# Welcome to your CDP Climate Change Questionnaire 2020

# C0. Introduction

## C0.1

**(C0.1) Give a general description and introduction to your organization.**

Launched in 1994, the MTN Group is a leading emerging market operator with a clear vision to lead the delivery of a bold new digital world to our customers in 21 countries in Africa and the Middle East. We are inspired by our belief that everyone deserves the benefits of a modern connected life. We are pursuing our BRIGHT strategy with a major focus on growth in data, fintech and digital businesses.

Ours is one of the most admired brands in Africa and is also among the most valuable African brands. The MTN Group is listed on the Johannesburg Stock Exchange in South Africa under the share code “MTN” and ha as market capitalisation of R155 billion at the end of 2019.

On the 31st of December 2019, the Group had approximately 250 million subscribers across 21 Operating Companies (OPCOs) managed as: South Africa, Nigeria and the Southern and East Africa and Ghana (SEAGHA), West and Central Africa (WECA) and Middle East and North Africa (MENA). Our countries of operation are Afghanistan, Benin, Cameroon, Ghana, Guinea-Bissau, Guinea Republic (Conakry), Iran (this is a joint venture - we only have 49% control), Ivory Coast, Liberia, Nigeria, Republic of Congo (Congo-Brazzaville), Rwanda, South Africa, Sudan, Syria, South Sudan, Eswatini (this is a joint venture - we only have 30% control), Uganda and Zambia. We also have a presence in Botswana, Kenya (through ISP business) and Namibia (through ISP business).

## C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

| | Start date | End date | Indicate if you are providing emissions data for past reporting years |
|---|---|---|---|
| Reporting year | January 1, 2019 | December 31, 2019 | No |

# C0.3

**(C0.3) Select the countries/areas for which you will be supplying data.**

Afghanistan
Benin
Cameroon
Congo
Côte d'Ivoire
Eswatini
Ghana
Guinea
Guinea-Bissau
Iran (Islamic Republic of)
Kenya
Liberia
Namibia
Nigeria
Rwanda
South Africa
South Sudan
Sudan
Uganda
Zambia

# C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

ZAR

## C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Operational control

# C1. Governance

## C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

## C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

| Position of individual(s) | Please explain |
|---|---|
| Other, please specify<br>Board/Executive Board | MTN Group board has overall accountability for sustainability. Responsibility for oversight of sustainability activities is delegated to the social & ethics committee. The committee's mandate is to monitor the development or review of policies, governance structures & existing practices. Includes identifying gaps in the sustainability framework & ensuring improvements in sustainability reporting. The Group President and CEO has delegated executive responsibility to Group Chief Regulatory & Corporate Affairs Officer, to whom Group Sustainability reports. Group Sustainability under Group Corporate Affairs is responsible for all climate change & sustainability initiatives & issues, and focuses on building the foundations for a more sustainable business & implements environmental, social and governance core business projects at both Group and operational level in partnership with business functions and the markets. Sustainability related functions are fulfilled by technology, corporate services & other functions within the various countries. |

# C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

| Frequency with which climate-related issues are a scheduled agenda item | Governance mechanisms into which climate-related issues are integrated | Please explain |
|---|---|---|
| Scheduled – all meetings | Reviewing and guiding strategy<br>Reviewing and guiding major plans of action<br>Reviewing and guiding risk management policies<br>Reviewing and guiding annual budgets<br>Reviewing and guiding business plans<br>Setting performance objectives<br>Monitoring implementation and performance of objectives<br>Overseeing major capital expenditures, acquisitions and divestitures | MTN's sustainability vision is to protect and create shared value for MTN and our stakeholders through responsible environmental and social practices. To realise our vision, our sustainability approach is categorised into three pillars (sustainable economic value, eco-responsibility and sustainable societies) that identify the areas we most focus on, to ensure we operate responsibly and sustainably.<br>At quarterly social and ethics board committee meetings, sustainability reports are presented, ensuring that the MTN Group's Regulatory and Corporate Affairs Officer and Group Executive: Corporate Affairs accounts for the business's sustainability risks, opportunities and performance. This includes climate change related issues which include energy consumption, climate risks and opportunities, as well as alternative energy and energy efficiency initiatives at scheduled intervals.<br>Sustainability is implemented by dedicated section within the Corporate Affairs department forming part of Group Regulatory and Corporate Affairs function, which is managed by the Group Regulatory and Corporate Affairs Officer who is a member of the Group Executive Committee and the Group Social and Ethics Committee. Execution is driven by Group Executive: Corporate Affairs who reports into the Group Regulatory and Corporate Affairs Officer. This ensures that sustainability requirements are driven by and within core business functions, and integrated within business strategy, planning and management cycles, guiding our major plans including capital expenditure and actions. On a monthly basis, the Group Principal Risk Report includes risk assessment and quantification of MTN's energy use and GHG emissions, emerging risks and actions allocated to executive functions allocated for risk management. Given that the largest impact stems from energy consumption, our Infrastructure |

| | | |
|---|---|---|
| | | and Technology teams are responsible for ensuring energy efficiency and reduction. Business plans and objectives in this regard are overseen jointly with Group and Technology function, and reports are compiled on a monthly basis by operations in partnership with the various markets. |

## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

| Name of the position(s) and/or committee(s) | Responsibility | Frequency of reporting to the board on climate-related issues |
|---|---|---|
| Other C-Suite Officer, please specify<br>MTN Group Regulatory and Corporate Affairs Officer | Both assessing and managing climate-related risks and opportunities | Quarterly |
| Other committee, please specify<br>Social and Ethics Committee | Other, please specify<br>Oversight role | Quarterly |
| Other, please specify<br>Group Corporate Affairs Executive | Both assessing and managing climate-related risks and opportunities | |
| Other, please specify<br>GM: Sustainability & Share Value | Both assessing and managing climate-related risks and opportunities | |
| Environment/ Sustainability manager | | |

## C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

The Group Sustainability section which falls under Corporate Affairs department is responsible for all climate change and sustainability risk identification, issues management and initiatives at MTN, compiles and monitors reports for monthly executive committee reviews, quarterly Social and Ethics Committee presentations and annual integrated & sustainability reports. This function works with the Group Technology function, which is

responsible for ensuring energy efficiency and reduction, since MTN's largest greenhouse gas impact stems from energy consumption by MTN's technical infrastructure. MTN Group monitors the energy use in its operations on a monthly basis and calculates its monthly greenhouse gas (GHG) emissions. MTN also works towards reducing the emissions through implementing energy efficient initiatives. The Group's risk management framework, which includes two principal risks regarding environmental risks and impacts to MTN, is complemented by a climate change risk reporting template.  Risks are jointly identified and managed through Group Sustainability and Group Technology functions.

# C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

| | Provide incentives for the management of climate-related issues | Comment |
|---|---|---|
| Row 1 | Yes | Group Executive for Corporate Affairs who reports into Group Regulatory and Corporate Affairs Officer and all direct reports have KPIs related to Sustainability including climate-related issues. KPIs are defined and tracked on an annual basis. Sustainability & Climate Change initiatives specific KPIs was included for 2019. Remuneration, both performance bonus and annual increases, is determined on basis of meeting the defined KPIs.<br><br>MTN is currently finalising an Energy Strategy incorporating MTN's current performance, gaps and proposed initiatives including setting climate related targets and a roadmap. Targets will be finalised in 2020 and will commence in 2021. These targets will be further added to management KPIs and incentives once targets have been finalised. |

# C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues  (do not include the names of individuals).**

| Entitled to incentive | Type of incentive | Activity inventivized | Comment |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Other, please specify<br>Group Executive Corporate Affairs | Monetary reward | Company performance against a climate-related sustainability index | JSE FTSE Responsible Investment Index |

# C2. Risks and opportunities

## C2.1

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

## C2.1a

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

| | From (years) | To (years) | Comment |
|---|---|---|---|
| Short-term | 0 | 1 | Short term horizons are considered to be between 0 and 1 years and could be any events that could affect the organisation almost immediately. |
| Medium-term | 1 | 3 | Medium term horizons are considered to be between 1 and 3 years and could be any events that are foreseen in the near future and could be planned for. |
| Long-term | 3 | 10 | Long-term horizons are considered to be 3 years and longer, and could comprise of any events that could affect the organisation in the longer-term future. These may be relatively difficult to plan for although such considerations are taken in our planning processes. |

## C2.1b

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

1. From the highest level there is the Risk Universe --- this is the full gamut of strategic, financial and operational risks, both inherent to our industry and globally.
2. To help with Board and Management focus and enhance our capabilities to identify and manage risks, the Risk Universe is broken down to L1 and L2 risks.
3. L1 are Higher Level categories that are largely static.
4. L2 are referred to as Principal Risks – these are fixed for the short-medium, and undergo revision based on strategy revision or Board focus and prioritisation.
5. MTN has six L1 risk categories and current 27 Principal Risks which helps Management perform continual Risk Identification and Assessment.
6. The link from L1 to the organisational structure - L4 functional and process risks is: Level 1 - categories (strategic, financial, operational, technology, external, compliance); Level 2 - principal risks; Level 3 - risk issues; level 4 - process and functional.
7. Then from a Risk Appetite perspective the Board provides guidance to Management via Risk Preferences for each of the L2 Principal Risks: HIGH | MEDIUM | MODEST | LOW: (1) Based on the Risk Preference, Management defined KRI's and Tolerances for each Principal Risk. (2) the KRI status for each Principal Risk proves Risk Appetite compliance and overall Risk Bearing Capacity.
8. Finally to answer the question how the Group and OpCo teams assess a Risk as having a Strategic or Financial Impact - to assess the strategic or financial impact of a risk, we consider criteria for Financial & Growth, Customer Impact, Operating Model, Governance Impact, People, Technology and Reputation.

The Technology and Facilities functions, often supported by Corporate Affairs/ Service functions, at each MTN operation are responsible for identifying and managing climate change related risks using the Enterprise Risk Management (ERM) methodology. ERM provides an approach to uniformly identify and evaluate potential events which may impact MTN's ability to achieve its objectives, in line with its strategy, risk appetite and risk preferences. **Risk Governance Structures**: appropriate risk governance structures are key to creation of a risk management culture within the Organisation. At Group level, the structures include the following: **Board, Group Risk Management, Compliance and Corporate Governance Committee,Group Executive Committee** The following committees have various risk management roles at the OpCo level: **OpCo Board, OpCo Audit and Risk Committee, OpCo EXCO.** The governing body (Board) should evaluate and agree the nature and extent of the risks that the organisation should be willing to take in pursuit of its strategic objectives. It should approve in particular: the organisation's risk appetite, namely its propensity to take appropriate levels of risk; and the limit of the potential loss that the organisation has the capacity to tolerate. The Framework comprises of the following: **Risk Bearing Capacity:** The maximum amount of risk that MTN can bear before it is damaged beyond repair or will at least not be able to continue with business in a similar fashion as before. Risk Bearing Capacity is calculated on a periodic basis to guide decision making. **Risk Philosophy:** Risk philosophy defines the stance of MTN towards risks associated with the various activities performed by MTN. Risk strategy is an integral part of MTN's business strategy. It expresses the overall philosophy towards risk taking regarded as necessary to realise MTNs vision and mission. **Risk Preference(s):** Risk preference is the level of risk that MTN prefers to take in pursuit of its goals and objectives. **Key Risk Indicators:**

Key Risk indicators are the metrics that at a high level indicate the risk exposures related to a particular risk. **Risk Tolerances:** The specific maximum risk that MTN is willing to take regarding each relevant risk. For the various types of risk preferences and risk appetites, there is a periodic review and setting of risk tolerance levels. In determining Risk Preferences and Risk Tolerances, consideration is given to whether various risk types are aligned to strategic objectives and medium-term financial profile targets. **Key Features of the Framework:** · Risk preference is usually defined in qualitative or quantitative tolerance levels. · The risk tolerance levels set the boundaries for assessing risk and provide direction on how risks should be treated. · Based on the tolerance levels, risk impact rating scales are defined to assist management to assess and rate individual risks, make decisions on mitigation and define escalation levels. · Risk preference and tolerance levels articulate how the organisation wants to respond to identified risks that may materialise in the future and not how the organisation should respond when an event has already occurred. Decision making on events that have already occurred will be guided by the Delegation of Authority.

