Welcome to your CDP Climate Change Questionnaire 2022

C0. Introduction

C0.1

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

Vodacom Group Limited (Vodacom) is a leading and purpose-driven African connectivity, digital and fintech operator. Our purpose is to "connect for a better future" enabling an inclusive and sustainable digital society. Our expertise and scale give us a unique opportunity to drive positive change for society. Our networks keep family, friends, businesses and governments connected and – as COVID-19 has clearly demonstrated – we play a vital role in keeping economies running and in the functioning of critical sectors such as education and healthcare. Vodacom is taking significant steps to reduce our impact on our planet by reducing our greenhouse gas emissions by 50% by 2025 and purchasing 100% of our electricity from renewable sources by 2025, and reusing, reselling or recycling 100% of our redundant network equipment by 2025.

The Group serves 129.6 million customers across consumer and enterprise segments. Driven by its commitment to digital and financial inclusion, Vodacom offers a wide range of services, including telecommunication (voice, data and messaging), information technology (IT), digital, IoT and financial services. Our M-Pesa technology platform in Africa enables over 52m people to benefit from access to mobile payments and financial services. Since 1994 Vodacom expanded its mobile network footprint from its roots in South Africa to Tanzania, the Democratic Republic of the Congo (DRC), Mozambique and Lesotho. We have a presence in Kenya through Safaricom (Kenya's largest mobile operator) and 48 countries through Vodacom Business Africa (VBA). Our mobile networks cover more than 300 million people which will increase in FY2023 Vodacom following the conclusion of the acquisition of a controlling stake in Vodafone Egypt and the launch of commercial operations in Ethiopia.

The Group, headquartered in Midrand, South Africa, was founded in 1993 and was listed on the Johannesburg Stock Exchange (JSE) in May 2009. Vodafone – one of the world's largest communications companies in terms of revenue – has 60.5% shareholding in Vodacom. The Group owns 34.94% of Safaricom Kenya.

Vodacom's primary reporting is our integrated report which is supplemented by our sustainability report and ESG data addendum. In our sustainability report, we report progress against our three purpose pillars - Inclusion for All, Planet and Digital Society as well as a range of other non-financial indicators. We publish a separate report that summarises our progress towards meeting the recommendations of TCFD, as well as a comprehensive addendum that includes data on ESG topics.

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	Select the number of past reporting years you will be providing emissions data for
Reporting year	April 1, 2021	March 31, 2022	Yes	1 year

C0.3

(C0.3) Select the countries/areas in which you operate.

Democratic Republic of the Congo
Lesotho
Mozambique
South Africa
United Republic of Tanzania

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

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	ZAE000132577

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
Board-level committee	The Board Social and Ethics Committee (SEC) oversees Vodacom's ESG performance including environment, climate change and climate-related targets. Within a rapidly evolving ESG environment, with increasing ESG-related governance expectations, the SEC's terms of reference and workplan were reviewed during FY2022. The committee remained appraised of management's activities which included incorporation of ESG-related metrics into senior leadership's long-term incentive plans, repositioning the Group Executive Reputation Committee to primarily focus on ESG, appointment of specialist resources (including energy management). Given the significant risk, the committee focused keenly on environmental impact and climate change and noted management's progress in several key areas as well as plans to address identified impediments. The committee considered a detailed review of the Group's energy requirements and their implications for costs, customer service (network availability) and environmental impact. The SEC reflected on challenges in transitioning to a low-carbon network, including the administrative complexities to purchase power from independent power producers using

Position of individual(s)	Please explain
	wheeling in South Africa. The Group's revised energy strategy execution relies significantly on power purchase agreements and wheeling to power our entire operations in South Africa. Across the other countries in which we operate our strategy is to reduce our dependence on diesel generators as a technology of choice where grid electricity is unavailable or intermittent. Management continues engagements with organised business, government and regulators to balance support for current infrastructure while seeking to unlock the supply of renewable energy for all. Considering these constraints, the committee noted that renewable energy certificates would have to be purchased to meet the Group's public commitment to halve scope 1 and 2 GHG emissions by 2025 and to procure 100% of our electricity from renewable sources. It concurred with management's ambition to further reduce emissions through power purchase agreements as larger-scale access to renewable energy through national electricity grids becomes available. The committee reviewed the recommendations of the TCFD including considering evolving guidance on board oversight responsibilities.
Chief Executive Officer (CEO)	The Group's CEO provides leadership of the Company, representing Vodacom to customers, suppliers, governments, shareholders, financial institutions, employees and the public; develops and implements Group objectives and strategy including Planet strategy and objectives; and manages the Group's risk profile and ensures appropriate internal controls are in place. The Group's CEO is ultimately accountable for the achievement of the Group's public commitment to halve scope 1 and 2 GHG emissions by 2025 and to procure 100% of our electricity from renewable sources. The CEO convenes monthly Energy meetings, attended by the Chief Technology Officer of Group and Vodacom South Africa (largest contributor to energy and emissions), supply chain, external affairs and the Group ESG officer to ensure a continued focus on execution of the Group's transition plans. The CEO provides updates to the Board Social and Ethics Committee on a quarterly basis with three updates taking place in FY2022. The Chief Executive leads the Group Executive Committee which is responsible for making day-to-day management and operational decisions, including implementing strategic objectives and empowering competitive business performance in line with established risk management frameworks, compliance policies, internal control systems and reporting requirements. The Group Executive Committee has responsibility for reviewing climate change performance and receives formal periodic updates on climate change strategy and progress via the Group Chief External and Corporate Affairs Officer.

Position of individual(s)	Please explain
Board-level committee	The Board Audit, Risk and Compliance Committee (ARCC) oversees the Group's risk management approach including the Group's key risks and associated risk appetite. This includes oversight of the Group's principal risks. Several climate-related risks have been identified as being strategically or financially material due to the nature of the material climate-related risks to our business and strategy, many elements are already captured in existing principal risks. This approach enables us to capture a more holistic picture of the climate- related risks. Climate risks have been identified within the following principal risks: • Increased taxation, political and social pressures, for example, the uncertainty of potential significant electricity cost escalations should Eskom become liable for to carbon tax in the second implementation phase on the South Africa Carbon Tax Bill, 2005 (transition risk: carbon taxation). • UNSTABLE ECONOMIC AND MARKET CONDITIONS exacerbated by extreme weather events such as flooding (physical risk). • TECHNOLOGY FAILURE due to extreme weather events (physical risk) and increasing temperatures leading to increased cooling utilities consumption (transition risk: temperature). • ADVERSE REGULATORY AND COMPLIANCE PRESSURES resulting in the inability to procure electricity from renewable sources and wheel through the national grid in South Africa (transition risk: regulation). • EXECUTION OF STRATEGIC PROJECTS FOR FUTURE GROWTH includes increased power consumption for expansion and 5G rollout which, combined with power interruptions and limited access to renewable energy sources will drive up emissions emitting activities (transition risk: technology). Going forward, with the SEC, will consider current and potential future climate risk considerations and reporting.
Board-level committee	The Remuneration Committee is responsible for agreeing annual remuneration framework, including the global long-term incentive structure which allocates a 10% weighting to ESG.
Other, please specify Board	The Board oversees the Group's annual budget process which include reviewing and guiding annual budgets, business plans and major capital expenditures, acquisitions and divestitures. This includes that of the access network (most significant contributor to the Group's energy and emissions. The Board also oversees the Group's performance against strategy which includes the Group's Purpose - Digital society, inclusion for all and Planet agendas.

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 Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Oversight of climate related risks and opportunities at Board level occurs at the: - Social and Ethics Committee (SEC) - quarterly (PRIMARY RESPONSIBILITY) - Audit, Risk and Compliance Committee (ARCC) (related to the principal risks) - bi-annually - Board (related to budgets and business plans specifically relating to the investments in the transition to a low carbon network) - annually - Remuneration committee assesses progress against the long-term incentive - annually Various position papers in respect of climate change risks and opportunities are presented to the above committees and strategic decisions affecting the sustainability of the business have been taken as a result of these threats and opportunities. In FY2022, given the significant risk, the SEC focused keenly on environmental impact and climate change and noted management's progress in several key areas as well as plans to address identified impediments. The committee considered a detailed review of the Group's energy requirements and their implications for costs, customer service (network availability) and environmental impact. The SEC reflected on challenges in transitioning to a low-carbon network, including the administrative complexities to purchase power from independent power producers using wheeling in South Africa. The Group's revised energy strategy execution relies significantly on power purchase agreements and wheeling to power our entire operations in South Africa. Across the other countries in which we operate our strategy is to reduce our dependence on diesel generators as a technology of choice where grid electricity is unavailable or intermittent. Management continues engagements with organised business, government and regulators to balance support for current infrastructure while seeking to unlock the supply of renewable energy for all.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
		The committee reviewed the recommendations of the TCFD including considering evolving guidance on board oversight responsibilities. Reports considered by the SEC included: - March 2021 – Environmental Management Update and Energy Report - May 2021 – Environmental Management Update and Energy Report - September 2021 – Sustainability Report, ESG reporting criteria, ESG: Guide to revised committee reporting, - November 2021 –TCFD report, King IV Report on Climate Change, Sustainability Deep-dive Report, Environmental Compliance Report, Energy Report - March 2022 – Sustainability Report The ARCC, review a summary of top global risks on a bi-annual basis, with a significant number being related to environment and climate change.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	We assess competence of board members on climate-related issues by reviewing their relevant career background and knowledge of ESG topics in this area, their knowledge on climate-related issues, and their experience on these topics outside of Vodacom in the public and private sectors. During FY2022 the Board received various reading materials on climate change providing the directors of the Vodacom Board with oversight of climate-related issues. The Social and Ethics Committee (SEC) undertook a number of deep-dive engagements on climate-related matters, most notably TCFD and the Group's energy requirements and the resulting impact on environment. Incidents such as the climate-related disaster of flooding in South Africa were reviewed.

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
		The CEO, a member of the board and the SEC, has invested a significant amount of time in developing a clear understanding of climate risks and how these relate to the business. This includes a monthly management meeting with relevant experts from the business, including the CTO, Head of Energy and Group ESG Officer; deep dive at the Group Executive ESG & Reputation Committee as well as engagements with various spheres of government on climate.

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
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify Chief Executive: External Affairs (guides and reports on the execution of the Group's Purpose agenda, including Planet, Digital Society, and Inclusion for all.	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify Chief Technology Officer (responsible for environment in relation to the Group's access network and data centres)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other committee, please specify Chief Officer: Human Resources (responsible for environment in relation to the Group's corporate real estate)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify Chief Risk Officer (climate change and environmental related risks as associated with the Group's principal risks)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify	Both assessing and managing climate-related risks and opportunities	Quarterly

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Group Executive ESG & Reputation Committee (includes all OpCo managing directors who have accountability for environmental performance within their countries)		
Other, please specify Executive Head of Energy	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Managing Executive: National Facilities	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Group ESG officer	Both assessing and managing climate-related risks and opportunities	Quarterly

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 **Chief Executive Officer**, a member of the Board, and Chair of the Group Executive Committee and the Group Executive ESG and Reputation Committee, has overall accountability for climate change action and the execution of the Group's Purpose agenda – Planet, Digital Society and Inclusion for All.
- The **Chief Officer: External Affairs** (CO: EA), a member of the Executive Committee, has overall accountability for coordinating climate change action, which includes providing updates to the Board Social and Ethics Committee and Group Executive ESG and Reputation Committee on the progress towards our climate-related goals. In the execution of his duties he is supported by all Executive Committee members as the Group's purpose pertains to their business areas, along with the operating countries' managing directors. Reports are tabled at the quarterly Group Executive ESG and Reputation Committee.

Energy use is a material part of Vodacom's climate change impact, with the network accounting for 96% of the Group's energy consumption.

- The **Group Chief Technology Officer** (CTO), a member of the executive committee, is responsible for energy use and managing the performance of the network, including overseeing energy efficiency improvements and driving the Group's shift from fossil fuels to renewable energy sources. In addition, as the most significant physical risks to Vodacom are the damage to infrastructure and interruption or reduction in the quality of services, the CTO is ultimately responsible for managing the physical climate-related risks as they relate to the network.
- The **Chief Officer: Human Resources** (CO: HR), a member of the executive committee, is responsible for the energy use and physical climate-related risks in the corporate offices, warehouses and other properties.

- The **Chief Risk Officer**, reports to the executive committee member - Chief Officer: Legal and Compliance – and is accountable for the Group's enterprise risk management approach which includes the consideration, and management of climate related risks through two approaches –i) principal risks and ii) tactical and operational risk management.
- The **Group Executive ESG and Reputation Committee**, which is chaired by the CEO, is attended by members of the Group Executive Committee as well as managing directors of countries. The committee oversees country level activities against ESG and reputation performance on a quarterly basis and also, as relevant conducts deep-dives into specific topics. In FY2022 this included a deep dive into energy and the association carbon emissions.
- The **executive head of energy** reports to the CTO and has primary responsibility for managing the Group's energy consumption across the network and driving the Group's transition to a low carbon network. This includes oversight of energy programmes at a country level.
- The **managing executive of national properties** reports to the CO:HR and leads the energy efficiency activities for the Group's corporate offices, warehouses and other properties and activities to increase utilisation of onsite renewable energy.
- The **Group ESG Officer** supports the CO: EA in developing and guiding the execution of the ESG approach and providing updates to the Board Social and Ethics Committee and the Group Executive ESG and Reputation Committee.

