TOWARDS A SUSTAINABLE
LOW CARBON ECONOMY

STATE OF THE SOUTH AFRICAN CARBON MARKET 2025

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CONTEXTUALISING THE 2025 SOUTH AFRICAN CARBON MARKET

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Paris Agreement: Legally binding international treaty on climate change adopted by the UNFCCC with the overarching objective to limit global temperature increases to 1.5 degrees above pre-industrial levels. As a signatory to this, South Africa is therefore required to reduce its greenhouse gas emissions to meet this ambition.

South Africa's Response:

NDCs

Central to the Paris Agreement, are the pledges made by each country to reduce their greenhouse gases. South Africa has set out to **reach net zero by 2050**. The NDC therefore establishes South Africa's emissions trajectory.

Carbon Tax Act

South Africa **looked to create policy** to support its ambitious target. Carbon Tax is imposed on large emitters based on their carbon emissions. The Carbon Tax is the main instrument deployed to meet its NDC ambitions.

Carbon Offsets

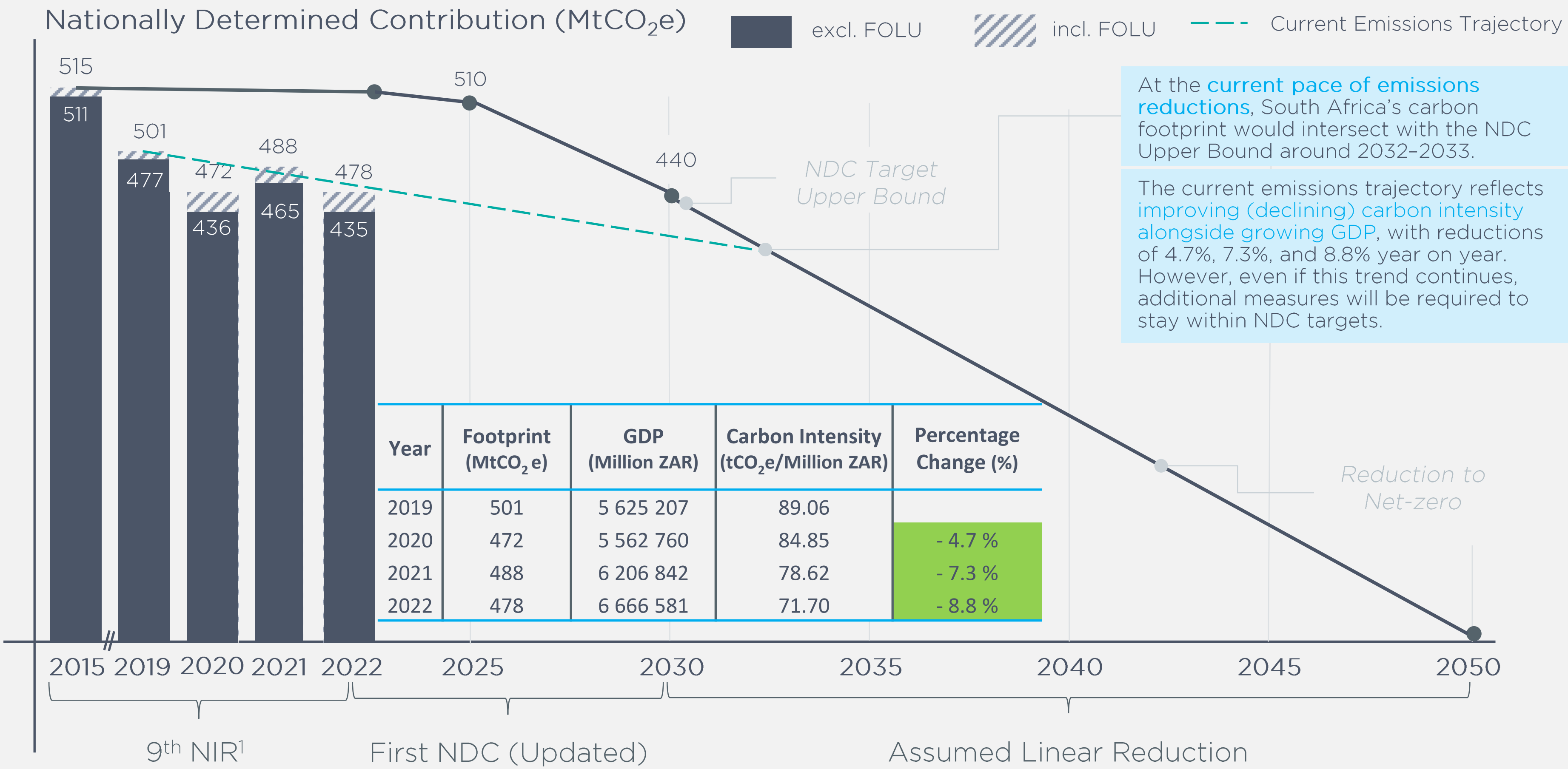
Carbon Tax Allowances are provided to offer some relief to taxpayers, including a **Carbon Offset Allowance,** which allows part of a taxpayer's taxable emissions to be reduced using domestic carbon credits.