# C2.2

## (C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

### Value chain stage(s) covered

Direct operations

### Risk management process

Integrated into multi-disciplinary company-wide risk management process

### Frequency of assessment

More than once a year

### Time horizon(s) covered

Medium-term

### Description of process

The Technology and Facilities functions, often supported by Corporate Affairs/ Service/ Sustainability functions, at each MTN operation are responsible for identifying and managing climate change related risks using the Enterprise Risk Management (ERM) methodology. ERM provides an approach to uniformly identify and evaluate potential events which may impact MTN’s ability to achieve its objectives, in line with its

strategy, risk appetite and risk preferences. The Risk identification stage identifies risks, which could affect MTN's achievement of objectives and opportunities to enhance business performance. A common risk universe referred to as the Principle Risks, facilitates identification of risks that affect the MTN Group. Of the Principal Risks at Group level, climate change is covered under Principal Risk 20 (Continuity Risk) and Principal Risk 23 (Social and Environmental) due to its potential threat to continuity of operations; and risk of not meeting stakeholders social and environmental expectations. The identified risks are prioritised based on a quantified probability and impact assessment, and response strategies developed based on the nature and materiality of the risk, and reported to the local operations' executive, audit and risk compliance committees as appropriate. The identification and mitigation processes of environmental, physical, financial and regulatory risks is managed or coordinated in conjunction with the risk owners by trained Energy and Carbon champions and other individuals within each country of operation. The Group ensures that each country's operation actively manages physical, financial and regulatory risks and impacts in a customised manner within local operating and environmental contexts by ensuring energy and carbon managers/ champions in technical functions. These champions are supported by finance, facilities, business risk management and corporate services team members. The Group's sustainability function undertakes the consolidation and reporting of each country's activities and results through monthly and quarterly energy and carbon foot printing, analysis and reporting, and through monthly overall risk and legal reports to their Group Business Risk Management functions. Group level environmental risks are incorporated into sustainability, energy and carbon reports, CDP reports, Global Compact Reports, and our annual Sustainability Report which is prepared with reference to the Global Reporting Initiative (GRI) Sustainability Reporting Standards; which are ultimately presented on a basis annually on company's website. These are also presented to the Group Social and Ethics Committee on a scheduled basis and included in monthly reports to the Group Risk and Compliance function. Consolidated reports are reviewed annually and approved by the Group Executive, including the Group President and CEO, and Group Social and Ethics Committee for integrated annual report publication.

# C2.2a

### (C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

| | Relevance & inclusion | Please explain |
|---|---|---|
| Current regulation | Relevant, always included | The information below highlight regulatory risks, with a possible financial implication in the form of a penalty. On 3 April 2017, the South African Department of Environmental Affairs (DEA) introduced and gazetted the National GHG Emission Reporting Regulations, which required the immediate attention and action of companies. Companies needed to register all facilities where activities exceed the thresholds listed in Annexure 1 of the regulations by 3 May 2017. Companies also |

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| | | needed to submit GHG emissions and activity data for the preceding calendar year for all the facilities registered under these regulations by 31 March annually. The first round of reporting was due on 31 March 2018 for the 2017 year. MTN undertook an assessment to understand whether the thresholds are exceeded and has since registered the affected facilities and submitted a report of MTN's relevant 2017, 2018 and 2019 GHG emissions to DEA in compliance with these regulations. We are also aware of the National Pollution Prevention (PPP) Regulations that were published and gazetted by DEA on the 21st of July 2017 and undertook an assessment of the implications of these regulations. We determined that the PPP regulations do not affect MTN or require any further action from the company.<br><br>The South African National Treasury first introduced the idea of carbon tax in a discussion document in 2010. The design was proposed in 2013 followed by the publication of the Draft Bill late in 2015 which announced the expected start date to be in 2017. After numerous iterations and consultations, the Bill was finally signed into law by the President on the 22nd of May 2019 and has come into effect from 1 June 2019. The first phase will be from 1 June 2019 to 31 December 2022, and the second phase from 2023 to 2030. While the initial tax rate is set at R120/ tonne of CO2-equivalent, the carbon tax law allows for various allowances, with taxpayers eligible for allowances for up to 95% of their emissions. National Treasury estimates that companies will effectively pay between R6 and R48 per tonne of CO2e. This risk currently only affects MTN South Africa; however, MTN Zambia also reported increasing legislative activity with respect to carbon taxes. While MTN South Africa is one of the largest operations in the MTN Group, the financial impact of this tax is estimated to range between R290 000 and R600 000 per annum, which is not considered material to the Group. |
| Emerging regulation | Relevant, always included | |
| Technology | Relevant, always included | At MTN, we are focused on solutions to enhance digital inclusion and transform societies. We firmly believe that technology and connectivity can accelerate transformative solutions to some of the world's complex challenges. With rapid growth in Internet of Things (IoT) as well as increased connectivity (including 5G in future), we envisage increased demand in energy requirements to further support our delivery of services to customers. We regard this increased demand of energy to be a cost and climate change related risk regarding technology. We continually seek efficiencies in our network technologies, site construction and operations. We continually work to replace inefficient and old products with more efficient equipment and solutions, and by investing in renewable energy sources for sites owned and operated by MTN. We also engage with partners and suppliers on ways of enhancing the efficiency of our sites and help us meet our |

| | | |
|---|---|---|
| | | objective of increasing the use of renewable and low-carbon energy Monitoring energy consumption on an ongoing basis and analysing consumption trends in each operation also helps us identify any problems that may drive sudden increases in reported consumption. To date, alternative energy and energy efficiency solutions have been implemented in more than 12 000 MTN-owned sites and in more than 6 000 leased sites. |
| Legal | Relevant, sometimes included | The risks associated with climate-related litigation claims are not anticipated as material to us. While we have not formally identified these as part of our organisation's climate-related risk assessments, we maintain awareness and understanding of the growing regulatory environment around climate change in various countries where we operate which could require us to comply with specific requirements, in order to leverage potential incentives and avoid penalties. As MTN, we continue to ensure that we respect existing legal requirements to mitigate risk of penalties. For example, by responding to South Africa’s national GHG reporting regulations, we have mitigated the potential risk of financial penalties or imprisonment of officers for non-compliance with regulations. |
| Market | Relevant, always included | Increasing general costs of (mainly fossil fuel-based) energy, pose financial risks to us as a result of the use of grid power, and gas and diesel. Some of these costs are due to national energy landscapes, while other costs are due to evolving international energy demand-supply dynamics and other macro issues. These impact MTN operations in various ways e.g. where national fuel subsidies may be removed, where electricity and fuel tariffs are increased or where tariffs may be raised for the upgrading of national energy supply infrastructure. Examples of such instances in our operations in the past few years include in Iran, Nigeria, Ghana, Benin and South Africa. Given the importance of energy and the contribution of energy costs to the overall operating cost of the Group, improving energy use and efficiency is a key component of the Company’s overall cost-efficiency drive. |
| Reputation | Relevant, always included | Growing stakeholder expectations of companies’ contribution to the acceleration of climate action and good corporate governance in a manner that preserves and protects people’s basic human rights. MTN’s investor community and other stakeholders are increasingly exerting pressure on the Group to demonstrate targets, performance and business plans for managing environmental, social and governance matters material to the business, including climate change management. MTN is listed in the JSE-FTSE4Good Emerging Markets series, and as a constituent, is required to demonstrate climate-related performance to maintain its reputation in the ESG investment sector. MTN conducts stakeholder reputation index survey on an annual basis to assess MTN's reputation on various matters including climate/ environmental reputation among our customers, employees, civil society and other stakeholder groups. MTN has to carefully manage the |

| | | |
|---|---|---|
| | | associated risks and demonstrate environmental credentials that can meet the needs and expectations of our stakeholder in a manner that is aligned to organisational values. |
| Acute physical | Relevant, always included | Extreme weather events such as floods and snow affect MTN operations. For example, in one of our Western Africa operations, a number of BTS (base transceiver station) sites and data centres were exposed to high intensity thunder and heavy rainfall. This resulted in an increase in CAPEX due to infrastructure degradation; loss of telephone, radio and internet services; service disruptions to domestic and emergency services as well as public services (e.g. traffic lights); and higher costs for the provision of telecommunications services. In another country, flooding of MTN facilities and base stations because of increase in rainfall and a surge in sea levels disrupted some operations. In the Middle East, abnormally high snow and ice covered some network sites significantly. Although affected sites remained operational, maintenance was challenging. In other areas of the region, significant flooding also affected the ability to access/ maintain some sites. The Group continually motivates all operations to identify and report on physical climate change related risks on a monthly basis through the carbon footprint reporting process and to ensure mitigation and business continuity plans through the Group's risk and compliance management processes. |
| Chronic physical | Relevant, always included | Longer term shifts in climate patterns affects MTN operations. For example, in instances where climate projections indicate increased temperatures, this will most likely increase our power consumption for cooling BTS and Switches. For example, in several African and Middle Eastern countries where we operate and where the general environment is mostly arid and hot, climate change is likely to intensify the severity and duration of hot days annually. This would likely result in increased energy consumption for cooling purposes. Shifts in precipitation will also affect operations in countries where national grids rely on hydro-electric dams for power provision, including in some central and south-eastern African countries where we operate e.g. as drought conditions experienced a few years ago in Zambia demonstrated. |

# C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

# C2.3a

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

### Identifier

Risk 1

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type & Primary climate-related risk driver

### Primary potential financial impact

Increased indirect (operating) costs

### Company-specific description

The South African National Treasury first introduced the idea of carbon tax in a discussion document in 2010. The design was proposed in 2013 followed by the publication of the Draft Bill late in 2015 which announced the expected start date to be in 2017. After numerous iterations and consultations, the Bill was finally signed into law by the President on the 22nd of May 2019 and has come into effect from 1 June 2019. The carbon tax will initially only apply to scope 1 emitters in the first phase. The first phase will be from 1 June 2019 to 31 December 2022, and the second phase from 2023 to 2030. While the initial tax rate is set at R120/ tonne of CO2-equivalent, the carbon tax law allows for various allowances, with taxpayers eligible for allowances for up to 95% of their emissions. National Treasury estimates that companies will effectively pay between R6 and R48 per tonne of CO2e.

This risk currently only affects MTN South Africa; however, MTN Zambia also reported increasing legislative activity with respect to carbon taxes. While MTN South Africa is one of the largest operations in the MTN Group, the financial impact of this tax is estimated to range between R290 000 and R600 000 per annum, which is not considered material to the Group.

### Time horizon

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

290,000

**Potential financial impact figure – maximum (currency)**

600,000

**Explanation of financial impact figure**

MTN South Africa could expect a carbon tax rate of around R120 per tCO2e which will result in a maximum liability of R590 000 (based on MTN South Africa's 2018 emissions). Scope 1 emissions associated with gas tri-generation plants at 14th Avenue, Doornfontein and Newlands (powered by liquid petroleum gas (LPG)) will be taxed. The tax-free thresholds would reduce the initial impact on MTN to an estimated minimum tax liability of R200 000. Although there has been an indication of a 5% Carbon Tax allowance should a company participate in the carbon budgets process, MTN has not been approached by DEA to submit any carbon budgets. However, through voluntary participation, MTN could potentially reduce the tax liability from R596 160 to R163 710.

