

0.1

**Introduction**

Please give a general description and introduction to your organization.

Launched in 1994, the MTN Group is a multinational telecommunications group, operating in 21 countries in Africa and the Middle East and offering cellular network and fixed line access, and business solutions. 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). As at 31 December 2009, MTN recorded more than 116 million subscribers across its operations. 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, Syria, Uganda, Yemen and Zambia. MTN accepts global evidence that human activities are a primary contributor to climate change, and that it may impact both lives and the economies. In addition, MTN acknowledges that there is significant evidence that climate change can result in extreme weather conditions, such as floods, hurricanes and cyclones, which will damage property and equipment and disrupt MTN's business services. For MTN, environmental concerns are also socio-economic concerns. MTN operates in some of the most vulnerable and indigent countries of the world. Environmental matters therefore have a direct impact across the Group's footprint. In line with above, MTN has undertaken the following: (a) Implemented a governance structure ultimately overseen by the Group Board, to ensure the Group is in a better position to realise its sustainability vision. (b) Appointed a Group Sustainability Manager, who is responsible for managing the Group's sustainability initiatives including climate change. (c) Subscribed to both Social Responsibility and Sustainability reporting requirements, and for the last five years has submitted annual reports, which have been made available to the public on MTN's corporate web site (www.mtn.com). (4) Ensured that the Environmental Policy, which is approved by the Group President and the CEO of the MTN Group clearly indicates the business position to "use energy efficiently, re-use and recycle whenever possible, use environmentally preferred materials and work co-operatively with others to enhance common environmental objectives".

0.2

**Reporting Year**

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

**Enter Periods that will be disclosed**

Thu 01 Jan 2009 - Thu 31 Dec 2009

0.3

Are you participating in the Walmart Sustainability Assessment?

No

0.4

**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, the corresponding sector modules will be marked as default options to your information request.

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 [www.cdproject.net/cdp-questionnaire](http://www.cdproject.net/cdp-questionnaire).

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0.5

### 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
Nigeria
Ghana
Cameroon
Uganda
Syrian Arab Republic

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0.6

**Please select if you wish to complete a shorter information request.**

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### Further Information

These operations represent approximately 62.2% of the Group's footprint by subscriber number, and therefore meaningfully represent the Group's carbon footprint for 2009.

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### Attachments

**Module: Governance**

**Page: Governance**

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1.1

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

Board committee or other executive body

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1.1a

**Please specify who is responsible.**

Committee appointed by the Board

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1.1b

Select the lower level department responsible.

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1.2

**What is the mechanism by which the board committee or other executive body reviews the company's progress and status regarding climate change?**

The Group Board is responsible for sustainable business practices, and has delegated this responsibility to the Group Risk and Compliance Committee. Group Sustainability is permanently represented on the Group Risk and Compliance Committee by invitation, and reports progress on a quarterly basis. The Group Sustainability Manager has the defined responsibility and authority for reporting on the status of climate change. Executive management of sustainability is the responsibility of the Group Executive of Corporate Affairs, who reports progress and plans to the Group Executive Committee (EXCO). Signoff of major commitments (e.g. the Copenhagen Communique) is undertaken by the Group President and CEO, Mr. Phuthuma Nhleko, or by delegation. Mr. Nhleko, a member of the board of directors of MTN Group has the ultimate responsibility for all environmental aspects as stated in the MTN Group Environmental and Safety and Health Policies. MTN is also beginning to take account of all other risks and opportunities with regard to climate change and include these in progress updates to the Risk and Compliance committee. The company's response to the CDP is compiled by the Group Sustainability Manager, and in consultation with other disciplines within the Group, for example Networks and Technology, Business Risk Management (including Business Continuity Planning), Facilities, etc. The response is reviewed by the Group Executive for Corporate Affairs and the Group Executive for Business Risk Management.

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1.3a

Please explain how overall responsibility for climate change is managed within your company.

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1.3b

Please explain how overall responsibility for climate change is managed within your company.

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1.4

**Do you provide incentives for the management of climate change issues, including the attainment of greenhouse gas (GHG) targets?**

No

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1.5

Please complete the table.

Who is entitled to benefit from those incentives?	The type of incentives
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Further Information

The issue of climate change is increasingly receiving attention by MTN, and is now indicated in the top three opportunities and sustainability risks facing the Group. The Group completed its Phase 1 CO2 footprint calculation in April 2010. MTN has determined that this is the first step in developing a climate change strategy. Once a thorough analysis has been done of the carbon footprint (which will require subsequent phases), MTN will decide on the next course of action, which may also include incentives for the management of climate change in the future. Nevertheless, where possible activities are also fast-tracked in order to avoid the time lag caused by linear planning processes. For example, refer to the efforts with respect to alternative energy sources already implemented by MTN later in this report.

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## Attachments

### Module: Risks and Opportunities

#### Page: Risks & Opportunities Identification Process

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## 2.1

### **Describe your company's process for identifying significant risks and/or opportunities from climate change and assessing the degree to which they could affect your business, including the financial implications.**

Group Business Risk Management is responsible for all risks in terms of the Group framework and methodology. Risks are continually identified and evaluated by Business Risk Managers located in each operation. Response strategies are developed based on the nature of the risk to the business. Risk reports are compiled and presented to the operating country CEO, who then submits these to the Operating Country's Audit and Risk Committee (ARC), as well as the Vice President of the pertinent region (three VPs are responsible for the three regions comprising our 21 operating territories). The CEO of each operation also submits a consolidated report to the MTN Group EXCO and Group Risk and Compliance Committee. MTN is yet to undertake a detailed assessment of climate change risks and opportunities which could impact the company. However, MTN recognises that there are both opportunities and risks associated with climate change, and as such conducted a qualitative assessment of potential risks. This was achieved through a brainstorming session with key MTN employees, which was led by external expert assistance. MTN has already embarked on a process of investigating low carbon and renewable sources of energy to power the company's Base Transceiver Stations (BTS) in a number of countries of operation (indicated later in this report), and in the case of head office operations in Johannesburg, South Africa, to power a data centre and support operations. Commencing later in 2010, the Group intends to undertake sustainability risk and opportunity identification and assessment processes across operations from a 'bottom-up' perspective. Thereafter as the process matures throughout the organisation, these will be reported on a biannual or quarterly basis for management attention and action. Top opportunities and risks will be further detailed for action and results reported at the Group level. Currently the intended audience for the above mentioned process includes the MTN Group Risk and Compliance Committee, and by representation, to EXCO and the Group Board. The intention is to communicate these risks and opportunities to a wider audience, and this process has commenced through the completion of the Group Sustainability Report.

