solutions, * solar panel pilots, and * off-peak power solutions for 5 locations	Hybrid solutions are responsible for 25% reductions, solar panel initiatives for 60% reduction, off-peak power solutions for 20% reduction		28,000 USD, 46,000 USD, 60,000 USD respectively	>3years

Energy Efficiency	Iran - Initiatives implemented: * Diesel generator and hybrid site development, * Free cooling instead of AC, * outdoor BTS (as opposed to indoor), * Solar panels	Trial so no available data			>3 years
Energy Efficiency	Guinea Bissau – implemented: * 2 solar projects, and * 10 diesel generator and battery hybrid systems	568 t/CO2e for solar projects, savings of 30% monthly fuel expenditure for hybrid systems	200,000 USD	(233,433 USD for hybrid systems)	>5 years
Energy Efficiency	Ghana - implemented: * 3 solar projects	Trial so no available data			>5 years
Energy Efficiency	Cyprus implemented: * introduction of heat exchanger fans * changing 18000BUT AC units for 12000 BUT class A+ AC units, and 24000 BTU AC units to 18000 BTU AC units. * set temperature of BTS sites from 23 deg C to 25 deg C. * In Data Centres upgrading 2 Cooling units in one data centre with new energy efficiency class cooling units containing R410 Refrigerant. * In buildings replacing the current lights with LED bulbs.	370 tons CO2e per year	100,000 Euros saved per year		>3years
Energy Efficiency	Congo - Installation of 66 hybrid solutions	It is expected to save 792,000 litres of diesel per year		Investment required is about 1,800,000 USD	>3years
Energy Efficiency	Cameroon - Implementation of: * Solar system to function alongside a hybrid diesel and battery system	277,225.00 litres of diesel in 2012	3,621,141.67 USD		>3years

3.3c

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

Method	Comment
Lower return on investment (ROI) specification	As part of business case development, MTN determines the breakeven point and return on investment period.
Other	As part of the Group's Climate Management strategy to be developed, MTN plans to enhance business case development through calculation of emissions savings as part of financial trade-off decision-making, and in the case of South African operations in particular, calculations will also include potential carbon tax liability implications of infrastructure investments.

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
MTN Integrated Report 2013	Pg1,14,18 & 104,	
MTN Group Limited Sustainability Report 31 December 2012	Pg8, 22, 35, 40,	

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

The top climate related risks to our business are being detailed as part of risk mitigation planning by our operations. These include increasing costs, increased flooding and higher temperatures in some countries, resulting in more costly and difficult maintenance cycles and fuel management, and increasing regulatory motions or activity in a number of countries, with respect to overall climate change"
(http://www.mtn.com/Sustainability/Ecoresponsibility/Pages/CarbonDisclosure.aspx)

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	Carbon taxes	A domestic carbon tax is to be introduced in South Africa on 1 January 2015. A carbon tax policy paper was issued for public comment in May 2013. The design of the scheme is understood to be in line with the 2013/2014 budget review. It outlined the following proposed elements of a South African carbon tax: • Rate of tax: the tax will initially be levied at R120 per tonne of CO2 and will increase by 10% annually. • Timing: introduction is expected on 1 January 2015. • Scope and coverage: it is expected that a company's carbon	Increased operational cost	1-5 years	Direct	Virtually certain	Medium-high

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		tax liability will be limited to its Scope 1 emissions. However, the electricity sector will also be taxed and is very likely to pass the cost through to the consumer. • Basic free allowances: businesses across certain sectors will be given allowances to the amount of 60% of their annual Scope 1 emissions. These free allowances will accrue to industry until 2020, after which the threshold will be gradually reduced. • Industry benchmarks: An emissions benchmark per unit of output will be defined for each sector. Companies that perform better than the benchmark will receive additional free allowances, whilst those faring worse than the benchmark will have their allowances reduced. • Additional free allowances based on trade exposure: Some sectors may be able to claim up to 10% free allowances based on their exposure to international trade. • Additional free allowances based on process emissions: Sectors within which activities result in 'process' emissions may qualify for further 10% additional free allowances. • The use of offsets to potentially lower the total cost of compliance by 5-10% has now been established. The carbon tax will impact MTN South Africa through an increase in direct operational costs. This is particularly relevant for its BTS sites.					
2	Fuel/energy taxes and regulations	• Fuel subsidies have been removed in Nigeria. • There are concerns in Ghana about regulated tariff increases on electricity and diesel. • Regulations in Cyprus increase electricity charges during peak hours.	Increased operational cost	1-5 years	Direct	Virtually Certain	Medium

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. Carbon tax:

i) The potential impact of carbon tax is recognised as a significant risk in our risk management framework. The direct financial incentive to reduce energy consumption in the face of rising electricity costs is obvious and the proposed carbon tax is a direct incentive to reduce carbon emissions.