**Cost of response to risk**

58,500,000

**Description of response and explanation of cost calculation**

The costs of managing this risk relate to costs associated with the implementation of energy efficiency initiatives (R58 300 000) and an external consultant that managed all carbon and energy related services in 2018 (R200 000). Following the successful implementation of the Gas-Waste Heat Capture-Cooling (tri-generation) plant at MTN's 14th Avenue campus in 2010, which was also registered for carbon credits on the UNFCCC Clean Development Mechanism (CDM); MTN South Africa has done two off-gas powered generators that power the Doornfontein & Newlands sites in 2015 & 2016 respectively. Implementation cost is estimated at R13.3 million (Doornfontein) & R40million (Newlands). Plans are in place to extend the energy capacity at 14th Avenue Campus to 7 MW. In 2014, MTN South Africa implemented a Linear Fresnel Concentrated Solar Power (CSP) technology programme at 14th Avenue campus at an estimated cost of R5 million, to provide an additional 330kW energy for cooling.

### Comment

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### Identifier

Risk 2

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type & Primary climate-related risk driver

### Primary potential financial impact

Increased indirect (operating) costs

### Company-specific description

The information below highlight regulatory risks, with a possible financial implication in the form of a penalty. On 3 April 2017, the Department of Environmental Affairs (DEA) introduced and gazetted the National GHG Emission Reporting Regulations, which required the immediate attention and action of companies. Companies needed to register all facilities where activities exceed the thresholds listed in Annexure 1 of the regulations by 3 May 2017. Companies also needed to submit GHG emissions and activity data for the preceding calendar year for all the facilities registered under these regulations by 31 March annually. The first round of reporting was due on 31 March 2018 for the 2017 year.

MTN undertook an assessment to understand whether the thresholds are exceeded and has since registered the affected facilities and submitted a report of MTN's relevant 2017, 2018 and 2019 GHG emissions to DEA in compliance with these regulations. We are also aware of the National Pollution Prevention (PPP) Regulations that were published and gazetted by DEA on the 21st of July 2017, and undertook an assessment of the implications of these regulations. We determined that the PPP regulations do not affect MTN or require any further action from the company. Failing to submit the report carries the risk of financial penalties, which MTN has avoided.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

10,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Our non-compliance to report under the national GHG emissions reporting regulations could result in penalties by the government amounting to a maximum of R5 million for the first conviction and a maximum of R10 million for second or subsequent conviction.

**Cost of response to risk**

2,000,000

### Description of response and explanation of cost calculation

MTN's energy and carbon management and reporting system and assessment process allows us to ensure the data is accurate and representative. In addition, MTN has identified and implemented alternative energy and energy efficiency initiatives to minimise energy consumption. Cumulative savings since 2014 are estimated to be 38 250MWh.

### Comment

The costs of managing this risk relates to the costs associated with an external consultant that manages all carbon and energy related services.

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### Identifier

Risk 3

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type & Primary climate-related risk driver

### Primary potential financial impact

Decreased access to capital

### Company-specific description

Carbon pricing uncertainty in the international carbon market is regarded as a regulatory climate change risk to MTN, but also poses potential financial opportunity as most countries in which we operate are classified as emerging countries, and some also hold Least Developed Country status. MTN South Africa is currently evaluating the value of trading verified certified emission reduction (CER) credits from some of its installations. However, the generation of UNFCCC Clean Development Mechanism (CDM) credits in MTN is not a priority given the status of international pricing, and the value of MTN's saved or avoided emissions in mitigating MTN South Africa's potential carbon taxes liability or leveraging other national tax benefits.

### Time horizon

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

43,286

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The financial implications of potentially not participating in these schemes is about R 43 286 per annum which are estimated costs that are incurred from not taking advantage of the CDM platform.

**Cost of response to risk**

22,000,000

**Description of response and explanation of cost calculation**

CAPEX for tri-generation test switch and data centre for MTN South Africa: R22 000 000 in 2010..

**Comment**

### Identifier

Risk 4

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type & Primary climate-related risk driver

### Primary potential financial impact

Increased direct costs

### Company-specific description

Extreme weather events such as floods and snow affect MTN operations. For example, in one of our Western Africa operations, a number of BTS sites and data centres were exposed to high intensity thunder and heavy rainfall. This resulted in an increase in CAPEX due to infrastructure degradation; loss of telephone, radio and internet services; service disruptions to domestic and emergency services as well as public services (e.g. traffic lights); and higher costs for the provision of telecommunications services. In another country, flooding of MTN facilities and base stations as a result of increase in rainfall and a surge in sea levels disrupted some operations. In the Middle East, abnormally high snow and ice covered some network sites significantly. Although affected sites remained operational, maintenance was challenging. In other areas of the region, significant flooding also affected the ability to access/ maintain some sites. The Group continually motivates all operations to identify and report on physical climate change related risks on a monthly basis through the carbon footprint reporting process and to ensure mitigation and business continuity plans through the Group's risk and compliance management processes.
Longer term shifts in climate patterns affects MTN operations. For example, in instances where climate projections indicate increased temperatures, this will most likely increase our power consumption for cooling BTS and Switches. For example, in a number of the African and Middle Eastern countries where we operate and where the general environment is mostly arid and hot, climate change is likely to intensify the severity and duration of hot days annually. This would likely result in increased energy consumption for cooling purposes. Shifts in precipitation will also affect operations in countries where national grids rely on hydro-electric dams for power provision, including in some central and south-eastern African countries where we operate e.g. as drought conditions experienced a few years ago in Zambia.

### Time horizon

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Flooding risks and the impact to equipment and service delivery requires flood management and control and backup for critical sites. .

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

Operating equipment, such as generators, have been raised above the flood level in some MTN countries/regions most at risk. In addition, future site planning has adopted the lessons learned about defending against floods.

**Comment**

MTN's infrastructure plan includes ensuring redundancy & backup. If a single base station site is unavailable, traffic is switched to an alternative site. If a few sites are unavailable, the situation is classified as an Incident. Catastrophic incidents will trigger business continuity processes. One of the main elements of network performance is the availability of power. We deploy a range of solutions to primary power sources, including battery back-ups and diesel generators. Our main element of availability is power, and we maintain autonomy via battery backup

solutions and direct power generation. If there is an issue related to transmission, we re-route network traffic where applicable. Network traffic may be routed to other operational sites. In rural areas or areas with low volumes of network traffic, sites may be non-operational from a few minutes to a few hours and worst case of unavailable for less than 24 hours. It is not possible to estimate the cost of this risk.

## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Primary potential financial impact**

Returns on investment in low-emission technology

### Company-specific description

There are several tax incentives, research and development incentives and government grants in the area of energy and climate change which MTN could take advantage of. These are mainly available in South Africa, but other MTN countries of operation review if similar regulatory incentives are available locally as well. South African incentives being explored by MTN include: 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. The 12L tax rebate is an incentive for increased energy efficiency, available in the form of an allowance/deduction allowed from taxable income based on demonstrable energy efficiency savings created through the implementation of energy efficiency measures. The tax incentive is available for savings in all energy forms and not only electricity. The rebate is equivalent to 95 cents per kilowatt hour or kilowatt hour equivalent of energy saved. In addition, because MTN South Africa can earn carbon credits from the CDM project there is the potential for tax related savings. MTN South Africa participated in the Private Sector Energy Efficiency (PSEE) programme and has reviewed its energy policy identifying further opportunities for energy efficiency investments, and assessing the financial penalties and incentives available from local regulatory authorities for energy efficiency investments. In addition, there are growing pressures within other regions to comply with environmental legislation.

### Time horizon

Medium-term

### Likelihood

About as likely as not

### Magnitude of impact

Low

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

6,000,000

### Potential financial impact figure – minimum (currency)

### Potential financial impact figure – maximum (currency)

### Explanation of financial impact figure

MTN is currently saving approximately 18 000 MWh of electricity per year in South Africa from energy efficiency and low carbon energy initiatives. Using a tax incentive rate of R0.95, these energy savings could have translated into MTN paying approximately R6 million less tax for FY18. This cost estimation has also assumed that all projects would have qualified, and all savings were generated in a single year which is not necessarily the case.

MTN is currently in the process of applying for a rebate and this could result in a potential saving for MTN annually, excluding the cost required for measurement and verification.

### Cost to realize opportunity

95,238

### Strategy to realize opportunity and explanation of cost calculation

Because energy consumption and the management thereof is 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 Africa and then look at opportunities to scale up to other MTN countries of operation. MTN South Africa is in the process of securing benefits for energy efficiency investments under Section 12L of the Income Tax Act. MTN proactively engages with regulators in the different operating countries which puts the company in a position to take advantage of any regulatory opportunities that may develop. For example, in Sudan, MTN is the only company within the telecommunications sector that is part of the Supreme Committee for Environmental Affairs.

### Comment

The costs of managing this risk relate to the costs associated with an external consultant that manages all carbon and energy related services. The cost associated with Monitoring & Verification by accredited assessors of 12L can be material, but we have not undertaken detailed costing assessment for this activity at the time of this report compilation.

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### Identifier

Opp2

### Where in the value chain does the opportunity occur?

Direct operations

### Opportunity type

Energy source

### Primary climate-related opportunity driver

Use of new technologies

### Primary potential financial impact

Other, please specify

Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon

### Company-specific description

Regulations are affecting the cost of energy for customers. According to the Global e-Sustainability Initiative (GeSI), ICT can enable solutions to 21st century challenges. The Internet of Things (IoT), including smart devices, Machine-to-Machine (M2M) and cloud-based solutions, enables a wide range of industries to connect networked devices that exchange information, perform actions and respond intelligently to the environments without direct human intervention. This transforms devices into intelligent assets offering a range of possibilities to improve business efficiency, performance, effectiveness, accuracy, and provide other economic benefits. Demand for ICT solutions offered by MTN that enable clients to reduce their energy consumption/ GHG emissions is likely to increase. This could include contributions to smart systems (smart grids, smart transport, smart logistics etc.) or 'smart working' (working remotely). For example, we offer include fleet management solutions in several countries, ensuring efficient use of assets and fuel for vehicles. In South Africa, we have trailed trialed smart refrigerator management solutions and low-power wide area networks and narrow band IoT technologies to facilitate the IoT solutions we offer in an energy-efficient manner.

Against the backdrop of energy poverty and the cost of accessing digital services in many of our operating countries, MTN has partnered with lease-to-own solar product manufacturers to offer affordable, environmentally responsible and safe solutions that enable people to keep their phones and other electronic devices charged and connected to digital services.
We first launched this solution in Uganda in 2014, and it is now available in five markets, with plans to launch in more countries in 2019. We

estimate that we have positively impacted around 2,3 million lives, from children who are able to study for longer hours at night to small businesses able to extend their trading hours and offer MTN Mobile Money services.
Over 1,9 million kilowatt hours of energy was produced in 2018 (assuming 1,5 charge cycles per day). We estimate savings of between US$0.15 and US$0.48 per day in energy costs for users, depending on the country in which they live. We replaced more than 10 million litres of kerosene with safe, clean and renewable energy.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The Group has not quantified the financial impact of this, due to the significant variances in this opportunity element across our 21 countries of operation. The Global System Mobile Association (GSMA) has forecasted that the Internet of Things (IoT). Globally, according to GSMA

Intelligence forecasts, it is estimated that by 2025 there will be 3.5 billion cellular IoT connections, including 1.9 billion licensed LPWA connections market will be worth $ 1,1 trillion by 2025.

### Cost to realize opportunity

### Strategy to realize opportunity and explanation of cost calculation

Internet of Things (IoT) market is estimated to grow to an installed base of 75.4 billion devices in 2025, and that by 2020 annual revenues could exceed $470 billion for the IoT vendors selling the hardware, software and comprehensive solutions. We launched our IoT platform in 2015. This enables us to offer services to a wide range of industries, connecting an otherwise fragmented population of devices and systems through an open platform that enables networked devices to exchange information and perform actions, responding intelligently to their environments without human intervention. Our Machine2Machine (M2M) solutions include enterprise mobility management platforms, fleet and private vehicle management and asset tracking, fuel and utilities management, and security solutions, among others. As an ICT operator, we are aware of the role we can fulfil in assisting our customers to reduce the number of physical materials and businesses. In 2018 our key focus area was to develop a clear vision for MTN's future participation in IoT and articulate a cohesive strategy to achieve this vision. Our key priorities were to implement a proof of concept solution, develop knowledge in predictive analytics, and show customers that we can realise IoT use cases and to translate these to their specific contexts. We also began to look for key partners to work with across the value chain and across various markets.