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## Further Information

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## Attachments

### Page: Regulatory Risks

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## 3.1

**Do current and/or anticipated regulatory requirements related to climate change present significant risks to your company?**

No

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Do you want to answer using:

The table below

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**3.2A**

**What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?**

Risk	Region/Country	Timescale in Years	Comment
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**3.2B**

**What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?**

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**3.3**

**Describe the ways in which the identified risks affect or could affect your business and your value chain.**

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**3.4**

**Are there financial implications associated with the identified risks?**

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**3.5**

**Please describe them.**

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**3.6**

**Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.**

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**3.7**

**Please explain why you do not consider your company to be exposed to significant regulatory risks - current and/or anticipated.**

While MTN is not currently significantly affected by climate change legislation in any of the countries in which it operates, the company maintains awareness of evolving climate change legislation. (At this stage, the company has not yet determined the impact of European Union climate change legislation on the Group from its operations in Cyprus, which constitutes less than 1% of the Group by subscriber numbers). A number of countries in which MTN operates in Africa have signed up to the Copenhagen Accord and outlined voluntary actions towards mitigating the impact of climate change. (The Group itself has also signed the Copenhagen Communique, alongside global business leadership in support of proactive and pragmatic steps to mitigate and enable adaptation to climate change). The Copenhagen Accord is unlikely to lead to legislation in most countries of MTN's operation in the short to medium term, but there is an increased awareness of the need to act on climate change. Regulatory risks will become clearer in the future as governments present details of policies. MTN will continue to evaluate the evolving regulatory landscape and determine the extent to which these will affect operations. If/when climate change legislation is introduced, it is likely to impact large emitters first. However, knock-on impacts e.g. the pass-through cost of carbon to electricity prices, could affect MTN's operating costs. Benin, Botswana, Congo Brazzaville, Cote d'Ivoire, Ghana and Rwanda have indicated mitigation and adaptation actions (in association with the Accord). MTN operates in these countries. The need for the developed world to support action on climate change in developing countries has rested on the conditional terms to ensure a fair, ambitious and effective agreement in international climate change negotiations under the UNFCCC and Kyoto Protocol. These include the provision of support from the international community (i.e. finance, technology and support for capacity building) in line with commitments under both the UNFCCC and the Bali Action Plan. A more detailed assessment on the impacts of legislation in these countries will be possible when intentions/legislation is made public. South Africa was instrumental in the development of the Copenhagen Accord. The Government recognises the country's responsibility to undertake action to reduce emissions and has announced emissions reductions by 34% below projected business as usual baseline by 2020 and by 42% by 2025. The Department of Water and Environmental Affairs (DWEA) published its Long Term Mitigation Scenarios (LTMS) in July 2008 outlining a number of themes under which South African climate change and energy policy will be developed. The LTMS is the basis for the emission reduction pledge discussed above and is the foundation of the 'National Climate Change Response Policy' which is due to be published as a green paper in June 2010 and following stakeholder engagement, a white paper by December 2010. This paper is expected to outline the detail of the Government's plans to monitor and reduce Greenhouse Gases (GHGs) emissions. MTN has concluded that current regulatory risks pertaining to GHGs do not pose a significant risk, but may do so in the future, and particularly in South Africa where emissions legislation is in the pipeline. With respect to Carbon Taxes and Cap and Trade Schemes risks, South Africa has already implemented a 2c/kWh carbon tax on the cost of electricity. Government has indicated that additional carbon tax may be used as a means to reduce emissions. The National Treasury Tax Policy Unit is working with the DEA on developing a carbon pricing policy, which is an essential part of the climate change policy response. Both carbon taxes and emissions trading systems are under investigation. A discussion paper on carbon tax will be released by mid-2010. The anticipated risk includes the fact that a carbon tax or even an emission trading system, will result in an increase to the cost of fossil fuel based energy, and in particular coal based electricity in South Africa. MTN anticipates that this will be passed onto the consumer, resulting in further increases to the price of electricity. To address emission reporting risks, MTN has initiated a carbon footprinting process which is consistent with likely monitoring and reporting requirements. This positions the company well with respect to reporting obligations. Unless national government reporting requirements (under discussion in South Africa) materially deviates in form, process or format to the CDP reporting protocol, the risk of non-alignment to national reporting requirements is minimal. Lastly, any taxes or regulations which increase the cost of electricity, diesel or petrol will have a financial impact on MTN's operations.

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**3.8**

**Please explain why not.**

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**Further Information**

MTN believes that the first step in any emission legislation will be the mandatory reporting of GHGs emissions, and as such has calculated its carbon footprint. This process will be done annually and will

become embedded in the organisation over the medium term. The intention is for operations to collate the required data on a monthly basis as part of operational reporting.

## Attachments

### Page: Physical Risks

#### 4.1

**Do current and/or anticipated physical impacts of climate change present significant risks to your company?**

Yes

Do you want to answer using:

The table below

#### 4.2A

**What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?**

Risk	Region/Country	Timescale in Years	Comment
Changes in precipitation patterns		Uncertain	Other = All MTN countries of operation are included in this section. The risk is an increased incidence of inland flooding. The risk and associated financial costs will be greater for BTS sites than for other infrastructure, except for fibre optic links.
Changes in frequency of extreme weather events		Uncertain	Other = All MTN countries of operation are included in this section. The risk is an increased incidence of high winds during storms. The risk and associated financial costs will be greater for base BTS sites than for other infrastructure.
Changes in frequency of extreme weather events		Uncertain	Other = All MTN countries of operation are included in this section. The risk is an increased incidence of lightning strikes. The risk and associated financial costs will be greater for BTS sites, switches and data centres than for other infrastructure.

Risk	Region/Country	Timescale in Years	Comment
Changes in frequency of extreme weather events		Uncertain	Other = All MTN countries of operation are included in this section. The risk is increased incidence of coastal flooding. . The risk and associated financial costs will be greater for BTS sites than for other infrastructure, except for fibre optic links.
Induced changes in natural resources		21 -- 50	Other = 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.
Induced changes in supply chain and/or customers		Uncertain	Other = All MTN countries of operation are included in this section. The risk is weather related disruptions to energy supplies. This may be at source (production/manufacturing of energy source) or in the supply of that energy source to site (delivery).
Uncertainty of physical risks		Uncertain	Other = All MTN countries of operation are included in this section. The risk is the uncertainty surrounding the magnitude and timescale of potential physical risks and the ability to plan more effectively as a result.

