IEA GHG EMISSIONS TRADING WORKSHOP

SOUTH AFRICA'S CARBON TAX

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national treasury

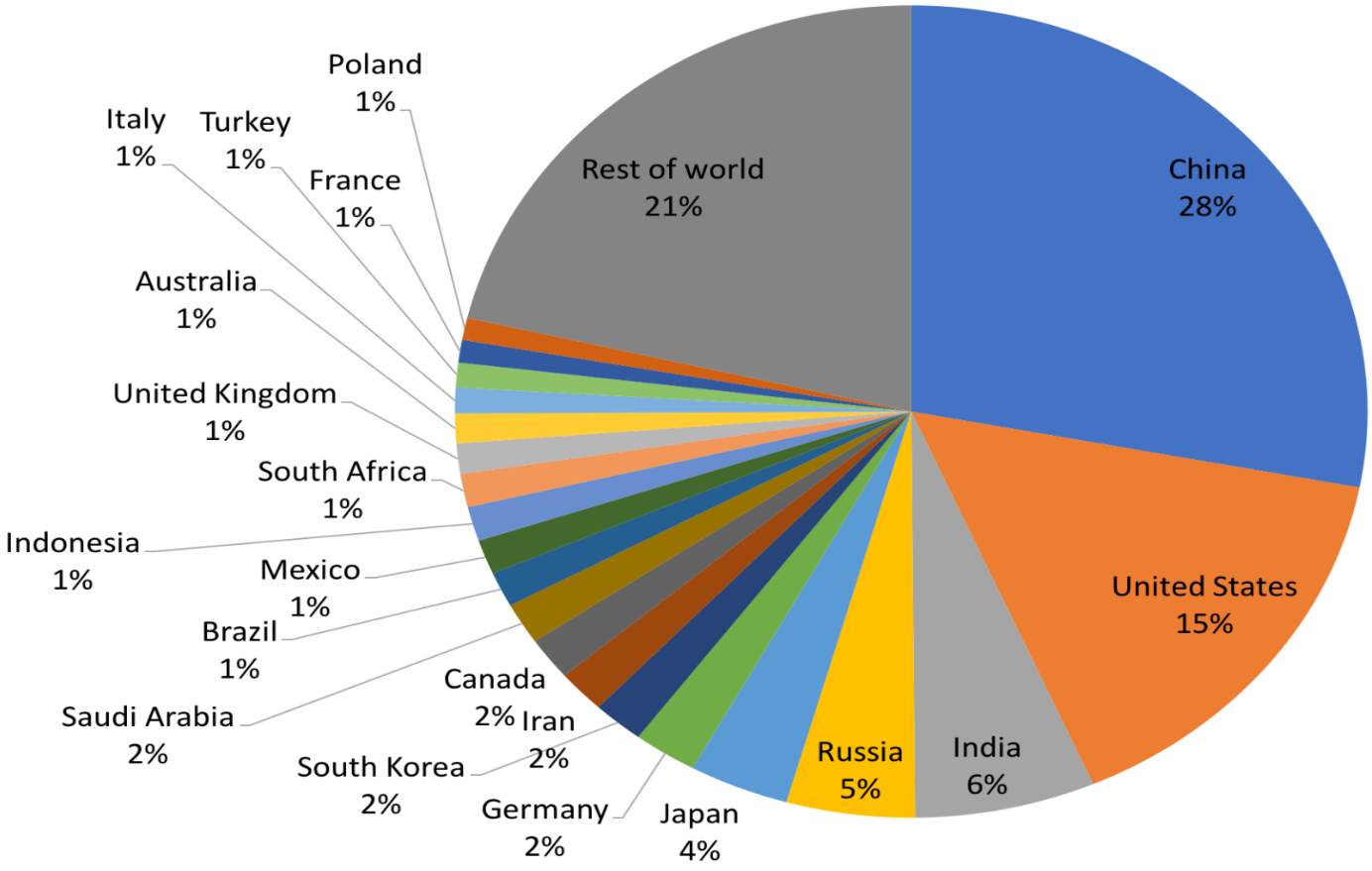
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Carbon Tax Policy Context