The recent carbon tax policy paper issued for public comment proposed in May 2013 indicate that a carbon tax rate of R120 per ton of CO2e increasing at 10 per cent per annum will be implemented during the first phase. When the tax-free threshold and additional relief are taken into account, the effective tax rate will range between R12 and R48 per ton of CO2e. Given this, MTN could potentially expect to be taxed on 20 to 40% of their Scope 1 emissions (at R120/t CO2e), which would result in a potential liability of between R44,000 and R176,000.

Additionally, MTN used 133 GWh (portion attributable to MTN South Africa) of electricity during the reporting period. If a carbon tax of R120/t is imposed on Eskom (who will receive a 70% allowance), who will more than likely pass the cost to consumer, it will result in an increase in electricity in year 1 of approximately R0.03/kWh. As a result, MTN could incur an increase of R6.2 million spent on electricity. This is the potential liability the Group faces due to carbon tax; however, this is to be confirmed once further details are released by South African Treasury during 2012.

ii) MTN is reducing the impact of a potential Carbon Tax by optimizing energy efficiency at its technical and non-technical sites and looking to implement alternative energy at these sites as well.

Investment made in energy efficiency and alternative energy has been on-going in all operations. The carbon tax only poses a direct threat to MTN South Africa, however it may become a reality in other countries where MTN operates. An example of investment in alternative energy in South Africa is the 2MW Trigen facility at the Head Office Campus in Johannesburg. A 4 MW implementation in Centurion similar to the 2MW Tri-Gen at 14th Avenue, which will also mitigate this risk, as has MTN South Africa's investment in 22 wind, solar and hybrid off-grid network sites, and more efficient data centres at its internet service provider hosting site.

This risk is managed by Group Networks and Group Sustainability. In conjunction with this the Group Sustainability Manager will endeavour to engage in policy dialogue and advocacy with government to ensure that carbon budgets and the design of the tax captures the operational realities of the sector and company.

iii MTN invested R22million in the project and it has resulted in reducing energy on site by approximately 30% (and has helped mitigate energy insecurity risks).

2 Fuel/energy taxes and regulations

i.) The risk of fuel subsidies for Nigeria materialised in January 2012 with an additional cost of $0.17 per litre or R1.67 per litre which at the current reported consumption adding R254 million to the operating cost for Nigeria. Currently in Cyprus increased costs for power usage during peak energy usage time have come into effect. Another tax is expected to come into place in upcoming years on CO2.

ii) The methods you are using to manage this risk:

Investments in energy efficiency and alternative energy sources are being driven strategically and operationally by MTN Nigeria to mitigate risks like energy security, costs and environmental impact. Over and above the typical range of energy efficiency and alternative energy solutions, MTN Nigeria has rolled out Phase 1 of the a project to provide connectivity to rural villages. The roll-out consists of 252 solar powered BTS sites. These 252 BTS sites provide telecommunications connectivity to 308 villages. MTN Nigeria, the largest consumer of energy in the MTN Group, is also undertaking 6 energy efficiency initiatives These include the implementation of hybrid solutions to reduce diesel use, off-peak power solutions, network optimisation to outdoor platforms, site power optimisation, and power retrofits.

Cyprus is implementing energy efficiency and demand side management measures and investigating renewable or alternative energy sources to reduce exposure to grid energy supplies and the additional costs.

iii) The costs associated with these actions

The implementation of these initiatives in Nigeria has reduced the use of diesel by 331,128 litres (R32 000 000), and electricity use by 130,613 kWh (R88 000), monthly. The impact of the power usages costs in Cyprus are in the process of being evaluated and calculated based on FY12 consumption patter.

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	Other physical climate drivers	All MTN countries of operation are included in this section. The risk is an increased incidence of lightning strikes and high winds during storms. The risk and associated financial costs will be greater for BTS sites, switches and data centres than for other infrastructure.	Reduction/disruption in production capacity	Unknown	Direct	Very likely	Medium-high
	Other Physical Climate Drivers	All MTN countries of operation are included in this section. The risk is an increased risk of precipitation and/or flooding. The risk and associated financial costs will be greater for BTS sites, switches and data centres than for other infrastructure. The rainy season in certain areas threatens the access to power. In Cameroon the power grid is unstable and backup generators are necessary 40% of the time, and a similar situation exists in Nigeria. Operational costs are further increased due to higher generator maintenance costs on BTS sites caused by road conditions in the rainy season. Nigeria had extensive flooding that affected its operations in FY12. FY13 is expected to have more flooding based on the findings reported in the annual flood outlook the Nigeria Hydrological Services Agency (NIHSA). The Swaziland operating unit would need to refit the transmission units for the BTS sites if rainfall rates increase.	Increased operational cost	Current	Direct	Virtually Certain	Medium
2	Induced changes in natural resources	All MTN countries of operation are included in this section. The risk is an increased mean surface temperature. The risk and associated financial costs will be greater for BTS sites, switches and data centres than for other infrastructure due to the required optimal operating temperatures of the equipment used at these sites. Operating countries in the Middle East are especially at risk to this change in surface temperature. By 2100, temperature would have risen by 5 degrees Celsius, adding increased cost to management of BTS sites. The	Increased operational cost	>10 years	Direct	More likely than not	Medium-high

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		increased costs are particularly around increasing energy costs for cooling.					