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#### 4.2B

**What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?**

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#### 4.3

**Describe the ways in which the identified risks affect or could affect your business and your value chain.**



Natural disasters and extreme weather conditions may damage or destroy MTN infrastructure, prolong service interruptions and negatively influence those dependent upon regular cellular connectivity. In addition to the cost of repair, it could take some time to restore service to customers leading to potentially significant loss of revenue as well as reputational damages through delays in getting services up and running again. Physical risks have already manifested in the form of flood and lightning damage to the network in Cameroon, wind and storm damage in Cote d'Ivoire, flooding in Syria, wind damage in Guinea Conakry and storm damage in Ghana. Since 2006 this has resulted in a total loss of approximately \$3.5 million (the total estimated value is based on reported incidents from MTN Group Risk and includes the cost of damage and loss of revenue). MTN believes that climate change is likely to increase the frequency and intensity of these events. Many of MTN's BTS sites are located on hills or raised structures, which means that the physical risks from flooding are not generally significant. However, these locations make the BTS sites vulnerable to the effects of lightning and wind damage, which has already occurred in Cameroon, Cote d'Ivoire and Guinea Conakry. Nigeria's coast is at risk from extreme weather as much of the land along the extensive coastline is below sea level, and the coastal cities of Lagos and Port Harcourt have experienced seasonal flooding in recent years. This makes Nigeria particularly vulnerable to the effects of rising sea levels from a changing climate. A projected sea-level rise of about one metre this century would trigger flooding over about 18,000 square kilometres or two percent of the country's land area (This is the International Panel on Climate Change (IPCC) scenario). MTN has 12 switches in total in Nigeria, 3 of which are located in the Lagos area and another is in Port Harcourt. In the Lagos area the 3 switches handle about 20% of total MTN Nigeria traffic. Although no flooding damage has been reported in this area, it still represents a potential risk. A similar risk to South Africa's western Cape coast is under evaluation by provincial authorities. The group has not yet determined the severity and timing of this risk, which is currently understood to be a greater than 15-year risk. Flooding risks may also impact MTN's fibre optic links e.g. cables running close to bridges. An increase in mean surface temperature will lead to an increase in cooling requirements in switches and data centres. This will result in an increase in energy use and cost as well as increase MTN's carbon footprint (from fuel/electricity use and refrigerant leakage). This has implications for MTN's exposure to regulatory risks described above. Higher temperatures may also affect the efficiency of technical equipment and the transmission of energy/data across fixed lined distribution networks. This has the potential to reduce performance and possibly result in the loss of connectivity in particularly extreme temperatures. The above impacts are generic and more detailed, country/site specific impact/risk assessment which aims to understand the nature of the impacts in more detail will help identify areas at the most significant risk. This will involve overlaying a map of key sites onto climate change projection maps to determine climate change implications on MTN's operations.

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#### 4.4

**Are there financial implications associated with the identified risks?**

Yes

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#### 4.5

**Please describe them.**

MTN's operations are susceptible to the forces of extreme weather events which can interrupt business continuity and damage infrastructure. In particular, the BTS sites may be located in areas which are affected by lightning and storms. Based on reported claims for weather related damage in various countries of operation, the cost associated with damage to or collapse of BTS sites from wind and lightning ranges from US\$120,000 – US\$690,000 with an average cost in the region of US\$500,000. These costs involve the cost of damage incurred, as well as the loss of revenue from the damaged sites. Costs associated with flooding incidents have historically been much lower and few incidents have been reported. Damage to a service centre recently due to flooding is estimated to have cost US\$70,000. Given the already high costs, an increase in events coupled with rising repair prices and/ or insurance costs could have a financial impact on MTN.

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#### 4.6

**Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.**

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 significant 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. Future plans include training to an increasing number of operations across MTN's footprint.

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4.7

**Please explain why you do not consider your company to be exposed to significant physical risks - current and/or anticipated.**

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4.8

**Please explain why not.**

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**Further Information**

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**Attachments**

**Page: Other risks**

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5.1

**Does climate change present other significant risks - current and/or anticipated - for your company?**

No

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Do you want to answer using:

The table below

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5.2A

**What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?**

Risk	Region/Country	Timescale in Years	Comment
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**5.2B**

**What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?**

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**5.3**

**Describe the ways in which the identified risks affect or could affect your business and your value chain.**

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**5.4**

**Are there financial implications associated with the identified risks?**

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**5.5**

**Please describe them.**

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**5.6**

**Describe any actions the company has taken or plans to take to manage or adapt to the other risks that have been identified, including the costs of those actions.**

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**5.7**

**Explain why you do not consider your company to be exposed to other significant risks - current and/or anticipated.**

Market or reputational risk could arise as consumers exercise their prerogatives. As the world move towards a low carbon economy, MTN believes that consumers are increasing making choices based on the environmental impact of products and services. However, given the nature of MTN's operations, and sustainability vision, the company does not believe that this poses a significant risk to the Group. This position may change if associated environmental legislation to complement climate change legislation, such as e-waste legislation, is implemented or extended in the countries in which MTN operates.

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**5.8**

**Please explain why not.**

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**Further Information**

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**Attachments**

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**Page: Regulatory Opportunities**

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**6.1**

**Do current and/or anticipated regulatory requirements related to climate change present significant opportunities for your company?**

Yes

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Do you want to answer using:

The table below

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**6.2A**

**What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?**

<b>Opportunities</b>	<b>Region/Country</b>	<b>Timescale in Years</b>	<b>Comment</b>
Emission reporting obligations	South Africa	0 -- 5	In South Africa planning is underway by the DWEA to compile or update a national GHG inventory. At this stage it is unclear what the reporting requirements on businesses will be, and/or if it will only impact the most GHG intensive industries (in which MTN does not operate). MTN's

Opportunities	Region/Country	Timescale in Years	Comment
			sustainability and CDP reports provide it with the opportunity to respond effectively to finalised emissions reporting obligations with relative ease.
Fuel/energy taxes and regulations	South Africa	Current	Rapidly and above-inflationary rising energy prices nationally impact the cost of business. Refer to 6.6. below to determine MTN's solution to this challenge, in particular for its biggest energy and cost driver namely BTS site power.

## 6.2B

**What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?**

## 6.3

**Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

In the South African State of Nation address for 2010, it was announced that the government would consider participation of Independent Power Producers (IPPs) in South Africa's electricity market, this allowing companies to install excess generating capacity and sell this back into the national grid. While this has been under discussion for a few years, this signal from the Presidency could be used by MTN to generate its own electricity at BTS sites from low carbon/ renewable sources, and sell this back to the national grid. The National Energy Regulator of South Africa approved the Renewable Energy Feed-in Tariff (REFIT) guidelines in April 2009. The aim of REFIT is to stimulate the development of renewable energy in South Africa though improving the financial feasibility of projects. A further announcement on a ZAR 5 billion subsidy for energy-saving initiatives was also announced in April 2010. Through investment in both renewable energy projects to power its own energy requirements with a possible offtake benefit through national grid sales, and through energy efficiency efforts. MTN

South Africa could reduce operating/ energy costs, obtain a small revenue stream from REFIT sales, and reduce its carbon footprint

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6.4

**Are there financial implications associated with the identified opportunities?**

Yes

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6.5

**Please describe them.**

See 6.3 for description.