- South Africa voluntary committed (at COP 15 in 2009) to curb GHG emissions by 34% by 2020 and 42% by 2025 below the BAU trajectory subject to support from developed countries - climate finance, capacity building & technology transfers.
- South Africa **ratified** the Paris Agreement in November 2016 and **endorsed** the submission of its Nationally Determined Contribution (NDC) which requires that **emissions peak in 2020 to 2025, plateau for a ten year period from 2025 to 2035 and declines from 2036 onwards**.
- **South Africa's emissions by 2025 and 2030 will be in a range between 398 and 614 Mt CO2-eq, as defined in national policy.**
- **Paris Agreement** will require sizable reductions in energy-related greenhouse gas (GHG) emissions by large emitting countries, including in developing economies. The NDC noted **carbon tax** as an important component of our **mitigation policy** strategy to lower GHG emissions.
- Carbon tax forms an integral part of **climate change** response policy package under the **National Climate Change Response Policy (NCCRP) of 2011**, and in **National Development Plan (NDP)** as an important cost-effective instrument
- **The Carbon Tax Act gives effect to the polluter-pays-principle** and helps to ensure that firms and consumers take these costs into account in their FUTURE production, consumption and investment decisions. Assists in reducing GHG emissions and ensuring SA will meet its NDC commitments as part of its ratification of the 2015 Paris Agreement.

SA ranked 14th in absolute GHG emissions…

Share of global carbon dioxide emissions from fuel combustion (2015)



Data: IEA
Image: Union of Concerned Scientists

GHG Inventory, 2015 – Department of Environmental Affairs, Foresty and Fisheries

2015 GHG Inventory (Estimates) – Categories	Emissions - CO2 Eq (Gg)	Emissions - CO2 Eq (Gg)	Total Emissions - CO2 Eq (Gg)	Percentage Contribution
1 - Energy			424104	83%
A - Fuel Combustion Activities			395139	77%
1.A.1.A - Electricity		224 009		44%
1.A.1.B - Petroleum Refining		3 388		1%
1.A.1.C - Manufacture of Liquid Fuels (Synfuel)		31 299		6%
1.A.2 - Manufacturing Industries and Construction		36 704		7%
1.A.3 - Transport		51485		
Civil Aviation	*4 258*			
Road Transport	*46 676*			9%
Rail Transport	*551*			
1.A.4 - Other Sectors		48 254		9%
B - Fugitive emissions			28 965	6%
2 - Industrial Processes and Product Use			35875	7%
2.A - Mineral Industry		6179		
Cement production	*5 205*			
Lime production	*860*			
Glass Production	*114*			
2.B - Chemical Industry		Not disclosed		
2.C - Metal Industry		37 513		
Iron and Steel Production	*14 094*			
Ferroalloys Production	*13 416*			
Aluminium production	*2 186*			
3 - Agriculture, Forestry, and Other Land Use			(48 890)	(10%)
4 - Waste			22 211	4%
Total National Emissions and Removals			512383	100%
International Bunkers			11599	

Carbon Tax Consultation Process - timeline

Environmental Fiscal Reform Policy Paper
2006

LTMS
2007

Carbon Tax Discussion Paper
(80 comments)
Dec 2010

NCCR- WP
2011

Carbon Tax Policy Paper (115 comments)
May 2013

Carbon Offsets Paper
(77 comments)
April 2014

Draft Carbon Tax Bill
(91 comments)
1st Draft Regulations on Carbon Offset
(65 comments)
2015-16

Revised Carbon Tax Bill published
Dec 2017
(59 comments)
2nd Draft Regulations on Carbon Offsets
Nov 2018
(26 comments)

Submission & Tabling in Parliament
2018
Carbon Tax Act
1 June 2019
Carbon Offset Regs
Dec 2019

Regulations on GHG Emissions Performance Benchmarks

Regulations on Trade Exposure

Renewable Energy premium notice

19 June 2020

Carbon tax policy framework for SA

- **Tax Base**
  - Electricity generation and fuel combustion
  - Industrial processes – cement, iron and steel, glass, ceramics,
  - Fugitive emissions – e.g. methane emissions from mining
  - Direct (Scope 1) stationary emissions
  - Direct (Scope 1) non- stationary emissions – as an add on to the fuel tax regime.
- **Marginal tax rate**
  - R127/tonCO_{2e}
- **Revenue Recycling measures**
  - Reducing other taxes and providing tax incentives
  - If revenues left over, on budget support for pro poor programmes in energy, transport sectors
- **Phased approach**
  - Phase 1: 2019 to 2022
  - Starting off the tax at a relatively modest rate, coupled with generous tax-free allowances, adjusted over time to facilitate a structural transition to a low carbon, climate resilient economy in a cost effective manner.

SOUTH AFRICA'S CARBON TAX DESIGN FEATURES: Rate, Tax-free Allowances and Recycling Measures

Revenue

- **Carbon tax at R120 per ton of CO_2e**
- 60% basic tax-free threshold
- **Max of 10% tax-free allowance for trade exposure**
- 10% tax-free allowance for process and fugitive emissions
- **Up to 5% performance allowance**
- 5% tax-free allowance for complying with carbon budgets information requirements
- 5 or 10% allowance for Carbon Offsets – to reduce the carbon tax liability

- Tax-free allowances of **60-95%** - effective tax rate of

R6 - R48 t/CO_2e

- No impact on electricity prices in the first phase

Revenue Recycling

- Energy Efficiency Savings tax incentive
- Credit against Eskom's carbon tax liability for the renewable energy premium built into the electricity tariffs
- Credit for the electricity levy
- Support for the installation of solar water geysers
- Enhanced free basic electricity / energy for low income households
- Improved public passenger transport & support for shift of freight from road to rail

Revenue recycling measures

- During the first phase of the carbon tax (until 2022), the introduction of the tax will have a neutral impact on the price of electricity.
  - This is achieved by providing a **credit for the payments of the electricity generation levy;** and
  - **credit for the renewable energy premium** built into the electricity tariff.
- In addition business already benefits from the **energy efficiency savings tax incentive.**
- Analysis shows **above measures will protect vulnerable sectors** like mining and iron and steel.

Carbon offsets mechanism under the carbon tax

The carbon offset component of the carbon tax has a dual purpose:

- To serve as a flexibility mechanism that will enable industry to invest in mitigation projects at a lower cost to what would be achieved in their own operations, and thereby lower their tax liability (i.e. seek out delivery least cost mitigation).
- To incentivise mitigation in sectors or activities that are not directly covered by the tax and/or benefiting from other government incentives, especially, transport, AFOLU, waste.

Carbon offsets – eligibility and principles

- **Projects developed in South Africa under the three different carbon offset standards in South Africa are permitted:**
  - Clean Development Mechanism (CDM);
  - Verra's Verified Carbon Standard (VCS); and
  - Gold Standard (GS).
- **Local standard.** A potential domestic standard primarily to cover the types of projects that are not well catered for under international standards – framework guidance under development.
- The principles of '**real (demonstrable and quantifiable), additional and permanent**' are pivotal to ensuring the credibility of all carbon offset projects credits.

Performance allowance – GHG Emission intensity Benchmarks

- The performance allowance seeks to encourage firms to reduce the carbon intensity of their production processes relative to their peers and promote the competitiveness of local products;

- For a tax period, taxpayers that perform better than an approved sector or subsector GHG emissions intensity benchmarks will qualify for a performance allowance;

- Section 11 of the Carbon Tax Act sets out the formula to be used by taxpayers to calculate the applicable performance allowance.

Sector benchmarks

Sector / Sub-sector	SA Industry benchmark value	
Iron and Steel	3.83 tonne CO_2e / tonne crude steel	
Ferroalloys	Ferrochrome – 5.57 tonne CO_2e / tonne ferrochrome	
	Silicomanganese – 6.26 tonne CO_2e / tonne silicomanganese	
Mining Sector – Platinum	Depth of platinum mine in metres	Intensity range in tonne CO_2e / ton mined
	Shallow: 0-300 m	0.004
	Medium: 300-1200 m	0.062
	Deep: 1200-2000 m	0.12
	Concentrators	0.0495 tonne CO_2e / tonne ore mill
	Smelters and refineries	0.395 tonne CO_2e / ounce of metal
Mining Sector – Gold	Depth of gold mine in metres	Intensity range in tonne CO_2e / ton mined
	Shallow: 0-1000 m	0.01
	Medium: 1000-2500 m	0.25
	Deep: 2500-4000 m	0.43
Mining Sector – Coal	Opencast Coal Mining	0.014 tonne CO_2e/ tonne run of mi
	Underground Coal Mining	0.022 tonne CO_2e/ tonne run of mi
Cement	1 tonne CO_2e / tonne clinker	
Pulp and paper	Integrated white & brown pulp, brown Kraft paper and newspaper	2.542 tonne CO_2e per tonne pulp a paper
	Integrated brown Neutral Sulphite semichemical (NSSC) and brown recycled containerboard	1.045 tonne CO_2e per tonne pulp a paper
	Non-integrated white print paper	1.44 tonne CO_2e per tonne paper
	Non-integrated dissolving wood pulp	1.14 tonne CO_2e per tonne pulp an
	Non-integrated brown recycled containerboard	0.984 tonne CO_2e per tonne paper
	Integrated white print paper and tissue	3.19 tonne CO_2e per tonne pulp an
	Integrated white pulp and white & brown Kraft paper	0.59 tonne CO_2e per tonne pulp an
	Integrated brown NSSC and brown recycled containerboard and lignosulphonate	2.46 tonne CO_2e per tonne pulp an
	Non-integrated brown recycled containerboard and white print paper	1.80 tonne CO_2e per tonne paper

Trade Exposure Allowance

- The allowance has been implemented to address concerns regarding potential losses in international competitiveness for South African industries, and potential carbon leakage due to the imposition of a carbon tax in the country
- **Trade Intensity is used as a proxy for trade exposure.** This is calculated for the sector or subsector according the following formula:

❖**Trade Intensity = (X+ M) / P**

Where:

X = monetary value of Exports M = monetary value of Imports P = monetary value of Production

- The allowance makes provision for a maximum 10 per cent tax-free allowance. The formula used provides graduated relief for sectors according to low, medium and high trade intensity.

Trade intensity category	Trade Exposure (TE)	Allowance
Low	TE < 10 %	0.00 %
Medium	TE ≥ 10 % to < 30 %	Between 3 and 9.9 % (Trade exposure *(0.33))
	10 %	3.30
	15 %	4.95
	20 %	6.60
	25 %	8.25
High	TE ≥ 30 %	Maximum of 10.00 %

Concluding remarks

- Increasingly, governments and businesses recognise that the world faces a climate crisis, and acknowledge the need for partnerships to limit global warming to below 1.5 degrees Celsius.
- **Carbon tax is the first step. South Africa will review the design of the carbon tax after it has been in operation for at least three years** to ensure that the measure is contributing appropriately to cost-effective emissions reduction.
- **Government will also continue to monitor developments under Article 6 of the Paris Agreement** and their **implications for the design and implementation of the domestic carbon offset scheme** under the carbon tax.

Thank you

Carbon offset projects in South Africa

- South Africa has been participating in the carbon markets:
  - **53 potential projects with credits in the CDM;**
  - **22 projects registered through the Gold Standard (2013);**
  - **15 VCS potential projects with credits through Verra (former VCS);**
  - The 2015 National Terrestrial Carbon Sinks Assessment quantifies **carbon offset potential within the AFOLU sector** at 275 $MtCO_2e$ over 20 years.

- Pilot trades of CERs and VCUs were done on the Johannesburg Stock Exchange in early 2015 using existing South African commercial infrastructure for commodities.

CDM projects in South Africa – sectoral classification