### Comment

Isolating the component of the investment in innovative products that relate specifically to climate change drivers is not feasible at this stage and therefore the cost of this opportunity is included our operating costs which we reported in our FY2018 Annual Financial Statements.

It's not possible to estimate the cost of this opportunity.

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### Identifier

Opp3

### Where in the value chain does the opportunity occur?

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of new technologies

**Primary potential financial impact**

Other, please specify

Reputational benefits resulting in increased demand for goods/services

**Company-specific description**

Technologies such as artificial intelligence and the Internet of Things (IoT) are changing industrial and economic ecosystems. As the digital economy evolves, these opportunities are also forcing new ways of thinking around how spaces, resources and assets are used efficiently. The ability to improve resource efficiency in a climate stressed world can be enabled using smart devices. MTN can develop innovative products using mobile wireless systems, sensors etc. that can provide customers with access to information that could reduce costs/ losses and contribute towards greater resilience in the face of changing climatic conditions. These could include up-to-date information on weather and access to the latest planting/growing/ harvesting information for farmers; early warning systems for communities; group communication platforms in times of disasters, resource monitoring programmes. We are actively developing new products and partners with value —add service providers to address the requirement for climate-centric ICT solutions. Our IoT solutions include enterprise mobility management platforms, vehicle management and asset tracking, fuel and utilities management, connectivity, and security solutions. MTN is particularly concerned about resources such as water, energy, food, biodiversity and wildlife, among others. We operate in emerging markets where the need to adapt to changing environmental conditions, coupled with the lowest levels of financial and other resources, is becoming increasingly evident. We are, therefore, well placed to offer products that support resilience in the face of these challenges, while representing commercial opportunities for us. In 2018, our key focus area was to develop a clear vision for MTN's future participation in IoT and articulate a cohesive strategy to achieve this vision. Our key priorities were to implement a proof of concept solution, develop knowledge in predictive analytics, and show customers that we can realise IoT use cases and to translate these to their specific contexts. We also began to look for key partners to work with across the value chain and across various markets. We implemented small-scale projects in several countries to address issues such as water, energy and livestock and wildlife management.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Unknown

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

6,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The Group has not quantified the financial impact of this, due to the significant variances in this opportunity element across our 21 countries of operation. In South Africa, it's forecasted that the IoT/M2M installed base will reach 35 million by 2020, showing a CAGR (compound annual growth rate) of 32% over the period from 2015 to 2020.

**Cost to realize opportunity**

**Strategy to realize opportunity and explanation of cost calculation**

MTN explored opportunities: agricultural solutions, animal tracking, anti-poaching initiatives & health solutions. Smartcam in Ghana combines a video camera and a security system in one, ensuring real-time alerts and live monitoring to mobiles devices. Vehicle tracking location solutions in Uganda and Cameroon in 2015. In 2016, fleet monitoring solutions in Uganda, Benin, Zambia and Ivory Coast, and plan to extend to

Botswana, Ghana, Namibia, Swaziland and Zambia in 2017. A smart water-metering proof of concept service in South Africa, enables automated gathering of utility meter data -customers monitor water consumption, improve consumption efficiency and identify water pipeline leakages. A smart energy metering solution in South Africa and Cameroon monitors energy consumption & potentially reduces indirect (GHG) emissions. In Nigeria, a solar-powered GPS-enabled solution defines geo-fenced areas for grazing - possible disease outbreaks can be contained & human conflicts reduced. In 2018 MTN South Africa developed a dam and tank level monitoring solution, and continued trialling wildlife tracking through geo-fencing of animals. In 2017, phase 1 of a smart city for waste management, green space irrigation and other services was launched in Iran; in 2018 a vehicle asset tracking was launched using GPS to control fleets remotely, ensure services such as dispatch management, driver behaviour, axle load, fuel consumption, temperature management, repair and project scheduling, and efficient fuel utilisation.

**Comment**

Isolating the component of the investment in innovative products that relate specifically to climate change drivers is not feasible at this stage and therefore the cost of this opportunity is included our operating costs which we reported in our FY2019 Annual Financial Statements.

It is not possible to estimate the cost of this opportunity.

# C3. Business Strategy

## C3.1

**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**

Yes

## C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?**

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

# C3.1c

### (C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?

While we do integrate climate change management issues into MTN's business strategy through our product development and innovation processes, and through our risk management processes, we do not apply climate-related scenarios in these processes. Given the lack of affordable, reliable and low-carbon energy access in our market, and the impact of climate change in Africa especially, we have developed several solutions that can help our communities mitigate impacts. These include prepaid solar powered energy solutions for domestic and Small, Medium and Micro-Enterprises (SMME) market use, energy & water metering and monitoring Internet of Things (IoT) solutions, solutions for wildlife and livestock tracking and others.

In terms of risk management, climate change is one of the Group's principle risks, due to the potential threat to continuity of operations because of political, environmental and macro-economic events.  We monitor this risk on an ongoing basis and report on a regular basis to risk and compliance functions, and to executive and board sub-committees.

Additionally, MTN Group monitors the energy use in its operations on a monthly basis and calculates its monthly greenhouse gas (GHG) emissions. MTN also works towards reducing emissions through implementing energy efficient initiatives and deploying renewable energy technologies. The responsibility for all climate change and sustainability initiatives and issues at MTN Group lies with the Group Regulatory and Corporate Services Officer. The Group Sustainability function compiles and monitors reports for monthly executive committee reports, monthly risk reports, quarterly Social and Ethics Committee presentations and annual sustainability and integrated reports. This includes climate change related issues which include energy consumption, climate risks and opportunities, as well as alternative energy and energy efficiency initiatives.

# C3.1d

### (C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

| | Have climate-related risks and opportunities influenced your strategy in this area? | Description of influence |
|---|---|---|
| Products and services | Yes | Opportunity 3: Digitisation can enable a transition to a low carbon economy. We are working to increase the roll out of infrastructure that will enable the uptake of IoT by industries and enterprises across our operations in Africa and the Middle East. The IoT enables machines and infrastructure to be monitored |

| | | |
|---|---|---|
| | | and operated remotely. This technology can radically transform both large and small enterprises in terms of efficiencies, distribution and even business models. IoT, including smart devices, machine to-machine (M2M) and cloud-based solutions enable a wide range of industries to connect networked devices that exchange information, perform actions and respond intelligently to their environments without direct human intervention. We are also piloting Narrow Band-IoT (NB-IoT) technologies, a new solution that extends the utilisation of IoT by making it more efficient to connect objects that require a long battery life and that are in areas where network signals may have difficulty penetrating. MTN, in partnership with a vendor management AI tool, embarked on a site optimisation platform proof of concept in 2019. The platform aims to reduce costs, ensure resilience and reduce MTN's carbon footprint. The vendor management platform first identifies built-in problems on each site upon installation. On a day-to-day basis the platform uses AI to optimise power usage of each tower site by monitoring the real-time status of site components including grid availability, battery life, solar availability and generator fuel levels.<br>Magnitude of opportunity: high |
| Supply chain and/or value chain | Yes | Opportunity 3: MTN suppliers are expected are to apply the precautionary principle in its use of natural resources, including energy. Suppliers shall implement and demonstrate sound measures to prevent pollution, reduce biodiversity impacts and minimise generation of solid waste, wastewater and air emissions. We have worked with various governmental, corporate and other organisations to raise awareness, facilitate collection and improve e-waste management practices among handlers, albeit on a very small scale. Our partnerships focus on improving the volumes of waste collected both within our own operations and from the public. We also try to ensure that e-waste is diverted to responsible handlers who either extract valuable components or dispose of it in accordance with standards such as ISO 14001:2015, ISO 18001 or SERI (Sustainable Electronics Recycling International) R2. Our e-waste management programme is still at a nascent stage. Initiatives including supplier take-back agreements or waste collection agreements. Just over 784 tonnes of e-waste was recycled in 2019.<br><br>Magnitude of opportunity: medium |
| Investment in R&D | Yes | Opportunity 3: Through our partnerships, we have explored opportunities which include our rapid rural roll-out programme (R3). R3 focuses on providing voice and data services to previously uncovered |

| | | |
|---|---|---|
| | | areas reaching the most vulnerable, marginalised and underserved members of society. Extending coverage in these areas supports social and economic transformation and represents shared value creation. In 2019, we accelerated our R3 programme with 497 solar powered sites in nine countries in partnership with various vendors. Through partnerships, MTN Irancell has launched a pilot project using Narrowband (NB IoT) technology to offer smart parking solutions in Mashhad city in order to overcome the shortage of parking. NB-IoT smart parking solutions use magnetic parking sensors to detect the availability of parking spaces and use the NB-IoT network to synchronise a parking lot's status with an application server. Drivers are then able to search for available parking bays through an application resulting in a significant saving of time and frustration for the driver while reducing traffic congestion and air pollution in the broader community.<br><br>Magnitude of opportunity: medium |
| Operations | Yes | Risk 2 – 4 & Opportunity 2: Our products and services include voice, data and digital services which we offer to retail customers, as well as corporate and public sector customers. Some of the risk and opportunities identified include market changes, reputation, as well as general physical risks. Physical risks such as increased flooding and increased temperatures could affect our core infrastructure such as base stations, which are critical to delivering our uninterrupted services. As a result, we had to make use of diesel generators during the high rainfall season. This will likely increase in the future. In some countries where we operate and where the main electricity supply is from hydro-powered grids, drought or changes that affected numerous countries has resulted in some increase in energy costs/ increased energy insecurity from grid source over the past few years. Opportunities such as the use of solar to power our sites in rural areas where grid electricity is not easily accessible though our R3 programme which provides voice and data services to previously uncovered areas.<br><br>Magnitude of opportunity: medium |

## C3.1e

**(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

| | Financial planning elements that have been influenced | Description of influence |
|---|---|---|
| Row 1 | Revenues<br>Direct costs<br>Capital expenditures<br>Capital allocation<br>Acquisitions and divestments<br>Access to capital<br>Assets<br>Liabilities | Revenues: Risk 5, Opportunity 2 and 3: The revenue from identified climate change risks and opportunities is not quantified separately from the total Group Revenue. Since our revenues are a product of our profits plus expenses, some of our climate related opportunities that we have taken advantage of may, in the medium to long term, prove to have a positive impact on our revenue. Some of the environmental and climate-related commercial solutions that we offer that generate revenue for MTN include vehicle and asset tracking, livestock and wildlife tracking and connected devices for water and energy management. These solutions are offered in several MTN countries including South Africa, Nigeria, Benin, Cameroon, Ghana, Iran and others. Revenue is also earned from prepaid solar-powered charging devices for homes, small businesses and entrepreneurs in several countries including Uganda, Zambia, Nigeria and Cote d'Ivoire.<br><br>Operating costs: Opportunity 2 & Risk 3, Risk 5: To reduce our greenhouse gas emissions, reduce operating costs, mitigate and adapt to the negative impacts of climate change on our physical, financial and regulatory risk profiles, we have continued to modernise our existing network, and ensure that our new infrastructure investments are energy-efficient and make use of alternative energy solutions to be more resilient. Between 2011 and 2019, these initiatives have been implemented in more than 21 500 sites (including MTN-owned sites and outsourced sites). For 2019, MTN installed 54 renewable energy sites.. Our diesel consumption was reduced by 6 126 kℓ, while we saved 12 483 MWh of electricity. In total, our overall emissions avoided due to diesel and electricity reductions were 28 889 tCO2e.<br><br>Capital expenditures/capital allocation: TOpportunity 3 & Risk 5: Some of our most critical infrastructure such as base stations, data centres, switches and hubs are susceptible to physical climate change risks. We have continued to modernise our existing network, ensured backup sites for business continuity, and ensured that our new infrastructure investments are energy-efficient and make use of alternative energy solutions wherever possible to be more resilient. In our capital expenditures, we encourage our operations to investigate alternative energy and energy efficiency solutions that would provide a good return on investment.<br><br>Acquisitions and divestments: Opportunity 3: Although climate change risks and opportunities associated with acquisitions and divestments may exists within our value chain, we have not formally factored these within our financial |

| | | |
|---|---|---|
| | | planning processes.<br><br>Access to capital: Risk 4: Although climate change risks and opportunities associated with access to capital may exist within our value chain, we have not formally factored these within our financial planning processes. We engage with tower management companies and equipment manufacturers and suppliers on ways of working together to enhance the efficiency of our sites and help us meet our objective of increasing the use of renewable and low-carbon energy.<br><br>Assets: Risk 5: Some of our most critical assets include infrastructure such as base stations, data centres, switches and hubs are susceptible to physical climate change risks. These include physical risks such as increased flooding and increased temperatures. As part of our value chain climate change risk assessment process being developed, our operations may be required to improve their maintenance budget and capital expenditure plans to ensure that critical infrastructure does not fail should climate related risks emanate.<br><br>Liabilities: Opportunity 3: Although climate change risks and opportunities associated with liabilities may exists within our value chain, we have not formally factored these within our financial planning processes. |