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	

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 incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction target Other (please specify) renewable energy target	GHG emission reduction targets (to halve scope 1 and 2 carbon emissions by 2025) are is one of the metrics of the long-term incentive of executive committee and the broader senior leadership team. ESG continues to be weighted at 10% of the long-term incentive plan. Furthermore, remuneration is driven by the achievement of wider performance targets. The financial metrics used within the bonus schemes are designed to drive our growth strategies while focusing on improving operating efficiencies and include EBITDA. The cost of energy consumed by our operations is over 10% of our operating costs, and therefore any reduction in energy consumption and energy efficiency,

Entitled to incentive	Type of incentive	Activity incentivized	Comment
			and therefore cost, contributes to EBITDA. Executive officers have targets to minimise costs within their areas of the business - for our network operations and procurement functions, where energy management is part of their remit, energy consumption is a component of this. By overseeing and guiding the implementation of a program of energy reduction and efficiency projects, officers reduce our carbon footprint, which reduces costs and contributes to EBITDA.
Other C-Suite Officer	Monetary reward	Emissions reduction target Energy reduction project	The Chief Technology Officer has the primary accountability for energy consumption of the Group which directly impacts the carbon emissions of the Group (accounting for 96% of emissions). In addition to the GHG emissions target within the long-term incentive, energy management targets form part of his performance contract and his annual performance assessment.
Energy manager	Monetary reward	Emissions reduction target Efficiency target Behavior change related indicator Environmental criteria included in purchases	The Executive Head of Energy, reporting to the Chief Technology Officer, has the primary responsibility to manage the energy consumption of the Group which directly impacts the carbon emissions of the Group (accounting for 96% of emissions). Energy targets, including efficiency targets and energy reduction and renewable energy projects, form part of his performance contract and his annual performance assessment. For our energy managers, their performance targets are to reduce energy consumption and drive down costs, in line with our energy and carbon reduction commitments. Meeting or exceeding targets determines an individual's performance rating for the year, which in turn determines the scale of any financial reward. A larger decrease in energy consumption through energy reduction or efficiency projects will generally lead to a better performance rating and therefore a greater financial reward. Implementing energy reduction and efficiency projects helps us to meet our group emissions target.
Facilities manager	Monetary reward	Energy reduction project Efficiency target Behavior change related indicator Environmental criteria included in purchases	The Managing Executive: National Facilities, reporting to the Chief Officer: Human Resources, has the primary responsibility to manage the energy consumption of the corporate offices, and warehouses of Group which directly impacts the carbon emissions of the Group (accounting for 4% of emissions). Energy targets, including efficiency targets and energy reduction and renewable energy projects, form part of her performance contract and her annual performance assessment. For our facilities managers with energy within their remit, their performance targets are to reduce energy consumption and drive down costs, in line with our energy and carbon reduction commitments. Meeting or

Entitled to incentive	Type of incentive	Activity incentivized	Comment
			exceeding targets determines an individual's performance rating for the year, which in turn determines the scale of any financial reward. A larger decrease in energy consumption through energy reduction or efficiency projects will generally lead to a better performance rating and therefore a greater financial reward. Implementing energy reduction and efficiency projects helps us to meet our group emissions target.
Buyers/purchasers	Monetary reward	Environmental criteria included in purchases	When new suppliers tender for work, they are asked to demonstrate policies and procedures that support safe working, diversity in the workplace and to address carbon reduction, renewable energy, plastic reduction, circular economy and product life cycle, which account for up to 20% of the overall evaluation criteria. Commitments made by our suppliers are assessed against our purpose strategy regarding diversity and inclusion (5%), the environment (5%) and health and safety (10%) in categories where there is a safety risk.

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	5	Vodacom has undertaken a high level TCFD aligned climate change risk and opportunity analysis and a deep-dive assessment for South Africa. Factors influencing the definition of these time frames include the rapid change with new climate-related legislation, energy price volatility, the latest IPCC report, and COP26. The scenarios are modelled to a thirty-year timespan, out to 2050 to align to the Paris agreement and other net zero 2050 targets.

	From (years)	To (years)	Comment
			For climate related analysis, the short-term analysis period is from 2020 to 2025, which covers the immediate impacts already experienced and the expected impacts over the next five years. Shorter-term risks and opportunities depend on the scenario and level of action taken. Under the "Rapid response" transition there are greater transformational changes such as legislation and changing consumer behaviours, while under the "No or limited response" scenario these short-term impacts are less likely. This is distinct to our financial year budgets, annual reduction targets and capital budgets required for the implementation of projects, which focus on short-term changes in actions (0-1 year).
Medium-term	5	15	Vodacom has undertaken a high level TCFD aligned climate change risk and opportunity analysis and a deep-dive assessment for South Africa. Factors influencing the definition of these time frames include the rapid change with new climate-related legislation, energy price volatility, the latest IPCC report, and COP26. For climate related analysis, the medium-term analysis period is from 2025 to 2035, which covers the medium-term impacts expected to occur in the future. Medium-term risks are dependent on the scenario chosen and how early action is taken with significant differences between the three scenarios on both risks and opportunities. This is distinct to Vodacom's Vision 2025 which whereby product or service planning has a medium-term horizon (1 - 3 years).
Long-term	15	30	Vodacom has undertaken a high level TCFD aligned climate change risk and opportunity analysis and a deep-dive assessment for South Africa. Factors influencing the definition of these time frames include the rapid change with new climate-related legislation, energy price volatility, the latest IPCC report, and COP26. For climate related analysis, the long-term analysis period is from 2035 to 2050, which covers the longer-term impacts expected to be experienced under the different climate scenarios, with a range of temperature increases from <2c to >4c under different scenarios. Each scenario has very different risk and opportunities over both physical and transitional areas over this time horizon. This is distinct to Vodacom's Vision 2025 which highlights the strategic objectives with goals to be achieved by 31 March 2025 and includes aspects such as traditional network planning which is typically between three and five years.

C2.1b

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

During FY2017 the concept of 'principal risks' was introduced in order to enhance the process of identifying, assessing and reporting on risks and opportunities. Substantive financial or strategic impact is defined in the Principal Risks Framework which provides the Executive Committee and Board with a robust assessment of the principal risks facing the Company.
A heat map depicts the top 10 residual risks, after taking into account mitigating risk factors, that have the most significant impact on Vodacom's ability to achieve its strategic objectives in the long-term ('macro risks'), and in the short- to medium-term ('tactical sub-risks'), together with risk appetite statements for each. The risk appetite for each principal risk is reviewed and approved by the Board to enable informed risk-based decision-making.
Risks are also analysed for its speed of impact, reflecting the rate at which the Company would experience adverse financial impacts if the risk materialised.

Risks and opportunities are assessed across 6 categories and 4 levels of impact, as well as over 5 levels of likelihood. The 5 impact categories are: Operations - customers, business systems and operations, employees; reputational – stakeholders and brand; and financial.
The 4 levels of impact for financial risks are:
* Very High: revenue loss of 10% or more of revenue / financial loss is unacceptable to management and/or can only be recovered in the long term (over 3 years) / has a significant effect on the share price.
* High: revenue loss of in excess of 5%, but less than 10% of revenue / financial loss is major and/or can only be recovered in the medium term (3-years) / has a negative effect on the share price.
* Medium: revenue loss of at least 2.5% but less than 5% of revenue / financial loss is moderate and/or can be recovered within 1 year / potential negative effect on the share price.
* Low: Revenue loss is less than 2.5% of revenue.

The 4 levels of impact for financial opportunities are:
Very High: Gain in revenue in excess of 10% vs. plan
High: Gain revenue by more than 5% but less than 10% vs. plan
Medium: Gain in revenue by more than 2.5% but less than 5% vs. plan
Low: Gain in revenue of up to 2.5% vs. plan

Substantive financial or strategic impact on the business is a combination of the likelihood of the risk or opportunity occurring and the level of impact it would have, as well as Vodacom's risk appetite or level of mitigation costs associated with it.

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
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

The process used to determine which risks and opportunities could have a substantive financial or strategic impact on Vodacom is as follows:
At company level the Board Directors consider risks and opportunities, including climate-related issues, when they formulate strategy, approve budgets and monitor progress against business plans. The process is overseen by the Risk Management Committees (RMC) in each operation, which is chaired by the respective Managing Directors and include the Executive Committee members in each country.

An Enterprise Risk Management Framework was developed to provide context and guide the identification, analysis, evaluation, treatment, communication and ongoing monitoring of risks in all business units. The risk management framework is in alignment with the ISO 31000 International Risk Management Standard and other risk management best practices and is being rolled out across the Group.

The Group Risk division reporting to the Chief Risk Officer assists in identifying, assessing and recording the risks and opportunities facing the Group and, where appropriate, monitors mitigating actions.

At asset level risks and opportunities are identified and managed at four different levels within the organisation, namely at project, process, operational and tactical levels. These risks and opportunities are periodically reviewed and updated. A filtering and reporting process ensures that the relevant risk items are reported to the Audit, Risk and Compliance Committee (ARCC). The ARCC considers current and potential future climate risk considerations and reporting in conjunction with the Social and Ethics Committee.

The day-to-day responsibility for the management of enterprise risk lies with the head of the business unit or support function, which conducts the activity which gives rise to the risk. Line management is guided and assisted by the Risk Group division, which reports to the Chief Risk Officer.

Risks and opportunities are prioritized through the following process:
• Define the risks - Various levels of management in each operating company define risks and opportunities at project, process, operational, tactical and strategic levels.
• Risks are assessed based on their potential impact on the operation (customers, business systems and employees) and reputation (stakeholders and brand). At level 1 the risk impact is seen as insignificant and at level 5 as catastrophic.
• Assess their likelihood - Risks are assessed based on the likelihood of them happening after taking into account the controls that are already in place to mitigate them. A scale from 1 to 5 is used to assess the likelihood of the risk, where 1 is “never” and 5 is “almost certain”. When a risk is rated with a likelihood as “5”, it means the controls in place will not prevent the risk from happening due to factors outside our control or the control effectiveness is poor.
• Classify the risk - Risks are classified as critical, high, medium and low based on the impact and likelihood score.
• Treat the risk - Management reviews all critical and high risks to determine which of these need additional treatment to reduce the risk to a medium or low. One such type treatment is the implementation of additional controls.

How Vodacom makes decisions to mitigate, transfer, accept or control the identified climate-related risks and to capitalize on opportunities:
All risks and opportunities, including climate-related issues, are captured on the risk management system, continually monitored and reviewed every six months. Quarterly risk reports are provided to the Audit, Risk and Compliance Committee (ARCC) and the Board.

Vodacom considers acute and chronic physical risks relating to extreme weather events, such as heavy rainfalls and flooding as damage to infrastructure and interruption or reduction in the quality of services has a significant impact on revenue.

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	SUMMARY Regulation is continually reviewed and assessed at a group and country level and any potential risks relating to climate legislation is included in the risk assessment process. Those material are those around mandatory reporting requirements, emissions regulations, costs associated with carbon emissions from electricity production, and waste management. RISK EXAMPLE South Africa consumes over 2/3 of the Group's energy. Introduced in Feb 2019, South Africa's carbon tax stipulates that companies exceeding certain thresholds of GHG emissions will be taxed per tonne of CO2 emitted. Carbon tax is also levied on diesel and petrol. Phase 1, which includes numerous allowances, runs from June 2019 to December 2026 and the tax rate increases annually. In Feb 2022, the rate increased to R144 (cUS$9) per tonne of CO2 emissions, and is expected to reach US$20 (cR320) by 2026. Certain industry sectors and state-owned entities such as Eskom, are excluded from phase one. In phase 2 tax-free allowance thresholds will be tightened and increases will raise the tax to US$30 (cR480) per tonne by 2030 and potentially to US$120 (cR1 920) by 2050. Vodacom currently purchases 76% of our electricity from Eskom therefore phase two will impact Vodacom severely should Eskom no longer be exempt. Eskom, estimates an annual carbon tax bill of US$763 m (cR2.2 bn). We have assessed all facilities and registered with the DFFE, using a specific template of the National Atmospheric Emissions Inventory System (NAEIS). RISK MANAGEMENT The Group's new energy management plan was considered by the Board Social and Ethic committee, will see a transition to a low carbon network through efficiencies, onsite renewables, renewable energy power purchase agreements and finally renewable energy certificates. This requires extensive engagements with government. Management engages in ongoing discussions with the SA national electricity supplier to secure an increasing share of electricity from renewable energy independent power producers at a pre-contracted price, mitigating against rapidly escalating carbon pricing costs. Vodacom has installed hybrid generators that can utilize several renewable energy sources together with a DC genset and battery bank to provide further system efficiencies which reduces diesel consumption. During FY2023 a 6 MWp solar PV installation with an estimated annual energy yield of 10.8 GWh (11 448 tCO2e savings) at the Midrand campus will be operational.

	Relevance & inclusion	Please explain
Emerging regulation	Relevant, always included	SUMMARY Vodacom engages with national and multinational legislative bodies regarding potential regulation where relevant to our business. Emerging regulatory risks such as increasing water tariffs and the Extended Producer Responsibility (EPR) Regulations and Schemes for post-consumer waste (published November 2020) are considered by Vodacom. RISK EXAMPLES Within the National Environmental Management: Waste Act, the Extended Producer Responsibility (EPR) Regulations, and Schemes for post-consumer waste are under consideration by Vodacom. The purpose of the Regulations regarding extended producer responsibility, 2020 came into effective on 5 May 2021. It aims to: • Provide the framework for the development; implementation, monitoring and evaluation of EPR schemes by producers in terms of S18 of the NEMWA; • Ensure the effective and efficient management of the identified end-of-life products; and • Encourage and enable the implementation of the circular economy initiatives. RISK MANAGEMENT Although not a producer nor importer of the affected waste items, Vodacom does implement waste management practices and has formalised waste management targets for the office environment to be reached by 2025, against a 2017 baseline and is committed to recycling 100% of network waste. Vodacom will continue to monitor developments relating to waste management. Vodacom has digitalised branch processes towards being completely paperless and introduced Ecosim, a half-sized SIM made of recycled plastic that reduces packaging materials used and lowers transportation impacts. Other initiatives include replacing plastic bags with reusable eco-friendly paper bags; reducing packaging sizes with less void; replacing plastic bubble filling with paper and replacing plastic tape with recyclable paper tape.
Technology	Relevant, always included	SUMMARY Technology is constantly evolving, and these changes pose new challenges to our infrastructure e.g. base station and network, such as increased energy or cooling requirements, which can add to our operational and management costs.

	Relevance & inclusion	Please explain
		RISK EXAMPLE IoT or 5G connectivity are technologies with the potential to disrupt our business both positively and negatively regarding climate. For example, the additional technology could increase energy and cooling requirements on our base stations but also provide energy savings through smart connected solutions. For example in South Africa, where 80% of our Group service revenue is generated in FY22, we have launched our first 5G standalone network. Standalone 5G has posed new energy requirements on our base station and network, but at the same time it enables higher speeds, enhanced reliability and ultra-low latency, in addition to using 20% less energy on customers' devices. RISK MANAGEMENT Vodacom, with its parent company Vodafone, continually looks to improve performance through new and emerging technologies, working with suppliers and customers to reduce the climate related issues of technology. We work with our suppliers to improve the efficiency of our equipment to reduce energy use and cooling requirements through the development of innovative solutions. For example trialling several novel technologies on our network to measure and monitor potential savings and identifying any new opportunities. Overall technology changes are not deemed as significant climate risks to the business, they may have some risks through higher energy or cooling requirements from newer or expanded technologies (such as 5G) but also may offer opportunities for increased efficiency (improved cooling from free cooling or improvements in air conditioning). There are also opportunities to enable efficiency improvements and carbon savings throughout society through new technologies and connected devices enabling customer carbon savings.
Legal	Relevant, always included	SUMMARY Legal and policy risks in are related to: 1. Change in regulations covering infrastructure efficiency, carbon offset pricing, carbon taxes on purchased products that lead to increase compliance requirements and operational costs. 2. As a large, listed company in the South Africa, regulation changes in stakeholder expectation e.g. lack of reporting on climate-related issues could bring increase in stakeholder class actions against Group companies due to lack of climate action; 3. Increased compliance costs for not meeting environment and climate-related targets.