COAS

The Carbon Offset Administration System was established as a tool to facilitate **carbon credit trade domestically** for the use of offsets. COAS provides credibility to the market.

SOUTH AFRICA'S EMISSIONS TRAJECTORY AS INFORMED BY ITS NDC TARGETS

South Africa's NDC



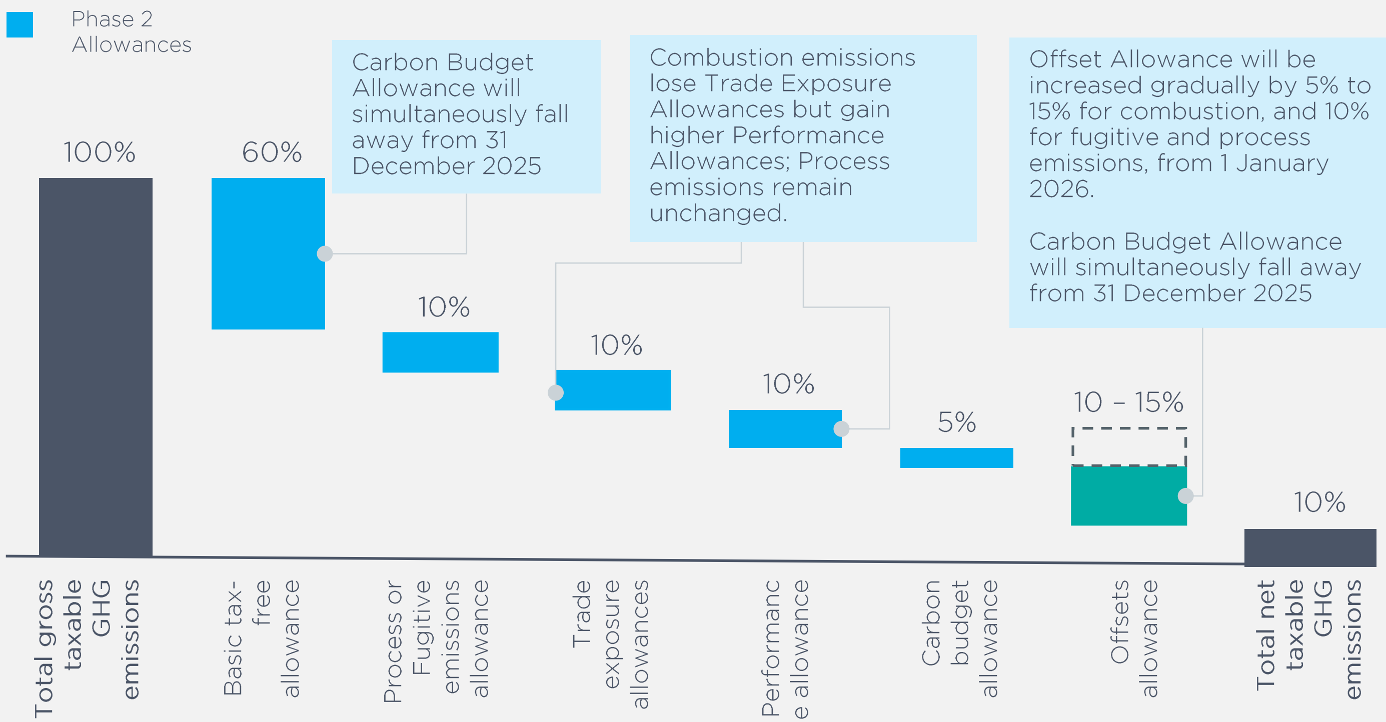
Year	Footprint ($MtCO_2e$)	GDP (Million ZAR)	Carbon Intensity (tCO_2e/Million ZAR)	Percentage Change (%)
2019	501	5 625 207	89.06	
2020	472	5 562 760	84.85	- 4.7 %
2021	488	6 206 842	78.62	- 7.3 %
2022	478	6 666 581	71.70	- 8.8 %