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6.6

**Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

(a) MTN's efforts with respect to BTS energy costs and carbon intensity in this respect is set out below. The Group has assessed the possibility and viability of alternative energy solutions to power a number of BTS sites, the largest area of emissions. For instance the Group reviewed the opportunity to replace diesel generators with alternative solutions such as solar-powered panels. Hybrid and solar-powered BTS trials have been undertaken in Sudan, and trials or operational BTS sites are active in Cameroon (particularly at sites with low power requirements). In Cote d'Ivoire operations implemented a Hybrid Genset (HGS) solution consisting of technology working in cycling mode from 12 hours on gensets to 12-24 hours on batteries depending of the load. As a result, the BTS saves about 50% on fuel and 50% in maintenance fees. CO2 output is also reduced by approximately 50%. MTN also completed the implementation of an off-grid BTS in Kleinaarpen in South Africa. Kleinaarpen is primarily powered by solar and wind, with a hydrogen fuel cell supplying the secondary power source. Also in South Africa, the Smalvisch project currently underway in Upington will implement a BTS powered by a hybrid solar/wind solution. Further projects with respect to the use of bio-gas and fuel cell technology in South Africa are under development. For instance, two sites in Delmas, South Africa have been identified as having potential to be powered by natural gas. An agreement to this effect has been secured. In Kimberly, South Africa, agricultural biogas is available from the Beefmaster Group, and an agreement has been negotiated. The use of a hydrogen fuel cell based for GSM and 3G base station backup (as an alternative to diesel) at one of the operations in Swaziland is currently being trialled. Hybrid solutions are also being trialled in Guinea Conakry, Rwanda, Liberia, Nigeria, and Uganda. In addition to alternative power sources, the Group also assesses opportunities to manage BTS sites more efficiently in terms of power and fuel, to reduce reliance on diesel and other less environmentally-friendly power sources. More information in this respect can be obtained on [www.mtn.com/sustainability](http://www.mtn.com/sustainability). (b) MTN's efforts with respect to Group office and South Africa head office energy costs and carbon intensity commenced in 2009 through a detailed level 2 Leadership for Environmental Energy and Design (LEED) audit. The focus of the audit was to identify and analyse capital-intensive building components with the potential to be optimised to reduce costs (including a target of 15% - 30% of energy use) and environmental impact. The audit was conducted on energy and atmosphere, water efficiency and indoor environmental quality. A number of detailed recommendations to reduce environmental impact in these areas were set out. Prioritisation and implementation will commence in 2010. Implementation will span multiple reporting periods.

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6.7

**Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.**

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6.8

Please explain why not.

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Further Information

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Attachments

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**Page: Physical Opportunities**

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7.1

**Do current and/or anticipated physical impacts of climate change present significant opportunities for your company?**

No

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Do you want to answer using:

The table below

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7.2A

**What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?**

Opportunities	Region/Country	Timescale in Years	Comment
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7.2B

**What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?**

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7.3

**Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

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7.4

**Are there financial implications associated with the identified opportunities?**

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7.5

**Please describe them.**

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7.6

**Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

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7.7

**Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.**

Although not significant in the short and possibly medium term, and somewhat difficult to predict, MTN anticipates the following opportunities as a result of the physical impact of climate change. (a) MTN can enable the information sharing, communication links and support services in the long term where extreme weather conditions might inhibit travel, since mobile telecommunications and infrastructure is well suited to rapid deployment to match population movements in response to climate change or restrictions on physical movement caused by carbon taxes, greater travel costs, etc. (b) Similarly, recovery from disaster events could be more easily enabled through the use of mobile information and communication technology services. Modular, complete and rapid deployment wireless solutions can enable or strengthen information sharing and communication capabilities of disaster, emergency and relief authorities in the unfortunate event of large scale emergencies e.g. flooding or fire.

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7.8

**Please explain why not.**

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**Further Information**

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**Attachments**

**Page: Other Opportunities**

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8.1

**Does climate change present other significant opportunities - current and/or anticipated - for your company?**

Yes



Do you want to answer using:

The table below

**8.2A**

**What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?**

<b>Opportunities</b>	<b>Region/Country</b>	<b>Timescale in Years</b>	<b>Comment</b>
Financial opportunities	Other: All MTN territories	0 -- 5	Direct cost savings, energy efficiency, business continuity and energy security benefits can be obtained through transitioning to alternative and less carbon-intensive/ more environmentally-friendly power solutions. MTN will continue and accelerate focus on securing this energy, assisting the business in providing long-term energy security and business continuity, which is important for BTS sites, data centres and switches in particular, and operations in general. This opportunity will help the company reduce emissions as well, thereby reducing the potential impact of various regulatory and legislative instruments in this respect/ proactively preparing the company to comply with requirements. The Group is actively pursuing

Opportunities	Region/Country	Timescale in Years	Comment
			<p>several opportunities to share infrastructure assets across its footprint in Africa and the Middle East. MTN is, among others, engaging with other mobile operators to explore site sharing, leasing space on towers to others operators, and jointly rolling out fibre networks. Potential financial savings include site costs, energy costs, capital expenditure costs, and maintenance costs. Site sharing is also a means of reducing environmental impact of operations. The cost of energy, and particular diesel and electricity, are regarded as Key Performance Indicators in the business. The reduction of these forms of energy will result in a reduction in both the Group's carbon footprint and energy costs.</p>
New services and/or product market opportunities	Other: All MTN territories	06 -- 10	<p>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</p>

Opportunities	Region/Country	Timescale in Years	Comment
			<p>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 exploring such opportunities.</p>
Increased efficiency of goods and services	Other: All MTN territories	06 -- 10	<p>The opportunity exists to reduce Scope 1 emissions through replacement of existing fleet with more efficient and alternatively-powered</p>

Opportunities	Region/Country	Timescale in Years	Comment
			vehicles such as hybrids, 2g biofuels, etc.
Reputational opportunities and increased ability to attract and retain talent	Other: All MTN territories	0 -- 5	The opportunity to enhance reputation through proactive action on climate change and management/ reduction of carbon footprints, along with embracing more responsible technologies, and helping address consumer behaviour change through messages via text, billing, etc (e.g. remove chargers from sockets or use solar chargers) could result in customer and staff attraction.

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### 8.2B

**What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?**

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### 8.3

**Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

The potential opportunities identified in 8.2 have not been explored programatically across the Group, although some operations have already commenced. Therefore at a Group level the detail and the effect of these on the value chain and finances has yet to be quantified.

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### 8.4

**Are there financial implications associated with the identified opportunities?**

Yes

---

### 8.5

**Please describe them.**

See 8.3. However, for many of the opportunities (including increased efficiency in data centres and buildings, or the potential for new services such as conferencing and mobile communication services and smart grids, building meters etc.) the general impact is the potential increase in revenue for MTN.

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8.6

**Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

MTN is considering opportunities and its potential role to enable consumers in a carbon-constrained world within its business planning and innovation processes. MTN understands the importance of climate change and the associated risks and opportunities and plans to explore them in more detail in the short and medium term. In many cases, investment will be required before opportunities can be realised. However, in light of the financial benefits associated with efficiency and environmental management projects, the Group expects business cases based on total cost of ownership to complement current Internal Rate of Return or Net Present Value business cases. The opportunity to access free or soft funding particularly available to energy-efficient and alternative energy innovations or projects will also be explored where appropriate.