## C3.1f

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

Climate change related issues are partially integrated into MTN's business strategy, through the following elements:

- Monthly integrated risk identification and management processes, and assurance processes
- The Group's Eco-Responsibility focus area which supports the Group's strategic pillar of "creating stakeholder value"
- The Group's drive to manage the carbon impact of energy use https://www.mtn.com/investors/financial-reporting/integrated-reports/ (pages 51 – 61 of the Sustainability Report)
- Quarterly oversight of the Group Executive and Social and Ethics Committees

Our BRIGHT (Best customer experience; Returns and efficiency focus; Ignite commercial performance Growth through data and digital; Hearts and minds; Technology excellence) operational strategy set out in our Integrated Report (available at https://www.mtn.com/investors/financial-

reporting/integrated-reports/) clearly defines the areas on which we need to focus to build our business sustainably and create value across the six capitals including environmental capital. As MTN, we believe that everyone deserves the benefits of a modern connected life. Some of the constraints that hamper connectivity include distant locations and scattered areas of settlements, the lack of energy, road infrastructure and security in remote areas, the cost of civil engineering and radio and transmission equipment, and site maintenance access and costs. For example, in an effort to meet social needs while considering climate change impacts, we developed a Rural Roll-Out Programme. Rural areas have poor/ no grid electricity supply and therefore MTN has worked on rolling network sites powered by renewable energy. As a result, site deployment consisted of relatively smaller sites with a smaller carbon footprint. We partnered with Facebook on the Telecom Infra (TIP) Open Cellular Project and Rural Africa programme to explore the application of cost-effective network technologies from start-up vendors working to meet the connectivity and data coverage requirements of people in sparsely populated and low-income areas. Laboratory trials with partners on 2G and low capacity infrastructure to address some constraints have proved promising. Technologies appear to deliver that which is required by rural customers reliably and affordably. In 2019, MTN deployed over 1 300 rural sites across our footprint reaching over 6.9 million people, 200 of which made use of OpenRAN technology. We are not stopping there. We plan to deploy more than 5 000 sites in rural areas across our 21 operating countries which will bring 2G, 3G and 4G connectivity to previously unconnected areas. Digital inclusion is a fundamental aspect of our strategy, and we are working on ensuring coverage and connectivity through partnerships that help us realise this vision in a socially- and environmentally-responsible manner.

# C4. Targets and performance

## C4.1

### (C4.1) Did you have an emissions target that was active in the reporting year?

No target

## C4.1c

### (C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

| | Primary reason | Five-year forecast | Please explain |
|---|---|---|---|
| Row 1 | We are planning to introduce a | We expect to see the following changes in our emissions over the next 5 years: | There is a positive correlation between our ‘actual consumption’ and ‘cost’ targets and our emissions reductions. This has been |

| | | | |
|---|---|---|---|
| | target in the next two years | a) We expect the energy efficiency initiatives to reduce our emissions as we extract greater efficiencies from our infrastructure and facilities and on replacing inefficient and old products with more efficient solutions.<br>b) We intent to continue to invest in renewable energy sources. In 2019, MTN deployed over 1 300 rural sites and intend to deploy more than 5 000 additional sites.<br>c) We are finalising our energy strategy and setting to drive accelerated reduction in our GHG emission & energy consumption. Targets will be finalised in 2020 which will commence in 2021.<br>d) Project Zero has been launched in 2020 with the intention to leverage the latest technologies across energy management tools, new genset technologies, renewable power solutions, state of the art UPS, DC power units and energy as a service partners to achieve to the defined GHG reduction targets.<br>e) MTN is also working with network tower companies to put reduction<br>mechanisms in place to reducing Scope 3 emissions. In working with tower management companies, equipment manufacturers and suppliers we are exploring ways to enhance the efficiency of our sites by increasing the use of renewable and low-carbon energy sources. Approximately 5 000 of sites leased by MTN are powered by renewable energy and in 2019 renewable energy sites were increased by 9%. | the most appropriate internal lever in addressing this issue, ensuring improved sustainability-business integration by working with and enhancing existing KPIs wherever possible. This approach also works well with our internal practices of GHG emissions and has helped us to drive operational work towards further reductions. Emissions per Subscriber are used as proxy to measure our efficiency; however, it has not been adopted as a formal target.<br><br>Various factors at play:<br>- As an emerging market operator, we highly reliant on energy sources that are predominantly diesel and power from national grids in the markets in which we operate. We also co-generate and self-generate some power from gas, solar and hybrid solutions.<br>- As we continue to connect more people, our net energy use and GHG emissions are increasing either through our operations or those of our partners. At this stage, we cannot decouple our growth from increased environmental impact completely, but we are actively working on reducing the gap between business growth and fossil fuel based energy consumption.<br>- Nearly half of MTN's energy use and associated GHG emissions are Scope 3 emissions, which are not within our control as a result of leased services. MTN is also working with our various partners to put reduction mechanisms in place to reducing Scope 3 emissions. |

## C4.2

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

No other climate-related targets

## C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

## C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

| | Number of initiatives | Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *) |
|---|---|---|
| Under investigation | 0 | 0 |
| To be implemented* | 0 | 0 |
| Implementation commenced* | 0 | 0 |
| Implemented* | 3 | 28,889 |
| Not to be implemented | 0 | 0 |

## C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

### Initiative category & Initiative type

Energy efficiency in production processes

Fuel switch

### Estimated annual CO2e savings (metric tonnes CO2e)

578

### Scope(s)

Scope 1

### Voluntary/Mandatory

Voluntary

### Annual monetary savings (unit currency – as specified in C0.4)

1,761,314

### Investment required (unit currency – as specified in C0.4)

0

### Payback period

No payback

### Estimated lifetime of the initiative

Ongoing

### Comment

In Nigeria the introduction of independent power production (IPP) gas generating system first implemented in April 2018 at just one site to help reduce emissions and power generation costs. In 2019, this initiative was implemented at 2 more sites.The cost per kWh for gas (NGN 47/kWh) is less than that of the diesel (NGN 60.56/kWh) previously used at one of MTN's main switching sites.

MTN Nigeria purchases approximately 2 000 000 kWh from the IPP plant (monthly), displacing 500 000 litres of diesel previously used. It is estimated that gas plants of this nature have an average emissions factor of 0.55kgCO2e/kWh. GHG emissions from this electricity purchased

were therefore calculated to be approximately 9,174 tCO2e for the 8 months when the IPP plant was in operation in 2018.

The cost of implementation was borne by the IPP company and therefore no Payback period is applicable.

**Initiative category & Initiative type**

Low-carbon energy generation
Solar PV

**Estimated annual CO2e savings (metric tonnes CO2e)**

16,202

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

800,000

**Investment required (unit currency – as specified in C0.4)**

600,000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

In many countries where we operate in Africa and the Middle East, rural areas typically do not have sufficient networks because due to geographic location infrastructure constraints and other considerations required to implement a full-blown cell phone tower. A standard tower can cost up to about USD 1.4 to set up, meaning that a mobile operator will usually have to wait up to 10 years to see a return on investment. Rural sites can cost between USD 10,000 to USD 20,000 and can be installed to meet the specific requirements of the location, without introducing unnecessary features/ services and costs.

MTN and Huawei are introducing specialised, rapid-deployment smaller towers that run on solar energy rather than on diesel in rural areas. This will reduce operational costs and emissions and ensure connectivity. We estimate the following:

1. Annual diesel avoided (litres) = 14 760 litres (assumed per site)
2. Estimated financial savings (Local currency) = ZAR 800 000 (assumed per site)
3. Capital cost of project (Local currency) = ZAR 600 000 (assumed per site)

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**Initiative category & Initiative type**

Energy efficiency in production processes

Other, please specify

Lighting

**Estimated annual CO2e savings (metric tonnes CO2e)**

12,109

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

14,644,224

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

**Estimated lifetime of the initiative**

Ongoing

**Comment**

In South Africa, we have the temperature controller renewal project to ensure we reduce the energy consumption after hours when it is cooler by using cooler ambient ventilation to cool the BTS and not using AC (air conditioning).

# C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

| Method | Comment |
|---|---|
| Dedicated budget for energy efficiency | To reduce emissions, save operating costs, and mitigate the impact of climate change on physical, financial and regulatory risk profiles, MTN has continued to modernise the existing network, and to ensure that new infrastructure investments are energy-efficient and more resilient. |
| Lower return on investment (ROI) specification | As part of business case development, MTN determines the breakeven point and return on investment period. This applies to all projects, including energy and carbon reduction projects, which must meet internal return on investment criteria. |

# C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

# C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

### Level of aggregation

Company-wide

### Description of product/Group of products

According to industry projections on the 'Internet of Things' (IoT), it is expected that by 2020, 30 billion devices or connected things will be in use and interacting with the environment and providing actionable data or services. This development is one of the key opportunities shaping how MTN conducts business and contributes societal value. We are actively working on bundling our connectivity services with solutions that can reduce some of the daily problems faced in our African and Middle Eastern territories. As a result, we launched our IoT platform in 2015. This enables us to offer services to a wide range of industries, connecting an otherwise fragmented population of devices and systems through an open platform that enables networked devices to exchange information and perform actions, responding intelligently to their environments without human intervention. MTN’s Machine2Machine (M2M) solutions include enterprise mobility management platforms, fleet and private vehicle management and asset tracking, fuel and utilities management, and security solutions, among others. The solutions we offer include energy and water monitoring and management, prepaid solar energy solutions for homes and businesses to replace the use of diesel, kerosene and other sources of energy, vehicle fleet management solutions that enable a number of services including efficient use of fuel, livestock and wildlife tracking, and narrow-broadband and low-power technologies that power IoT solutions using less energy that traditional solutions. The installation of phase 1 of smart city solution for water and waste management has been completed and future phases for municipal environmental resources and commuting are currently being assessed. Smart Home and Smart Refrigerator solutions have also been assessed. More information is available in the Group’s 2018 and 2019 Sustainability Reports available on www.mtn.com

### Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Evaluating the carbon-reducing impacts of ICT

**% revenue from low carbon product(s) in the reporting year**

**Comment**

The % Revenue from low carbon products is not quantified separately from the total Group Revenue. MTN Group invests in the research and development of all its products which includes IoT products and services. This amount of R&D allocated specifically for IoT products and services is not available separately as this it forms part of the broader R&D budget for all products and services within the Group. The % Revenue from low carbon products is not quantified separately from the total Group Revenue.