Notes/sources:

1. Source: Department of Forestry, Fisheries and the Environment, 2025: 9th National Greenhouse Gas Inventory Report for the Republic of South Africa 2000 – 2022. Pretoria. (NIR9)
2. Source: Republic of South Africa, 2021: South Africa First Nationally Determined Contribution Under The Paris Agreement (Updated) (Updated SA NDC)
3. Source: Republic of South Africa, 2020: South Africa's Low-Emission Development Strategy 2050. (LEDS)

The Carbon Tax Waterfall and Rates[1,2]

Current and Proposed Phase 2* Carbon Tax Allowances



Carbon Tax rate (ZAR/tCO_2e)

Year	Price	Change
2024	190	19%
2025	236	24%
2026	308	31%
2027	347	13%
2028	385	11%
2029	424	10%
2030	462	9%
2031+	Increased by the CPI annually*	

*The exact escalation rate is uncertain; assumption is that it will revert to past escalation

*The phase 2 carbon tax amendments were published in 2025 and are expected to be implemented from 2026 onwards

Notes/sources:
1. Note these allowances show the allowances based on the Phase 2 of the Carbon Tax in 2030, and the allowances as described in the Draft Taxation Laws Amendment Bill 2025.
2. Source: South African Carbon Tax act (Act No. 15 of 2019), as amended by the Taxation Laws Amendment Act 2022 (Act No. 20 of 2022) (SA Carbon Tax), National Treasury 2024 Phase 2 of the Carbon Tax.

2025 VIEW ON COAS PERFORMANCE

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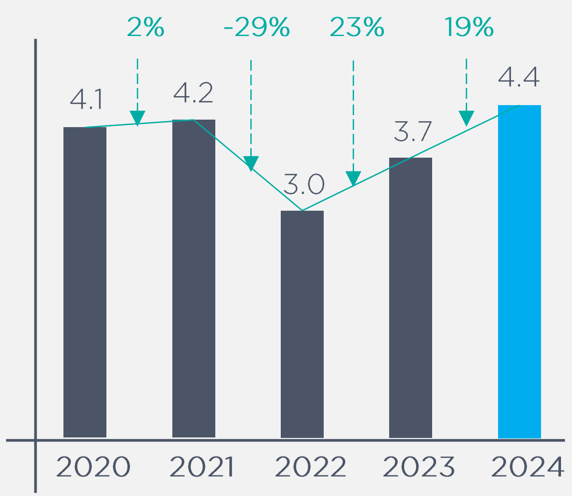
COAS MOVEMENTS OVER THE LAST FIVE YEARS

Listing[1]

COAS Listings
(Million CTOs/year[2])

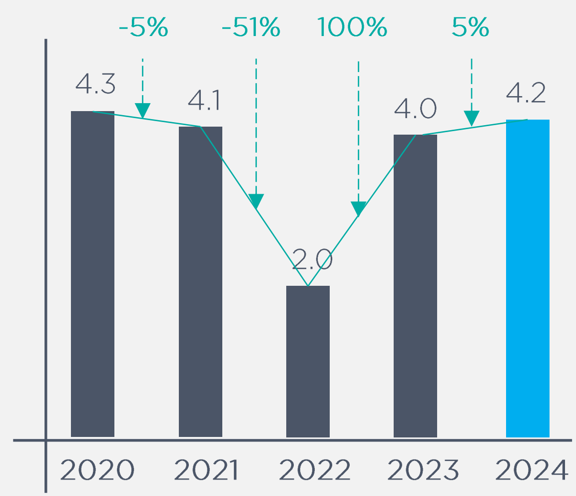


Avg: 3.9

The trend in COAS listings indicates that, after the disruptions of 2022, the market largely stabilised to more typical levels. While there has been a slight upward shift heading into 2024, the overall pattern reflects a steady and balanced supply of offsets aligned with ongoing demand under carbon pricing policies.

Retirements[1]

COAS Retirements
(Million CTOs/year[2])

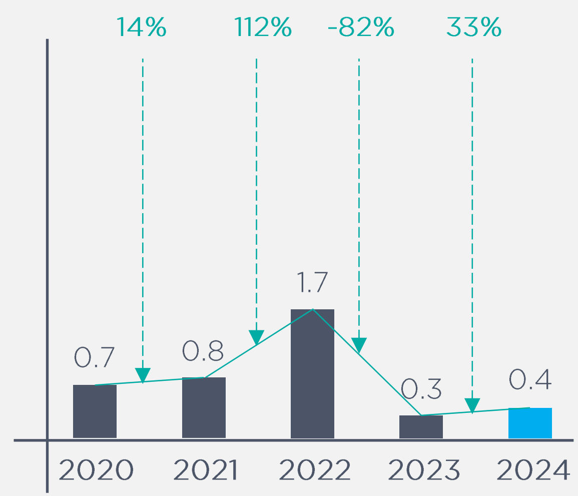


Avg: 3.6

The 2022 decline may have reflected a market pause linked to the introduction of accelerating higher carbon tax rates. Market participants appeared to hold credits in anticipation of clearer rules/ potentially higher prices, explaining the slowed trading until confidence recovered in 2023.

Stockpile[1]

COAS Stockpile
(Million CTOs/year[2])



Avg: 0.8

The dynamics in the stockpile reveal the balance between supply and demand. Sharp increases show periods of credit accumulation or precautionary holding, while declines suggest active market engagement and offset utilization. The recent stabilisation points to a market where demand outstrips supply and almost all available supply is utilised.

Notes/sources:
1. Source: Carbon Offset Administration System (COAS)
2. Note: Transactions included up until the tax deadline (July) in relation to the previous carbon tax year (Jan – Dec)

ANALYSIS SHOWING HOW MUCH OF NEW LISTINGS ARE RETIRED IN THE SAME TAX YEAR

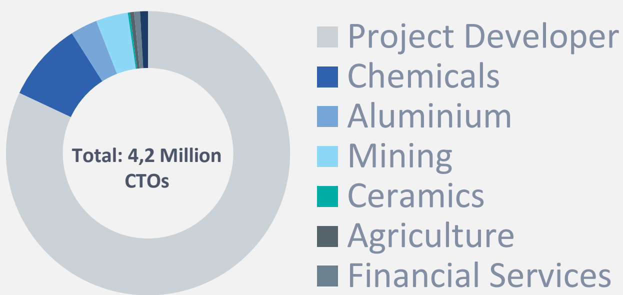
Retirements as a % of New Listings		Projects	Explanation
Energy Demand	3,735,695 (85%)	1	Retired by same project developer that listed credits to be sold privately
Waste handling and disposal	351,079 (8%)	6	High demand from actual off-setters in the chemical industry due to the high volume of available credits
Energy industries	234,876 (5%)	3	High demand from actual off-setters in the mining industry due to the high volume of available credits
Chemical industries	53,196 (2%)	1	Vintage credits gaining traction from actual off-setters
Total Listings	**4,374,846**	1	Vintage credits gaining traction from actual off-setters

Retired Stockpiled

Demand on the market is currently primarily driven by available number of credits for offsetting rather than project type/industry suggesting a primarily compliance-driven market. This is evidenced by the amount of Energy Demand credits retired dominating the market. This presents significant concentration risk on the supply side as supply will be impacted should any changes to the methodology, eligibility to the project type occur

ADDITIONAL CONCENTRATION RISK ON THE DEMAND AND ON THE REGISTRY SIDE IN 2024 TAX CALENDAR YEAR

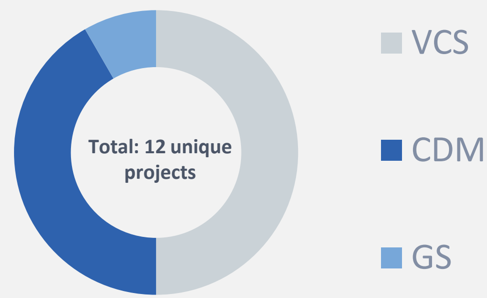
Demand



82% of credits retired by a **single company** however, improving industry exposure with new entrants buying credits

Medium risk: New industries entering market diversifies demand and signals growing interest in the use of carbon credits making the market more sustainable with increased sector coverage.

Supply[1]



Almost equal split of projects issuing credits onto COAS coming from **Verra and CDM**; suggesting equal split between vintage and recent credits

High risk: CDM issuances come from vintage projects nearing the end of their crediting periods. Verra, although a proven alternative, is also currently facing operational challenges creating supply risk long term

Notes/sources:

1. VCS stands for Verra Carbon Standard, GS stands for Gold Standard and CDM stands for the Clean Development Mechanism

OUR OUTLOOK ON THE DOMESTIC MARKET

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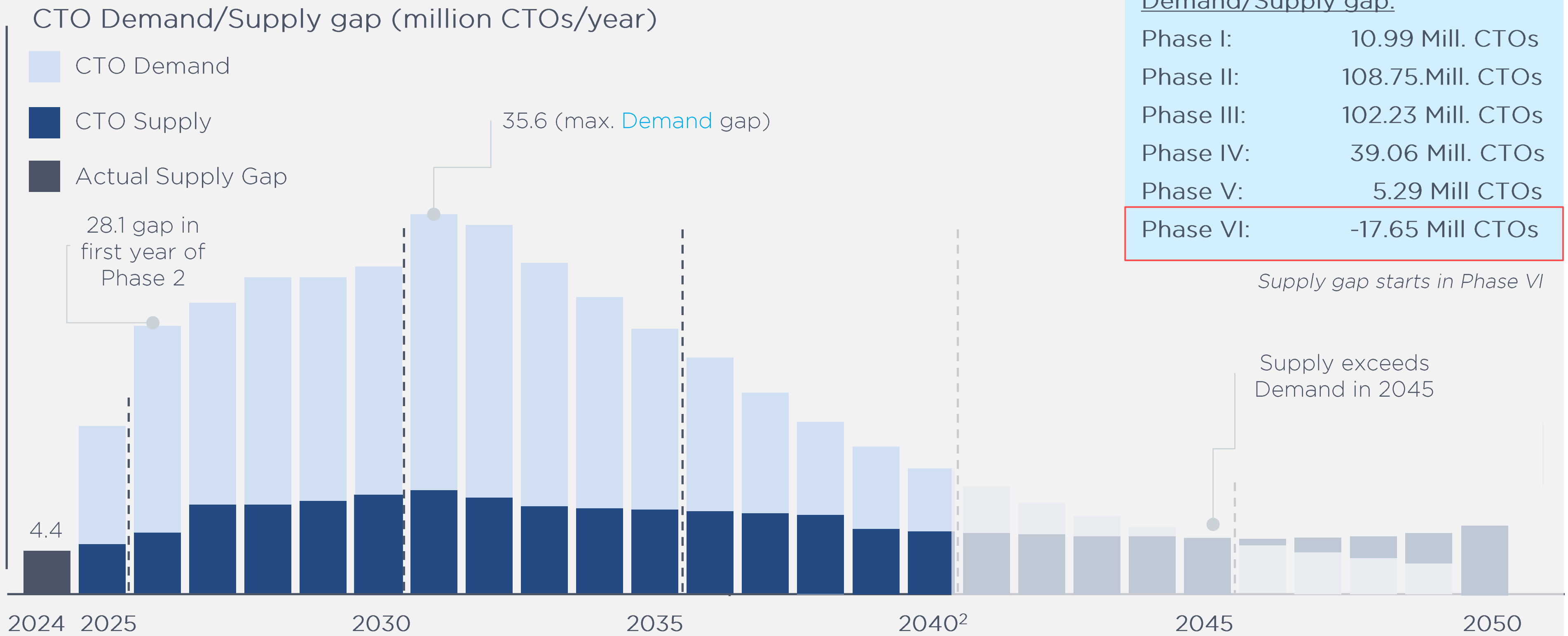
CTO Demand/Supply gap

<u>Demand/Supply gap:</u>

Phase I:	10.99 Mill. CTOs
Phase II:	108.75.Mill. CTOs
Phase III:	102.23 Mill. CTOs
Phase IV:	39.06 Mill. CTOs
Phase V:	5.29 Mill CTOs
Phase VI:	-17.65 Mill CTOs

Supply gap starts in Phase VI



The model uses the NDC targets to measure demand, assuming modest uptake percentages across the different sectors. Phase 2 of the Carbon Tax commences in 2026, explaining the large spike in demand in the medium term due to the 5% increase in offset allowance. Supply, assumes the current trends observed in the market resulting in a relatively flat growth curve in comparison.

Notes/sources:
1. Source: Brundtland Team analysis
2. To be noted that there is more uncertainty towards the tail end of the analysis and therefore, has been greyed out

High level Demand/Supply Impact Drivers

Driver Type	Description	Impact	Demand Volume	Supply Volume	CTO Price
Market Factor	Increased Global Carbon Credit Price	High	–	▼	–
	ZAR Weakens (relative to USD and EUR)	High	–	▼	–
	ZAR Strengthens (relative to USD and EUR)	Low	–	▲	–
	Increased Market Uptake	Med	▲	–	–
	CBAM accepts CTO cost as domestic carbon cost	Med	▲	–	▲
Intervention Required	Increased Offset Allowance under Carbon Tax	Low	▲	–	–
	Incremental expansion of CTO Eligibility Criteria (e.g. 12L)	Med	–	▲	–
	Radical expansion of CTO Eligibility Criteria (e.g. SADC credits)	High	–	▲	▼
	Expansion of Carbon Tax coverage (e.g. including Agriculture)	High	▲	▼	–
	Local Standards included under Carbon Tax	Med	–	▲	–
	Stimulate financial project viability (e.g. reintroduce 12K)	Med	–	▲	–
	Offsetting against Carbon Budgets introduced (R640 / tCO_2e)	High	▲	–	▲
	Tax rate increase (e.g. realignment with Global Pricing, CBAM)	Med	–	–	▲
	Article 6.2 limitation on export of CTO eligible credits	Low	–	▲	–

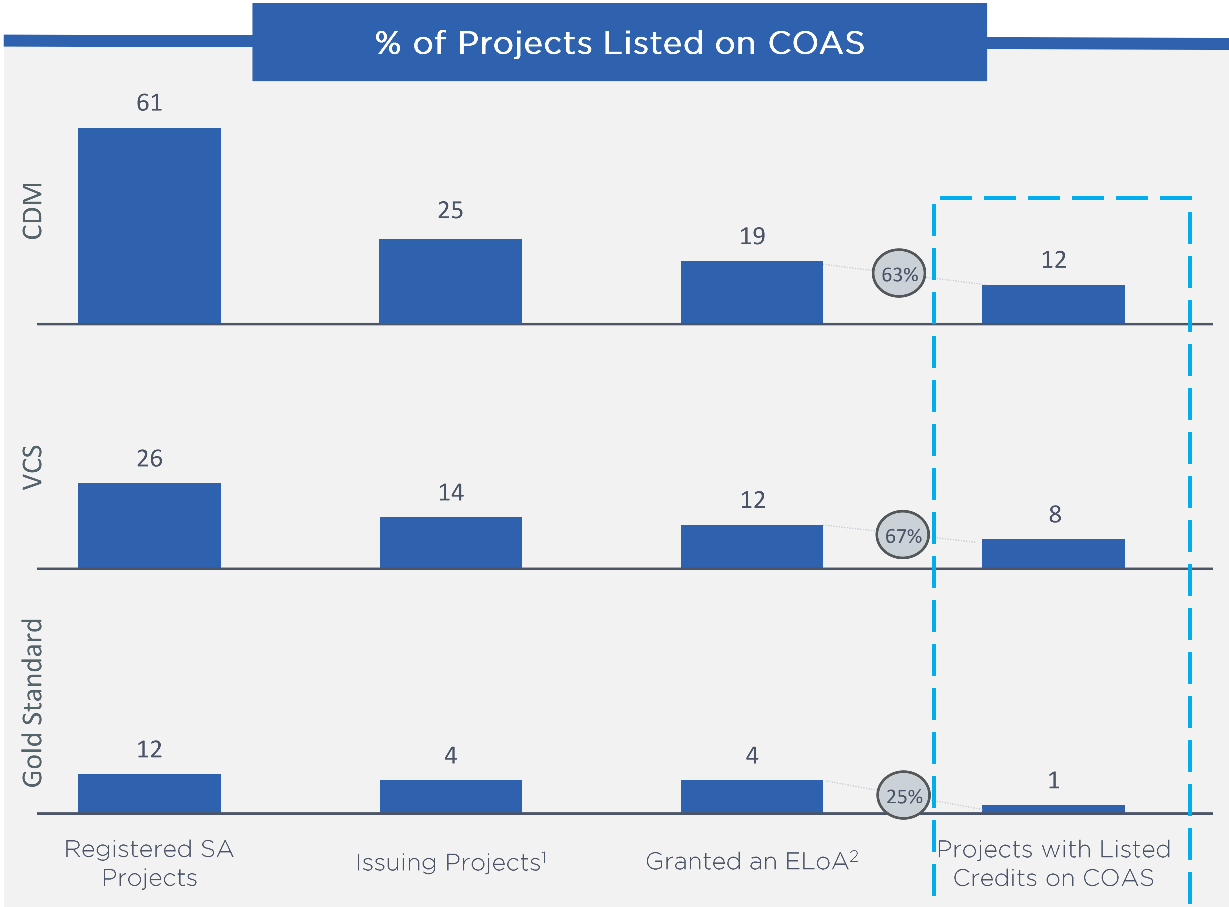
Global Driver Impact (Low to High)

Local Driver Impact (Low to High)

Notes/sources:

1. Note: From the perspective of the CTO Market

PROPORTION OF LISTINGS ON COAS FROM DIFFERENT REGISTRIES



PRICE DRIVEN MARKET

South Africa's project developers' decision on where to sell its credits is largely influenced on the price offered for their credits on the markets

Voluntary market:
- ✓ Wider pool of demand meaning high probability of sold credits
- ✓ Greater listing flexibility across different registries
- ✗ Fluctuating prices dictated by uncontrollable market factors

Domestic Compliance market
- ✓ Pricing certainty due to legislated Carbon Tax rates
- ✓ Domestic prices currently outpace voluntary market
- ✗ Restricted to very small pool of buyers

~54% of eligible projects registered on the major registries have listed credits onto COAS suggesting project developers see the domestic market as a viable option for their credits. This improves overall supply for the market to meet rising demand.

1. Issuing projects have been assumed as projects that have been registered for 18 months or more and therefore are capable of issuing carbon credits
2. Projects that have either been granted an ELoA or assumed to be granted due to being eligible for SA Carbon Offsetting are projects that are not on the negative list of the Carbon Tax Offset Allowance in the Carbon Tax Act

Secondary market: A secondary market refers to the buying and selling of already issued assets without necessarily needing to directly engage with the initial buyer/seller creating a far more liquid market. An example being a stock exchange.

Current developments

Entrance of non-traditional players

Previously, the only participants on COAS were project developers and companies with exposure to the carbon tax. However, more participants such as banks, traders, etc, are entering and even participating in the COAs. In the 2024 Tax year end, those players held almost ~50% of stockpile signalling that a material amount of carbon credits are being held for speculative purposes.

Emergence of trading platforms

COAS is no longer the only place to buy and sell carbon credits domestically due to the emergence of green trading platforms such as the Green Asset Exchange and Xpansiv. This improves tradability of carbon credits as the domestic market is no longer limited to project developers and demanders of carbon offsets

Green Asset Exchange

Xpansiv

Market implications

Carbon credits are being seen as financial instruments which brings the following outcomes:

De-risking the market: Broader demand for credits; higher incentive created for project developers

Pricing: More transparent prices that are less anchored in carbon tax rates but, more volatility

Further maturing: More opportunities arise due to a secondary market such as derivatives

Key Findings

Continued activity on COAS suggests trust in the mechanism

- Recovery in volume of transactions indicates growing confidence from the market
- Active use across sectors indicates that COAS remains relevant and functional
- Persistence of activity despite policy uncertainty suggests perceived reliability

Concentration risk presents a major threat to the longevity of the market

- Supply: 85% of the listed credits came from a single project namely an Energy Demand
- Demand: 82% of the listed credits were retired from a single company
- Standard: market dominated by vintage and VCS-registered credits

Various developments in the market suggests a changing landscape

- Evolving policy creates additional complexity for the domestic market
- Emergence of new players outside of carbon tax could diversify demand
- Opportunity for broader application of credits through potential integration of systems

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