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8.7

**Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.**

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8.8

**Please explain why not.**

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**Further Information**

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**Attachments**

**Module: Strategy**

**Page: Strategy**

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9.1

**Please describe how your overall group business strategy links with actions taken on risks and opportunities (identified in questions 3 to 8), including any emissions reduction targets or achievements, public policy engagement and external communications.**

(a) VISION AND APPROACH: MTN has a deliberate approach to conducting business, recognising the significant impact that telecommunication services have on society. MTN's sustainability vision is to meet business objectives, by enhancing stakeholder value, and managing opportunities and risks posed by the financial, manufactured, social, human and environmental capitals within the business' scope of influence. MTN has recently begun to respond to climate change in a more deliberate,

coordinated manner across the Group through improved network planning and energy efficiency processes, risk and business continuity planning and the calculation of the Group's carbon footprint amongst other environmental concerns. While this process can and will be improved, this is regarded as the first step in addressing the climate change imperative. (b) STRATEGIC PLANNING AND BUSINESS INTEGRATION: The Group Sustainability Plan detailed to the end of 2010 identifies the required strategic, governance, resource, project and performance management processes required to ensure alignment and integration to the group's strategy. The plan will be updated by quarter 3, 2010. The Group 2011 - 2015 Business Plan pack, which will be distributed to operations in June 2010 will also contain templates and supporting information on sustainability matters for consideration and inclusion in the strategic planning process. (c) CLIMATE CHANGE AND RISK: 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 and expanding on the critical risks will help gather the necessary resources to address this in a more conscious manner internally. Similarly, the Group's planning processes through the annual Leadership Conference, strategy planning and budgetary processes will need to take this into account. MTN's sustainability imperative seeks to mainstream such practices into the business at both the strategic and operational level through strategic direction, technical input and collaboration with core and support business functions such as networks and technology, risk, etc. (d) CLIMATE CHANGE AND OPPORTUNITIES: See 'Strategic Planning and Business Integration' above. Also see 6.2A, 6.3, 6.6, 8.2 and 8.6 for specific opportunity' strategies or plans as appropriate. (e) TARGETS AND ACHIEVEMENTS: The Group currently reports its plans and achievements in detail internally through operational reports. Although targets such as energy efficiency are set for some projects, activities or operations, an overall Group target/s for the top variables of climate change within MTN's business is yet to be determined. These will be included on a gradual basis as performance management and reporting mature, and is expected to be accelerated as part of the development of the Group's Climate Change strategy. (f) PUBLIC POLICY ENGAGEMENT: MTN is a member of the National Business Institute, which coordinates CDP reporting for South Africa. MTN Group is a member: Group representation takes into account, and directs responsibilities for all MTN operations in Africa and the Middle East, not merely MTN South Africa. MTN Nigeria is a signatory to the United Nations Global Compact (UNGC). Other operations are considering or have also applied for membership, and are awaiting feedback from the UNGC. MTN accounts for the impact of its Millennium Development Goals' support (reported in annual sustainability report). MTN Yemen, Uganda, Ghana, Zambia and Cyprus work with national environmental ministries to support environmental matters of concern/ on the national agenda. (More information available in Group Sustainability Report for 2009).

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## Further Information

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## Attachments

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### Page: Strategy - Targets

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#### 9.2

**Do you have a current emissions reduction target?**

No

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#### 9.3

**Please explain why not and forecast how your Scope 1 and Scope 2 emissions will change over the next 5 years. (If you do not have a target)**

In 2009 the MTN Group undertook its first detailed and wide-scale CO2e footprinting exercise. (previous years' reports were of a more limited scope). Although meaningfully representing 62.2% of the business by subscriber numbers, the Group intends to extend the scope and detail of the carbon footprint further, and improve the quality of data management processes, in order to more fully understand and determine its current and future impact, taking into account potential network and business growth projections to the best of its ability. As such, until such time as MTN has developed a baseline, it is recognised that it is premature to initiate the setting of targets. MTN believes that a more extensive determination of its carbon footprint is the first step in developing a climate change strategy, which will include baselined emissions, and a realistic management, reduction and mitigation plan for the business. This is intended for development within the short-medium term. In terms of a forecast of emissions, MTN considers that the next two or three phases of the carbon footprint assessment will indicate a more detailed and very likely higher emissions figure. Thereafter it is believed that this will remain relatively stable, and in line with economic growth projections, and taking into account all business factors remain consistent viz. network planning and expansion, base station ownership, etc. At this stage the group is not in a position to confirm projected emissions, but can confirm growth is expected to increase.

9.4

**Please give details of the target(s) you are developing and when you expect to announce it/them.** *(If you are in the process of developing a target)*

9.5

**Please explain if you intend to set a new target.** *(If you have had a target and the date for completing it fell within your reporting year, please answer questions 9.5 and 9.6)*

9.6

**Please complete the table.** *(If you have a current emissions reduction target or have a recently completed target)*

Target Type	Value of Target	Unit	Base year	Emissions in base year (metric tonnes CO2-e)	Target Year	GHGs and GHG sources to which the target applies	Target met?	Comment

**Further Information**

**Attachments**

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Is question 9.7 relevant for your company?

Yes

9.7

Please use the table below to describe your company's actions to reduce its GHG emissions.

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO <sub>2</sub> -e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
MTN South Africa is currently using electricity from the national grid for power, cooling and heating at the Johannesburg head office. An energy efficient tri-generation plant system has been installed and is in the final stages of completion. It is expected to be operational late in 2010. It	Anticipated		kWh (kilowatt-hour)		Anticipated		ZAR (R)		ZAR (R)	Anticipated	



1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO <sub>2</sub> -e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
uses natural gas to generate electricity for both new developments and some of the existing buildings on the campus. Waste heat will be processed through an absorption chiller, and generate heat for warm water requirements. The project is under assessment for carbon credit approval.											
A Base Station site at Kleinaarpen in South Africa using renewable energy and completely	Anticipated		kWh (kilowatt-hour)		Achieved		ZAR (R)		ZAR (R)	Anticipated	

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
<p>independent of the electricity grid. The primary energy sources are solar and wind, and the secondary energy source is a Hydrogen Fuel Cell. Energy Storage is via a Lithium-Ion Battery.</p>											
<p>Greening 14th Avenue: this project has received approval for implementation commencing 2010, and is currently under detailed design stage. Following the results of an ASHRAE level 1 and 2</p>	<p>Anticipated</p>		<p>kWh (kilowatt-hour)</p>		<p>Anticipated</p>						

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO <sub>2</sub> -e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
<p>audit and a LEED audit, various elements to improve the efficiency of the building (including energy consumption and efficiency, water consumption and efficiency, policies and indoor environmental quality) are under consideration, and prioritisation for implementation based on various criteria, is applied. Opportunities to specifically improve energy use and efficiency and reduce consump</p>											

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO <sub>2</sub> -e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
<p>tion include the following, in no particular order: energy metering, reduction of printers, policy development, awareness programme, use of timer switches, phase 1 building kitchen gas conversion, use of LED lamps, use of protective film, fluorescent lamp replacement, task lighting, solar energy for exterior lighting, irrigation control and geyser water heating, lighting automation, green</p>											

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO <sub>2</sub> -e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
<p>roofing, and traffic light synchronisation around complex entrance and exit facilities in conjunction with local authorities. Initiatives across other South African facilities in 2010 include replacement of fixed generators, air-conditioners and uninterrupted power supplies across regions and, investment in audio-visual equipment for video and teleconferencing. Implementation</p>											