	Relevance & inclusion	Please explain
		RISK EXAMPLE Climate-related and greenhouse gas emission reporting laws and regulations are continuously changing around the world and therefore require regular monitoring and assessment for requirements. Climate-related litigation claims could stem from non-compliance with the proposed carbon tax, national greenhouse gas reporting regulations and the white paper on climate change and could include monetary fines and/or prison sentences for those responsible of such oversight at Vodacom. RISK MANAGEMENT Compliance risks are identified and assessed as part of the compliance management processes. Legal risks and implications are continually reviewed as part of the risk management process which considers our potential litigation risks and addresses any issues if relevant. our legal policy covers litigation risk. Feedback on issues is reported as per Vodacom's risk management framework. In terms of litigation risk related to climate action, Vodacom has an ambitious climate strategy in place with leadership targets as well as transparent reporting on performance and progress. A focus on accuracy in reporting will assist in avoiding accusations of green washing. There are various levels of controls around external disclosures including sign off and internal approvals for all types of public disclosures.
Market	Relevant, always included	SUMMARY DEMAND: Select customers' expectations (higher income brackets and businesses) and demand for lower carbon footprints products is increasing, resulting in change in sales due to new/lost customers due to change in environmental performance. SUPPLY: We have a target to purchase 100% of the electricity we use from renewable sources by 2025. A significant portion of this will be through the purchase of renewable energy certificates (RECs). RISK EXAMPLE DEMAND: Digital technology is disrupting traditional business models and reshaping consumer behaviour. New technologies such as the Internet of Things (IoT) bring network intelligence and optimised energy use to a wide variety of machines, devices and processes. We need to continuously deploy new network technologies, while rolling out a national IoT network and developing new IoT applications and solutions to help customers reduce their emissions. SUPPLY: Over the past few years, we've seen inflation, regulation and increased demands driving RECs cost higher, which will push up our costs to meet the target.

	Relevance & inclusion	Please explain
		RISK MANAGEMENT DEMAND: The IoT connections have enabled carbon savings for customers of c1 648 494 tCO2e during FY2022. IoT connections increased 21.4% to 6.8m with revenue growth of 31.5% during FY2022. Solutions include • In South Africa, our smart utilities management service has installed 265 000 smart meters for both water and electricity to support municipalities, public and private entities to automate meter reading, perform billing integration, and provide user profiles through a cloud-based web platform. Additional benefits linked to this solution include reduced carbon emissions/ • Vodacom's 483 004 integrated smart logistics and fleet management solution monitors vehicles, and driver behaviour. In Tanzania, a similar IoT car tracking solution manages the performance and maintenance of the car in terms of speed, braking, fuel control and geofencing, among others. In the DRC, Vodacom introduced a car tracking device that enables the optimal management and efficiency of trucks. SUPPLY: working with Vodafone, we monitor the supply and price changes of renewable energy options and adjust the procurement strategy accordingly. our energy purchasing hierarchy approach, prioritises energy efficient practices before other options. We continue to explore and implement more power purchase agreements, which provides us with more economic certainty against electricity prices and prices of RECs.
Reputation	Relevant, always included	SUMMARY Reputation is a significant factor in our consideration of risk. As big energy consumption sector and client-facing energy impact enabling company through our products/ services to our customers, failure to show actions on climate impact reduction and lack of enablement development for our customers to reduce their climate impact can have a huge damage to our company, leading to decrease in demand for Vodafone products and reduced revenue. RISK EXAMPLE There is some potential reputational risk from climate change: the ICT sector is expected to be an increasing user of electricity and associated emissions which could have a negative reputational impact. RISK MANAGEMENT We have set targets to reduce our carbon emissions and purchase renewable electricity sources. Vodacom, and other telecommunication companies, are also seen as the provider and enabler of solutions to reduce climate change with associated reputation benefits through connected devices and IoT. We see our ability to reduce our own impact and help our customers as a

	Relevance & inclusion	Please explain
		positive impact on our reputation if managed well through actively addressing our impact and offering solutions for our customers to reduce their own.
Acute physical	Relevant, always included	SUMMARY There is potential for increased risk from climate related changes in the frequency/intensity of acute physical incidents that could impact Vodacom's telecommunications physical infrastructure. Vodacom's customer value proposition is based on the reliability and availability of a high-quality network. An extreme weather event, such as heavy rainfalls and flooding, could damage infrastructure and profoundly impact customers, revenue and reputation. RISK EXAMPLE In April 2022, severe flooding affected certain KwaZulu-Natal coastline and inland areas, which caused the loss of 459 lives and left 44 000 people homeless in South Africa. Much of Vodacom's infrastructure was damaged including 400 towers, most of which experienced power disruptions. Customers in affected areas experienced intermittent mobile services. Fibre ducts became waterlogged while continued grid power outages and inaccessible facilities due to the risk of electrical shocks caused service interruptions. Financial impact of the flooding in KwaZulu-Natal included infrastructure damage, cost to deploy and run diesel generators, and lost service revenue. While insurance will cover most of the estimated cost of R17 billion in physical infrastructure damage, the cost of providing service and lost service revenue in this instance, as the frequency and severity of weather events increase, will rise as well while insurance is likely to become more costly. RISK MANAGEMENT Maintaining an active and sufficient network and services is vital to our operations and as such is prioritised when designing our systems and infrastructure. We operate a highly dispersed network with inherent resilience against localised events. Vodacom has extensive resilience planning in place for various scenarios once a risk has been deemed material. Localised flooding, sea level rise, fire risk or significant storm events are considered within risk assessments at a local level and appropriately mitigated against through physical design features of sites or redundancy of systems. Across Vodacom's sites, an impact assessment must be carried out for all changes to existing data centres, mobile and fixed sites. Each country is required to have in place an end-to-end testing and exercise processes as well as conduct an annual test plan as part of the overall annual BCM testing plan.

	Relevance & inclusion	Please explain
Chronic physical	Relevant, always included	SUMMARY The network is the backbone of Vodacom's business and the quality of its network allows Vodacom to distinguish it from the competitors. It attracts new customers and ensures retention of the existing customer base. • The potential for long-term increases in temperature (and other climate effects) are considered with regards to the impact on our telecommunications technology, especially cooling requirements. • Vodacom considers chronic physical risks relating to changes in average precipitation that could influence the network quality and the demand for Vodacom's solutions and services. RISK EXAMPLE • There is a potential for increasing cooling demand, with associated energy costs, however improving technological efficiency gains are also expected driven by cost saving efficiencies of reducing cooling demands. These additional potential cooling costs are considered in energy modelling exercises. • Vodacom is strengthening its resilience as an organisation by renewing the radio access network (RAN) to incorporate newer technologies that could withstand weather influences. RISK MANAGEMENT • Chronic physical changes are deemed to occur over longer time frames than that of the upgrade/replacement cycle of our equipment and technology, which has an expected life span of several years before becoming obsolete and being replaced/upgraded. Therefore many long-term changes are addressed through an ongoing basis, during the replacement and upgrade cycle of our equipment and facilities. The acceptable operational conditions will be assessed for the lifetime of the equipment, including any expected increases in temperature (or other climate changes expected). • in dealing with chronic physical changes, Maputo, Mozambique is faced by the longer-term risk of flooding due to rising sea level; however, there is significant risk of flooding in cyclonic conditions. Two Vodacom data centres were in the flood zone. We implemented a project to minimise flooding due to windstorm/cyclone damage and to respond quickly when necessary. One data centre was moved in 2015 and work is underway to limit potential damaged the remaining one. In the DRC, potential risks that could arise due to flooding of the Congo River are also being responded to.

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

Acute physical

Flood (coastal, fluvial, pluvial, groundwater)

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Vodacom's customer value proposition is based on the reliability and availability of a high-quality network. A major failure affecting the network or IT assets and systems – brought on by extreme weather events, such as heavy rainfalls and flooding – could profoundly impact customers, revenue and reputation. Unreliable power supply, theft and vandalism of network equipment also erode the reliability and quality of the network.

During 2019 two consecutive cyclones in Mozambique damaged major roads and infrastructure, affecting Vodacom's network services.

In 2020/1 network operations in the Sofala, Manica and Zambezia regions of Mozambique were severely impacted by a cyclone, causing damage to infrastructure.

In April 2022, severe flooding affected certain KwaZulu-Natal coastline and inland areas, which caused the loss of 459 lives and left 44 000 people homeless in South Africa. Much of Vodacom's infrastructure was damaged including 400 towers, most of which experienced power disruptions. Customers in affected areas experienced intermittent mobile services. Fibre ducts became waterlogged while continued grid power outages and inaccessible facilities due to the risk of electrical shocks caused service interruptions.

Vodacom has 23 492 network sites (FY2021: 22 930) across operations in 5 African countries. Maintaining network quality and performance is both a significant source of competitive differentiation and revenue. Vodacom therefore focuses on preserving the natural resource base, investing in climate-smart, energy-efficient networks and solutions and minimize waste across its value chain.

Time horizon

Short-term

Likelihood

Likely

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)

219,000,000

Potential financial impact figure – maximum (currency)

17,000,000,000

Explanation of financial impact figure

Financial impact of the flooding in KwaZulu-Natal included infrastructure damage, cost to deploy and run diesel generators, and lost service revenue. While insurance will cover the estimated cost of R17 billion in physical infrastructure damage, the cost of providing service and lost service revenue in this instance, as the frequency and severity of weather events increase, will rise as well and insurance is likely to become more costly.

A cumulative one day shutdown of operations could result in loss of service revenue of approx. R219 million based on current Group service revenue of R79 936 million.

Cost of response to risk

15,291,000,000

Description of response and explanation of cost calculation

In order to mitigate the risk of network interruptions Vodacom during FY2022 invested R14.6 billion to improve the quality of the network and extended base station coverage by adding 434 5G sites (South Africa only), 1 410 4G sites, 519 3G sites and 441 2G sites across the group. The number of rural network base station sites amount to 9 637 with 95 deep rural sites and 61 rural communities previously without coverage now connected.

Although the 5G network will increase electricity demand, it is more energy efficient per gigabyte of transferred data than existing network technologies.

Vodacom is committed to improving energy efficiency at base station sites and implements more efficient network equipment and reduce energy demand by installing lower energy use equipment, components and cooling technologies.

During 2019 Vodacom started with the rollout of project Raptor, which entails a remote monitoring solution at 7 313 (FY2021: 7 232) base station sites in South Africa that enables early detection of maintenance alarms, reduces the need for call-outs and decreases energy consumption by monitoring operating conditions within the base station cabinet and automatically switching off air-conditioning when not needed. The raptor can support energy savings of up to 25% per site.

Sporadic vandalism and battery theft at network sites continue to impede business continuity, network quality and overall customer experience. This is further exacerbated by Eskom's load shedding. To mitigate this risk Vodacom in FY2022 upgraded base station sites with batteries and anti-theft infrastructure at a cost of R683 million. The Energiser project entails deploying four-hour and eight-hour battery vaults to all sites to maintain network availability and connectivity, along with enhanced security measures.

To reduce the reliance on diesel for electricity generation Vodacom is actively looking at deploying small scale renewable and alternate energy technologies. It has 1088 solar-operated sites in the DRC, Mozambique and Lesotho to reduce reliance on the grid. During FY2022 3 more solar power systems were installed at sites in Polokwane, Vereeniging and Bloemfontein at an estimated cost of R8 million which will lower grid electricity consumption as well as ease the load on the site's batteries in the event of load-shedding.

The total cost to ensure network resilience amounted to R15 291 million relating to the investment in the network, batteries and solar systems.

Comment

nil

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation

Shifts in consumer preferences

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

The global Covid-19 outbreak during 2020 presented profound risks for the countries and communities in which Vodacom operates and has challenged business models globally, upending traditional ways of working, shutting down certain sectors of the economy, disrupting supply chains, and severely constraining consumer spend. With people physically isolated, and with many workers operating remotely, Vodacom's mobile and fixed networks have never been more critical in helping to keep societies functioning.

Vodacom has helped to positively transform the lives of millions of people across markets by connecting them to voice and digital products and services. With access to the internet and data services now an essential part of people's lives, and key to facilitating economic development, Vodacom is committed to promoting digital inclusion and democratising data.

All activities involve partnerships of some sort – with business peers, government agencies, technology providers, civil society organisations, academia and/or community representatives – aimed at identifying and implementing innovative ways of using mobile and data to make a significant social contribution.

Vodacom faces the risk of current and future consumers increasingly demanding climate-friendly goods and services while investors and other stakeholders are demanding appropriate climate responses from companies, including transition plans towards a low-carbon economy, while factoring in

just transition considerations in the African context.

Vodacom's approach to sustainability focuses on creating and protecting value, driving growth and innovation, and providing societal value through core business activities and to make a meaningful contribution to the countries in which it operates.

The reputation and profitable growth of Vodacom is closely linked to the economic prosperity and social sustainability of the communities it operates. Vodacom will need to deliver connectivity and other services with the lowest possible GHG emission intensities, and provide goods that are manufactured, supplied, distributed, and discarded with the lowest possible carbon footprint if it wants to be recognised as a service provider of choice.

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)

292,630,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The economic impact of the Covid-19 pandemic is followed by a significant downturn in global economic activity expected to last over the medium term.

The potential financial impact from reputational risk will emanate from a loss of customer confidence and loyalty leading to reduced demand for Vodacom's products and services, together with reduced funds available to spend. Other reputational impacts will be difficulty in attracting and retaining

employee talent and it could also affect the interest of international and local investors that track ESG performance.

An estimated 0.5% decrease in sales could result in a decrease in service revenue of approx. R293 million based on current SA service revenue of R58 526 million.