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

i) MTN's operations are susceptible to the forces of extreme weather events which can interrupt business continuity and damage infrastructure. In particular, the sites may be located in areas which are affected by lightning and storms. Costs associated with flooding incidents have historically been much lower and few incidents have been reported. An increase in events coupled with rising repair prices and/ or insurance costs could have a financial impact on MTN.

(ii) MTN understands that the effect of climate change may exacerbate these effects, potentially impacting the business further. As such MTN realises the need to quantify the effects of these possible changes in the climate on physical assets, and ensure that these risks are mitigated. MTN manages existing weather related risks by ensuring that sites are developed in a manner which reduces the risk e.g. raising the level of the site or key equipment and ensuring adequate drainage to reduce the risk of flooding. These actions do not necessarily give rise to significant costs if done in the planning stages. MTN is currently in the early phase of managing climate change across the group. The next phase in this process will involve creating databases of all infrastructure and associated geographical positions in all operations. MTN then intends to understand how a changing climate will impact its most material assets, and apply a quantitative analysis to this. This process is expected to span the medium term/ multiple reporting processes.
As part of the carbon footprint development, training on climate change, carbon footprint methods, as well as the associated climate risks and opportunities has taken place, and further plans to operationalise training on an on-demand and scheduled basis for a larger base of staff are currently underway.

(iii) Costs associated with creating a database of infrastructure have yet to be fully realised as the process is still in its infancy. The current carbon footprint study that is carried out annually helps identify areas that require increased efficiency to decrease operational costs. Carrying out quantitative analysis of the impacts of climate change will fall under the broader scope of a holistic climate change strategy. This strategy will be complete in the medium term and will drive future climate decisions and targets for MTN Group. During 2012 MTN rolled out internal training material to all 21 countries of operation, and involved explaining the background and business case for energy efficiency and greenhouse gas management and reduction, financial, physical and regulatory risks and opportunities to MTN, internal processes, systems and requirements to complete country-specific carbon footprint calculators to determine the greenhouse gas intensity of MTN’s energy use.

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
1	Reputation	Investor pressure and perceived or real inadequate environmental and climate change performance poses a reputational risk to MTN. The number and scope of regulatory requirements impacting on MTN's operations are increasing, and while they are currently operating in accordance with these voluntary and regulatory standards; stakeholder and client expectations are constantly evolving and generally becoming more rigorous. As a result, in addition to compliance costs, MTN may be exposed to increased insurance costs and unforeseen environmental expenses, despite reasonable efforts to work with key stakeholders to keep pace with regulations, law and public expectation. Litigation exposures always have reputational risk implications. In the short- to medium-term, MTN could face reputational risks with Socially Responsible Investors if performance and policy commitments fall short of expectations for a leading and diverse company. Additionally, perceived failure to act in a socially responsible manner as a company may jeopardise MTN's continued inclusion on the JSE Socially Responsible Index (SRI).	Stock value	1-5	Direct	Likely	Medium

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

1. Reputation

i) MTN could face reputational risks with Socially Responsible Investors (SRI) Index of the JSE if performance and policy commitments fall short of expectations for a leading and diverse company; creating a negative impression with stakeholders and investors, and negatively impacting the company's share price. The potential financial impacts of this risk are potentially significant but difficult to quantify.

ii) MTN have retained their listing on the JSE's SRI index and is committed to understanding and reporting on its sustainability performance and GHG emissions and responding to the CDP survey annually. To date, MTN has participated in and met the requirements of the JSE SRI for the past 09 years. In order to manage its overall sustainability performance MTN regularly engages with its stakeholders and produces an annual integrated sustainability report.

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
1	International agreements	MTN has operations across the continent of Africa, a number of which are in the LDC zones. The most recent COP meeting (COP18) indicated that carbon credits from LDC countries will still be very much in demand and as such represents a potential opportunity for MTN. South Africa's 2-megawatt (MW), methane-driven tri-generation power plant at the 14th Avenue Head Office is the first of its kind on the African continent. The tri-gen project enabled MTN to be the first telecoms company in Africa to have a new Methodology approved by the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism (CDM) Executive Board. The tri-gen project has resulted in increased energy security in an energy constrained economy; avoidance of energy price increases; reduced exposure to potential carbon taxes; and a reduction of the Group carbon footprint. The success of this project has led to further investigations of the potential for similarly powered switch centres in South Africa.	Increased demand for existing products/services	Current	Direct	Virtually certain	Medium
2	Other regulatory drivers	There are a number of tax incentives, research and development incentives and government grants in the area of energy and climate change which MTN could take advantage of in South Africa. Financial incentives from the South African government include: Cultural Infrastructure Programme: The Department of Trade and Industry runs the Cultural Infrastructure Programme where capital grants are available to cover 10-30% of the cost of qualifying infrastructure for co-generation projects. Income Tax Act: - Section 12.k: Carbon credits generated by Clean Development Mechanism projects will be exempt from normal tax. - Section 12.l: An income tax allowance is available for energy efficiency savings. This expires in January 2020. - Section II.D: Research and Development grants of 150% of	Increase in capital availability	1 – 5 years	Direct	About as likely as not	Low