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
and reporting will span multiple reporting periods											
For some of our low-powered sites in some countries , we are looking at opportunities to replace our diesel generators with alternative solutions such as solar-powered panels. A number of such sites are located in Cameroon. Hybrid and solar-powered BTS trials were recently undertaken in Sudan	Achieved				Anticipated						
The use of a hydrogen fuel cell	Anticipated				Anticipated						

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
based power for GSM and 3G base station backup (as an alternative to diesel) at one of our operations in Swaziland is currently being trialled.											
Through the GSM Association, we attempted to procure and use biodiesel to power our base stations in one of our operating markets. However, due to issues of insecurity or inconsistency of supply, and technical quality, processing, storage and incompat	Not achieved				Anticipated						

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO <sub>2</sub> -e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
ibility with the current hardware , we were required to end this exercise											
We do where possible in some of our West African operations attempt to power base stations through the use of gas. However, the requirement for the base station to be physically situated in close proximity to gas lines limits this opportunity	Achieved				Achieved						
In Cote d'Ivoire we have implemented a Hybrid Genset (HGS) solution	Achieved				Achieved						



1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
<p>consisting of technology working in cycling mode from 12 hours on gensets to 12 hours to 24 hours on batteries depending of the load. As a result, the BTS saves about 50% on fuel and 50% in maintenance fees. CO2 output is also reduced by about 50%</p>											
<p>We are investigating the use of biogas and fuel cell technology to power base stations in some areas across South Africa. A bio-gas</p>					<p>Anticipated</p>						

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO <sub>2</sub> -e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
<p>plant (source: commercial dairy emissions) will help provide up to 5kW of energy in an area of no mobile phone coverage . In Kimberly, in the Northern province, the construction of a large scale bio-gas plant in close proximity to a new remote hub will help alleviate energy shortages and provide alternative energy of more than 500kW. Natural gas sourced from Egoligas is also being</p>											

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
assessed for feasibility of powering selected fuel cell sites in Johannesburg, Gauteng province. In the province of Mpumalanga, we are assessing the use of natural coal gas as an energy source (Fuel cell technology), which has a lower emissions factor and higher calorific value.											
Hybrid solutions involving solar, wind and hydrogen fuel cell, amongst others, are also being trialled in Guinea Conakry,	Anticipated				Anticipated						

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
Rwanda, Liberia, Nigeria, Uganda and Guinea-Bissau											
We also look at engineered opportunities to manage BTS sites more efficiently in terms of power and fuel, to reduce our reliance on diesel and other less environmentally-friendly power sources	Achieved				Achieved						

9.8

Please explain why not.

9.9

Please provide any other information you consider necessary to describe your emission reduction activities.

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**9.10**

**Do you engage with policy makers on possible responses to climate change including taxation, regulation and carbon trading?**

Yes

---

**9.11**

**Please describe.**

MTN participated in the first climate change and business conference held in South Africa November 2009, arranged by the National Business Institute. MTN also understands that Business Unity South Africa (BUSA) are the mechanism by which business will interact with government on climate change issues. MTN intends responding to the proposed green paper on climate change to be released by the Department of Environment during the middle of 2010, as well as the proposed discussion paper on carbon tax to be released by National Treasury during the middle of 2010. MTN operations from Yemen, Cyprus, Zambia, Cameroon and Nigeria, to provide a few examples, maintain ongoing and/ ad hoc supportive engagements with environmental authorities and national ministries in their countries of operation on matters of national imperative.

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**Further Information**

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**Attachments**

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading**

**Page: Emissions Boundary - (1 Jan 2009 - 31 Dec 2009)**

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**10.1**

**Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.**

Companies over which financial control is exercised per consolidated audited financial statements

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**10.2**

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

Yes

---

**10.3**

**Please complete the following table.**

Source	Scope	Explain why the source is excluded
Geographies	Scope	The carbon

Source	Scope	Explain why the source is excluded
	1 and 2	<p>footprint includes emissions from the following operations: MANCO, South Africa, Uganda, Nigeria, Ghana, Cameroon, Syria. These operations were chosen by MTN due to their size and potential material contribution to the MTN carbon footprint. In terms of subscriber numbers the carbon footprint has covered 62.2% and in terms of employee numbers 61.7%. Future phases of the MTN Carbon Footprint will aim to include the remaining operations of MTN that are under MTN's financial control.</p>
Fugitive emissions from fire equipment	Scope 1	<p>South Africa and Ghana and Cameroon: Accurate data was not available at time of footprint calculation. The significance of this source is minimal.</p>
Refrigerant use	Scope 1	<p>Nigeria: Accurate data for refrigerant use at BTS sites was not</p>

Source	Scope	Explain why the source is excluded
		<p>available at time of footprint calculation. The significance of this source is minimal.</p> <p>Ghana: Accurate data for refrigerant use was not available at time of footprint calculation. The significance of this source is minimal.</p> <p>Syria: Accurate data for refrigerant use was not available for offices at time of footprint calculation. The significance of this source is minimal.</p>
Mobile combustion	Scope 1	<p>Syria: Accurate data was not available at time of footprint calculation. The significance of this source is minimal.</p>
Electricity purchased	Scope 2	<p>South Africa: Disaggregated data for electricity use (data was provided for head office, and lump sum electricity data was provided for all of the remaining facilities (buildings, switches, data centres, warehouses) as one value. No electricity use values</p>

Source	Scope	Explain why the source is excluded
		<p>(kWh), only monetary values spent on electricity were submitted. A formula had to be developed using the South African electricity invoices in order to calculate the kWh consumption.</p> <p>Nigeria: Disaggregated data for electricity use (data was provided for outdoor BTS sites and one data centre/switch). No electricity use values (kWh), only monetary values spent on electricity were submitted. A formula had to be developed using the South African electricity invoices which was also used to calculate the kWh consumption for Nigeria.</p> <p>Ghana: No electricity use values (kWh), only monetary values spent on electricity were submitted.</p>
Stationary combustion - diesel	Scope 1	South Africa: Disaggregated data for diesel use in generators for each of the different types of BTS sites i.e. indoor, outdoor and



Source	Scope	Explain why the source is excluded
		micro cells. Nigeria: Disaggregated data for diesel use in generators for each of the different types of BTS sites i.e. indoor, outdoor and micro cells.

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#### Further Information

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#### Attachments

**Page: Methodology - (1 Jan 2009 - 31 Dec 2009)**

#### 11.1a

**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 and/or describe the procedure you have used (in the text box in 11.1b below).**

**Please select the published methodologies that you use.**

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

#### 11.1b

**Please describe the procedure that you use.**

MTN used the Greenhouse Gas protocol: Corporate Accounting and Reporting Standard, to aid in the carbon footprint calculation. A scoping workshop was held and the organisational boundaries (financial control approach) and operating boundaries were determined. Operating boundaries included: Scope 1: Consumption of fuel in vehicles owned by MTN Consumption of fuel in the operation of generators Fire suppression Refrigeration and air conditioning equipment Scope 2: Consumption of purchased electricity Scope 3: Air travel Business mileage (vehicle rental only) Training and continuous interaction with each operation's Carbon Champion during the data collection phase took place. Excel data collection sheets were used to collect carbon footprint data from operations included in the January to December 2009 carbon footprint. The operations included: MANCO (Group Head Office), South Africa, Nigeria, Ghana, Uganda, Cameroon, and Syria Data collection sheets were collected, data checked, data gaps filled and final data used to calculate the MTN carbon footprint using an Excel based carbon footprint calculator. The carbon footprint calculator is based on the calculation tools provided by the GHG Protocol and uses the emissions factors from the GHG Protocol and the 2006 IPCC Guideline documents.

---

**11.2**

**Please also provide the names of and links to any calculation tools used.**

<b>Please select the calculation tools used.</b>
Other: GHG Protocol - list of emissions factors used in mobile combustion - post 2005 tool version, but prior to updated 2009 version. <a href="http://www.ghgprotocol.org/calculation-tools/all-tools">http://www.ghgprotocol.org/calculation-tools/all-tools</a>
GHG Protocol - GHG emissions from stationary combustion 3.1 March 2008
GHG Protocol - GHG emissions from refrigeration and air-conditioning 1.0 January 2005
GHG Protocol - GHG emissions from purchased electricity, heat of steam 2.1 June 2009

---

**11.3**

**Please give the global warming potentials you have applied and their origin.**

<b>Gas</b>	<b>Reference</b>	<b>GWP</b>
Methane	IPCC Second Assessment Report (SAR - 100 year)	21
Nitrous oxide	IPCC Second Assessment Report (SAR - 100 year)	296
HCFC-22	Other: GHG Protocol	1700
HFC-134a	Other: GHG Protocol	1300
Other: R407c	Other: GHG Protocol	1526
Other: R410a	Other: GHG Protocol	1725
Other: Fire suppression equipment	Other: Business commentary	1

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**11.4**

**Please give the emission factors you have applied and their origin.**

Fuel/Material	Emission Factor	Unit	Reference
Motor gasoline	0.04	Other: GJ/L	GHG Protocol/2006 IPCC Guidelines
Motor gasoline	0.07	metric tonnes CO2 per GJ	GHG Protocol/2006 IPCC Guidelines
Motor gasoline	0.00	Other: Tonnes CH4/GJ	GHG Protocol/2006 IPCC Guidelines
Motor gasoline	0.00	Other: Tonnes N2O/GJ	GHG Protocol/2006 IPCC Guidelines
Gas/Diesel oil	0.04	Other: GJ/L	GHG Protocol/2006 IPCC Guidelines
Gas/Diesel oil	0.07	metric tonnes CO2 per GJ	GHG Protocol/2006 IPCC Guidelines
Gas/Diesel oil	0.00	Other: Tonnes CH4/GJ	GHG Protocol/2006 IPCC Guidelines
Gas/Diesel oil	0.00	Other: Tonnes N2O/GJ	GHG Protocol/2006 IPCC Guidelines
Gas/Diesel oil	43.00	Other: MJ/kg	GHG Protocol/2006 IPCC Guidelines

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#### Further Information

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#### Attachments

**Page: Emissions Scope 1 - (1 Jan 2009 - 31 Dec 2009)**

#### 12.1

**Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.**

280246

Is question 12.2 relevant to your company?

Yes

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**12.2**

**Please break down your total gross global Scope 1 emissions in metric tonnes CO2-e by country/region.**

Country	Scope 1 Metric tonnes CO2-e
South Africa	4796
Nigeria	214985
Ghana	5637
Uganda	38764
Cameroon	10294
Syrian Arab Republic	5770

---

**12.3**

**Please explain why not.**

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**12.4**

**Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by business division. (Only data for the current reporting year requested.)**

Business Division	Scope 1 Metric tonnes CO2-e
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---

**12.5**

**Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by facility. (Only data for the current reporting year requested.)**

Facilities	Scope 1 Metric tonnes CO2-e
------------	-----------------------------

---

**2**

Is question 12.6 relevant to your company?

Yes

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**12.6**

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO2-e)
CO2	274818.00	274818
CH4	17.50	367
N2O	3.00	1039
HFCs	2371.00	4020

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12.7

Please explain why not.

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Is question 12.8 relevant to your company?

Yes

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12.8

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

1026721

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12.9

Please explain why not.

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Is question 12.10 relevant to your company?

Yes

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12.10

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh
Motor gasoline	49428.00
Gas/Diesel oil	977294.00

12.11

Please explain why not.

12.12

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
More than 5% but less than or equal to 10%	Data Gaps Assumptions Metering/ Measurement Constraints Published Emissions Factors Data Management	<p>Uncertainty analysis (GHG protocol method) was performed per operation included in the carbon footprint calculation but not per scope. South Africa: 20% Nigeria: 4.5% Ghana: 20% Uganda: 8.6% Cameroon: 3.8% Syria: 9.6 MTN Group: 8%</p> <p>The uncertainty takes into account uncertainty of the emission factors (IPCC Guidelines/GHG Protocol) and uncertainty of raw data. The uncertainty calculation does not take into account any missing data. Hence the "real" uncertainty of the MTN carbon footprint may be somewhat (significantly) higher than stated above. The uncertainty range chosen is "more than 5%</p>

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
		<p>but less than or equal to 10%". In some instances data was not available. The lack of readily available data was noted as a constraint to the accuracy of the carbon footprint and hence adds to the uncertainty of the carbon footprint calculation. Where the required data was not available, best estimation techniques were used to fill these gaps. The overall contribution of the above data, however, is not expected to significantly increase the overall carbon footprint as the refrigerant and fugitive emissions contribution is proportionally small (less than 1% of total footprint). Quality of the raw data received: Although data may have been received for certain emissions sources, the quality thereof is a big factor in the accuracy of the carbon footprint calculation. Certain emission sources and</p>

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
		metadata had associated quality issues. These will be addressed going forward.

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**Further Information**

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**Attachments**

**Page: Emissions Scope 2 - (1 Jan 2009 - 31 Dec 2009)**

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**13.1**

**Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO2-e.**

281201

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¿

Is question 13.2 relevant to your company?

Yes

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**13.2**

**Please break down your total gross global Scope 2 emissions in metric tonnes of CO2-e by country/region.**

Country	Metric tonnes CO2-e
South Africa	209641
Nigeria	11876
Ghana	18852
Uganda	5321
Cameroon	1158
Syrian Arab Republic	34354

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**13.3**

**Please explain why not.**



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13.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by business division. (Only data for the current reporting year requested.)

Business division name	Metric tonnes CO2-e
------------------------	---------------------

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13.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by facility. (Only data for the current reporting year requested.)

Facility name	Metric tonnes CO2-e
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Is question 13.6 relevant to your company?

Yes

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13.6

How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?

Please supply data for these energy types.	MWh
Electricity	431752

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13.7

Please explain why not.

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13.8

Please estimate the level of uncertainty of the total gross global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
More than 5% but less than or equal to 10%	Data Gaps Assumptions Metering/ Measurement Constraints Published Emissions Factors Data Management	Same description as per 12.12 applies here.

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**Further Information**

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**Attachments**

**Page: Emissions Scope 2 Contractual**

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**14.1**

**Do you consider that the grid average factors used to report Scope 2 emissions in question 13 reflect the contractual arrangements you have with electricity suppliers?**

Yes

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**14.2**

**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 CO<sub>2</sub>-e.**

---

**14.3**

**Explain the origin of the alternative figure including information about the emission factors used and the tariffs.**

---

**14.4**

**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

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**14.5**

Please provide details including the number and type of certificates.

Type of certificate	Number of certificates	Comments
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**Further Information**

**Attachments**

**Page: Emissions Scope 3**

¿

Is question 15.1 relevant to your company?

Yes

**15.1**

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

Sources of Scope 3 emissions	Metric tonnes of CO2-e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
Business travel	4414	Business Travel = Air Travel and Vehicle Hire. Air Travel = 4279 tonnes CO2; Vehicle Hire = 135 tonnes CO2. GHG Protocol emissions factors for air travel and for mobile combustion were used to convert kilometres flown or driven into	

Sources of Scope 3 emissions	Metric tonnes of CO2-e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
		tonnes of CO2e. Accuracy for air travel data is high. Vehicle Hire data was difficult to obtain, and it is very probable that this figure is under-reported.	

15.2

Please explain why not.

Further Information

Attachments

Page: Emissions 7

16.1

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

Yes

16.2

Please provide details including the anticipated timescale over which the emissions are avoided, in which sector of the economy they might help to avoid emissions and their potential to avoid emissions.

MTN is yet to undertake a detailed assessment of climate change risks and opportunities which could impact the company. MTN is of the opinion that there is a significant opportunity (over the next decade in particular) for the ICT sector's products/services to aid all other industries in the reduction of their own emissions. For MTN, this includes reducing unnecessary travel through use of video and mobile conferencing and remote working solutions, smart metering solutions for utilities as well as monitoring and management systems within a company's infrastructure. MTN's products/services may be helpful in this regard in all the countries that MTN currently operates in and may be seen as a specialised service to provide in geographies MTN enters in the near future. The increased likelihood of carbon regulation in South Africa and other countries in which MTN operates may well highlight the role of MTN as a "green enabler" to business. As stated above MTN has not yet undertaken a detailed assessment of these opportunities and is therefore currently unable to provide a quantitative indication of the emissions that may be avoided. However, this is high on the sustainability agenda.

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Is question 17.1 relevant to your company?

No

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17.1

**Please provide your total carbon dioxide emissions in metric tonnes CO2 from the combustion of biologically sequestered carbon i.e. carbon dioxide emissions from burning biomass/biofuels.**

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17.2

**Please explain why not.**

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**Further Information**

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**Attachments**

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**Page: Emissions 8**

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18.1a

**Please describe a financial intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.**

If you do not consider a financial intensity measurement to be relevant to your company, select "Not relevant" in column 5 and explain why in column 6.

Figure for Scope 1 and Scope 2 emissions	GHG units	Multiple of currency unit	Currency unit	Financial intensity metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
				Not Relevant	MTN measures financial value in terms of financial value per subscriber, which is in line with the telecommunications sector. As such an activity-based measurement in terms of CO2 per subscriber is used and described below.

**18.1b**

Please describe an activity-related intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

Oil and gas sector companies are also asked to report activity-related intensity metrics in answer to table O&G1.3.

If you do not consider an activity-related intensity measurement to be relevant to your company, select "Not relevant" in column 3 and explain why in column 4.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
29.00	Metric tonnes CO2-e	per full-time equivalent employee	
0.01	Metric tonnes CO2-e	Other: per subscriber	MTN, and the broader telecommunications sector, broadly measure value in terms of number of subscribers. Therefore the use

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
			of an activity-related intensity specific to number of subscribers is important to MTN.

**19.1**

**Do the absolute emissions (Scope 1 and Scope 2 combined) for the reporting year vary significantly compared to the previous year?**

Yes

**19.2**

**Please explain why they have varied and why the variation is significant.**

CDP response 2009 (Jan - Dec 2008) - combined scope 1 and 2 emissions: approximately 250000 tonnes CO2e. The 2008 CDP response predominantly included data for South Africa and MANCO operations. CDP response 2010 (Jan - Dec 2009) - combined scope 1 and 2 emissions: approximately 560000 tonnes CO2e. The 2009 Carbon Footprint has covered 62.2% of total subscriber numbers and 61.7% in terms of total employee numbers. The operations that were included in the 2010 CDP response (2009 Carbon Footprint) are MANCO, South Africa, Uganda, Nigeria, Cameroon, Ghana and Syria. MTN contracted the services of an external professional consulting firm, and considers the figures reported for the 2010 CDP to be considerably more accurate and complete than the figures reported in the 2009 CDP response.

**20.1A**

**Please complete the following table indicating the percentage of reported emissions that have been verified/assured and attach the relevant statement.**

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
Not verified	Not verified	Not verified

**20.1B**

**I have attached an external verification statement that covers the following scopes:**

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**Further Information**

As previously mentioned, MTN has recently embarked on a process of responding to the issue of climate change in the business. Subsequently, attention was paid to calculating the carbon footprint as a first step, and as such has not initiated a process of external verification yet. Once the baseline carbon footprint is completed, and a climate change strategy completed for the group, then the issue of external assurance will be looked at.

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**Attachments**

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**Page: Emissions 9 Trading**

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**21.1****Do you participate in any emission trading schemes?**

No, we don't participate nor do we currently anticipate participating in any emissions trading scheme within the next two years.

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**21.2**

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

<b>Scheme name</b>	<b>Period for which data is supplied.</b>	<b>Allowances allocated</b>	<b>Allowances purchased</b>	<b>Verified emissions - number</b>	<b>Verified emissions - units</b>	<b>Details of ownership</b>
	Mon 01 Jan 0001 - Mon 01 Jan 0001					

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**21.3**

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

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**21.4**

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

No

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**21.5**

Please complete the following table.



Credit origination or credit purchase?	Project identification	URL link to project documentation	Verified to which standard?	Number of credits (metric tonnes of CO <sub>2</sub> -e)	Credits retired?	Purpose e.g. compliance
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#### Further Information

MTN are currently in the process of registering the tri-generation project described in Question 9.7 as a CDM project and as such will report on the progress of this initiative in the next CDP response.

#### Attachments

### Module: Climate Change Communications

#### Page: Communications 1

#### 22.1

**Have you published information about your company's response to climate change/GHG emissions in other places than in your CDP response?**

Yes

#### 22.2

**In your Annual Reports or other mainstream filing?** *(If so, please attach your latest publication(s).)*

Yes

#### 22.3

**Through voluntary communications such as CSR reports?** *(If so, please attach your latest publication(s).)*

Yes

#### Further Information

The 2009 Group Annual Report and Group Sustainability Reports will be available on [www.mtn.com](http://www.mtn.com) and [www.mtn.com/sustainability](http://www.mtn.com/sustainability) no later than 30 June 2010. The Group provides detailed reports as part of its listing on the JSE Socially Responsible Investment (SRI) index, and was awaiting commencement of the 2009 reporting process from the JSE at the time of submission of this (CDP) report.

#### Attachments