Cost of response to risk

3,600,000,000

Description of response and explanation of cost calculation

To manage reputational risk and to reduce the likelihood and magnitude thereof, Vodacom in response to the global pandemic, implemented numerous measures to ensure the safety of employees and contractors, to keep families connected, businesses to operate, students to learn, and healthcare facilities and governments to provide critical services.

During the pandemic, connectivity and communication services have been more important than ever. Vodacom implemented a 2-phased strategy: Phase 1 focused on the immediate health crisis with interventions to save lives and support society while Phase 2 focuses on economic recovery and stimulating employment by leveraging Vodacom's network, digital platforms and data analytics capabilities to deliver economic value and connect societies, governments and businesses.

During FY2022 Vodacom announced a major step in scaling its fibre offering in South Africa by acquiring an up to 40% stake in Community Investment Ventures Holdings (CIVH), the holding company of Vumatel and Dark Fibre Africa (DFA).

Vumatel installs fibre-to-the-home (FTTH) in residential suburbs and has in excess of 27 500 km of fibre assets which it leases to ISPs.

DFA builds, installs, manages and maintains a fibre network to transmit metro and long-haul telecommunications traffic, which is leased to its customers (telecos and ISPs) using an open access wholesale commercial model. DFA has in excess of 13 200 km of fibre assets in the ground in 30 metros.

The R3.6 billion capital and asset injection and strategic support are expected to diversify Vodacom's connectivity offering for mobile and fixed services reaching more consumers while optimizing assets through sharing costs.

In FY2022 Vodacom's fibre rollout increased by 18.7% connecting 142 211 homes and businesses. This wholesale FTTH, fibre-to-the-business (FTTB) and business-to-business (B2B) transmission access fibre network infrastructure will scale and enhance CIVH's fibre footprint.

This investment is complemented by data-led personalised pricing options and innovative smartphone financing solutions that support affordability. In this way, by accelerating fibre reach in South Africa with the pending CIVH deal, growth and economic development will be spurred while helping to bridge South Africa's digital divide.

The total cost of R3.6 billion to manage shifts in consumer preferences relates to the investment in shared fibre infrastructure to improve access and reduce costs.

Comment

nil

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

Reduced direct costs

Company-specific description

Vodacom's primary source of carbon emissions emanates from electricity consumption from the access network (75%), technology centres (21%) and buildings (4%). The largest operation is South Africa, which is the main contributor of carbon emissions using electricity from the Eskom grid and accounts for 82.3% of Group emissions.

South Africa's national power supplier and largest emitter, Eskom, is exempt from paying carbon taxes during the first phase that came into force on 1 June 2019. Had it been included its tax liability is estimated at R11.5-billion per annum and most likely it would have passed on the costs through increased tariffs, which will increase operational costs (electricity bills) for Vodacom.

Additionally, Eskom has been load-shedding during the last decade due to a lack of electricity supply resulting in frequent disruptions in operations coupled with large annual electricity cost increases to aid its financial liquidity.

To manage energy consumption, security and costs Vodacom during FY2020 set a company-wide absolute target to reduce Scope 1 &2 GHG emissions by 50% and to use 100% renewable energy by 2025 from a 2017 baseline.

To achieve the target Vodacom's energy strategy prioritises energy-efficient practices, followed by on-site renewable energy generation to power operations, then power purchase agreements (PPAs) and lastly to purchase renewable electricity certificates (RECs).

Energy savings will result in large operational costs savings while benefits from potential S12l tax allowances and incentives or subsidies for energy-efficient equipment and renewable energy technologies will add to an organization's bottom line.

PPAs typically provide electricity at a discount to current wholesale electricity prices and by agreeing a tariff for renewable energy with IPPs today with known annual escalations, the energy costs can be contained over time which will aide cost competitiveness.

On-site renewables reduce grid electricity consumption and increase energy security as well as ease the load on the site's batteries in the event of load-shedding.

Further, reduced energy demand from Vodacom could reduce load shedding by Eskom resulting in less frequent disruptions in operations and improve the network quality in South Africa.

Time horizon

Medium-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)

17,241,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Vodacom spent R2.44 billion on network related electricity and fuel costs during FY2022 and this is likely to increase in the future due to increased network traffic and growth. However, financial savings is likely to increase exponentially as more renewable energy projects come on stream over time.

By installing 448 air-conditioners with inverters and replacing old, inefficient uninterrupted power supply (UPS) systems, together with installing 2 354 new rectifiers in the access network to optimise energy consumption, energy savings of more than 7GWhs, emissions of 7 446 tCO2e and R14 351 000 in cost savings were achieved, together with tax allowances that can be claimed on the equipment.

The solar PV installations in South Africa generated 823 MWhs of electricity avoiding 873 tCO2e of emissions with cost savings of approximately R890 000.

The PPA for the 6 MWp solar PV installation at the Midrand campus is expected to yield R2 million savings per annum against municipal electricity bills while the PPA in the Nelson Mandela Bay region has the potential to reduce GHG emissions by 15% on an annual basis.

Cost to realize opportunity

57,300,000

Strategy to realize opportunity and explanation of cost calculation

To save energy costs and reduce carbon emissions, Vodacom, during FY2022 implemented energy efficiency projects at a cost of R50.5 million resulting in savings of more than 9.1 GWhs and associated emissions of 1.09%. This was achieved through the installation of 448 air-conditioners with inverters and the replacement of old, inefficient uninterrupted power supply (UPS) systems, together with the installation of 2 354 new rectifiers in the access network to optimise energy consumption.

It also installed solar power systems at sites in Polokwane, Vereeniging and Bloemfontein at an estimated cost of R8 million, producing 127 MWhs of clean energy. These three sites form part of the 1 088 solar-powered sites across all of Vodacom's markets providing alternative energy sources and security.

With a vast footprint of towers or masts spread across multiple geographies, on-site solar can be challenging due to limited physical space, site accessibility, theft and vandalism. On-site renewable electricity is currently less than 1% of overall renewable energy consumption due to space constraints on infrastructure. However, Vodacom is testing new approaches and technologies to find sustainable solutions, such as renewable hybrid systems that use various renewable energy sources such as wind and hydrogen to provide further system efficiencies.

Vodacom has an active Purchase Power Agreement (PPA) with an Independent Power Producer (IPP) to facilitate the supply of renewable energy to power Vodacom infrastructure and facilities in Nelson Mandela Bay (South Africa). The PPA covers 36 base station sites and has the potential to reduce GHG emissions by 15% on an annual basis in the region. The sources used to generate energy through this PPA include a variation of wind and solar energy.

During FY2023 a 6 MWp solar PV installation with an estimated annual energy yield of 10.8 GWh (11 448 tCO2e savings) at the Midrand campus will be operational. Vodacom will purchase the energy generated from the system on its own roof through a PPA at an estimated annual cost of R17 million.

During FY2022 Vodacom purchased RECs to the value of 1 371 MWh to reduce its Scope 2 carbon emissions.

The total cost to realise the opportunity is R57.3 million relating to the capital costs for the energy efficiency projects and 3 solar PV systems installed.

Comment

nil

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Mobile data traffic has grown exponentially over the past five years and will continue to rise at a rapid rate.

According to IoT Analytics the market for the Internet of Things (IoT) is expected to grow by 18% to 14.4 billion active connections in 2022. It is expected that by 2025, as supply constraints ease and growth further accelerates, it will increase by 87.5% to approximately 27 billion connected IoT devices.

The transition to the 'Fourth Industrial Revolution' – characterised by recent rapid developments in AI, Big Data analytics and blockchain technology, as well as the growth in the Internet of Things, connected homes and autonomous vehicles – is challenging many traditional business models and significantly reshaping consumer behaviour.

As an ICT company with operations and activities across emerging markets in Africa, Vodacom can fulfil its ambition to transform the business from a conventional telco into a digital company that plays a leading role in the fourth industrial revolution.

In the South African context, there is significant potential in the development of technologies and services centred on smart building and smart city technologies, as well as technologies and services aimed at the home and work-from-home environments. These IoT technologies promise to reduce emissions and increase various environmental efficiencies such as water and waste reduction. Connectivity and IoT are key enablers to delivering green impact across value chains, delivering benefits in areas such as energy efficiency, stock level monitoring, off-grid power supplies, high-speed product

testing, just-in-time logistics and machine learning.

Through its subsidiary IoT.nxt, with continued development of new product lines / IoT solutions, Vodacom can increase demand from customers enabling them to better manage their climate-related impacts.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

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)

1,960,000,000

Potential financial impact figure – maximum (currency)

2,940,000,000

Explanation of financial impact figure

The acquisition of IoT.nxt continued to support positive performance for the IoT business. IoT.nxt was recognised by MachNation – a leading independent benchmarking firm – as best-in-class among IoT platforms. The platform continues to expand, opening new markets globally – including Tanzania, Mozambique, the United Kingdom (UK) and the Netherlands to name a few – and expanding the United States of America (USA) sales and operations footprint. This global expansion is underpinned by IoT.nxt's raptor energy management solution, which can drive energy savings of up to 25% per mobile network site, office buildings and many more innovative solutions using AI.

Vodacom's IoT connections increased by 21.4% to 6.8 million (FY2021: 5.6 million) with revenue growth of 31.5% to R1.4 billion during FY2022.

Collectively, new services – which include digital and financial services, fixed and IoT – accounted for 17.9% (FY2021: 17.2%) of Group service revenue - R14.3 billion in FY2022.

Vodacom set a target of new services contributing between 25% and 30% to Group service revenue over the medium term – estimated between R20 to R24 billion at current levels.

IoT's contribution to this target at the current ratio of 9.79% (R1.4 / R14.3 billion) is therefore estimated to be between R1.96 to R2.94 billion or more should connections rise faster than expected.

Additional financial impact will result from access to favourable financing agreements due to higher ESG ratings by international sustainability rating organisations.

Cost to realize opportunity

1,000,000,000

Strategy to realize opportunity and explanation of cost calculation

In order to realize the opportunity Vodacom is working with the mining, fast-moving consumer goods, logistics, e-learning, agriculture and healthcare industries to develop appropriate IoT products and services.

In South Africa, Vodacom's Smart Utilities Management Service installed 265 000 (FY2021: 160 000) smart meters for both water and electricity to support municipalities, public and private entities to automate meter reading, perform billing integration, and provide user profiles through a cloud-based web platform. Additional benefits linked to this solution include reduced carbon emissions, prevention of revenue losses and improved energy theft reporting.

Vodafone's head office in Paddington, London, uses the smart building solution which provides real-time visibility of room and space utilisation and comfort in the building including air quality. A similar solution is used at Vodacom's head office in South Africa. It integrates building management system, water and electricity metering, diesel level monitoring and integrated workspace management systems. This enables the centralised monitoring of water, electricity and diesel consumption to facilitate the identification of resource savings opportunities by reporting on sustainability, monitoring alarms in the system and automating work order generation to avoid manual human intervention.

Vodacom's 483 004 integrated smart logistics and fleet management solution monitors vehicles, driver behaviour and identification, and tracks stolen vehicles through its IoT capability in South Africa. In Tanzania a similar IoT car tracking solution manages the performance and maintenance of the car in terms of speed, braking, fuel control and geofencing, among others. In the DRC, Vodacom introduced a car tracking device that enables the optimal

management and efficiency of trucks.

The connected worker safety wearable (South Africa) measures falls or movement of workers in dangerous areas in a defined period, allowing for quick responses from safety teams. In addition, it enables effective resource planning based on productive work zones and can be enhanced with sensors to measure hazardous gas leaks.

The IoT connections have enabled carbon savings of approximately 1 648 494 tCO2e during FY2022 for customers.

The cost to realise the opportunity relates to Vodacom's investment of approximately R1 billion for a 51% stake in its subsidiary IoT.NxT and leverages existing IoT capabilities within Vodacom Business.

Comment

nil

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

Yes, we have a transition plan which aligns with a 1.5°C world

Publicly available transition plan

Yes

Mechanism by which feedback is collected from shareholders on your transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

Our investors and shareholders provide the financial capital we need for long-term growth and they expect good returns based on sustainable and ethical business practices. We engage through:
* In-person and virtual meetings, roadshows and conferences.
* Investor briefing on the digital ecosystem.
* Chairman roadshow (significant focus on ESG).
* Interim and annual results announcements.
* Quarterly trading updates.
* Annual and interim reports (including a sustainability report and our first TCFD report).
* SENS announcements.
* Monthly and quarterly reviews with Vodafone.
* Investor relations page on our website.

the Chairman of the Group Social & Ethics Committee presents it report (which includes climate) to investors through the sustainability report and at the annual general meetings where investor are able to pose questions to the committee chair (and wider board).

Investors (and other stakeholders) are also able to contact the Group directly via the Investor Relations email address and also the company secretary email address.

Increasingly, energy management (including energy security) and climate performance are discussed in these meetings. In November and December 2021, we undertook ESG focused meetings with the Group's local investor base.

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your transition plan (optional)

Vodacom is bound by the Vodafone transition plan which is disclosed within their TCFD report. We do narrative in the Vodacom sustainability report our medium-term goal of purchasing 100% of our electricity from renewable energies and halving our scope 1 and 2 carbon emissions by 2025.