# C5. Emissions methodology

## C5.1

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

**Base year start**

January 1, 2013

**Base year end**

December 31, 2013

**Base year emissions (metric tons CO2e)**

769,471

**Comment**

### Scope 2 (location-based)

**Base year start**

January 1, 2013

**Base year end**

December 31, 2013

**Base year emissions (metric tons CO2e)**

636,184

**Comment**

### Scope 2 (market-based)

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

## C5.2

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

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

# C6. Emissions data

## C6.1

### (C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

#### Reporting year

**Gross global Scope 1 emissions (metric tons CO2e)**

466,163

**Comment**

Our scope 1 emissions for FY19 include our operations across 19 countries.

## C6.2

### (C6.2) Describe your organization's approach to reporting Scope 2 emissions.

#### Row 1

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

**Comment**

The structure in South Africa does not allow for individual purchases from individual suppliers.

# C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

895,748

**Comment**

Our scope 2 emissions for FY19 include our operations across 19 countries.

# C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes

# C6.4a

**(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.**

**Source**

Scope 1, and 2 emissions from the following operating countries are not included: Syria, Mascom Botswana; Ethiopia; Dubai Head Office; Yemen.

**Relevance of Scope 1 emissions from this source**

Emissions are relevant but not yet calculated

### Relevance of location-based Scope 2 emissions from this source

Emissions are relevant but not yet calculated

### Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

### Explain why this source is excluded

•MTN Syria and MTN Yemen are excluded due to challenges associated with network management in the context of the broader macro-political situation.
•MTN Management Services in Dubai, UAE is excluded as the offices are on one floor in a leased premises and MTN does not offer telecommunication services directly in the UAE. This is a non-material impact on the overall footprint for MTN Group.
•Mascom Botswana has been excluded based on indirect ownership holding.

## C6.5

### (C6.5) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

### Purchased goods and services

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

919,437

### Emissions calculation methodology

Implementation of our strategy to outsource our base station or network sites to tower management companies is ongoing. This has contributed to the increase in our Scope 3 emissions. Given that we are now a lessee at these sites, our ability to control efforts to improve energy efficiency and reduce GHG emissions is limited. Our network sites have been outsourced in Cameroon, Ghana, Ivory Coast, Nigeria, Rwanda, Uganda and Zambia. We continue to account for energy consumption at these sites. As we report GHG emissions according to the operational control boundary, outsourcing results in a shift in the classification of emissions from Scope 1 to Scope 3 emissions. Given our reliance on these outsourced sites, we will regard these Scope 3 emissions as material over the medium to long term (while Scope 1 emissions will decline

materially). However, we are unable to get data in enough detail from our business partners to undertake assurance on this material contributor to our energy costs and emissions. Scope 3 GHG emissions from network sites managed by IHS Holdings in Cameroon, Ivory Coast, Nigeria, Rwanda and Zambia were previously calculated based on actual monthly diesel and electricity consumption data. Following the group's changes to its investment stake in the IHS Group in 2017, IHS is no longer able to supply actual data. In line with the GHG Protocol's principles of completeness of reporting, we have therefore developed an estimation methodology, based on the Protocol's average data approach, to account for these emissions. The method makes use of the average historical monthly energy consumption data and the historical average number of network sites per month to help MTN approximate the average energy consumption value per network site per month. This value is then multiplied by the number of network sites each month, to estimate the total monthly energy consumption for all network sites. This method ensures comparability of reported results in previous years, as recommended by the GHG Protocol. Going forward, this methodology will be reviewed and refined where possible as we work with our tower management partners and suppliers on the provision of actual data as required for disclosure of the group's Scope 3 emissions.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

7

### Please explain

As mentioned in the methodology calculation section, we are only able to obtain actual consumption data from one of the two infrastructure management partners that we work with. Going forward, the methodology provided will be reviewed and refined where possible as MTN works with our tower management partners and suppliers on the provision of actual data as required for disclosure of the group's Scope 3 emissions. In addition, our energy management strategy has been evolving alongside our changing infrastructure investment and management strategy. Leasing infrastructure is resulting in a gradual shift in the classification of our GHG emissions from Scope 1 (direct) to Scope 3 (indirect) emissions. Given our reliance on leased sites, we regard Scope 3 emissions as material over the medium to long term, while Scope 1 emissions may decline materially. These changes also inform our efforts on the types of facilities (network, non-network technical, buildings, etc.) we manage, how we reduce energy consumption and GHG emissions, and which facilities we select for internal and external assurance.

## Capital goods

### Evaluation status

Not relevant, explanation provided

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Fuel-and-energy-related activities (not included in Scope 1 or 2)

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Upstream transportation and distribution

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Waste generated in operations

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

13,089

### Emissions calculation methodology

Business travel includes both flights (local and international) for business purposes as well as kilometres travelled in hire cars. The methodology followed to estimate the emissions involv 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 categorised as being either long-(>1600km) or short-(<1600 km) haul flights. DEFRA default factors were used for all emission factors (0.11 kg CO2/km for short haul, and 0.12 kg CO2/km for long haul). Hire cars were categorised according to fuel type as well as by the engine capacity of the car. Petrol vehicles were categorised as either small (<1.4 litres), medium (>1.4 litres) or large (>2.0 litres).

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

MTN obtains all business travel data from a contracted Travel Agent.

Increase in Business travel emissions  in 2019 was due to a dramatic increase in the number of Business flights as compared to 2018. In 2019, there were a number of business related events that took place  offsite that required a number of delegates to travel. These were centered around advancing industry related matters, engaging with key stakeholders and building capacity & engagement of staff.

## Employee commuting

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Upstream leased assets

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Downstream transportation and distribution

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Processing of sold products

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Use of sold products

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## End of life treatment of sold products

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Downstream leased assets

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## Franchises

### Evaluation status

Relevant, not yet calculated

### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

### Investments

#### Evaluation status

#### Please explain

### Other (upstream)

#### Evaluation status

Not evaluated

#### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

### Other (downstream)

#### Evaluation status

Not evaluated

#### Please explain

This category, in accordance with WRI/GHG Protocol guidance, has been excluded due to lack of available data and the insignificant contribution of these emissions relative to the other categories.

## C6.7

### (C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

# C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

### Intensity figure

0.000009

### Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

1,361,911

### Metric denominator

unit total revenue

### Metric denominator: Unit total

151,460,000,000

### Scope 2 figure used

Location-based

### % change from previous year

2.75

### Direction of change

Decreased

### Reason for change

In 2019, Scope 1 + 2 emissions increased by 9,46% because of a 2% increase of network sites in 2019 and total revenue increased by 12,56% compared to 2018. This has resulted in an 2.75% decrease in emissions per unit revenue.

**Intensity figure**

0.005426

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

1,361,911

**Metric denominator**

Other, please specify

GHG intensity per subscriber

**Metric denominator: Unit total**

251,000,000

**Scope 2 figure used**

Location-based

**% change from previous year**

6.48

**Direction of change**

Decreased

**Reason for change**

Scope 1 and 2 emissions have increased by 9,64% because of the 2% increase of network sites in 2019. Our subscriber numbers have increased by 17,04% compared to the previous year.

# C7. Emissions breakdowns

## C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

## C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

| Greenhouse gas | Scope 1 emissions (metric tons of CO2e) | GWP Reference |
|---|---|---|
| CO2 | 438,199 | IPCC Third Assessment Report (TAR - 100 year) |
| CH4 | 463 | IPCC Third Assessment Report (TAR - 100 year) |
| N2O | 1,348 | IPCC Third Assessment Report (TAR - 100 year) |
| HFCs | 144 | IPCC Third Assessment Report (TAR - 100 year) |
| Other, please specify R22 | 21,501 | IPCC Third Assessment Report (TAR - 100 year) |
| Other, please specify R502 | 257 | IPCC Third Assessment Report (TAR - 100 year) |
| Other, please specify R407C | 0 | IPCC Third Assessment Report (TAR - 100 year) |
| Other, please specify R410 | 4,251 | IPCC Third Assessment Report (TAR - 100 year) |
| Other, please specify R471b | 0 | IPCC Third Assessment Report (TAR - 100 year) |

# C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

| Country/Region | Scope 1 emissions (metric tons CO2e) |
|---|---|
| Afghanistan | 47,441 |
| Benin | 9,774 |
| Cameroon | 6,536 |
| Congo | 18,662 |
| Côte d'Ivoire | 2,355 |
| Ghana | 7,837 |
| Guinea-Bissau | 3,313 |
| Guinea | 18,795 |
| Iran (Islamic Republic of) | 3,751 |
| Kenya | 109 |
| Liberia | 23,271 |
| Namibia | 2 |
| Nigeria | 45,075 |
| Rwanda | 1,507 |
| South Africa | 20,829 |
| South Sudan | 11,178 |
| Sudan | 238,898 |
| Eswatini | 396 |
| Uganda | 4,238 |

| | |
|---|---|
| Zambia | 2,199 |

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By activity

## C7.3c

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

| Activity | Scope 1 emissions (metric tons CO2e) |
|---|---|
| Mobile combustion | 20,235 |
| Stationary combustion (Diesel) | 417,199 |
| Stationary combustion (LPG) | 0 |
| Stationary combustion (natural gas) | 2,576 |
| Refrigerant Use | 26,153 |

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

| Country/Region | Scope 2, location-based (metric tons CO2e) | Scope 2, market-based (metric tons CO2e) | Purchased and consumed electricity, heat, steam or cooling (MWh) | Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh) |
|---|---|---|---|---|
| Afghanistan | 11,663 | | 17,736 | |
| Benin | 17,395 | | 25,731 | |
| Cameroon | 4,181 | | 16,990 | |

| | | | | |
|---|---|---|---|---|
| Congo | 1,545 | | 6,392 | |
| Côte d'Ivoire | 5,706 | | 14,099 | |
| Ghana | 5,696 | | 28,468 | |
| Guinea-Bissau | 946 | | 2,549 | |
| Guinea | 2,513 | | 6,773 | |
| Iran (Islamic Republic of) | 184,473 | | 530,263 | |
| Kenya | 145 | | 769 | |
| Liberia | 499 | | 1,138 | |
| Namibia | 2 | | 30 | |
| Nigeria | 45,025 | | 111,841 | |
| Rwanda | 2,211 | | 5,957 | |
| South Africa | 577,248 | | 595,101 | |
| South Sudan | 13 | | 15 | |
| Sudan | 22,870 | | 54,338 | |
| Eswatini | 4,013 | | 10,809 | |
| Uganda | 8,673 | | 19,021 | |
| Zambia | 930 | | 17,562 | |

# C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By facility

# C7.6b

**(C7.6b) Break down your total gross global Scope 2 emissions by business facility.**

| Facility | Scope 2, location-based (metric tons CO2e) | Scope 2, market-based (metric tons CO2e) |
|---|---|---|
| BTS Sites | 598,088 | |
| Offices (Head Regional & Technical) & warehouses | 45,085 | |
| Data Call and Service Centres and Switches | 252,575 | |