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		expenditure incurred are available for work on clean technology. The income tax allowance for energy efficiency savings is regarded as the opportunity with the greatest promise for MTN South Africa as the company is currently targeting the implementation of a number of energy efficiency projects. In addition, because MTN South Africa earns carbon credits from the CDM project there is the potential for tax related savings.					

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

1.) International Agreements
(i) CDM projects generated 15,292 saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO2, which can be counted towards meeting Kyoto targets. MTN South Africa's 2-megawatt (MW), methane-driven tri-generation power plant at the 14th Avenue Head Office MTN was the first telecoms company in Africa to have a new Methodology approved by the UNFCCC CDM Executive Board, for such an installation to claim carbon credits. The tri-gen project has resulted in increased energy security in an energy constrained economy; avoidance of energy price increases; reduced exposure to potential carbon taxes; and a reduction of the Group carbon footprint. The tri-generation plant has resulted in the avoidance of over 15,000 tonnes in 2012 from carbon intensive electricity generation, and the credits were sold in May 2012, on a forward-sale basis over 5 years starting 2013, at 94% of the spot price.(ii) The annual carbon footprint will enable MTN to plot the consumption patterns of various sites (including the tri-generation facility) and will enable MTN to identify savings made in terms of carbon emissions and cost. This will in turn identify the effectiveness of projects that fall under the scope of CDM. MTN started to develop a climate change management strategy starting in November 2011. This strategy aims to identify and prioritise specific areas of concern within the organisation to support future decision-making to reduce energy consumption and lower emissions as well as costs. CDM opportunities fall within the scope of quantifiable opportunities that MTN can take advantage of and these will be identified in the climate change strategy.
(iii) The cost of the TriGen facility was roughly R22 million.

2.) Other regulatory drivers
i) There are a number of tax incentives in South Africa, research and development incentives and government grants in the area of energy and climate change which MTN could take advantage of. MTN is currently saving 4 000 000KWh of electricity from energy efficiency initiatives that have been implemented. This saving is therefore available for an income tax allowance in terms of Section12L of the Income Tax Act. The Carbon Tax policy paper that was issued for public comment in

May 2013 mentioned a potential allowance for taxpayers to capture the full profit from energy-efficient savings during each year. This could result in a potential saving for MTN annually, excluding the cost required for measurement and verification. The direct financial incentive to reduce energy consumption in the face of rising electricity costs is obvious and the carbon tax is a further incentive to reduce carbon emissions.
ii) As energy consumption and the management thereof is so important, tax incentives, research and development incentives and government grants will be looked into in order to aid the occurrence of energy efficiency measures at MTN South African and then look at opportunities to scale up to other OpCo's. A decision has yet to be determined around whether the cost of monitoring and verification is worth the savings that will be achieved through Section 12L of the Income Tax Act.
iii) The cost associated with Monitoring & Verification can be substantial; however, MTN has not carried out a full investigation into the full costs of this type of project.

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
1	Change in mean temperature	The concept of free air cooling is based on using the external 'free' air to help subsidise the powered cooling used in equipment rooms, with the aim of reducing the amount of power and hence energy and associated cost required to cool any one area. MTN's strategy is to implement free air cooling where sites and infrastructure provide benefits for energy reduction. This helps demonstrate MTN's commitment to keep energy and carbon costs low, and will be increasingly in demand as average global temperatures increase. This will assist in reducing operational costs for MTN.	Reduced operational costs	Current	Direct	More likely than not	Low

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

i) This will reduce the operating cost per BTS throughout the network, but exact figures are unknown at time of reporting as accurate data is in the process of being collected through the annual carbon reporting program.

ii) As part of the energy efficiency and carbon management program opportunity identification for low cost not cost and scalable opportunities such as free air cooling programme are identified and taken through the pre-feasibility, feasibility and implementation process for projects.

iii) By identifying and implementing the necessary refits, modernisation, upgrades and swap-outs, network equipment and improving cooling efficiency we estimate savings of up to 40% of the BTS energy consumption is achievable. In Nigeria, MTN conducted solar energy trials on seven BTS sites to address the current high diesel consumption of the current power methodology, and has achieved savings in excess of over USD 27,000 per site (the greenhouse gas reductions have not yet been calculated).