Vodacom-Sustainability-Report-2022.pdf

Vodafone+2022+TCFD+report.pdf

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative, but we plan to add quantitative in the next two years

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios Customized publicly available transition scenario	Country/area	1.6ºC – 2ºC	SA-specific climate models were adopted from various sources, including the SA Council for Scientific and Industrial Research, the South African Weather Service, the Intergovernmental Panel on Climate Change (IPCC) and the World Bank. Each model is aligned to the IPCC's Representative Concentrated Pathways (RCP), reflecting different global warming scenarios with varying atmospheric GHG concentrations the extent of fossil fuels burnt under each. These scenarios were selected as: • They meet the TCFD recommendations to assess business resilience under different climate-related scenarios, including a 2°C or lower scenario. • They are modelled to a 30-year timespan to 2050, which aligns with the Paris Agreement and other governmental 2050 net-zero targets. • They are referenced by the IEA, which uses policy pathways to analyse climate scenarios. • They consider macroeconomic impacts of physical and transition risks with some granularity. • They apply to a business context in South Africa as temperature increases in Africa due to climate change are likely to be 1.5 to 2 times the average global temperature increase. Scenarios over the short (2020-2025), medium (2025-2030) and long to very long (2030-2050) term were considered to better understand the potential impact of transitional and physical climate-related risks and opportunities on Vodacom's business.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
			Transitional climate risk factors considered were: • Temperature - Energy consumption for cooling increasing • Offsets - Increasing emissions offset costs • Litigation - Climate litigation • Carbon tax - Increasing carbon tax • Regulation - Demand of energy efficiency regulation • Consumer preferences - Loss of customers as they make 'greener' choices Opportunities considered: • Market valuation - Share price • Sustainable financing - Sustainable financing • Environmental performance - Product efficiency
Physical climate scenarios RCP 8.5	Country/area		South African-specific climate models were adopted from various sources, including the Council for Scientific and Industrial Research, the South African Weather Service, the IPCC and the World Bank. Each model is aligned to the IPCC's Representative Concentrated Pathways (RCP), reflecting different global warming scenarios with varying atmospheric GHG concentrations the extent of fossil fuels burnt under each. These scenarios were selected as: • They meet the TCFD recommendations to assess business resilience under different climate-related scenarios, including a 2°C or lower scenario. • They are modelled to a 30-year timespan to 2050, which aligns with the Paris Agreement and other governmental 2050 net-zero targets. • They are referenced by the International Energy Agency, which uses policy pathways to analyse climate scenarios. • They consider macroeconomic impacts of physical and transition risks with some granularity. • They apply to a business context in South Africa as temperature increases in Africa due to climate change are likely to be 1.5 to 2 times the average global temperature increase.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
			• RCP8.5 – No or limited Response: A future of little or no transitional impact, but high levels of physical impact characterised by extreme climate change. This scenario is considered unlikely. Timelines: short (2020-2025), medium (2025-2030) and long to very long (2030-2050) term Assumptions: • Significant warming across the country, especially in the west coast, central and northern interiors; • Significant increase in drought events, heatwaves and very hot days; and • Significant increase in severity and frequency of rainfall and winds in the east, and eastern coastal regions. • Low levels of carbon taxation and no energy standards; • High reliance on fossil fuels; • No demand for low-carbon goods and services; and • No expectation for companies to adopt low-carbon practices. Physical risk factors considered : • Fire - Wildfires • Flooding - Flooding • Sea level - Sea level rise • Seas surface temperature -Storms • Precipitation - Rainfall and Service quality Opportunities considered: • Market valuation - Share price • Sustainable financing - Sustainable financing • Environmental performance - Product efficiency

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios RCP 4.5	Country/area		South African-specific climate models were adopted from various sources, including the Council for Scientific and Industrial Research, the South African Weather Service, the IPCC and the World Bank. Each model is aligned to the IPCC's Representative Concentrated Pathways (RCP), reflecting different global warming scenarios with varying atmospheric GHG concentrations the extent of fossil fuels burnt under each. These scenarios were selected for the following reasons: • They meet the TCFD recommendations to assess business resilience under different climate-related scenarios, including a 2°C or lower scenario. • They are modelled to a 30-year timespan to 2050, which aligns with the Paris Agreement and other governmental 2050 net-zero targets. • They are referenced by the International Energy Agency, which uses policy pathways to analyse climate scenarios. • They consider macroeconomic impacts of physical and transition risks with some granularity. • They apply to a business context in South Africa as temperature increases in Africa due to climate change are likely to be 1.5 to 2 times the average global temperature increase. RCP4.5 – Delayed Response: Delayed response but significant policy and technological response to climate change that results in emission reductions and climate stabilisation occurring in future. Transitional impacts are still significant, but physical impacts are more pronounced. Timelines: short (2020-2025), medium (2025-2030) and long to very long (2030-2050) term Assumptions: • Increased warming and drying in the west coast, central and northern interiors; and • Increase in severity and frequency of rainfall and winds in the east, and eastern coastal regions. • Increasingly stringent carbon taxation and energy standards;

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
			• Limited adoption of alternative sources of energy; • Slow increase in demand for low-carbon goods and services; and • Limited expectation on companies to adopt low-carbon practices. Physical climate risk factors considered were: • Fire - Wildfires • Flooding - Flooding • Sea level - Sea level rise • Seas surface temperature -Storms • Precipitation - Rainfall and Service quality Opportunities considered: • Market valuation - Share price • Sustainable financing - Sustainable financing • Environmental performance - Product efficiency
Physical climate scenarios RCP 2.6	Country/area		South African-specific climate models were adopted from various sources, including the Council for Scientific and Industrial Research, the South African Weather Service, the IPCC and the World Bank. Each model is aligned to the IPCC's Representative Concentrated Pathways (RCP), reflecting different global warming scenarios with varying atmospheric GHG concentrations the extent of fossil fuels burnt under each. These scenarios were selected for the following reasons: • They meet the TCFD recommendations to assess business resilience under different climate-related scenarios, including a 2°C or lower scenario. • They are modelled to a 30-year timespan to 2050, which aligns with the Paris Agreement and other governmental 2050 net-zero targets. • They are referenced by the International Energy Agency, which uses policy pathways to analyse climate scenarios.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
			• They consider macroeconomic impacts of physical and transition risks with some granularity. • They apply to a business context in South Africa as temperature increases in Africa due to climate change are likely to be 1.5 to 2 times the average global temperature increase. Timelines: short (2020-2025), medium (2025-2030) and long to very long (2030-2050) term • RCP2.6 – Rapid Response: Characterised by substantial transitional impacts (policy, technology, market and reputational) to limit GHG emissions and, as a result, relatively minimal physical impact. Assumptions: • Limited warming and drying on the west coast and central interior; and • Limited increase in severity and frequency of rainfall in the east, and eastern coastal regions. • High carbon taxation and implementation of energy- efficiency standards; • Increased adoption of alternative sources of energy; • Increased demand for low-carbon goods and services; and • High expectation on companies to adopt low-carbon practices. Physical climate risk factors considered were: • Fire - Wildfires • Flooding - Flooding • Sea level - Sea level rise • Seas surface temperature -Storms • Precipitation - Rainfall and Service quality Opportunities considered: • Market valuation - Share price • Sustainable financing - Sustainable financing • Environmental performance - Product efficiency

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

How are transitional risks (policy and legal, technology, market and reputation) and physical risks likely to impact operations?

How does the speed of response to limiting and reducing GHG emissions under the RCP2.6 (Rapid Response), RCP4.5 (Delayed Response) and RCP8.5 (No or limited Response) scenarios influence the likelihood and impact of these risks?

POLICY & LEGAL: what will the impact be of the next phase of the South African carbon tax regime i.e. higher taxes on carbon emissions? will Eskom's (national monopolistic power producer) emissions be taxed? if yes, these additional costs will be passed on to its customers through higher electricity tariffs. How will this impact on energy costs, carbon taxation and energy efficiency standards?

TECHNOLOGY: Will there be sufficient quantities of renewable energy installations available to transition to a lower-carbon economy? What will the rate of adoption of alternative sources of energy be? Will there be a scale change in energy efficiencies in technology?

MARKET: A main driver is Eskom's ability to reduce the carbon intensity of its electricity mix sufficiently to meet the South African government's GHG reduction target (as set by its NDCs to the Paris Agreement) and private sector companies' reduction targets to achieve net-zero emission by 2050. How does this impact on delivering connectivity and other services with the lowest possible GHG emission intensities with an increasing demand by current and future consumers for climate-friendly goods and services?

REPUTATION: Increasingly, stakeholders are demanding appropriate climate responses from companies, including transition plans towards a low-carbon economy, while factoring in just transition considerations in the African context. Will Vodacom be able to meet its 100% renewable energy and GHG reduction targets or suffer reputational damage if it is not able to do so through credible means?

INCREASING TEMPERATURES: The northern and central interior regions will be most affected by extreme temperatures. How will this affect cooling and energy demands in offices and warehouses and network infrastructure (base stations, data centres and technology centres).

DROUGHT CONDITIONS: Droughts are common in South Africa; however, as temperatures increase for longer periods and overall drying of the country takes place, drought conditions are expected to be more frequent, prolonged and severe. The western regions and central and northern interior are particularly susceptible to increased drought activity. How does the lack of water affect equipment and general operations? Supply chain?

INCREASED RAINFALL, STORM SURGES AND CYCLONIC ACTIVITY: Parts of the eastern coastline could experience cyclonic activity and rising sea levels with increased storm events, while all regions are expected to experience more frequent and intense rainfall. How will this affect the network, road infrastructure and supply chains?

Results of the climate-related scenario analysis with respect to the focal questions

With respect to the focal questions, the scenarios highlighted transition and physical risks and identified climate impacts that were emerging as material. We will take the steps recommended by the TCFD to assess the potential severity of the risks, and the potential value of the opportunities, so we can maximise the positive impacts and minimise the negative impacts on our business.

We have 12 climate-related risks and 4 climate-related opportunities that we have assessed to have the potential to materially impact our business.

We have a significant telecommunications infrastructure across the countries we operate in. This increases exposure to the physical risks of climate change due to the increased risk of asset damage or loss. We have identified the key climate drivers most likely to impact our assets and infrastructure. In contrast to transition risks, physical risks are most severe under Scenario 3 (no or limited response) given this scenario sees a world where warming exceeds a 4°C threshold. In Africa this is likely to be double global temperatures. Scientific studies show that under this scenario, physical climate-related events will be more frequent and severe, increasing the impact on Vodacom. We observe some impacts of physical climate risk under Scenario 1 (rapid response) and Scenario 2 (delayed response). Physical risks will have a significantly bigger impact on the business in the long-term compared to the short term, as the levels of warming rise regardless of the scenario.

Through the scenario analysis conducted, we are able to understand and locate the areas within our operations where assets are likely to be most affected and it enables us to build on our resilience planning and investment to cover the range of best to worst case scenario outcomes in a targeted manner. This analysis will serve as the basis for understanding our current resilience against climate-related risks and focus on enhancing the Group’s mitigation strategies.

Scenario analysis highlighted the increased risk of third-party dependency, access to local offsets, such as local renewable energy certificates, and carbon taxation. These risks are the highest under Scenario 1 and Scenario 2. This is driven by the heightened and ongoing risk of energy security in Africa, limited scaled renewable energy sources and carbon tax in South Africa. While not at the level seen globally, for example in Europe, regulation and investor scrutiny are risks increasing in importance. Given the nature of transition risks, their materiality is low under Scenario 3 (no or limited

response). Going forward, we will continue with our scenario analysis and financial modelling to better understand the impact and level of mitigation for each to build further resilience.

Business opportunities identified relating to climate change are enabled by the transition to a low carbon economy and therefore the potential positive impact is the highest under Scenario 1 and Scenario 2.

C3.3

(C3.3) 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	Our biggest contribution to mitigating climate change is the way our products and services are helping our customers to reduce their own environmental impact leading to our target of helping customers reduce their own emissions, principally through the use of IoT and connected "smart" solutions. As climate risks and action to reduce carbon emissions and impacts increase, identifying new and increasing business opportunities to offer expanded or new products and services to our clients to support their management of climate issues. Technology leading to smarter ways of doing business while minimising the impact on the environment influenced strategy over the short-, medium- and long-term. In South Africa, Vodacom's Smart Utilities Management Service has installed 265 000 smart meters for both water and electricity to support municipalities, public and private entities to automate meter reading, perform billing integration, and provide user profiles through a cloud-based web platform. Additional benefits linked to this solution include reduced carbon emissions, prevention of revenue losses and improved energy theft reporting. Vodacom's 483 004 integrated smart logistics and fleet management solution monitors vehicles, driver behaviour and identification, and tracks stolen vehicles through its IoT capability in South Africa. In Tanzania a similar IoT car tracking solution manages the performance and maintenance of the car in terms of speed, braking, fuel control and geofencing, among others. In the DRC, Vodacom introduced a car tracking device that enables the optimal management and efficiency of trucks.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
		The connected worker safety wearable (South Africa) measures falls or movement of workers in dangerous areas in a defined period, allowing for quick responses from safety teams. In addition, it enables effective resource planning based on productive work zones and can be enhanced with sensors to measure hazardous gas leaks. The IoT connections have enabled carbon savings for customers of approximately 1 648 494 tCO2e during FY2022. Vodacom's IoT connections increased 21.4% to 6.8 million, with revenue growth of 31.5% during FY2022.
Supply chain and/or value chain	Yes	Climate-related opportunities that have influenced Vodacom's strategy over the medium to long-term relates to their target of using 100% renewable energy by 2025 through a blend of: - exhausting energy efficiency options, - investing in generating own renewable energy to power operations, - procurement of renewable energy through purchase power agreement's (PPA) and - purchasing renewable energy certificates (RECs). Vodacom continues to actively engage with the national electricity provider in South Africa (Eskom; a monopoly), as well as national and municipal governments to implement power purchase agreements at significant scale, targeting at least 60 GWh. This requires administrative blocks to be overcome and the number / capacity of independent power producers (IPPs) to increase significantly. Good progress is being made. On a small scale, Vodacom does have in place a PPA with an IPP to facilitate the supply of renewable energy to power infrastructure and facilities in Nelson Mandela Bay (South Africa). The PPA covers 36 base station sites and has the potential to reduce GHG emissions by 15% on an annual basis in the region. The sources used to generate energy through this PPA include a variation of wind and solar energy. Vodacom benefitted from RECs to the value of 1 371 MWh (linked to a power purchase agreement) to reduce its Scope 2 carbon emissions.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
		Vodacom has also concluded a PPA to have a 6 MWp solar PV system installed at the Midrand campus during FY2023. Vodacom will purchase the energy generated from the system on its own roof - the estimated annual energy yield should be 10.8 GWh with 11 448 tCO2e savings. Vodacom has an energy policy which requires that all infrastructures be energy efficient. To this end they are working with suppliers to phase out fire suppressants and refrigerants with high global warming potential (GWP) in favour of gasses with a low GWP. As part of our RFQ process suppliers are asked to complete questions on their carbon and climate processes and management, those who perform better have a higher weighted score and are preferentially chosen over other organisations, purpose weighting (including climate) is 20% of RFP weighting.
Investment in R&D	Yes	Vodacom continues to invest in energy efficiency, renewable electricity and zero carbon energy solutions, as well as investing in new products and services, especially around IoT with potential internal savings and external savings for customers. This investment is ongoing and is spread across all our sites and activities, focusing on projects with the most feasible payback periods. The magnitude of impact on Vodacom is low, the additional costs and resources invested are carefully considered to have low payback periods which saves the company money over the medium and long term. For example, investment and research includes novel cooling technologies, on site renewable generation and low emission alternatives. Further to this there is additional investment in energy efficiency across our organisation to reduce the risk of increasing prices and any potential carbon taxation. These actions are taking place currently and are expected to continue over the short and medium term. As far back as 2012, the Vodacom Site Solution Innovation Centre in Midrand is one of the first 4 projects certified as ‘net zero’ under the Green Building Council South Africa’s (GBCSA) certification programme. The GBCSA is one of 14 green building councils participating in the World Green Building Council’s Advancing Net