# C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

# C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

| | Change in emissions (metric tons CO2e) | Direction of change | Emissions value (percentage) | Please explain calculation |
|---|---|---|---|---|
| Change in renewable energy consumption | | | | |

| | | | | |
|---|---|---|---|---|
| Other emissions reduction activities | 28,889 | Decreased | 2.32 | Emission reduction initiatives implemented during 2019 resulted in a saving of 28 889 tCO2e, equivalent to 2.32% of MTN's 2018 combined Scope 1 and 2 emissions. For 2019, we have seen the following results: 11 sites powered by Solar PV, 3 fuel switch data centres from diesel to natural gas and installation of temperature controllers to reduced cooling energy. Our diesel consumption was reduced by 6 126 kℓ, while we saved 12 483 MWh of electricity. Emission reduction initiatives implemented during 2019 resulted in a saving of 28 889 tCO2e, equivalent to 2,32% of MTN's 2018 combined Scope 1 and 2 emissions. |
| Divestment | 26,174 | Increased | 2.1 | As a result of the outsourcing of BTS sites to TowerCos in Ghana, Uganda, Cameroon, Cote d'Ivoire, Nigeria, Rwanda and Zambia, a total 26 174 tCO2e continue to shift from MTN's Scope 1 + 2 emissions to Scope 3 emissions. There has also been a general growth in Scope 3 emissions (outside transfer of BTS sites) due to an increase in network from 880 174 tCO2e in 2018 to 906 348 tCO2e in 2019. Scope 3 greenhouse gas (GHG) emissions from network sites managed by IHS Holdings in Cameroon, Ivory Coast, Nigeria, Rwanda and Zambia were previously calculated based on actual monthly diesel and electricity consumption data. Following the group's changes to its investment stake in the IHS Group in 2017, IHS is no longer able to supply actual data. In line with the GHG Protocol's principles of completeness of reporting, we have therefore developed an estimation methodology, based on the Protocol's average data approach, to account for these emissions. The method makes use of the average historical monthly energy consumption data and the historical average number of network sites per month to help MTN approximate the average energy consumption value per network site per month. This value is then multiplied by the number of network sites each month, to estimate the total monthly energy consumption for all network sites. This method ensures comparability of reported results in previous years, as recommended by the GHG Protocol. Going forward, this methodology will be reviewed and refined where possible as MTN works with our tower management partners and suppliers on the provision of actual data as required for disclosure of the group's Scope 3 emissions. |

| | | | | |
|---|---|---|---|---|
| Acquisitions | | | | No purchases of company/subsidiary/facility in the reporting year and thus no emissions changes occurred as a result. |
| Mergers | | | | No business mergers in the reporting year and thus no emissions changes occurred as a result. |
| Change in output | 118,745 | Increased | 9.54 | In 2019, MTN's total, Scope 1 and 2 emissions increased by 9,46% to 1 361 911 tCO2e (FY18 : 1 244 186 tCO2e). The change in emissions as a result of emission reduction initiatives (minus 28 889tCO2e), and divestment of BTS sites is 26 174 tCO2e, which has led to overall emissions increasing. The change in emissions as a result of the change in boundary (increasing emissions) is 1 696 tCO2e and a further 117 745 tCO2e increase due additional installations of 3G, 4G and LTE technologies. This brings the total of changes in emissions to 117 725 tCO2e or 9,46% of MTN's 2018 Scope 1 +2 emissions. |
| Change in methodology | | | | |
| Change in boundary | 1,696 | Increased | 0.14 | Scope 1 and 2 emissions from MTN Yemen emissions were excluded. As we have continued to improve our carbon accounting systems, Scope 1 and 2 emissions for our South Sudan operations have been included. |
| Change in physical operating conditions | | | | |
| Unidentified | | | | |
| Other | | | | |

# C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

# C8. Energy

## C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

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

## C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

| | Indicate whether your organization undertook this energy-related activity in the reporting year |
|---|---|
| Consumption of fuel (excluding feedstocks) | Yes |
| Consumption of purchased or acquired electricity | Yes |
| Consumption of purchased or acquired heat | No |
| Consumption of purchased or acquired steam | No |
| Consumption of purchased or acquired cooling | No |
| Generation of electricity, heat, steam, or cooling | Yes |

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

| | Heating value | MWh from renewable sources | MWh from non-renewable sources | Total (renewable and non-renewable) MWh |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Consumption of fuel (excluding feedstock) | LHV (lower heating value) | | 4,587,526 | 4,587,526 |
| Consumption of purchased or acquired electricity | | | 1,748,224 | 1,748,224 |
| Consumption of self-generated non-fuel renewable energy | | | | |
| Total energy consumption | | | 6,335,750 | 6,335,750 |

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

| | Indicate whether your organization undertakes this fuel application |
|---|---|
| Consumption of fuel for the generation of electricity | Yes |
| Consumption of fuel for the generation of heat | No |
| Consumption of fuel for the generation of steam | No |
| Consumption of fuel for the generation of cooling | No |
| Consumption of fuel for co-generation or tri-generation | Yes |

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

4,532,086

**MWh fuel consumed for self-generation of electricity**

4,493,648

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Emission factor**

74.1

**Unit**

kg CO2 per MWh

**Emissions factor source**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

**Comment**

Mobile Combustion

---

**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

39,012

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-cogeneration or self-trigeneration**

**Emission factor**

69.3

**Unit**

kg CO2 per GJ

**Emissions factor source**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

**Comment**

---

**Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Emission factor**

63.1

**Unit**

metric tons CO2 per GJ

**Emissions factor source**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

**Comment**

Stationery combustion

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

16,429

**MWh fuel consumed for self-generation of electricity**

15,302

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

1,126

**Emission factor**

56.1

**Unit**

metric tons CO2 per GJ

**Emissions factor source**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

**Comment**

## C8.2d

**(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

| | Total Gross generation (MWh) | Generation that is consumed by the organization (MWh) | Gross generation from renewable sources (MWh) | Generation from renewable sources that is consumed by the organization (MWh) |
|---|---|---|---|---|
| Electricity | 4,510,076 | 4,510,076 | 0 | 0 |
| Heat | 0 | 0 | 0 | 0 |
| Steam | 0 | 0 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| Cooling | 0 | 0 | 0 | 0 |

# C9. Additional metrics

## C9.1

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**Description**

Energy usage

**Metric value**

22,808,701

**Metric numerator**

Energy consumption (GJ)

**Metric denominator (intensity metric only)**

N/A

**% change from previous year**

17

**Direction of change**

Increased

**Please explain**

The energy consumption at MTN operating countries has increased by 17% to 22 808 701 GJ ( FY2018 : to 19 544 846 GJ). The increase in energy consumption is due to a 2% increase in the number of sites dependent on petrol and electricity. LPG decreased by 399 GJ while diesel consumption increased from 13 257 547 GJ in 2018 to 16 315 508 GJ in 2019.

# C10. Verification

## C10.1

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

| | Verification/assurance status |
|---|---|
| Scope 1 | No third-party verification or assurance |
| Scope 2 (location-based or market-based) | No third-party verification or assurance |
| Scope 3 | No third-party verification or assurance |

## C10.2

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, we do not verify any other climate-related information reported in our CDP disclosure

# C11. Carbon pricing

## C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

# C11.1a

**(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

South Africa carbon tax

# C11.1c

**(C11.1c) Complete the following table for each of the tax systems you are regulated by.**

## South Africa carbon tax

**Period start date**

January 1, 2019

**Period end date**

December 31, 2019

**% of total Scope 1 emissions covered by tax**

4.46

**Total cost of tax paid**

380,682

**Comment**

% = South African Scope 1 emissions = 20 829 (tCO2e) / MTN Scope 1 total emissions = 466 163 (tCO2e)

Only South Africa pays this carbon tax, not the other countries.

# C11.1d

**(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?**

The South African National Treasury first introduced the idea of carbon tax in a discussion document in 2010. The design was proposed in 2013 followed by the publication of the Draft Bill late in 2015 which announced the expected start date to be in 2017. After numerous iterations and consultations the Bill was finally signed into law by the President on the 22nd of May 2019 and has come into effect from 1 June 2019. The carbon tax will initially only apply to scope 1 emitters in the first phase. The first phase will be from 1 June 2019 to 31 December 2022, and the second phase from 2023 to 2030. While the initial tax rate is set at R120/ tonne of CO2-equivalent, the carbon tax law allows for various allowances, with taxpayers eligible for allowances for up to 95% of their emissions. National Treasury estimates that companies will effectively pay between R6 and R48 per tonne of CO2e.

This risk currently only affects MTN South Africa; however MTN Zambia also reported increasing legislative activity with respect to carbon taxes. While MTN South Africa is one of the largest operations in the MTN Group, the financial impact of this tax is estimated to range between R290 000 and R600 000 per annum.

## C11.2

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

**(C11.3) Does your organization use an internal price on carbon?**

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

# C12. Engagement

## C12.1

**(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

# C12.1a

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Engagement & incentivization (changing supplier behavior)

**Details of engagement**

Run an engagement campaign to educate suppliers about climate change

**% of suppliers by number**

11.35

**% total procurement spend (direct and indirect)**

**% of supplier-related Scope 3 emissions as reported in C6.5**

0

**Rationale for the coverage of your engagement**

Network suppliers and technical equipment suppliers.
MTN's suppliers are broadly categorised into three main areas: commercial and indirect (e.g. logistics, business consulting, device suppliers, etc), information technology (e.g. infrastructure and systems), and networks (e.g. core and transmission solutions, etc). We have approximately 160 group suppliers, with agreements to cover requirements for multiple locations across MTN's footprint. Our local operations also contract local suppliers who offer products and services usually required for specific markets. In total, we have approximately 13 000 suppliers. MTN's suppliers are located globally. Key network suppliers are in Europe and China, while our local supplier base is spread across Africa and the Middle East Sector-specific characteristics include the fact that automation remains low and the use of labour therefore remains key to the

operations of the supply chain, and that the telecommunications supply chain is subject to stringent custom regulations on imported items.

### Impact of engagement, including measures of success

The impact of this engagement and its measure of success is medium as due to the lack of provision of actual data, MTN has developed an estimation methodology. MTN has noticed that due to the engagement there is increased awareness of provision of efficient energy sources/ renewable energy technologies. This in turn has led to more partnerships working on the deployment of solar sites/ technologies (an example is the rural roll-out programme that was mentioned in C3.1c.
This does not include TowerCos (i.e. ATC/ IHS) but rather network supplier such as ZTE, Huawei, Ericsson etc.

### Comment

The % of suppliers by number and % of total procurement spend difficult to quantify due to the significant variances across our 21 countries of operation.
Scope 3 GHG emissions from network sites managed by IHS Holdings in Cameroon, Ivory Coast, Nigeria, Rwanda and Zambia were previously calculated based on actual monthly diesel and electricity consumption data.

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### Type of engagement

Innovation & collaboration (changing markets)

### Details of engagement

Other, please specify

faster deployment with a smaller environmental footprint

### % of suppliers by number

9.25

### % total procurement spend (direct and indirect)

### % of supplier-related Scope 3 emissions as reported in C6.5

0

### Rationale for the coverage of your engagement

Network suppliers and technical equipment suppliers.

MTN's suppliers are broadly categorised into three main areas: commercial and indirect (e.g. logistics, business consulting, device suppliers, etc), information technology (e.g. infrastructure and systems), and networks (e.g. core and transmission solutions, etc). We have approximately 160 group suppliers, with agreements to cover requirements for multiple locations across MTN's footprint. Our local operations also contract local suppliers who offer products and services usually required for specific markets. In total, we have approximately 13 000 suppliers. MTN's suppliers are located globally. Key network suppliers are in Europe and China, while our local supplier base is spread across Africa and the Middle East Sector-specific characteristics include the fact that automation remains low and the use of labour therefore remains key to the operations of the supply chain, and that the telecommunications supply chain is subject to stringent custom regulations on imported items.

### Impact of engagement, including measures of success

The impact of this engagement and its measure of success is medium as due to the lack of provision of actual data, MTN has developed an estimation methodology. MTN has noticed that due to the engagement there is increased awareness of provision of efficient energy sources/ renewable energy technologies. This in turn has led to more partnerships working on the deployment of solar sites/ technologies (an example is the rural roll-out programme that was mentioned in C3.1c.

This does not include TowerCos (i.e. ATC/ IHS) but rather network supplier such as ZTE, Huawei, Ericsson etc.

### Comment

The % of suppliers by number and % of total procurement spend difficult to quantify due to the significant variances across our 21 countries of operation.

Scope 3 GHG emissions from network sites managed by IHS Holdings in Cameroon, Ivory Coast, Nigeria, Rwanda and Zambia were previously calculated based on actual monthly diesel and electricity consumption data.

## C12.1b

### (C12.1b) Give details of your climate-related engagement strategy with your customers.

### Type of engagement

Education/information sharing

### Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

### % of customers by number

### % of customer - related Scope 3 emissions as reported in C6.5

### Please explain the rationale for selecting this group of customers and scope of engagement

We engage with customers through the review of our annual sustainability report, communications with media organisations, ESG and SRI investors and analysts, information from third party questionnaires and assessments of our publicly reported performance by university organisations and other third parties not commissioned by MTN and our own internal review and research processes including industry, peer and global developments, and our risk and audit management processes. We also encourage our customers in the retail, corporate and public services to become more aware of their environmental impact increases realisable savings. Some operations also engage with our customers on environmental management and what MTN is doing in this regard.

Additionally, we engage with our enterprise customers - we: engage with them on what their issues are a from a climate/environmental perspective in order to offer IoT solutions that can help them mitigate or reduce their environmental impact or potential losses, and use resources more efficiently as explained in previous sections on MTN's IoT product lines and opportunities.

### Impact of engagement, including measures of success

Our solutions and engagement help communities' access advice and assistance on health, education, energy, agriculture and many more vital services. In Rwanda, MTN customers can use their mobile phones to place orders for life-saving medicines to be delivered in remote areas using drones. Digital solutions also assist communities to mitigate and adapt to environmental impacts. For example, in Nigeria, we work with cattle owners and veterinarians to track the movements of livestock, enabling identification and validation of ownership, as well as disease control, and support for international beef exports. In South Africa, where water scarcity is a reality, we are trialing low-power solutions that will

help industries control water flows and identify leakages.
Solar energy for digital and financial inclusion: MTN has partnered with lease-to-own solar product manufacturers to offer affordable, environmentally responsible and safe solutions that enable people to keep their phones and other electronic devices charged and connected to digital ,services and enjoy access to mobile financial services including remittances and bill payments. Over 1,9 million kilowatt hours of energy was produced in 2018 (assuming 1,5 charge cycles per day). We estimate savings of between US$0.15 and US$0.48 per day in energy costs for users, depending on the country in which they live. We replaced more than 10 million litres of kerosene with safe, clean and renewable energy.

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**Type of engagement**

Collaboration & innovation

**Details of engagement**

Other, please specify

- Education/information sharing ● Collaboration & innovation

**% of customers by number**

**% of customer - related Scope 3 emissions as reported in C6.5**

**Please explain the rationale for selecting this group of customers and scope of engagement**

We engage with customers through the review of our annual sustainability report, communications with media organisations, ESG and SRI investors and analysts, information from third party questionnaires and assessments of our publicly reported performance by university organisations and other third parties not commissioned by MTN and our own internal review and research processes including industry, peer and global developments, and our risk and audit management processes. We also encourage our customers in the retail, corporate and public services to become more aware of their environmental impact increases realisable savings. Some operations also engage with our customers on environmental management and what MTN is doing in this regard.

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## C12.1d

### (C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Given our reliance on leased sites, we regard Scope 3 emissions as material over the medium to long term, while Scope 1 emissions may decline materially. We engage directly with infrastructure owners/asset managers, tower management companies, managed service providers and own equipment manufacturers on ensuring energy-efficient operations and we seek their support for investment/ provision of services powered by renewable energy where possible. We request our tower management providers to provide information on energy costs and consumption of the assets we lease or use and to share information on their energy reduction initiatives or activities and climate change risks and mitigation efforts. Engagement through data collection and quality checks are conducted on a monthly/ quarterly basis.

The energy consumption and spend data provided by our infrastructure asset managers in Ghana and Uganda assist us with completing our carbon footprint assessment, more especially our Scope 3 emissions, and supports our requirement for business partners to invest in efficiencies and renewable energy solutions that can mitigate climate change impacts.

Scope 3 GHG emissions from network sites managed by IHS Holdings in Cameroon, Ivory Coast, Nigeria, Rwanda and Zambia were previously calculated based on actual monthly diesel and electricity consumption data. Following MTN Group's changes to its investment stake in the IHS Group in 2017, IHS is no longer able to supply actual data. In line with the GHG Protocol's principles of completeness of reporting, we have therefore developed an estimation methodology, based on the Protocol's average data approach, to account for these emissions. The method makes use of the average historical monthly energy consumption data and the historical average number of network sites per month to help MTN approximate the average energy consumption value per network site per month. This value is then multiplied by the number of network sites each month, to estimate the total monthly energy consumption for all network sites. This method ensures comparability of reported results in previous years, as recommended by the GHG Protocol. Going forward, this methodology may be reviewed and refined where possible as MTN works with our tower management partners and suppliers on the provision of actual data as required for disclosure of the group's Scope 3 emissions.

## C12.3

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Trade associations

## C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

### Trade association

Global System Mobile Association (GSMA)

### Is your position on climate change consistent with theirs?

Consistent

### Please explain the trade association's position

Managing the efficiency of our networks remains an ongoing operational activity.
Governments, industry and the wider public broadly accept the need to reduce greenhouse gas emissions to limit global warming and climate change. To this end, mobile network operators have been improving the energy efficiency of their network infrastructure and frequently turning to renewable energy sources such as solar, wind and hybrid power systems to power off-grid, rural base stations.
The larger perspective, however, is the enabling role of mobile technologies in reducing energy consumption and carbon emissions in other sectors such as buildings and transport. The GSMA estimates that by 2020, mobile technologies could reduce carbon emissions in other sectors by about five times the mobile industry's own footprint, the equivalent of taking one in three cars off the road. As machine-to-machine (M2M) technologies proliferate, carbon emissions are expected to reduce even further. By raising awareness of the environmental advantages of mobile solutions, as well as the economic advantages, the mobile sector can become an increasingly powerful tool in tackling the impacts of climate change.
GSMA  promotes the role of ICT in reducing the carbon emissions and environmental impact of other sectors using mobile technologies.

### How have you influenced, or are you attempting to influence their position?

MTN is a member of the GSMA, in addition our Group President and CEO sits on the GSMA Board and our Group Chief Technology and Information Officer is a part of the GSMA Climate Taskforce. The GSMA represents the interests of mobile operators worldwide. The GSMA also produces industry-leading events such as the Mobile World Congress, Mobile World Congress Shanghai and Mobile 360 Series conference and engages with regulatory authorities, the non-industry partners and other organisations all working to enhance access to digital communications.  MTN has joined the Climate Taskforce and also the GSMA-led industry-wide plan to achieve net-zero greenhouse gas emissions by 2050 in line with the Paris Agreement. We are in the process of finilising defined targets and Roadmap that will commence in 2021.  As part of the GSMA initiative, MTN, and other participating operators, will be partnering with the international community, climate experts and third-party organisations to advance industry progress, establish best practices, and support disclosure and target setting as part of

the Climate Taskforce. MTN continues to support the work of GSMA through the Climate Taskforce and a number of programmes, including on rural network rollout (where rural sites are powered by solar solutions). GSMA has also awarded MTN funding for trialing prepaid solar energy solutions for domestic and small-emerging enterprises, which has ultimately led to such solutions available in five MTN countries of operation (with plans for further rollout).

## C12.3f

### (C12.3f) 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?

MTN Group's Regulatory and Corporate Affairs including the  Sustainability team is responsible for coordinating and managing all direct and indirect activities that influence policy on climate change, and works closely with the Technology team on matters related to energy use. The team takes the responsibility of coordinating engagement activities around climate change across business units and geographies to ensure that we have a common approach that is consistent with MTN's sustainability (including climate change) imperatives. The Group's Base Station and Networks Toolkit also sets out more environmental matters for consideration in network infrastructure implementation.

Across MTN operations there is an increase in awareness of the need for integration of energy, climate and other environmental matters in business planning and implementation among the Networks and Technology and Facilities teams in all operations run by energy and carbon champions. Each MTN country of operation maintains their own energy management strategy or practice, in line with the business performance and operational efficiency management requirements. This approach enables each operation to actively manage and monitor its energy use mix, costs, configuration of efficiency and reduction solutions, and other requirements within local operating and environmental contexts. The energy costs, consumption, risks and carbon intensity in terms of the Carbon Disclosure Project are monitored by many of the 44 trained energy and carbon champions across our operations. These champions are mostly positioned in technical functions, and are supported by finance, facilities, business risk management and corporate services team members.

The Group also continues to conduct operations on outsourced network sites in Ghana, Uganda, Cameroon, Côte d'Ivoire, Nigeria, Rwanda and Zambia. Our strategy to outsource our network also incorporates our responsibility to work with our partners and suppliers to reduce their Scope 1 and 2 emissions (which are MTN's Scope 3 emissions), and ensure that the tower management companies support MTN's energy and climate management objectives. We undertake this through ongoing engagement with our tower management partners, encouraging site managers to reduce their impacts. The tower management partners supply monthly - quarterly carbon tracking reports to MTN. These reports are consolidated for analysis

by the Group, and performance is presented in sustainability reports to the risk and compliance function, Executive and Group social and ethics committee, which oversees the Group's sustainability performance. Operations receive detailed feedback of performance results to implement required improvements and review opportunities on projects undertaken by other operations. As a result, we have seen an increase in the tower managing partners' investments in energy efficiency and low-carbon solutions. We receive excellent support from our partners and are pleased to report that some of our partners have implemented their own efficiency and reduction strategies.

Monthly and quarterly reports are submitted by most of MTN's operations, excluding Botswana (excluded on the basis of indirect ownership holding), Yemen, and Syria (excluded due to energy and greenhouse gas data collection challenges associated with network management in the context of the broader macro-political situation) and Dubai (excluded due to MTN Group head office facilities).

The Group's Social and Ethics position statement incorporates our position with respect to our environmental responsibilities, and sets this out in terms of responsible business commitments and activities by our business partners and suppliers. This is available at: https://www.mtn.com/sustainability/sustainable-societies/ethics/responsibility-for-ethics/

## C12.4

**(C12.4) Have you published information about your organization'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

In voluntary sustainability report

### Status

Complete

### Attach the document

MTN-Sustainability-report.pdf

### Page/Section reference

Pages: 2 -10, 53-60

### Content elements

Governance
Strategy
Risks & opportunities
Emissions figures

### Comment

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### Publication

In mainstream reports

### Status

Complete

### Attach the document

MTN-Integrated-report-Interactive.pdf

### Page/Section reference

Pages: 15-16;46-47,60-63

### Content elements

Governance
Strategy
Risks & opportunities
Emissions figures

**Comment**

Integrated Report 2019

# C15. Signoff

## C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

## C15.1

**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

| | Job title | Corresponding job category |
|---|---|---|
| Row 1 | GM: Sustainability and Shared Value | Other, please specify<br>Sustainability and Shared Value |

# SC. Supply chain module

## SC0.0

**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

## SC0.1

**(SC0.1) What is your company's annual revenue for the stated reporting period?**

| | Annual Revenue |
|---|---|
| Row 1 | |

## SC0.2

**(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?**

## SC1.1

**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

## SC1.2

**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

## SC1.3

**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

| Allocation challenges | Please explain what would help you overcome these challenges |
|---|---|

## SC1.4

**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

## SC2.1

**(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.**

## SC2.2

**(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?**

## SC3.1

**(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?**

## SC3.2

**(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?**

## SC4.1

**(SC4.1) Are you providing product level data for your organization's goods or services?**

# Submit your response

### In which language are you submitting your response?

English

### Please confirm how your response should be handled by CDP

| | I am submitting to | Public or Non-Public Submission |
|---|---|---|
| I am submitting my response | Investors | Public |

### Please state the main reason why you are declining to respond to your Customers

Prefer to work directly with customer, not through a third party

### Please confirm below

I have read and accept the applicable Terms