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
1	Other drivers	According to the Gartner Group, while the ICT sector plans to significantly step up own energy efficiency, its largest influence will be by enabling energy efficiency in other sectors. The opportunity exists for MTN to develop solutions to help de-carbonise other sectors of economies through dematerialisation (e.g. replacement of physical travel through increased use of teleconferencing, or replacement of physical servers with virtual servers), efficiencies in transport and storage logistics, smart building technologies or information solutions for energy efficiency (e.g. for data centres) and improved management and monitoring of electricity grids (smart grids). ICT companies can help other sectors optimise how they operate, and how society works and lives to lower impact businesses. In so doing, ICT companies will be in a position to contribute in the fight against rising emissions and global warming. MTN is currently driving machine to machine (m2m) technology solutions to enable energy efficiency and environmental monitoring in other sectors. By using this technology, other sectors will have up-to-date data at their finger-tips at all times, enabling them to make informed decisions on ways forward and possible solutions. Amongst other benefits, this enables corporate and industrial customers to improve energy efficiency. MTN's telemetry partnerships include an application for fleet management, allowing companies to track vehicle movement in real-time, monitor aspects such including fuel cap and ignition access, thereby controlling fuel management, MTN's smart office management allows clients to track work flows of mobile workers, while Mobile Surveys allows for paperless surveys. MTN Business	New products/business services	1-5 years	Indirect (Client)	Very likely	Medium-high

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		offers data centre solutions to clients.					

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

(1.) Other drivers – enabling energy efficiency in other sectors
(i) MTN is currently driving M2M technology to enable energy efficiency in other sectors. M2M uses a device (sensor, meter, etc.) to capture an 'event' (inventory level, energy use, etc.), which is relayed through a network (wireless, wired or hybrid) to an application (software program), that translates the captured event into meaningful information (e.g. trends/spikes). By using this technology, other sectors will have up-to-date data at their finger-tips at all times, enabling them to make informed decisions on ways forward and possible solutions. Providing a financial benefit from this action may prove difficult as many of the technologies that MTN can offer to increase energy efficiency in other sectors will only mature in the next 6 – 10 years. However internal business cases developed and subsequently approved for the commercialisation of these innovations indicate an attractive payback period. (ii) MTN's Enterprise Business Unit focuses on driving M2M solutions for a variety of sectors including consumer, energy, utilities and industrial control. (iii) Costs are considered business development costs and cannot be provided.

(2.) Reputation
(i) The financial benefits gained from enhancing reputation by becoming a proactive climate change driven brand are difficult to quantify but will be represented by increased revenue driven by an increase in sales and subscribers.
(ii) The CDP provides a good indicator to investors and other interested parties as the initiatives that MTN are implementing to improve their environmental performance. It is important that MTN show the public what solutions have been implemented and how these solutions are resulting in a cleaner service being provided but also a more reliable service that is not exposed to the risks associated with climate change. MTN's climate change strategy would also include analysis and identification of the risks and opportunities that MTN faces by either not acting or acting on climate change and how this would affect revenue and potential subscribers.
(iii) The costs associated with this would be included in the budget of the public relations and marketing departments. Reputational opportunities will also be addressed in the climate change strategy.

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

N/A

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

N/A

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
N/A

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)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Sat 01 Jan 2012 - Sat 31 Dec 2012	652 790	384 725

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

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
ISO 14064-1

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
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
Other: R502	Other: GHG Protocol
Other: R22	Other: GHG Protocol
Other: Fire suppression equipment	Other: Business commentary

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
Motor gasoline (Petrol)	69.3	Other: kg CO_2/GJ	
Motor gasoline (Petrol)	0.033	Other: kg CH4/GJ	
Motor gasoline (Petrol)	0.003	Other: kg N2O/GJ	
Diesel/Gas oil	20.20	Other: kg C/GJ	
Diesel/Gas oil	0.003	Other: Tonnes CH4/GJ	
Diesel/Gas oil	0.0006	Other: Tonnes N2O/GJ	
Diesel/Gas oil	43.00	Other: MJ/kg	
Liquefied petroleum gas (LPG)	47.30	Other: MJ/kg	
Liquefied petroleum gas (LPG)	17.20	Other: kg C/GJ	
Liquefied petroleum gas (LPG)	0.001	Other: kg CH4/GJ	
Liquefied petroleum gas (LPG)	0.0001	Other: kg N2O/GJ	
Natural gas	48.00	Other: MJ/kg	
Natural gas	15.30	Other: kg C/GJ	
Natural gas	0.001	Other: kg CH4/GJ	
Natural gas	0.0001	Other: kg N2O/GJ	

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

652 790

8.3

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

384 725

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?