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
		Zero project, which aims to promote and support the acceleration of net zero carbon buildings to 100% by 2050. R&D at Vodacom's Innovation Centre has a high impact on business as it produces innovative solutions to Vodacom's energy needs for its network and operations such as the hybrid generator power-cube – a combination of diesel generators and batteries that cut diesel use by up to 70% per site. With a vast footprint of towers or masts spread across multiple geographies, on-site solar can be challenging due to limited physical space, site accessibility, theft and vandalism. On-site renewable electricity is currently less than 1% of overall renewable energy consumption due to space constraints on infrastructure. Vodacom is testing new approaches and technologies to find sustainable solutions, such as renewable hybrid systems that use various renewable energy sources such as wind and hydrogen to provide further system efficiencies.
Operations	Yes	Vodacom's business strategy over the short-, medium- and long-term is influenced by the need for energy security and to reduce energy consumption and costs as well as greenhouse gas emissions. In FY2020 Vodacom set long-term company-wide absolute target to reduce Scope 1 &2 GHG emissions by 50% from a 2017 baseline and to purchase 100% of energy from renewable energy sources by 2025. To achieve the target Vodacom's energy strategy prioritises energy-efficient practices, followed by on-site renewable energy generation to power operations, then power purchase agreements (PPAs) and lastly to purchase renewable electricity certificates (RECs). Energy savings will result in large operational costs savings while benefits from potential S12l tax allowances and incentives or subsidies for energy-efficient equipment and renewable energy technologies will add to an organization's bottom line.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
		PPAs typically provide electricity at a discount to current wholesale electricity prices and by agreeing a tariff for renewable energy with IPPs today with known annual escalations, the energy costs can be contained over time which will aide cost competitiveness. On-site renewables reduce grid electricity consumption and increase energy security as well as ease the load on the site's batteries in the event of load-shedding. During FY2022 Vodacom installed solar power systems at sites in Polokwane, Vereeniging and Bloemfontein producing 127 MWhs of clean energy. These three sites form part of the 1 088 solar-powered sites across all of Vodacom's markets providing alternative energy sources and security. To save energy costs and reduce carbon emissions, Vodacom during FY2022 invested R50.5m in implementing energy efficiency projects resulting in savings of more than 9.1 GWh and associated emissions of 1.09%. This was achieved through the installation of 448 air-conditioners with inverters and the replacement of old, inefficient uninterrupted power supply (UPS) systems, together with the installation of 2 354 new rectifiers in the access network to optimise energy consumption.

C3.4

(C3.4) 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 Direct costs Capital expenditures Capital allocation	REVENUES There are potential new opportunities from IoT connected devices to help customers drive their resource reduction goals. Vodacom is actively seeking an increase in IoT customers as part of continuing business activities. This could be a potential driver of growth across the company in the short and medium term. We are constantly expanding our portfolio into high return growth areas, such as digital services and the Internet of Things that leverage and complement our core connectivity business. The IoT

	Financial planning elements that have been influenced	Description of influence
	Access to capital Assets	connections have enabled carbon savings for customers of approximately 1 648 494 tCO2e during FY2022. Vodacom's IoT connections increased 21.4% to 6.8 million, with revenue growth of 31.5% during FY2022. There is a downstream risk on our reputation and increased stakeholder concern and negative feedback. This would lead to decreased revenues due to reduced demand for products and services. The transition risks have heightened external pressures and demands for action negatively impacting revenues from those companies late to react and trigger an increase in taxation and energy prices. There is also a risk that B2B customers who are requiring environmental credentials and ISO certificates will withhold revenue. To manage this, we launched a new Eco Rating labelling scheme developed by Vodafone and other European orgs. This allows consumers to identify and compare the most sustainable mobile phones on the market, whilst also encouraging suppliers to reduce the environmental impact of devices. More than 150 mobile phones from 15 manufacturers are now assessed by the Eco Rating initiative, nearly doubling the range of devices rated at launch. OPERATING COSTS Current and future increased energy costs from greater cooling requirements due to higher ambient temperatures and higher costs of sourcing renewable electricity, include the costs of building onsite generation and switching from diesel generators to hybrid systems, all of which have potential to increase operating costs across the organisation, these are in the order of 1-2% of total annual energy spend. Additional energy saving initiatives and action to reduce energy demand from cooling and improve energy efficiency have begun to be implemented to address the potential risks. These should help reduce energy costs over the longer term but have short term cost increases. Energy costs are a significant cost across the company therefore any increased costs are undesirable. Over the short term this impact will have a medium additional cost on our purchasing of equipment and renewable energy, longer term the total impact will be lower due to potential savings and lower costs. ACCESS TO CAPITAL In the previous financial year Vodacom secured a long-term sustainability-linked loan worth R2 billion with Standard Bank South Africa (SBSA), making it the first agreement of its kind for a telco in South Africa.

	Financial planning elements that have been influenced	Description of influence
		The sustainability loan motivates Vodacom to better manage ESG factors by lowering the finance costs in accordance with sustainability performance. As part of the agreement, Vodacom and SBSA agreed on a set of targets for the loan, based on an overall ESG management score, of which the baseline is 55.8 points. The overall ESG management score will be assessed independently by Sustainalytics for the duration of the loan. Based on this assessment, Vodacom's ESG performance improved significantly - from 55.8 to 66.6 in FY2021, while overall risk exposure improved from 14.1 to 12 in FY2022. The ESG score is calculated based on seven key principles: corporate governance, product governance, carbon emissions, data privacy and security, business ethics, human capital, and human rights. While the overall score qualifies Vodacom for the maximum discount in finance costs, the improvements also demonstrate Vodacom's commitment to improving its sustainability performance, which is underpinned by the objective of connecting people for a better future. CAPITAL EXPENDITURE To save energy costs and reduce carbon emissions, Vodacom, during FY2022 spent capital in the amount of R50.5 million to implement energy efficiency projects which resulted in cost savings of R14.4 million and saved more than 9.1 GWhs and associated emissions of 1.09%. This was achieved through the installation of 448 air-conditioners with inverters and the replacement of old, inefficient uninterrupted power supply (UPS) systems, together with the installation of 2 354 new rectifiers in the access network to optimise energy consumption. CAPITAL ALLOCATION Greater capital expense on improving energy efficiency to reduce energy use, more onsite renewable energy generation and alternative energy sources. More investment in equipment with greater resilience to increasing temperatures. Additional costs are often assessed against a short payback period (commonly 3 years), this shows the potential for long term savings through taking action now to address potential risks and increases in costs associated with climate change.

	Financial planning elements that have been influenced	Description of influence
		Furthermore, there are also potentially new investment opportunities into new technologies and business practices to take advantage of opportunities to connect more IoT devices and help customers reduce their resource use and/or improve efficiency. This is expected to lead to an increase in number and volume of customer IoT connections and corresponding business growth over the medium to long term, following a short term cost the longer-term impact will be positive, business case dependent.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

No, but we plan to in the next two years

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2017

Base year Scope 1 emissions covered by target (metric tons CO2e)

44,203

Base year Scope 2 emissions covered by target (metric tons CO2e)

555,010

Base year Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

599,213

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2025

Targeted reduction from base year (%)

50

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

299,606.5

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

118,708

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

594,834

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

713,542

% of target achieved relative to base year [auto-calculated]

-38.1597194987

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

Please explain target coverage and identify any exclusions

During FY2020 Vodacom set a company-wide absolute target to reduce Scope 1 &2 GHG emissions by 50% in 2025 from a 2017 baseline.

Plan for achieving target, and progress made to the end of the reporting year

As a result of increasing demand for digital services and growth Vodacom's Scope 1 & 2 emissions increased despite achieving energy efficiency savings of more than 9.1 GWhs during FY2022.

To achieve the target Vodacom's energy strategy prioritises energy-efficient practices, followed by on-site renewable energy generation, then power purchase agreements (PPAs) and lastly renewable electricity certificates (RECs).

The progress curve is likely to be exponential as more renewable energy projects come on stream. Various regulatory and subsequently administrative challenges have significantly impacted on Vodacom's ability to access renewable energies at scale. Significant effort and ongoing high level government engagements are underway to shift this to allow for scale procurement from independent power producers via power purchase agreements.

List the emissions reduction initiatives which contributed most to achieving this target

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	1	
To be implemented*	4	1,193.56
Implementation commenced*	0	0
Implemented*	4	7,580.59
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 buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

2,287.7

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

4,311,462

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

19,084,337

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Vodacom procured and installed 448 inverter aircons that is estimated to deliver savings of approximately 5% per site. HVAC systems at Florida and Framesby were upgraded with more energy efficient equipment.

Initiative category & Initiative type

Energy efficiency in buildings

Maintenance program

Estimated annual CO2e savings (metric tonnes CO2e)

1,333.07

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

2,533,507

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

13,704,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Vodacom replaced the old, inefficient uninterrupted power supply (UPS) systems at MTA and Foreshore.

Initiative category & Initiative type

Energy efficiency in production processes

Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

3,825.2

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

7,506,059

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

16,500,000

Payback period

1-3 years

Estimated lifetime of the initiative

3-5 years

Comment

Vodacom installed 2 354 new rectifiers in the access network to achieve energy savings through optimisation.

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

134.62

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

264,160

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

8,000,000

Payback period

>25 years

Estimated lifetime of the initiative

21-30 years

Comment

Vodacom installed 3 new solar PV systems at its Polokwane, Vereeniging and Bloemfontein sites to reduce electricity consumption and ease the load on the sites' batteries in the event of load-shedding.

C4.3c

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

Method	Comment
Financial optimization calculations	Financial optimization taking energy consumption into account. Upgrading/replacing equipment is according to available budgets, depreciation rates, asset write-offs and other business drivers including an energy consumption analysis.
Employee engagement	Employees are empowered to manage environmental issues as an integral part of their job and to investigate more efficient technology interventions to lower operational costs through energy efficiency.
Partnering with governments on technology development	Vodacom makes use of the Eskom Demand Side Management (DSM) subsidies and rebates where available to help defray the capital costs of equipment and the NBI's Private Sector Energy Efficiency Project (PSEE) to leverage off the knowledge and skills of experts.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Evaluating the carbon-reducing impacts of ICT

Type of product(s) or service(s)

Systems integration
Smart meter

Description of product(s) or service(s)

IoT - SMART METERING / SMART WORKING
Vodacom offers products that contribute to saving energy and reducing CO2 emissions for clients by giving end users detailed, real-time information that could lead to behaviour changes and enabling them to work differently from the traditional, carbon-intensive methods of doing business.

IoT solutions enable objects or devices such as cars, traffic or streetlights and buildings to send and receive real-time information through our network. This information enables business customers to gain insight into how their resources are being utilised. This enables customers to reduce costs, energy and fuel consumption, carbon emissions and improve efficiency in their assets and operations. Vodacom provides technology solutions for monitoring water and energy consumption, which prevents wastage from excessive or abnormal usage.

Additionally, the diesel tank monitoring solution provides early warning of possible leaks, enabling enterprises to act timeously to limit loss and avoid the environmental impact of diesel leakages.

During FY2022 Vodacom Business had 6.8 million IoT connections which enabled carbon savings. This included more than 265 000 smart metering solutions and 483 004 smart logistics and fleet management solutions in South Africa.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Evaluating the carbon-reducing impacts of ICT

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Not applicable

Functional unit used

Vodacom has several functional units for the different types of IoT connections measured. For example for residential smart meters, the % energy savings (electricity and gas) are calculated, and the assumed saving percentages are then applied to the average gas and electricity household energy consumption figures by country, to calculate the energy saving per household. These figures are then converted to CO2e figures using standard emission factors.

Reference product/service or baseline scenario used

For each product Vodacom uses a 'Business as Usual' baseline scenario, which represents the “before” scenario of a specific process.

Life cycle stage(s) covered for the reference product/service or baseline scenario

Not applicable

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

1,684,494

Explain your calculation of avoided emissions, including any assumptions

The overall approach to quantifying the carbon abatement enabled by Vodacom’s products and services has been to identify propositions within Vodacom’s portfolio that have the potential to reduce carbon emissions. For each of these propositions (a product, service, or combination thereof) a quantity (unit of measure) and a carbon factor per unit of quantity are identified and multiplied by each other. The quantity portion of this equation might be the number of Machine-to-Machine (M2M) connections or number of users.

This is based on Vodafone methodology. Carbon abatement factors for different IoT products/ services:
Smart metering (Domestic) - Average electricity and gas saving assumed is 2.8% and 2% per annum respectively.
Smart metering (Commercial) - Average electricity and gas usage reduction assumed is 16.8% per annum.
Smart Logistics & Fleet Management (Bus) - Fuel saving assumed is 6%. This is applied to average annual emissions for a bus.
Smart Logistics & Fleet Management (Cars) - Fuel saving assumed is 6%. This is applied to average annual emissions for a car.
Smart Logistics & Fleet Management (Usage based insurance) - Assumed saving of between 189.5 kg/CO2e and 203.7 kg/CO2e per connection.
Smart Logistics & Fleet Management (Light and heavy goods vehicles) - Fuel saving assumed is between 2% and 10%, dependent on classification and application. This is applied to average annual emissions for an LGV or HGV.
Smart Logistics & Fleet Management (Taxis) - Uses a carbon abatement factor of 344.1 kgCO2e per connection, taken from the analysis for the Vodafone Netherlands “Environmental Profit and Loss” report , which used a fuel saving figure of 5%, applied to average annual emissions for a taxi.
Smart Logistics & Fleet Management (Smart Bin) - Abatement factor of 5kgCO_2e per smart bin was used.
Streetlighting - Reduction in energy consumption of streetlights assumed is 7%.
Electric vehicle Charging - Annual distance driven was calculated from the charge provided by a charging point (assumed 14 kWh/day) . The saving is the difference in emissions for that distance between an average petrol vehicle and an EV.
Health Care - Assumed 21% reduction in hospital admissions.
Cloud and Data Centre Hosting - Assumptions used on average server power, virtualisation ratio, customer and Vodafone PUE factors.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

1.75

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	Scope 3 Well-to-Tank (WtT) emissions have been added to Scope 3 in addition to the previously reported Tank-to-Wheel (TtW) emissions from fuel and electricity consumption. Combined, this accounts for the full lifecycle of all fuels combusted by the company, including mobile fuel, stationary fuel, and electricity, as well as fuels combusted in the value chain such as courier and business travel. This complies with best practice reporting. The prior year has been restated to reflect these changes.

