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Natural capital

We are committed to preserving natural capital as part of our protecting the planet purpose pillar. Our focus is on mitigating the effects of climate change and enabling the transition to net zero. Vodacom remains true to our protecting the planet purpose pillar by leveraging digital technology to enable energy management and the efficient use of natural resources.



What natural capital means to Vodacom

We use natural resources in our day-to-day business activities, including those used to produce electricity, water, and resources, and to create manufactured capital supporting our infrastructure and the devices we sell. We are working to minimise the environmental impacts of our operations, value chain, products and services. One of our key focus areas is improving circularity through various initiatives, such as the Good as New programme.



How natural capital supports our purpose and strategy

Natural capital is critical for us achieving our purpose – **to connect for a better future**, enabling us to deliver diversified offerings to our customers. While using natural capital is necessary for us to operate, we are committed to reducing the environmental impact of our business activities.

Climate change poses physical and transitional risks to our strategy but also presents opportunities to leverage digital technology. Our GHG emissions reduction and waste management strategies are at the core of our climate action. We assess the actual and potential impacts of climate-related risks and opportunities on our business to help us build resilience and identify opportunities to support others in their transition to a low-carbon economy.



Our natural capital at a glance

Our key focus areas	Key FY2024 achievements	Strategic pillar affected
<p>Responding to climate change to help build a sustainable future</p>	<ul style="list-style-type: none"> Applied for the validation of the Group's science-based targets Continued the Group's transition planning which we outline in our Climate and TCFD report Participated in various African and global platforms and partnerships aimed at collective solutions to Africa's transition Provided disaster relief in South Africa, DRC and Tanzania and cyclone victims in Mozambique 	<p>10</p>
<p>Decreasing scope 1 and scope 2 GHG emissions to reduce our contribution to climate change</p>	<ul style="list-style-type: none"> Developed a detailed net zero roadmap to reach a 100% reduction in scope 1 and 2 GHG emissions by 2035 and outlined near-term activities for scope 3 Piloted cutting-edge renewable solutions including hydrogen fuels cells Completed a 6MWp solar installation on our head office campus Concluded South Africa's first virtual wheeling agreement, which is expected to replace up to 30% of South Africa's electricity consumption with renewable power Procured 65% of our purchased electricity in Egypt from the Egyptian government's renewable energy programme Rolled out a further 276 (FY2023: 163) solar-powered sites Optimised network to improve energy efficiency, including the more energy efficient equipment, IoT.next energy saving solutions and the use of batteries to partly reduce the use of diesel generators Achieved ISO 50001 certification across all OpCos Scope 1 and 2 GHG emissions reduced by 28% year on year 0.14tCO₂e per terabyte of data, down 48% Invested R82 million in energy efficiency projects, with the potential to deliver annual energy savings of 24.1GWh (FY2023: R33 million; 3.4GWh¹) 	<p>2 8 10</p>
<p>Managing scope 3 GHG emissions to support our customers and suppliers</p>	<ul style="list-style-type: none"> Reviewed the Group's scope 3 methodology in the ongoing improvement of our disclosures Secured our first independent assurance on our full scope 3 inventory Supported customers in avoiding 1.4 million tCO₂e of emissions¹ (the equivalent of 70 million trees growing for one year) 	<p>10</p>
<p>Driving circularity to optimise our operations</p>	<ul style="list-style-type: none"> 1 273.1 tonnes of non-hazardous network equipment recycled (FY2023: 1 167.1 tonnes)² 1 277.7 tonnes of hazardous network waste recycled (FY2023: 1 724.7 tonnes)² 11 882 consumer devices reused (FY2023: 902) 6 029 consumer devices recycled (FY2023: 5 355) 	<p>10</p>
<p>Supporting biodiversity to understand our impact and implement new technologies</p>	<ul style="list-style-type: none"> Launched with WWF South Africa, a pilot to safeguard marine mammals against entanglements in Saldanha Bay on South Africa's West Coast Partnered with local company Africa Moto in DRC to distribute clean cooking solutions Continued our partnership with Limomonane Trust in Lesotho towards sustainable urban greening and forest restoration, with 48 000 trees planted since 2022 (FY2023: 12 500) 	<p>10</p>

1. FY2023 excludes Egypt.

2. FY2023 data restated to include Egypt to allow for comparability.

The value we create, preserve and erode

Responding to climate change to help build a sustainable future

FY2024 was the hottest year on record, with average temperatures reaching 1.35°C above the pre-industrial average¹. These records were accompanied by devastating extreme events, which the Intergovernmental Panel on Climate Change has warned are just the beginning of an ongoing trend. The impacts of climate change pose a significant risk to our operations, associated value chains and the countries in which we operate. We address the global climate crisis through our efforts to mitigate and address our climate-related impact and risks.

1. National Oceanic and Atmospheric Administration



Advocating for change

- ✔ We continued to work with various stakeholders and participated in various African and global platforms and partnerships aimed at collective solutions to Africa's transition, including providing technical reviews and insights to the GSM Association's (GSMA's) paper Energy Challenges for the Mobile Networks in Sub-Saharan Africa, which was launched and discussed at Mobile World Congress Africa in Rwanda in October 2023, and the United Nations Global Compact African Business Leaders Coalition's Policy blueprint launched at COP28 in the United Arab Emirates in December 2023.

Vodacom's TCFD programme

- We enhanced the Group's Climate and TCFD report to include our GHG emissions reduction strategy, as well as additional information on our climate transition plan and associated activities. We re-validated our key climate risks and opportunities and participated in a global Vodafone risk review process.

We continued to follow regulatory and disclosure developments with a focus on the International Sustainability Standards Board's S2 standard and corporate South Africa's consideration thereof.



For more information, refer to our **Climate and TCFD report**

Supporting those affected by severe weather

- ✔ Climate change-related weather events are escalating, with cyclones and flooding impacting areas of southern Africa in the past year. During the year, we supported communities impacted by fire in South Africa, the flood victims in South Africa, DRC and Tanzania and cyclone Freddy victims in Mozambique. Relief efforts included food supplies, cleaning products and blankets, valued at over R3.2 million.



For more information, refer to our **ESG report**

Supporting partnerships and collaboration

- ✔ Partnerships are essential to addressing the climate and nature crises and reducing environmental impacts. We work with global and local partners to deliver on our protecting the planet purpose initiatives. Our partners include the UN Global Compact African Business Leaders Coalition, GSMA, USAID in DRC and the WWF in South Africa and Tanzania.

We participate in various industry initiatives, such as the GSMA's climate and biodiversity project groups.

Uniting through RedLovesGreen

- Our RedLovesGreen journey aims to unite Vodacom, our customers and our partners to create environmental awareness and encourage action towards a more sustainable future. Through this, we communicate and educate for a positive impact on climate change.

Decreasing scope 1 and scope 2 GHG emissions to reduce our contribution to climate change

We aim to match 100% of the grid electricity we use with electricity from renewable sources by 2025, and also to achieve net zero GHG emissions from our operations (scope 1 and 2) by 2035, in line with a science-based pathway to limit global warming to 1.5°C by 2100. Our activities to reduce scope 1 and scope 2 emissions focus on energy management, which prioritises energy efficiency, installation of on-site renewables, purchasing energy from off-site renewables, and offset mechanisms. The approach is followed across network sites, technology centres and offices and is implemented within the context of the energy infrastructure of each country where we operate.

We execute our energy strategy and decarbonisation plan through the leadership of our Group Technology Energy Performance centre of excellence. This team coordinates the development of practical, implementable projects and initiatives on our journey to becoming net zero in our operations. Each OpCo energy lead coordinates localised energy and decarbonisation strategies, which considers the country's unique operating contexts, in accordance with the Group energy strategy. All our OpCos have now obtained ISO 50001 certification, which specifies energy management system requirements.

Group scope 1 and 2 market-based GHG emissions (thousand tCO₂e)


Scope 1

FY2024	196.6
FY2023	192.9
FY2022	189.2
FY2021	190.6
FY2020	186.3

Scope 2

FY2024	422.2
FY2023	662.3
FY2022	757.8
FY2021	714.3
FY2020	719.5


Driving energy efficiencies

 Vodacom's primary source of GHG emissions is from our use of grid electricity and diesel generators. Our energy consumption is from our access network of base stations (82%), technology centres (13%), buildings (offices and warehouses) (3%), and retail stores (1%) and transport (1%).


Our energy consumption increased by 3% to 1 922.4GWh (FY2023: 1 862.2GWh)¹, however our energy intensity decreased to 0.43 MWh per terabyte of data (FY2023: 0.58 MWh per terabyte of data).

We spent R4.7 billion (FY2023: R3.8 billion) on energy, a 23% year on year increase driven by higher tariffs and increased usage in some markets due to network expansion, the rollout of 5G and loadshedding. We invested R82.0 million in energy efficiency projects, with the potential to deliver annual energy savings of 24.1GWh (FY2023: R33 million, to deliver 3.4GWh savings). The projects focus on our base station sites and data centres.

Switching to renewables

 Our footprint of base stations is spread across multiple geographies. In most of the geographies that we operate in, the national grid is highly intermittent and suitable replacements for diesel generators are required. Onsite solar presents a solution; however, it can be challenging due to limited physical space, site accessibility, theft, vandalism, maintenance requirements and other market-specific challenges. Major advancements in current technologies will be required to deploy onsite renewable fuel sources at scale. New rural base stations are either entirely solar powered or use a mixture of solar and grid power.

26% of our total energy consumption is from renewable sources, including energy generated by our solar plants, purchased through PPAs and renewable electricity certificates (RECs). Where the grid mix includes renewable sources, this is not reflected in our renewable energy numbers, but it is reflected in the grid emission factor that we apply to calculate our scope 2 emissions.

 In Egypt, our agreement with the New and Renewable Energy Authority supplies us with electricity from **renewable projects powering 65%** of our operations in Egypt.

1. FY2023 data restated to include Egypt to allow for comparability.



Natural capital continued



- ✓ In South Africa, the **6MWp photovoltaic installation** at our head office is complete. It produces around 10.8GWh annually, saving the equivalent of 10 908tCO₂e.
- ✓ Our **virtual wheeling** agreement with Eskom will result in up to 30% of our South African electricity replaced with electricity from renewable sources.

DRC has an existing PPA with a microgrid provider. Legislation has recently been changed for Mozambique to allow for microgrids, and, as a result, we are developing proof-of-concept microgrid solutions. Private grid-connected PPAs are not yet possible in Egypt, Lesotho, Mozambique and Tanzania.
- Purchasing RECs forms part of our energy management strategy in the following instances:
 - In countries where fossil fuel-based electricity consumption is high, where grid availability is low and/or full on-site conversion to renewable electricity supplies is limited; and
 - As an interim mechanism to achieve our renewable energy sourcing commitments until we find suitable renewable solutions.

Where possible, we source RECs from within our operating countries; however, Lesotho, Mozambique and Tanzania do not have local issuers of RECs. The incremental cost of RECs, or their equivalent, is currently low when considered in the context of our overall energy spend.



For more information, refer to our **ESG report**

Managing diesel use

- ✗ We used 70.0 million litres of diesel (FY2023: 67.0 million litres)¹, mainly in stationary generators at our off grid sites or sites where grid-supplied electricity is unreliable. Increased diesel consumption was driven by more frequent grid power interruptions and intermittent power supply, particularly in South Africa, Mozambique, Tanzania and DRC. There was also an increase for Tanzania and DRC due to more accurate data being available for energy used at TowerCo base station sites.

In the short term, we focus on optimisation of control, where we prioritise batteries over diesel generators. In the long term, we seek alternatives to diesel, including connecting off-grid sites to the grid where possible, deploying wind and solar where applicable and exploring newer technologies such as microturbines and **hydrogen fuel cells**.



For more information on the impact of loadshedding on our manufactured capital, refer to **Page 74**

1. FY2023 data restated to include Egypt to allow for comparability.

Managing scope 3 GHG emissions to support our customers and suppliers

Working with partners to reduce scope 3 GHG emissions

- Scope 3 includes indirect GHG emissions that we can influence but not control.

In FY2024, Vodacom collaborated with Vodafone Group Plc to enhance our ESG data capabilities to improve the quality of our data, including scope 3 GHG emissions. Our scope 3 GHG emissions were 916 419 tonnes CO₂e (FY2023: 1.0 million tCO₂e)¹. Purchased goods and services, capital goods and fuel and energy-related activities account for over 74% of these GHG emissions.

To reduce the impact of our upstream supply chain GHG emissions, working with Vodafone Group Plc, we engage with top suppliers in the procurement process on **energy efficiency improvements** in hardware and software solutions. Global suppliers provide details of their GHG emissions and management programmes through the CDP, a global disclosure system that helps companies measure and report their environmental impacts.

We have sent to the SBTi for validation a scope 3 supplier engagement target and have committed to set a scope 3 emissions reduction target in due course.

Enabling our customers to reduce their GHG emissions

- We develop digital technologies and services that enable our customers (enterprises and governments) to **reduce their environmental footprint**. We began by using green digital solutions to tackle climate change and help decarbonise society.

Our IoT services, including logistics and fleet management and smart metering, are underpinned by a strong commercial rationale with three main opportunities for customers:

- Increased efficiency and reduced wastage.
- Using IoT to deliver cost efficiencies.
- Monitoring and changing customer behaviour to promote long-term sustainability.

During the year, we supported 1.4 million tCO₂e avoided emissions (FY2023:1.0 million tCO₂e). This is equivalent to 70 million trees growing for one year.

Driving circularity to optimise our operations

E-waste is our business's second-most material environmental issue, and encouraging circularity is a key element of our protecting the planet purpose pillar. It considers the full life cycle of a resource and aims to eliminate waste – thereby reducing environmental impact. We aim to use resources for as long as possible to maximise the ROCE and recover and reuse materials responsibly. We seek to manage our impact responsibly and support our customers' efforts. Our waste management policy prioritises safe and responsible reuse and recycling, and our waste hierarchy embeds sustainable practices throughout our operations and supply chain activities.

Our electronic waste goals are to reuse, resell or recycle 100% of our network waste by 2025.

Circularity of network waste

- Our resource efficiency and waste disposal management programmes minimise environmental impacts from network and IT equipment waste. When reuse (either through resale or redeployment) options are exhausted, we **recycle** obsolete equipment responsibly using approved recycling agencies. Network waste is never sent to landfill sites. We use certified local service providers to dispose of our telecommunication equipment when the useful life is exhausted. Obsolete batteries, classified as hazardous waste, go to a licensed facility for incineration.
 - 93% of network waste reused or recycled (FY2023: 97%)¹
 - 1 273.1 tonnes of non-hazardous network equipment recycled (FY2023: 1 167.1 tonnes)¹
 - No equipment was redeployed in the network (FY2023: 36.4 tonnes)
 - 1 277.7 tonnes of hazardous network waste recycled (FY2023: 1 724.7 tonnes)¹

Circularity of devices and extending the lifetime of devices

- We are committed to reducing our impact by implementing circularity initiatives with our partners and other operators. For example, South Africa and Egypt are participating in Vodafone Group Plc's WWF "1 million phones for the planet" campaign, to raise consumer awareness of e-waste and incentivise our customers to bring back their used devices for trade-in, donation or recycling.

We support customers in extending the lifetime of their devices through repair or recycling. Our RedLovesGreen campaign encourages customers to return their devices. Depending on the make, model and condition of a returned device, it may be repaired, refurbished, resold or sent for recycling.

We also encourage customers to consider buying second-life devices. Refurbished devices are either repackaged, certified Good as New and sold with a six-month warranty or donated to a Vodacom-supported school. If the device is not in suitable condition, it is sent to a Vodacom-approved recycling agency.

- 11 882 consumer handsets reused (FY2023: 902)
- 6 029 consumer handsets recycled (FY2023: 5 355)

Vodacom also provides 36-month contracts to make high-quality devices more affordable and encourage customers to extend the lifetime of devices.

Improving customer awareness of product sustainability

- Through the Eco Rating initiative, we continue to help consumers identify and compare the most sustainable mobile phones on the market while encouraging suppliers to reduce the environmental impact of devices.

Eco Rating labelling on devices helps customers make more conscious and sustainable purchases. Following a detailed assessment, each handset receives an overall Eco Rating score out of a maximum of 100 to represent its environmental performance across its entire life cycle. The Eco Rating label highlights five key aspects of mobile device sustainability – durability, repairability, recyclability, climate efficiency and resource efficiency. Eco Rating is available in South Africa.

Reducing virgin plastic use in our SIM cards

- Our half-size SIM cards reduce virgin plastic waste by reducing the plastic and packaging materials used and are used in all our markets. Our Eco-SIM is a half-sized SIM card made of recycled plastic. More than 550 tonnes of paper and 350 tonnes of plastic have been saved by the Eco-SIM cards initiative. The use of Eco-SIMs does away with the use of materials; however, it is dependent on regulatory approval and consideration of the market penetration of devices that support these SIMs. Eco-SIMs are available in South Africa and Egypt.

The introduction of e-SIMs, which are a form of SIM embedded into a device, depends on regulatory approval and market penetration of devices that support these SIMs. We encourage our partners to develop products to support e-SIMs to reduce the environmental impact of manufacturing and transporting physical SIM cards. We offer e-SIM in South Africa and Tanzania.

1. FY2023 data restated to include Egypt to allow for comparability.

Natural capital continued

Managing general waste

- Our general waste management programmes involve reviewing our consumption choices, making more sustainable decisions and working with suppliers to reduce environmental waste. Waste management at our operations primarily focuses on reducing paper and single-use plastic consumption, using eco-friendly products, paper recycling. In South Africa and DRC we also facilitate food waste composting.

We responsibly manage the waste streams involved in delivering our products by digitalising branch processes towards being completely paperless, pursuing green lease agreements for stores, including water, waste and electricity management targets, and reducing our plastic usage.

Using water responsibly

- ✔ While we are not a water-intensive user, majority of our operations are in countries which are classified as medium-high to extremely high water risk¹ and so we work to reduce our water usage across all our operations. Water-saving measures include waterless urinals, chemical toilet flushing, waterless hand sanitising stations, aeration taps with reduced water flow, efficient use of borehole water, rainwater harvesting and water-wise gardens. For our employees, we promote responsible water consumption through targeted campaigns such as World Water Week.

Our digital solutions and IoT capabilities enable our government and business customers to manage their water consumption. These solutions help local municipalities monitor and manage water leaks through early detection.

1. WRI Aqueduct Water Risk Atlas.

Supporting biodiversity to understand our impact and implement new technologies

Although our impact on biodiversity is low, we aim to understand how our value chain activities impact biodiversity and minimise the environmental and visual impact of our infrastructure.

Outside of managing our impact, we work with conservation agencies to explore how technology can minimise biodiversity loss.

Understanding and managing our impact on biodiversity

- We seek to understand our impact, including the risks of biodiversity loss, and to identify opportunities to partner with stakeholders to prevent further harm. In FY2024 we engaged with emerging frameworks such as the Task Force on Nature-related Financial Disclosures through the GSMA biodiversity working group.

Where our employees or suppliers face natural risks such as bees and snakes, we ensure that they undergo the necessary training to support them with their work without negatively impacting biodiversity.

Supporting biodiversity protection through new technologies

- ✔ Technology can help minimise the impact of human activity. We partner with organisations to protect biodiversity on land and at sea. This support is a combination of programme funding and using connectivity and innovative technology solutions in conservation efforts.

We collaborated with the WWF, we launched a pilot to **safeguard marine mammals** against entanglements in Saldanha Bay on South Africa's West Coast, where traditional fishing communities are struggling with problems caused by overfishing, pollution and climate change.

We continue our **reforestation efforts** in Tanzania and Lesotho, and we partner to protect and track endangered wildlife species while distributing **clean cooking solutions** in DRC. We are also supporting with the rescue of owls and other bird species in South Africa.



For more information on these initiatives, refer to our **ESG report**