Countries that did not report: Cote d'Ivoire, Benin, Guinea Conakry, Liberia, Sudan, Afghanistan, Uganda, Rwanda, Botswana

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
	1 and 2	Failed to report

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
More than 15% but less than or equal to 20%	Data Gaps Metering/ Measurement Constraints by largest operating units and the non-reporting of others	The uncertainty found in the data will continue to decrease as the carbon footprint data collection process becomes more institutionalised in each OPCO at MTN. The increased awareness and training will ensure more of the OPCO will report each year	More than 15% but less than or equal to 20%	Data Gaps Metering/ Measurement Constraints and lack of understanding and awareness of data required for reporting	The uncertainty found in the data will continue to decrease as the carbon footprint data collection process becomes more institutionalised in each OPCO at MTN.

8.6

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

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

Type of verification or assurance	Relevant standard	Attach the document

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

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

Type of verification or assurance	Relevant standard	Attach the document

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 Jan 2012 - 31 Dec 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
Nigeria	**433 656**
Ghana	**96 884**
Cameroon	**12 820**
Congo	**13 135**
Guinea	**6 450**
Iran	**9 535**
Syrian Arab Republic	**10 319**
Yemen	**52 137**
Cyprus	**3 124**
South Africa	**3 674.24**
Zambia	**10 395**
Swaziland	**661**

9.2

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

By activity

9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)

9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

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)
Stationary combustion	442.789
Mobile combustion	14 191

Activity	Scope 1 emissions (metric tonnes CO2e)
Refrigerant usage	105962
Fugitive emissions	3

9.2e

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

Legal structure	Scope 1 emissions (metric tonnes CO2e)

Page: 10. Scope 2 Emissions Breakdown - (1 Jan 2012 - 31 Dec 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)
Nigeria	47 938	115 235	
Ghana	650	5043	
Cameroon	4 940	14 177	
Iran	86 869	245 506	

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)
Syrian Arab Republic	20 817	36 066	
Yemen	12 440	19746	
Cyprus	14 346	185350	
South Africa	192 187	207,545	
Zambia	52	17455	
Swaziland	4 486	4844	

10.2

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

By facility

10.2a

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

Business division	Scope 2 emissions (metric tonnes CO2e)

10.2b

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

Facility	Scope 2 emissions (metric tonnes CO2e)

Call centres	0.03
Technical office	0.06
Service Centres	224.15
BTS sites	37466.95
Switches	3313
Head/regional offices	10155
Data centres	2367.60

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)

Page: 11. Energy

11.1

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

More than 10% but less than or equal to 15%

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
Fuel	1876471
Electricity	115235
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
Mobile Diesel	1827870
Stationary Diesel	48600
Natural Gas	0

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

Page: 12. Emissions Performance

12.1

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

Increase from the previous year.

12.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
More OPCO's reported in this year	**10%**	**Increase**	**This is likely to increase again in 2013 as more OPCO's report their carbon footprint and improve on reporting their emission, but CO2 intensity by subscriber will improve.**

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
0.0004	metric tonnes CO2e	unit total revenue	2%	increase	The total emissions value has increased as has total revenue

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
42,6	metric tonnes CO2e	FTE employee	1%	Decrease	The total emissions value has increased as has total FTE employees

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
0.0055	Metric tonnes CO2e	Other: number of subscribers	5%	decrease	Subscriber numbers increased from 164.5 million in 2011 to 189.3m in 2012. This, coupled with an increased value of CO2e for the group causes the intensity to decrease

Page: 13. Emissions Trading

13.1

Do you participate in any emissions trading schemes?

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

13.2

Has your company originated any project-based carbon credits or purchased any within the reporting period?
Yes – in the 2012 period

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 Generation	**Energy Efficiency-Own Generation**	**2 MW Tri Generation with Methane Gas at Head Office in South Africa. It is used to generate energy for MTN SA's data and switching centres and server rooms. Heat generated as a buy product is sent through lithium bromide absorption chillers to cool water, which is used for cooling air for electronic equipment and for office air conditioning.**	**CDM**	**15 284**			

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	Relevant, not				

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
and services	yet calculated				
Capital goods	Not relevant, explanation provided				This category in accordance to the guidance by world resources institute has been excluded due to lack of available data and the insignificance in size of emissions relative to the other categories.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, not yet calculated				
Upstream transportation and distribution	Relevant, not yet calculated				
Waste generated in operations	Relevant, not yet calculated				
Business travel: Air Travel + Vehicle Hire	Relevant, calculated	3208	Business travel includes both flights (local and international) for business purposes as well as kilometres travelled in hire cars and taxis. The methodology followed to estimate the emissions involved multiplying activity data for mode of transport (e.g. distance travelled) by an applicable emission factor for that mode of transport (e.g. t CO2/km). Flights were categorized as being either long-(> 1600km) or short-(<1600 km) haul flights. DEFRA default factors were used for all emission factors (0.11 for short haul, and 0.12 kg CO2/km for long haul). DEFRA default factors were used for all vehicle hire and taxi hire emission factors (0.202 kg CO2/km). It was assumed that standard sedan vehicles were used on all hiring occasions.		
Employee commuting	Relevant, not yet calculated				
Upstream leased assets	Relevant, not yet calculated				