C5.1c

(C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	No, because we do not have the data yet and plan to recalculate next year	Our policy on environmental data reporting is to include performance data from newly acquired businesses at the end of their first full year of new ownership. In terms of setting a revised baseline to reflect acquisitions, disposals or a change of control, our policy is that: – acquisitions are built into the baseline using either actual or estimated data at the end of their first full year as a controlled subsidiary; – disposals are removed from the baseline in the year of disposal; and – any identified errors >1% of the Group total are re-baselined wherever possible.

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

44,203

Comment

Scope 2 (location-based)

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

555,010

Comment

Scope 2 (market-based)

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

555,010

Comment

Scope 3 category 1: Purchased goods and services

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

289

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

55,588

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

6,541

Comment

Scope 3 category 5: Waste generated in operations

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

12

Comment

Scope 3 category 6: Business travel

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

9,160

Comment

Scope 3 category 7: Employee commuting

Base year start

April 1, 2016

Base year end

March 31, 2017

Base year emissions (metric tons CO2e)

12,335

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

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)

118,708

Start date

April 1, 2021

End date

March 31, 2022

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

113,993

Start date

April 1, 2020

End date

March 31, 2021

Comment

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 are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

596,287

Scope 2, market-based (if applicable)

594,834

Start date

April 1, 2021

End date

March 31, 2022

Comment

Past year 1

Scope 2, location-based

570,024

Scope 2, market-based (if applicable)

568,817

Start date

April 1, 2020

End date

March 31, 2021

Comment

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?

No

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

Emissions in reporting year (metric tons CO2e)

123

Emissions calculation methodology

Supplier-specific method

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

80

Please explain

Consumption of office paper and municipal water
Emission factors: Paper - Mondi Rotatrim Paper Profile and Sappi Typek Paper Profile – released December 2021 and May 2021 respectively, indicating electricity usage and CO2 emissions per tonne of paper.
Water supply - Friedrich. E. Pillay 2007 for South Africa
Tonnes of paper purchased provided by the service providers and kilolitres of municipal water consumed were used to calculate emissions according to the GHG Protocol using the provided emission factors.
Assumptions: Paper - data was provided for South African operations, but not for Mozambique, Tanzania, Lesotho & DRC.
Water consumption for Vodacom Lesotho is as reported but noted to be unrealistically low – no further data was available.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

This will be reviewed in FY2023.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

224,295

Emissions calculation methodology

Supplier-specific method

Hybrid method

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

80

Please explain

Transmission and Distribution losses from purchased electricity (TTW) with associated well-to-tank (WTT) emissions for electricity and fuel.
KWhs and litres of diesel and petrol consumed were used to calculate emissions according to the GHG Protocol using Eskom's 2021 emission factors for transmission & distribution losses, South Africa, the IEA 2021 emission factors for African countries and Defra's 2021 WTT emission factors for electricity and fuel.
Assumptions: WTT emissions for Hydroplus (methynol/water) was excluded as no emission factor is available.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,676

Emissions calculation methodology

Fuel-based method

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

80

Please explain

Third-party courier expressed as well-to-tank and tank-to-wheel (WTW)
Litres of diesel and petrol consumed by third party vehicles were used to calculate emissions according to the GHG Protocol using Defra's 2021 emission factors for fuel & WTT.
Assumptions: Third-party courier data applies to Vodacom SA only.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

274

Emissions calculation methodology

Waste-type-specific method

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

100

Please explain

Waste to landfill and recycled

Tonnes of electronic waste to landfill (including hazardous waste) and recycled were used to calculate emissions according to the GHG Protocol using Defra's 2021 emission factors for waste disposal and Friedrich and Trois (2013), GHG emission factors developed for the collection, transport and landfilling of municipal waste in South African municipalities.

Assumptions: Waste from operations was calculated using the available records.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,024

Emissions calculation methodology

Hybrid method

Distance-based method

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

80

Please explain

Business travel in rental cars, commercial airlines, hotel accommodation including well-to-tank (WTT) emissions

Car rental - kilometres travelled, average engine size and unknown fuel type provided by service provider. Defra's 2021 emission factors for business travel - land & WTT used.

Air travel - flight information provided by service provider, including class of travel, departure dates and destination of each leg. Carbon Calculated determined the distance travelled. Defra's 2021 emission factors for business travel - air & WTT used.

Hotel accommodation - bed nights provided by service provider. Defra's 2021 emission factors for hotel stay used.

Emissions were calculated according to the GHG Protocol.

Assumptions: Hotel accommodation was based on estimated number of nights away on business travel and calculations were based on 1 person occupying a room per night.

A South African emission factor has been assumed for all African destinations due to no emission factors being available from Defra. Accommodation excludes Vodacom Mozambique, Tanzania and DRC due to data not being available.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,031

Emissions calculation methodology

Distance-based method

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

100

Please explain

Employee commuting
Employee commuting is based on the FY2017 commuting survey results combined with reduced occupancy assumptions resulting from Covid-19 (South Africa – 20%; Mozambique – 50%; Lesotho – 50%; Tanzania – 60% and DRC – 50% occupancy). Emissions were calculated according to the GHG Protocol using Defra's 2021 emission factors for business travel - land, based on the following tCO2e per employee: South Africa – 1.92; Mozambique – 1.4; Lesotho, Tanzania and DRC – 1.47 tCO2e/employee.
A commuting survey will be undertaken in FY2023 taking into account hybrid working.

Upstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

This will be reviewed in FY2023.

Downstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

This will be reviewed in FY2023.

Processing of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Vodacom's services are not intermediate products that require further processing. It is not responsible for directly generating greenhouse gas emissions. This will be reviewed in FY2023.

Use of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Emissions from the use of goods and services sold by Vodacom, principally from the energy used by network equipment – such as routers – and the energy required to charge mobile devices. This will be reviewed in FY2023.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Vodacom sells mobile communication solutions and services. There is then no end-of-life treatment for sold products other than for handsets which make up a small % of Scope 3 emissions. This will be reviewed in FY2023.

Downstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

This will be reviewed in FY2023.

Franchises

Evaluation status

Relevant, not yet calculated

Please explain

This will be reviewed in FY2023.

Investments

Evaluation status

Relevant, not yet calculated

Please explain

This will be reviewed in FY2023.

Other (upstream)

Evaluation status

Not evaluated

Please explain

This will be reviewed in FY2023.

Other (downstream)

Evaluation status

Not evaluated

Please explain

This will be reviewed in FY2023.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

April 1, 2020

End date

March 31, 2021

Scope 3: Purchased goods and services (metric tons CO2e)

127

Scope 3: Capital goods (metric tons CO2e)

0

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

165,080

Scope 3: Upstream transportation and distribution (metric tons CO2e)

6,223

Scope 3: Waste generated in operations (metric tons CO2e)

1,398

Scope 3: Business travel (metric tons CO2e)

983

Scope 3: Employee commuting (metric tons CO2e)

2,262

Scope 3: Upstream leased assets (metric tons CO2e)

0

Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

Scope 3: Processing of sold products (metric tons CO2e)

0

Scope 3: Use of sold products (metric tons CO2e)

0

Scope 3: End of life treatment of sold products (metric tons CO2e)

0

Scope 3: Downstream leased assets (metric tons CO2e)

0

Scope 3: Franchises (metric tons CO2e)

0

Scope 3: Investments (metric tons CO2e)

0

Scope 3: Other (upstream) (metric tons CO2e)

0

Scope 3: Other (downstream) (metric tons CO2e)

0

Comment

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

0.0000069454

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

713,542

Metric denominator

unit total revenue

Metric denominator: Unit total

102,736,000,000

Scope 2 figure used

Market-based

% change from previous year

5.1

Direction of change

Decreased

Reason for change

Scope 1 & 2 emissions increased by 4.5% despite energy efficiency projects resulting in savings of more than 9.1 GWh. This was achieved through the installation of 448 air-conditioners with inverters and the replacement of old, inefficient uninterrupted power supply (UPS) systems, together with the installation of 2 354 new rectifiers in the access network to optimise energy consumption. A 20.8% increase in network traffic, load shedding requiring more diesel for generators and an increased emission factor in South Africa for purchased electricity resulted in increased Scope 1 & 2 emissions. Revenue increased by 10.1% resulting in a decrease in the intensity figure for revenue.

Intensity figure

0.57

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

713,542

Metric denominator

Other, please specify

Terabytes of network traffic (data and voice)

Metric denominator: Unit total

1,252,612

Scope 2 figure used

Market-based

% change from previous year

13.5

Direction of change

Decreased

Reason for change

Scope 1 & 2 emissions increased by 4.5% despite energy efficiency projects resulting in savings of more than 9.1GWh.
The 4.5% increase in Scope1 & 2 emissions, offset by a 20.8% increase in network traffic across all operations as a result of growth in data traffic from increasing demand for internet and data services, resulted in a decrease in the intensity figure for network traffic.

Intensity figure

63.1

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

713,542

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

11,309

Scope 2 figure used

Market-based

% change from previous year

3.3

Direction of change

Increased

Reason for change

Scope 1 & 2 emissions increased by 4.5% despite energy efficiency projects resulting in savings of more than 9.1GWh. A 20.8% increase in network traffic, load shedding requiring more diesel for generators and an increased emission factor in South Africa for purchased electricity resulted in increased Scope 1 & 2 emissions. Headcount increased by only 1.1%.

C7. Emissions breakdowns

C7.1

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

No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
South Africa	28,991
Mozambique	9,999
Lesotho	1,257
United Republic of Tanzania	18,078
Democratic Republic of the Congo	60,383

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)
Stationary fuel	109,945
Fugitive emissions	4,791
Mobile fuel	3,972

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)
South Africa	559,487	558,034
Mozambique	4,993	4,993
Lesotho	4,639	4,639
United Republic of Tanzania	27,142	27,142
Democratic Republic of the Congo	26	26

C7.6

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

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Network base station sites / Access network	456,513	455,060
Core Network	66,271	66,271
Data Centres	46,953	46,953
Offices	26,445	26,445
Retail	105	105

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	134.62	Decreased	0.02	3 additional solar PV systems installed at base stations produced 127 MWhs during FY2022. Total restated Scope 1 & 2 (market-based) emissions for FY2021 were 682 810 tCO2e. We therefore arrived at 0.02% through (135 / 682 810) * 100 = 0.02%.
Other emissions reduction activities	7,445.97	Decreased	1.09	The installation of 448 air-conditioners with inverters and the replacement of old, inefficient uninterrupted power supply (UPS) systems, together with the installation of 2 354 new rectifiers in the access network to optimise consumption resulted in energy savings and associated emissions. Total restated Scope 1 & 2 (market-based) emissions for FY2021 were 682 810 tCO2e. We therefore arrived at 1.09% through (7446 / 682 810) * 100 = 1.09%.
Divestment	0	No change	0	No divestments
Acquisitions	0	No change	0	No acquisitions
Mergers	0	No change	0	No mergers
Change in output	17,070.08	Increased	2.5	The number of base stations increased by 562 or 2.45% while network traffic increased by 36.96% resulting in increased Scope 2 emissions. Total restated Scope 1 & 2 (market-based) emissions for FY2021 were 682 810 tCO2e. We therefore arrived at 2.50% through (17 070 / 682 810) * 100 = 2.50%.
Change in methodology	21,057.87	Increased	3.08	The emissions factor for purchased electricity from Eskom in South Africa (Scope 2) increased from 1.02 in 2020 to 1.06 kg CO2e per kWh in 2021. Total restated Scope 1 & 2 (market-based) emissions for FY2021 were 682 810 tCO2e. We therefore arrived at 3.08% through (21 058 / 682 810) * 100 = 3.08%.
Change in boundary	0	No change	0	TowerCo inclusion was not material. therefore not reported separately.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in physical operating conditions	184.2	Increased	0.03	Load shedding in South Africa resulted in increased consumption of diesel in generators for the networks. Total restated Scope 1 & 2 (market-based) emissions for FY2021 were 682 810 tCO2e. We therefore arrived at 0.03% through (184 / 682 810) * 100 = 0.03%.
Unidentified	0	No change	0	None identified
Other	0	No change	0	None identified

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?

Market-based

C8. Energy

C8.1

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

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

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)	HHV (higher heating value)	0	448,639.5	448,639.5
Consumption of purchased or acquired electricity		1,371	689,860.55	691,231.55
Consumption of self-generated non-fuel renewable energy		5,746.92		5,746.92
Total energy consumption		7,117.92	1,138,500.05	1,145,617.97

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	Yes
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	No

C8.2c

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

Sustainable biomass

Heating value

LHV

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

Comment

Not used

Other biomass

Heating value

LHV

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

Comment

Not used

Other renewable fuels (e.g. renewable hydrogen)

Heating value

HHV

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

Comment

Not used

Coal

Heating value

HHV

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

Comment

Not used

Oil

Heating value

HHV

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

Comment

Not used

Gas

Heating value

HHV

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

Comment

Not used

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

HHV

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

Comment

Not used

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

448,639.5

MWh fuel consumed for self-generation of electricity

432,818.08

MWh fuel consumed for self-generation of heat

15,821.42

Comment

Diesel consumed in generators & equipment + petrol & diesel for fleet vehicles.

