ENVIRONMENTAL TAX REFORM AND CARBON PRICING TO FACILITATE THE TRANSITION TO A GREEN ECONOMY

Network of Tax Organisations (NTO) Webinar

26 March 2024

Kuhle Mxakaza, Senior Economist: Environmental and Fuel Taxes, National Treasury, South Africa

national treasury

Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Background - Environmental Challenges facing South Africa

- **South Africa faces a number of environmental challenges** that are likely to be aggravated as the economy grows if natural resources are not properly managed and protected. These include:
  - Emissions of greenhouse gases that contribute to Climate Change and emissions of local air pollutants resulting in poor air quality with adverse impacts on society;
  - Inappropriate land-use that results in land degradation;
  - Biodiversity loss and damage to terrestrial ecosystems;
  - Deteriorating water quality with severe impacts for South Africa as a water stressed nation; and
  - Increasing levels of solid waste generation comparable to many developed countries.
- **It's not just about the quantity of growth but the quality of growth that matters** ie. ensure the sustainable use of economic, social and environmental resources

Publication of the Environmental Fiscal Reform Policy Paper

- **Environmental fiscal reform refers to the interface between *environmental* and *fiscal* policy measures.** An opportunity exists to undertake reforms to existing taxes and develop new environmental tax instruments to achieve environmental goals.
- **Market-based instruments (MBIs)**:
  - Policy instruments that attempt to internalise environmental externalities through the market by altering relative prices that consumers and firms face;
  - Utilise the price mechanism and *complement* command-and-control measures. Under certain circumstances MBIs are considered more efficient than command-and-control measures

- The **Environmental Fiscal Reform Policy Paper** (published in April 2006) provides a foundation to build on and support environmentally related initiatives in South Africa.
  - ❑ Maintenance of a coherent tax policy framework;
  - ❑ Development of a coherent process and framework to consider and evaluate environmental taxes; and
  - ❑ Consider both environmental and revenue outcomes and the "double-dividend" hypothesis.

Economic Rationale for Government Intervention – addressing / correcting market failures

- **Provision of public goods**: Non rival and non-excludable in consumption.
- **Negative externalities:** **Occurs when an individual's action has an impact on others and the costs of these impacts are not reflected in the price of a good or service. Can result in resource under-pricing and overconsumption.**
- **Information asymmetry:** Occurs when during a transaction, one party has better information than the other or information is costly to obtain. In new, rapidly changing markets, such as for green technologies, some participants will lag behind current information.
- **Research, development and technology innovation**: may not be possible for a firm to capture the full benefits of an innovation as the information can be readily passed on at a minimal cost.

Regulatory / Command and Control Instruments	Economic / Market Based Instruments	Research, education and Cooperation instruments	Information and awareness instruments
Norms and standards	Environmental taxes	Research and development	Consumer advice services
Environmental liability	Fees and user charges	Education and training	Sustainability reporting
Environmental control and enforcement	Removing environmentally harmful subsidies (perverse incentives)	Technology transfer	Environmental quality targets and environmental monitoring
	Environmental financing	Voluntary agreements	Eco labelling
	Subsidies		Information centres
	Tradable certificates / permits		

Criteria / Design considerations for environmentally related taxes

- **Environmental effectiveness** – linked to the environmental externality and aim for best design possible - **POLLUTER PAYS PRINCIPLE**
- **Tax rate & revenue** – tax rate to be phased-in, revenue use in terms of government priorities
- **Support for the tax** – public support and acceptance is important (e.g. tax payer morality)
- **Legal, technical & administrative feasibility**:
  - *Define taxable commodity - tax base*; or nature of incentive;
  - *Setting the tax rate;*
  - *Tax avoidance and evasion;*
  - *Collection costs; and*
  - *Compliance costs.*
- **Competitiveness impact**s – may require phased in approach to allow adequate time for adjustments
- **Distributional impacts** – compensating measures may need to be considered
- **Adjoining policy areas** – is the instrument capable of contributing to other social and economic objectives?

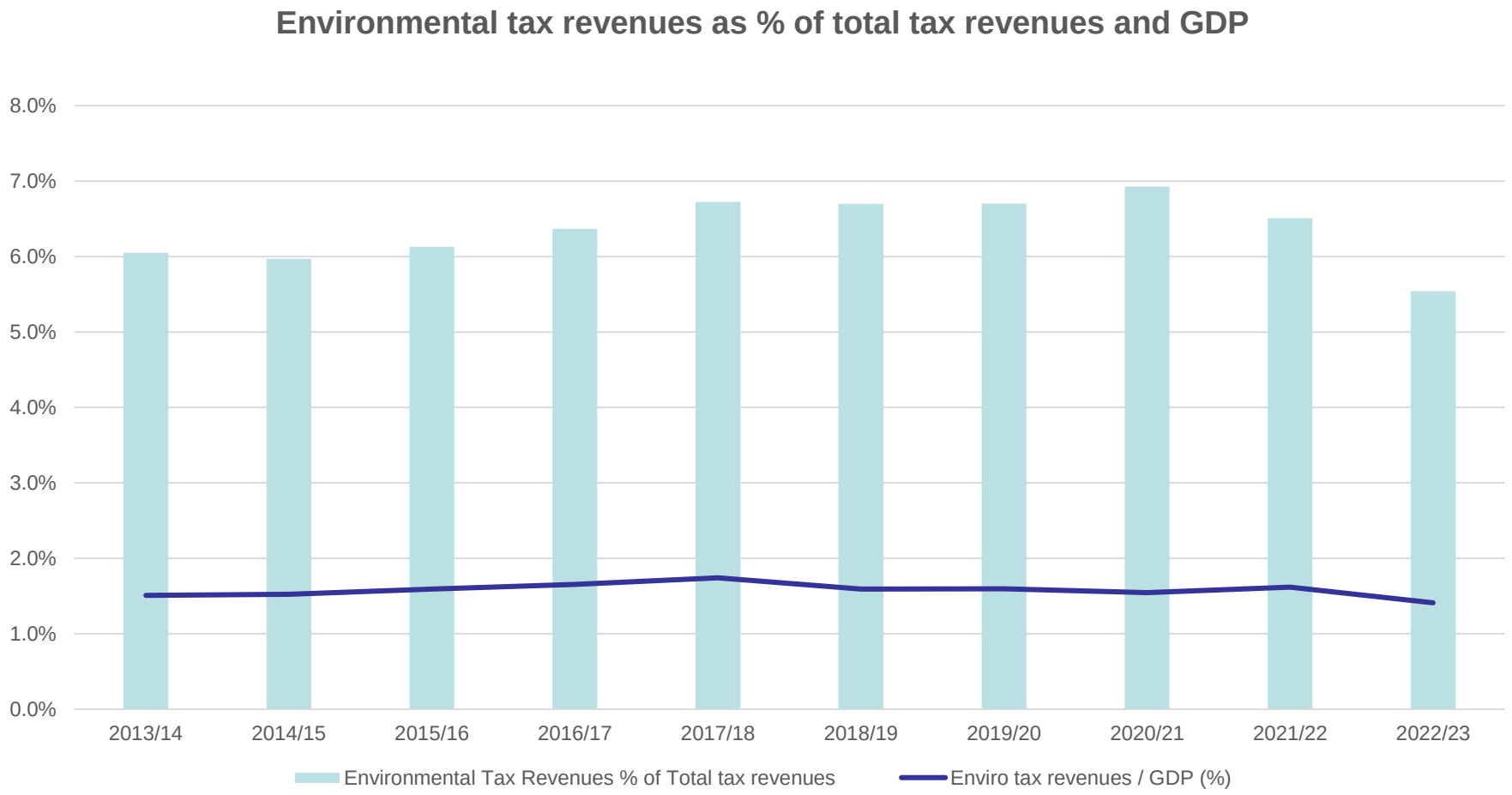
Main Environmentally Related Taxes and incentives introduced in South Africa since 2004

- **Several environmentally related taxes have been implemented to date**:
  1. **Fuel taxes –** raise general revenue, fund compensation for road accidents, and help to address pollution and congestion
  2. **Plastic bag levy** – aims to counter the dispersion of plastic bags that end up as wind-blown litter or in waste facilities
  3. **Electricity generation levy –** applies to non-renewable based electricity generation including fossil and nuclear based generation
  4. **Incandescent globe tax** – to encourage the use of more efficient lighting and reduce electricity demand
  5. **Motor vehicle CO_2 emissions tax** – aims to encourage consumers to use more fuel-efficient, low-carbon-emitting vehicles, and manufacturers to improve fuel efficiency
  6. **Carbon Tax** – aim of the carbon tax is to put a price on the environmental and economic damages caused by excessive emissions of greenhouse gases
  7. **Tyre Levy** – intended to reduce waste, while encouraging reuse, recycling and recovery, and discouraging disposal into landfills
- **Some complementary tax incentives have also been introduced**
  1. Renewable Energy and biofuels production
  2. Energy efficiency savings tax incentive
  3. Biodiversity conservation incentives

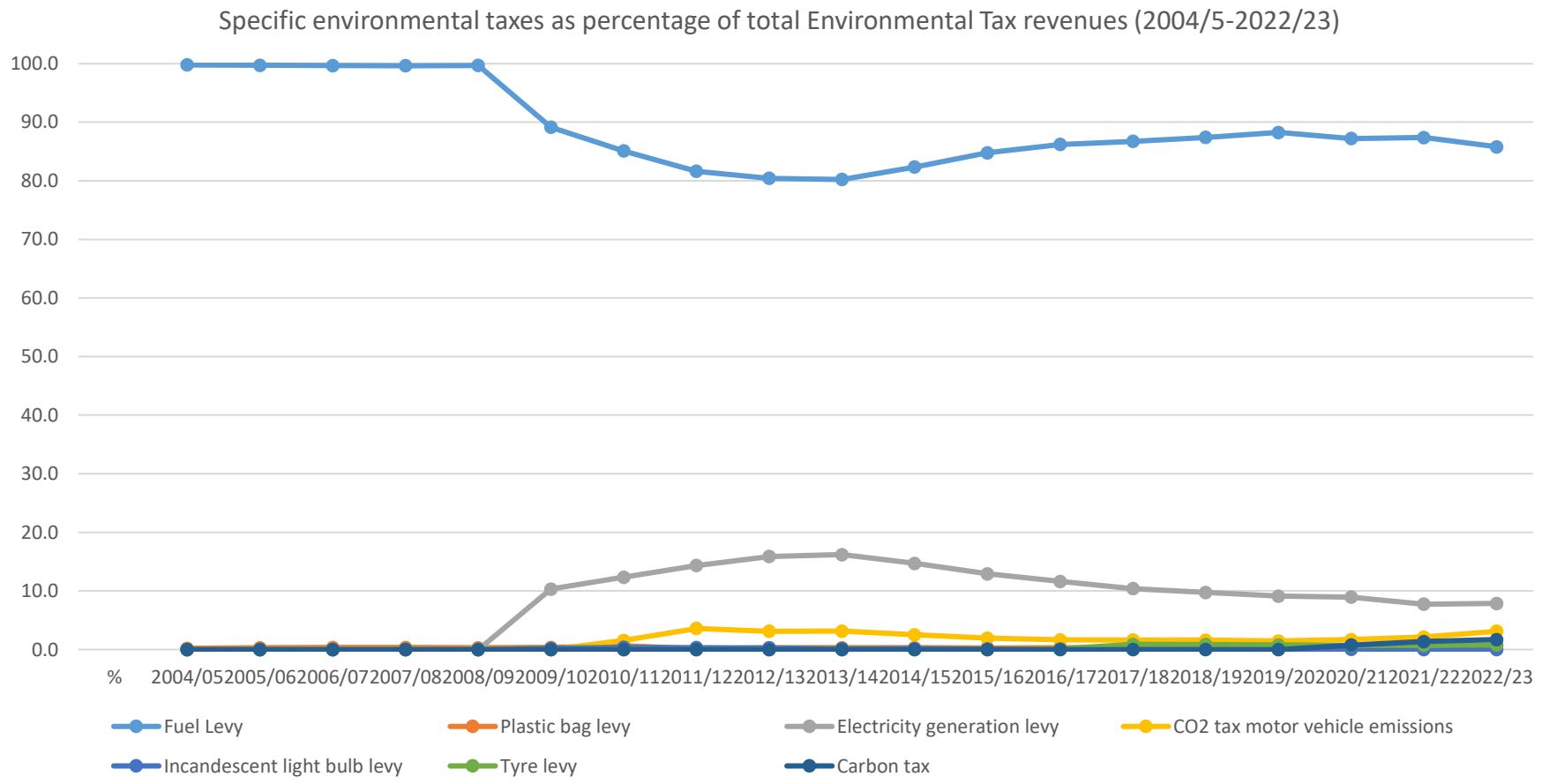
Revenues from Environmental Taxes (2004/05 – 2022/23) (nominal)

Year R'000	Fuel Levy	Plastic bag levy	Electricity generation levy	CO2 tax motor vehicle emissions	Incandescent light bulb levy	Tyre levy	Carbon tax	Environmental Tax Revenues (total)
2004/05	19,190,431	41,214	0	0	0	0	0	19,231,645
2005/06	20,506,666	61,385	0	0	0	0	0	20,568,051
2006/07	21,844,641	75,128	0	0	0	0	0	21,919,769
2007/08	23,740,511	86,314	0	0	0	0	0	23,826,825
2008/09	24,883,776	78,563	0	0	0	0	0	24,962,339
2009/10	28,832,536	110,510	3,341,691	0	63,880	0	0	32,348,617
2010/11	34,417,577	258,222	4,996,366	625,891	151,083	0	0	40,449,139
2011/12	36,602,263	53,832	6,429,721	1,617,353	143,787	0	0	44,846,956
2012/13	40,410,389	150,817	7,983,940	1,567,382	136,792	0	0	50,249,320
2013/14	43,684,654	169,243	8,818,930	1,711,179	71,802	0	0	54,455,808
2014/15	48,466,532	174,298	8,648,170	1,483,337	90,877	0	0	58,863,214
2015/16	55,607,288	183,358	8,471,774	1,276,880	51,801	0	0	65,591,101
2016/17	62,778,834	231,875	8,457,668	1,208,521	70,206	77,242	0	72,824,346
2017/18	70,948,576	241,295	8,500,970	1,336,818	55,359	715,997	0	81,799,015
2018/19	75,372,226	300,395	8,403,962	1,390,472	40,719	730,204	0	86,237,978
2019/20	80,175,160	317,897	8,290,676	1,327,417	33,963	708,018	0	90,853,131
2020/21	75,502,814	581,434	7,739,340	1,469,582	24,881	601,143	650,374	86,569,567
2021/22	88,889,070	658,216	7,890,565	2,173,481	23,345	714,927	1,397,618	101,747,221
2022/23	80,472,844	679,818	7,374,436	2,929,579	24,182	745,273	1,590,394	93,816,525
Total	**932,326,788**	**4,453,814**	**105,348,208**	**20,117,891**	**982,676**	**4,292,803**	**3,638,386**	**1,071,160,567**

Environmental tax revenues accounted for around 6,4 % of total tax revenues and 1,6% of GDP for 2013-2023 (nom)



Fuel levy accounts for about 87% of total environmental tax revenues on average, electricity levy (10%) and vehicle emissions tax (2%) are 2nd and 3rd largest source of environmental tax revenues



South Africa's NDC commitments and key climate policy interventions

- **South Africa made commitments under the 2015 Paris Climate Agreement** to further reduce our greenhouse gas emissions and to contribute to global efforts to limit warming to well below 2˚ c above pre-industrial levels and to pursue efforts to achieve the 1,5˚ c temperature goal.
- South Africa's commitments are set out in the 2nd and 3rd Nationally Determined Contributions (NDCs) submitted to the UNFCCC at the COP26 meeting.
- **This requires a peaking of greenhouse gas emissions in 2025** in the range of 398 to 510 Megatonnes (Mt) and a **sharp decline in emissions from 2026** onwards in the range of 350 to 420Mt.

- **National Climate Change Response Policy (2011)**
- **Carbon Tax Act (2019)** – implemented on 1 June 2019
- **National Climate Change Bill –** Bill approved by the National Assembly on 24 October 2023. Enactment of the bill by March 2024
- **Sectoral emissions targets and carbon budgets, and mitigation plans** – methodology and sector targets framework approved.
- **Low Emissions Development Strategy (2020)** – net zero emissions commitments by 2050
- **Integrated Resource Plan (2019)** – 2030 electricity plan
- **Energy Efficiency and Green Transport Strategies**
- **Tax incentives** for Energy efficiency, renewable energy, biofuels production, and biodiversity conservation
- **Mandatory National Greenhouse Gas Reporting Regulations** (2017) – basis for carbon tax and Greenhouse Gas Emissions Reporting to the UNFCCC
- **Just Energy Transition Partnership and investment plan**
- **Green Finance Taxonomy**
- **Hydrogen Masterplan and Electric vehicle roadmap**

Carbon Tax in South Africa

- The Carbon tax forms an integral part of the **climate change** response policy package under the **National Climate Change Response Policy (NCCRP) of 2011**, and the **National Development Plan (NDP)** as an important cost-effective instrument to **promote a just transition**
- **The Carbon Tax policy was developed over a 10-year period following extensive stakeholder consultations** after a Carbon Tax Discussion paper published in 2010, and the Cabinet approved Carbon Tax Policy Paper, published in 2013, setting out the policy rationale, design considerations and outlining proposals for the imposition of the carbon tax.
- **The Carbon Tax Act No 15 of 2019 was signed into law by the President in May 2019.** The carbon tax came into effect on 1 June 2019.
- **It 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 Nationally Determined Contribution (NDC) commitments under the Paris Agreement.
- **The Carbon Tax was introduced at a very low effective carbon tax rate with significant tax-free emission allowances** ranging from 60 per cent to 95 per cent to provide current significant emitters time to transition their operations to cleaner technologies through investments in energy efficiency, renewables, and other low-carbon measures.

CARBON TAX DESIGN FEATURES: Rate, Tax-free Allowances and Recycling Measures (2024)

Revenue

- **Carbon tax at R190 per ton of CO_2e (US$10)**
- 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 **R10 – R76 t/CO_2e (US$1-4)**
- No impact on electricity prices in the first phase until Dec 2025

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

REPUBLIC OF SOUTH AFRICA

Administration of the Carbon Tax – Collaboration between the Revenue Authority, Environment and Energy Ministries

- **The Department of Forestry Fisheries and the Environment (DFFE) manages the South African Greenhouse Gas Emissions Reporting System (SAGERS). The** greenhouse gas emissions reported to the DFFE forms the basis for the carbon tax declarations made to the SARS.
- The **carbon tax is implemented by the South African Revenue Service (SARS).**
  - SARS works closely with the DFFE on the carbon tax administration and can access the greenhouse gas emissions information reported under the SAGERS.
  - Taxpayers submit carbon tax financial declarations to the SARS including claiming the different tax-free allowances under the carbon tax and file their tax returns electronically.
- The **Carbon Offset Administration System (COAS) is managed by the Clean Energy Branch of the Department of Mineral Resources and Energy (DMRE).**
  - The DMRE evaluates and approves carbon offset project applications in line with the criteria set out in the carbon offset regulations.
  - An Extended Letter of Approval is issued to qualifying projects.
  - The COAS provides for the listing, and retirement of offsets for purposes of the carbon tax under the oversight of the department.
  - A carbon offset certificate is issued for a specific amount of offsets and can be used by the taxpayer for claiming the carbon offset tax free allowance.

Key lessons learnt from the carbon tax and climate policy implementation

- Important to locate the carbon tax policy within a broader environmental and fiscal policy reform agenda
- Sound policy research and technical analysis necessary to inform initial carbon tax policy design
- Extensive stakeholder consultations on published discussion papers and policy papers, regulations and different versions of the carbon tax bill
- To enhance political acceptability of the instrument, concessions were necessary to address concerns of double taxation, and appropriate revenue recycling measures were introduced
- Political will, leadership and commitment to address climate change is crucial. Global developments on carbon pricing and commitments under the Paris Agreement played an important role in the domestic policy process
- Close collaboration between the National Treasury, Department of Forestry Fisheries and the Environment, Mineral Resources and Energy and the revenue authority on the design of the carbon tax administration system and monitoring and enforcement of the policy.

Concluding remarks

- **Recognition of the important role for environmental taxes to help achieve environmental goals in a least cost manner.** Environmental taxation, charges and incentives can complement and reinforce environmentally related regulatory measures and at the same time contribute towards fiscal objectives.
- **The design of environmental taxes need to take into account potential adverse impacts on industry competitiveness and poor and low-income households.** Compensatory measures may need to be considered. The appropriate design and phasing-in of such taxes could deal with these two important aspects.
- **Well-designed carbon pricing measures provides adequate incentives for behavior change of businesses and consumers** and encourage a shift towards lower carbon and energy efficient technologies and practices in the short term, and dynamic incentives for investments in research development and technology innovation over the medium to longer term.

THANK YOU.

Sharlin.Hemraj@treasury.gov.za