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Investments	Relevant, not yet calculated				
Downstream transportation and distribution	Relevant, not yet calculated				
Processing of sold products	Relevant, not yet calculated				
Use of sold products	Relevant, not yet calculated				
End of life treatment of sold products	Relevant, not yet calculated				
Downstream leased assets	Relevant, not yet calculated				
Franchises	Relevant, not yet calculated				
Other (upstream)					
Other (downstream)					

14.2

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

Not verified or assured

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
Business travel		**51%**	**Decrease**	**The decrease is due to non- reporting of data not due to change in behaviour**

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)

No

14.4a

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

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

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

14.4d

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

MTN has been focused on improving its accuracy and completeness of its baseline scope 1 and 2 emissions, and enhancing internal understanding about climate, energy and greenhouse gas impact of operations. We will embark on a process to address climate change and start to address issues such as engagement in the supply chain in the medium term.

Module: Investor-ICT

Page: ICT1. Data center activities

ICT0.1a

Please identify whether "data centers" comprise a significant component of your business within your reporting boundary

Yes

ICT1.1

Please provide a description of the parts of your business that fall under "data centers"

As an ICT operator, data centres offer core and essential services to both the business operations, and for commercial revenue-generating services (fixed and mobile network access, networking, security, internet service provider solutions, Software as a Service (SaaS) applications, etc).

ICT1.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the data centers component of your business

Business Activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method
Data centers	28848.26	2367.6	4 392.5	Supplier Invoices

ICT1.3

What percentage of your ICT population sits in data centers where PUE is measured on a regular basis?

Percentage	Comment

ICT1.4

Please provide a Power Usage Effectiveness (PUE) value for your data center(s). You can provide this information as (a) an average, (b) a range or (c) by individual data center - please tick the data you wish to provide (tick all that apply)

ICT1.4a

Please provide your average PUE across your data centers

Number of data centers	Average PUE	% change from previous year	Direction of change	Comment

ICT1.4b

Please provide the range of PUE values across your data centers

Number of data centers	PUE Minimum Value	% change from previous year	PUE Maximum Value	% change from previous year	Direction of change	Comment

ICT1.4c

Please provide your PUE values of all your data centers

Data center reference	PUE value	Percentage change from previous year	Direction of change	Comment

ICT1.5

Please provide details of how you have calculated your PUE value

ICT1.6

Do you use any alternative intensity metrics to assess the energy or emissions performance of your data center?

ICT1.6a

Please provide details

ICT1.7

Please identify the measures you are planning or have undertaken in the reporting year to increase the energy efficiency of your data center(s)

Status in reporting year	Energy efficiency measure	Comment
Implemented	Cooling Efficiencies	Hot aisle/cold aisle alignment
Implemented	Server Virtualization	MTN operating country data environments are being clustered into regional shared service hubs to achieve greater efficiencies, and infrastructure consolidation & virtualisation initiatives save space & reduce cooling (and other) costs
Implemented	Server Consolidation	MTN operating country data environments are being clustered into regional shared service hubs to achieve greater efficiencies, and infrastructure consolidation & virtualisation initiatives save space & reduce cooling (and other) costs
Implemented	Power Management Efficiencies	Lighting sensors
Implemented	Technology upgrade	Improved efficiency of equipment, increased use of deep cycle batteries, implementing hybrid diesel generator and battery solutions
Planned	Blower Doors	Use of blower doors on Room Air Conditioner (RAC) units to decrease need for air-conditioned cooling. This method blows air directly onto RAC units from air cooled by water piped in to doors.

ICT1.8

Do you participate in any other data center efficiency schemes or have buildings that are sustainably certified or rated?

Yes

ICT1.8a

Please provide details

Scheme name	Level/certification (or equivalent) achieved in the reporting year	Percentage of your overall facilities to which the scheme applies
US Green Building Council LEED	Silver certification	Head office campus
EU Code of conduct	Adopted	
Green Grid	Adopted	

ICT1.9

Do you measure the utilization rate of your data center(s)?

ICT1.9a

What methodology do you use to calculate this?

ICT1.10

Do you provide carbon emissions data to your clients regarding the data center services they procure?

No

ICT1.10a

How do you do this?

ICT1.11

Please describe any efforts you have made to incorporate renewable energy into the electricity supply to your data center(s) or to re-use waste heat

2 Megawatt Tri Generation with Methane Gas (the first Tri-Generation Plant with absorption cooling) completed at the 14th Avenue Head Office site. MTN South Africa's 2-megawatt (MW), methane-driven tri-generation power plant at the 14th Avenue Head Office is the first of its kind on the African continent. The energy generated is used to power some of MTN South Africa's data and switching centre's and server rooms. The heat that is generated as a by-product of the process is sent through lithium bromide absorption chillers to cool water, which is then used for the cooling air for electronic equipment, as well as for office air-conditioning needs. The tri-gen project enabled MTN to be the first telecoms company in Africa to have a new Methodology approved by the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism (CDM) Executive Board, for such an installation to claim carbon credits. The aim of this activity is to decrease the use of electricity. This would target Scope 2 emissions and is a voluntary activity.

We continue to also increase our use of predominantly solar power for our network sites. Wind and hydro power also remain other sources of direct and indirect energy for our sites.

Page: ICT2. Provision of network/connectivity services

ICT0.1b

Please identify whether "provision of network/connectivity services" comprises a significant component of your business within your reporting boundary

Yes

ICT2.1

Please provide a description of the parts of your business that fall under "provision of network/connectivity services"

The MTN Group is a multi-national telecommunications group offering voice and data communications products and services to individuals and businesses, with GSM licences in 21 countries and internet service provider businesses in 13 countries. The Group is also a large investor in submarine and terrestrial broadband fibre optic capacity between and around both coasts and inland Africa, and between Asia and Europe.

ICT2.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the provision of network/connectivity services component of your business

Business Activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method
Provision of network/connectivity services				

ICT2.3

Please describe your gross combined Scope 1 and 2 emissions or electricity use for the provision of network/connectivity services component of your business as an intensity metric

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	Metric tonnes CO2e	Terabyte of network traffic			

ICT2.4

Please explain how you calculated the intensity figures given in response to Question ICT2.3
Since this is the core nature of MTN's business the scope 1 and 2 calculations provided within this report account for emissions associated with provision and network connectivity services.

ICT2.5

Do you provide carbon emissions data to your clients regarding the network/connectivity services they procure?

ICT2.5a

How do you do this?

Page: ICT3. Manufacture or assembly of hardware/components

ICT0.1c

Please identify whether "manufacture or assembly of hardware/components" comprise a significant part of your business within your reporting boundary

No

ICT3.1

Please provide a description of the parts of your business that fall under "manufacture or assembly of hardware/components"

ICT3.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the manufacture or assembly of hardware/components part of your business

Business Activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method

ICT3.3

Please identify the percentage of your products meeting recognized energy efficiency standards/specifications by sales weighted volume (full product range)

Product type	Standard (sleep mode)	Percentage of products meeting the standard by sales volume (sleep mode)	Standard (standby mode)	Percentage of products meeting the standard by sales volume (standby mode)	Standard (in use mode)	Percentage of products meeting the standard by sales volume (in use mode)	Comment

ICT3.4

Of the new products released in the reporting year, please identify the percentage (as a percentage of all new products in that product type category) that meet recognized energy efficiency standards/specifications

Product type	Standard (sleep mode)	Percentage of new products meeting the standard (sleep mode)	Standard (standby mode)	Percentage of new products meeting the standard (standby mode)	Standard (in use mode)	Percentage of new products meeting the standard (in use mode)	Comment

ICT3.5

Please describe the efforts your organization has made to improve the energy efficiency of your products

ICT3.6

Please describe the GHG emissions abatement measures you have employed specifically in your ICT manufacturing operations

ICT3.7

Do you provide carbon emissions data to your clients regarding the hardware/component products they procure?

ICT3.7a

How do you do this?

Page: ICT4. Manufacture of software

ICT0.1d

Please identify whether "manufacture of software" comprises a significant component of your business within your reporting boundary

No

ICT4.1

Please provide a description of the parts of your business that fall under "manufacture of software"

ICT4.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the software manufacture component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method

ICT4.3

Please describe your gross combined Scope 1 and 2 emissions for the software manufacture component of your business in metric tonnes CO2e per unit production

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change

ICT4.4

What percentage of your software sales (by volume) is in an electronic format?

ICT4.5

Do you provide carbon emissions data to your clients regarding the software they procure?

ICT4.5a

How do you do this?

Page: ICT5. Business services (office based activities)

ICT0.1e

Please identify whether "business services (office based activities)" comprise a significant component of your business within your reporting boundary

No

ICT5.1

Please provide a description of the parts of your business that fall under "business services (office based activities)"

ICT5.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the business services (office based activities) component of your business

Business services	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method

ICT5.3

Please describe your gross combined Scope 1 and 2 emissions for the business services (office based activities) component of your business in metric tonnes per square meter

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change

ICT5.4

Please describe your electricity use for the provision of business services (office based activities) component of your business in MWh per square meter

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change

Page: ICT6. Other activities

ICT0.1f

Please identify whether "other activities" comprise a significant component of your business within your reporting boundary

No

ICT6.1

Please provide a description of the parts of your business that fall under "other"

ICT6.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the identified other activity component of your business

Activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method

ICT6.3

Please describe your gross combined Scope 1 and 2 emissions for your defined additional activity using an appropriate activity based intensity metric

Activity	Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change

ICT6.4

If appropriate, please describe your electricity use for your defined additional activity using an appropriate activity based intensity metric

Activity	Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change

Module: Sign Off

Page: Sign Off

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

Zakhiya Rehman, Group Sustainability Manager

CDP