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	5,746.92	5,746.92	5,746.92	5,746.92
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Unbundled energy attribute certificates (EACs) purchase

Energy carrier

Electricity

Low-carbon technology type

Wind

Country/area of low-carbon energy consumption

South Africa

Tracking instrument used

Other, please specify

REC-SA

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1,371

Country/area of origin (generation) of the low-carbon energy or energy attribute

South Africa

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2,021

Comment

Vodacom South Africa purchased 1 371 REC certificates in lieu of FY2022 consumption.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

South Africa

Consumption of electricity (MWh)

528,641.2

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

528,641.2

Country/area

Mozambique

Consumption of electricity (MWh)

59,332.48

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

59,332.48

Country/area

Lesotho

Consumption of electricity (MWh)

13,658.86

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

13,658.86

Country/area

United Republic of Tanzania

Consumption of electricity (MWh)

70,361.56

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

70,361.56

Country/area

Democratic Republic of the Congo

Consumption of electricity (MWh)

24,984.37

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

24,984.37

C9. Additional metrics

C9.1

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

Description

Other, please specify

Network waste reused and recycled as a percentage of network waste for the year (excluding hazardous waste)

Metric value

95.6

Metric numerator

Reused + reused network waste

Metric denominator (intensity metric only)

Total network waste (excluding hazardous waste)

% change from previous year

3.1

Direction of change

Decreased

Please explain

Reused + reused network waste / Total network waste (excluding hazardous waste)
FY2022: (355.8+149.9)/529.2 = 95.6%
FY2021: (661.3+333.5)/1009.2 = 98.6%

Percentage change (95.6/98.6)-1 = -3.1

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

vodacom-esg-data-addendum-2022.xlsx

Page/ section reference

FY2022 ESG data addendum - refer to tab "Assurance" under the section "Other"

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

24

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

vodacom-esg-data-addendum-2022.xlsx

Page/ section reference

FY2022 ESG data addendum - refer to tab "Assurance" under the section "Other"

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

94

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

vodacom-esg-data-addendum-2022.xlsx

Page/ section reference

FY2022 ESG data addendum - refer to tab "Assurance" under the section "Other"

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

94

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

vodacom-esg-data-addendum-2022.xlsx

Page/section reference

FY2022 ESG data addendum - refer to tab "Assurance" under the section "Other"

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

74

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, but we are actively considering verifying within the next two years

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, 2020

Period end date

December 31, 2020

% of total Scope 1 emissions covered by tax

0

Total cost of tax paid

0

Comment

Both the Carbon Tax Act and the Customs and Excise Amendment Act came into effect on 1 June 2019.
The carbon tax filing and payment for the period January to December 2020 was due by 29 July 2021.
Refrigerant gas consumption has been excluded for the first phase of the carbon tax and the 2020/2021 fuel levy of 7 cents per litre on petrol and 8 cents on diesel is added to operating costs as part of the fuel price – taxed at source.

Vodacom's combined generator capacity exceeds 10MW(Thermal) and therefore it has to submit environmental levy accounts annually, although no tax is due or payable.

C11.1d

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

As part of South Africa's ongoing efforts to move towards a low carbon economy and to meet South Africa's NDC targets, the Carbon Tax Act and the Customs and Excise Amendment Act came into effect on 1 June 2019. The tax rate was set at R120 per tonne of CO2e (carbon dioxide equivalent) produced and increases annually by inflation plus 2 per cent. During the first stage, a percentage-based threshold of 60% will apply, below which tax is not payable. The first phase was extended from 31 December 2022 to 31 December 2025. The intention is to provide for a tax-free liability threshold of 10 megawatts (MW) thermal capacity. The threshold is high enough to exclude non-industrial activities from the carbon tax, but low enough to make the tax applicable to most high-emitting industries in the country.

The South African Greenhouse Gas (GHG) Reporting Regulations require all South African companies that are in control of certain listed activities exceeding a specified threshold to report their GHG emissions to the Department of Forestry, Fisheries and the Environment (DFFE). DFFE will use the GHG emissions reported by companies as basis for carbon tax liability calculations. An entity liable for mandatory reporting was obliged to register each facility on the internet-based National Atmospheric Emission Inventory System (NAEIS). Once registered, liable entities are required to report their aggregated South African facilities' GHG emissions at company level for the preceding calendar year to DFFE by 31 March each year via NAEIS.

Businesses that have identified themselves as not liable for carbon tax during the first phase, are still required to submit environmental levy accounts regardless of whether any carbon tax payment is due.

Vodacom is therefore complying with the carbon tax legislation by compiling its annual carbon footprint. It has assessed all its facilities to determine whether its associated emission activities qualify for or exceed the 10MW thermal threshold. Vodacom is currently below the threshold for carbon tax; however, we have registered with the DEFF as required by regulation, and we report annually onto the South African Greenhouse Gas Emissions Reporting System (SAGERS).

Vodacom is implementing the ISO 50001 standards by 2024. This ensures sound governance, a focus on best practice energy management and high-quality reporting.

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?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Drive energy efficiency

Drive low-carbon investment

GHG Scope

Scope 2

Application

Vodacom is majority owned by Vodafone. Vodafone is working through its Net Zero strategy (which includes Vodacom as a material contributor to the Vodafone carbon emissions) to determine the selected offsetting projects and partners as well as the price level of removals projects which Vodafone will commit to within the strategy. Emissions reductions targets and supporting plan supports to reduce the exposure to carbon pricing risk given reductions

lower the amount of residual emissions to offset.

Vodafone has used an internal carbon price to determine how energy and carbon costs may change for our business which includes the Vodacom Group operations. Vodafone uses an internal carbon price to forecast energy costs for each of our business divisions and markets to come up with a value overall

Actual price(s) used (Currency /metric ton)

180

Variance of price(s) used

10 in GBP equivalent to CR180

0-100 GBP, the cost of carbon offsetting or potential carbon pricing and carbon taxes are used to estimate costs and potential risks in the business.

Type of internal carbon price

Implicit price

Offsets

Impact & implication

Modelling of potential additional energy costs of fossil fuel-based energy sources used to drive business case for move towards renewable energy sources, increasing energy efficiency and determine potential risks from climate change.

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, other partners in the value chain

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

2

% total procurement spend (direct and indirect)

20

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

Rationale for the coverage of your engagement

Vodacom aims to ensure integrity in its supply chain processes by identifying and managing environment-related risks. Vodacom encourages all suppliers and business partners to adopt sustainable business practices.

The most significant areas of spend are network infrastructure, IT and services related to fixed lines, mobile masts and data centres that run the networks. The next largest area of spend is the products that are sold, including mobile phones, tablets, SIM cards, routers, and IoT devices.

Approximately 66% of external spend is managed by Vodafone Procurement Company, based in Luxembourg, and shared services, in Ahmedabad, India, with the rest managed by Vodacom. Therefore, there is a consistent approach to supplier management, from onboarding and vetting a supplier to raising orders and paying for delivered goods and services.

Through Vodafone, over 160 top suppliers must report their carbon and energy data, renewable electricity use and any targets via the CDP supply chain

programme. Suppliers are directly engaged on why it is important to respond and the value of responding and taking action to both them and ourselves. There are also a number of awards and recognition of those suppliers responding and taking significant action.

Impact of engagement, including measures of success

Through the Vodafone process, 90% of requested suppliers responded to our information requests, much higher than industry average. Of these 92% report scope 1 and scope 2 emissions; furthermore 88% have emission reduction targets, all higher than the industry average. Overall success is measured in the level of response and the number of suppliers taking action to reduce their carbon emissions.

When new suppliers tender for work, they are asked to demonstrate policies and procedures that address carbon reduction, renewable energy, plastic reduction, circular economy and product life cycle, which account for up to 20% of the overall evaluation criteria.

For the procurement on energy efficiency improvements in hardware and software solutions a 20% weighting for environmental and social criteria is included in the supplier evaluation request for quotation processes.

During FY2022 Vodacom spent R62.3 billion with 9 084 suppliers to meet business and customers' needs - all the suppliers met the evaluation criteria when onboarded.

Procurement requirements are backed by risk assessments, audits and operational improvement processes, which are included in suppliers' contractual commitments. Some site audits are conducted under the Joint Audit Cooperation (JAC) initiative.

JAC is an association of telecommunications operators established to improve ethical, labour and environmental standards in the technology supply chain, which Vodafone chairs. During FY2022, 71 site assessments were conducted (either by Vodafone or through the JAC), with several supplying to Vodacom.

During FY2022 Vodacom conducted audits of 3 local suppliers regarding their compliance against the Group's health, safety, environment and quality requirements.

Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change
Climate change performance is featured in supplier awards scheme

% of suppliers by number

85

% total procurement spends (direct and indirect)

85

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

Rationale for the coverage of your engagement

In line with Vodafone, climate change and environmental performance is a weighted category in all supplier evaluation RFQ processes with higher scores give to better performance. For example, the assessment awards positive scoring for suppliers that have set (or are willing to set) a Science-Based Target. In addition, suppliers which offer product-specific CO2 data and pathways for reduction over the contract period are positively scored. Furthermore, we use of CDP supply chain data and other data gathered from suppliers to work with suppliers on carbon reduction from major sources within our supply chain. This year, 90% of those suppliers asked to respond did so.

Vodafone also has an annual supplier award scheme which includes a Planet/ Sustainability award. The award assessment is based on the suppliers' sustainability performance, which features the climate-related metrics that we collected through the supplier scorecard.

Impact of engagement, including measures of success

Emphasises the importance of climate change to our suppliers and opens discussions with suppliers who do not meet minimum requirements about what we expect from them. Drives change through pressure to meet requirements. This success is shown in the number and quality of CDP supply chain responses through our engagement: 88% reported that they had set a structured target for GHG emissions, while 92% reported their scope 1 and scope 2 emissions. furthermore, 40% of our suppliers reported to use renewable energy.

Success will be measured by the number of suppliers who are reporting to CDP and showing carbon reduction year on year, and the increase of % of suppliers that use of renewable energy, as well as the number who commit to their own carbon targets (aligned to 1.5C science-based targets) and the proportion of total spend with suppliers with carbon reduction commitments and targets. For example over the next 3 years the number of suppliers who are reporting carbon reductions increase, as does the percentage of spend with suppliers who have set 1.5 aligned carbon reduction targets.

Comment

C12.1d

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

While we do not have operational control of investments, Joint Ventures and partner markets, through continual engagement we aim to influence and encourage carbon reduction and sustainable action. This engagement includes sharing best practice, regular (monthly) group calls, multi-day sustainable business workshops and specific engagement on topics when requested.

Case study: one of our joint ventures: Safaricom has committed to setting a science-based target and we support their efforts through regular engagement, input into strategy and supporting functions.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization’s purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

When new suppliers tender for work, they are asked to demonstrate policies and procedures that address carbon reduction, renewable energy, plastic reduction, circular economy and product life cycle, which account for up to 20% of the overall evaluation criteria.

For the procurement on energy efficiency improvements in hardware and software solutions a 20% weighting for environmental and social criteria is included in the supplier evaluation request for quotation processes.

Vodacom expects every supplier to continually monitor their compliance against the Group's health, safety, environment and quality requirements and, if they fail to do so, promptly implement mitigating actions.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

95

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment
Off-site third-party verification

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

Vodacom-Integrated-Report-2022.pdf

News releases _ Vodacom Group.pdf

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

Vodafone's policy engagements are governed and coordinated by Group External Affairs. Any policy engagement regarding energy and climate change must follow our environmental policy requirements which set out our position on energy and climate change. External affairs professionals within Vodafone are provided with training to ensure they are aware of the requirements of the policy. Annually, as part of our environmental data collection process, we ask all markets to describe the engagements they have taken place in. In this way, we ensure that engagements are consistent with our overall climate change strategy.

Vodacom has specialist regulatory and government relations teams who engage with Government, Regulators, and Business Partners such as Business Unity South Africa (BUSA) and the National Business Initiative (NBI) on policy issues impacting the business including climate change. They participate actively through written submissions and formal hearings on legislative and regulatory changes. Feedback on issues is reported as per Vodacom’s risk management framework.

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate

Electricity grid access for renewables
Renewable energy generation

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Requirements set out in Schedule 2 Gazette No 43151 of the Electricity Regulation Act (ERA) regarding licensing, registration or to be exempt from registration, for a generation facility

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

South Africa

Your organization's position on the policy, law, or regulation

Neutral

Description of engagement with policy makers

Management actively engages with government, through Eskom, and local municipalities to speedily unlock the supply of renewable energy for all and/or to facilitate developing renewable energy infrastructure that will allow IPPs to connect to the grid and to facilitate wheeling.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

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 mainstream reports

Status

Complete

Attach the document

Vodacom-Integrated-Report-2022.pdf

Page/Section reference

Vodacom Integrated Report 2022: pages 1-96

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures

Comment

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Vodacom-Sustainability-Report-2022.pdf

Page/Section reference

Vodacom Sustainability Report 2022: pages 1-59

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

Vodacom-TCFD-Report-2022.pdf

Page/Section reference

Vodacom TCFD Report 2022: pages 1-22

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	Vodacom has a comprehensive Operational Resilience Programme that is overseas by the Risk Management Committee who provides feedback to the Executive Committee via the Chief Risk Officer and the Chief Technology Officer. Biodiversity related risks are reviewed and approved twice a year by our Executive Committee before being submitted to the Audit, Risk and Compliance Committee (ARCC) and Board. While the impact of Vodacom's business on biodiversity is relatively low, it aims to understand whether its value chain activities contribute to the loss of biodiversity in any way. Natural habitats are incorporated within infrastructure, including wetlands, nesting for birdlife and planting indigenous vegetation at office buildings. Where possible, towers and masts are in the guise of trees that blend into the natural environment. Through partnership with WWF, Vodacom continues to leverage technology to support various conservation efforts.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity		SDG Other, please specify Tanzania Forest Service, Tanzania government & WWF - plant 150000 trees at Kisarawe, Mkuranga and Dodoma Limomonane Trust (Lesotho) - sustainable urban greening and forest restoration project South African Sustainable Seafood Initiative (WWF-SASSI)

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	Yes, we assess impacts on biodiversity in both our upstream and downstream value chain

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Livelihood, economic & other incentives

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity Details on biodiversity indicators	Vodacom Sustainability Report 2022 - p 34 1

[1]Vodacom-Sustainability-Report-2022-Biodiversity p34.pdf

C16. 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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Group ESG Officer	Other, please specify ESG officer

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	102,000,000,000

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
Customer base is too large and diverse to accurately track emissions to the customer level	To improve accuracy in allocating emissions, a detailed analysis would be required of how much traffic the customer generates from voice, data, etc., and whether the customer is using fixed or mobile networks, since different forms of communication have a different carbon intensity. It would also be useful to understand how the customer uses the product or service they receive from Vodacom day-to-day. As such, we invite our customers who wish to understand better the emissions associated with Vodacom's services and what is being done to reduce these to contact our Group Sustainability Team via their account manager.

SC1.4

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

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

We already have the capability in house, but it requires a willingness on the part of the customer to work with us and provide some detailed information on how they are using our products and services. We are more than happy to do so if a customer would like to contact us directly.

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?

No

SC4.1

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

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms