Diagnostics on Data Ministries Already Hold

Climate-fiscal analytics tools: section 7 in ten slides

Analysis changes policy only when the people who hold the budget can reproduce it. Two tools take data a ministry already holds, put it on one scale and return an answer it can check: an excise diagnostic and a one-page fiscal profile.

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The standard: a ministry must be able to check every step

Every step visible: intermediate results, not only answers.

Defaults defended line by line, and the choices that move results shown side by side.

AI drafts under a written specification, every line checked against the source.

Data a ministry already holds, or can download; country results labelled illustrative.

Source: Section 7 overview.

The excise diagnostic reads a schedule whole and puts every line on one scale

30 standard lines: a liter of fuel, a pack of 20, a liter of pure alcohol.

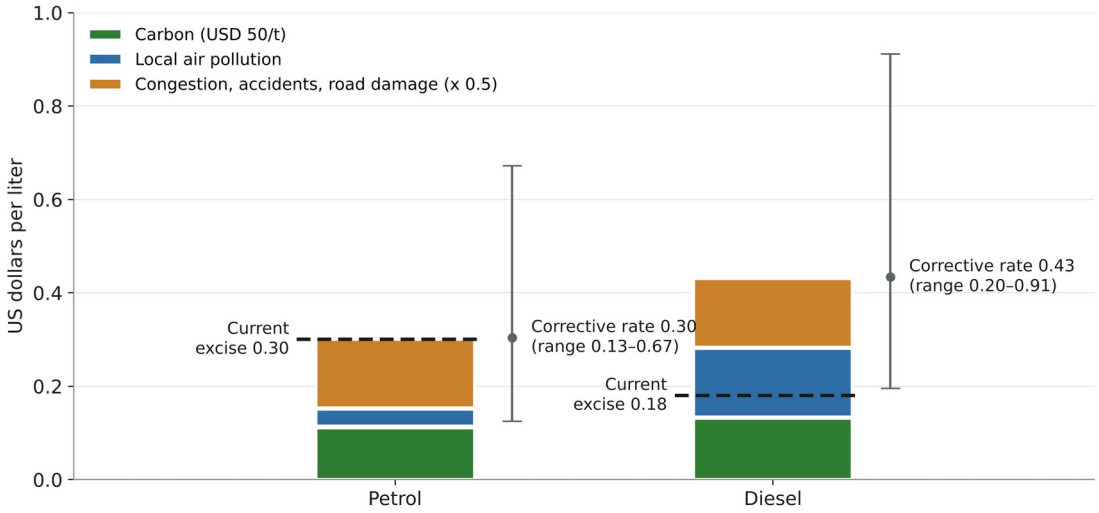
Three measures: US dollars per unit, share of the consumer price, revenue as % of GDP.

Fuel against one set of damage values; health excises against WHO targets.

Erosion tracked: the real value of each specific rate since its last change.

Source: Paper 7.1.

For diesel, two-thirds of the corrective tax is local damage, not carbon



Diesel: taxed at USD 0.18 a liter against a corrective 0.43.

Shares: carbon 31%, air pollution 35%, road use 35%.

At USD 185/t rather than a USD 50 floor, the benchmark rises to 0.80.

Source: Paper 7.1 (stylized economy); Rennert et al. (2022).

Sierra Leone and Liberia tax fuel lightly and alcohol inconsistently

2026	Sierra Leone	Liberia
Petrol, USD per liter	0.23	0.095 (levies)
Spirits vs beer, per liter of alcohol	Incoherent	Under half beer
Excise law, % of GDP	1.25–1.28	0.37
With fuel levies, % of GDP	Not reported	1.25
OECD series, % of GDP (2023)	0.57	0.99

African average 1.32% of GDP (37 countries, 2023). Sierra Leone's two figures are not yet reconciled. Illustrative results, not official estimates.

Source: Paper 7.1; OECD Revenue Statistics in Africa 2025.

A one-page profile for 217 economies, with the source of every number

217

economies on one country profile

80

public indicators in twelve blocks, each answering one question

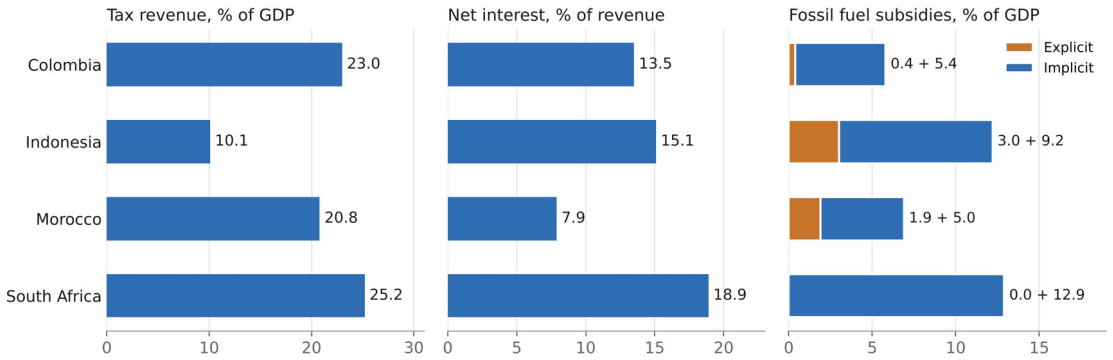
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imputed values: a missing value stays missing and is counted

Scores from 1 to 10 between the 5th and 95th percentiles; deliberately no overall index.

Source: Paper 7.2.

The same tax take can carry very different interest and subsidy bills



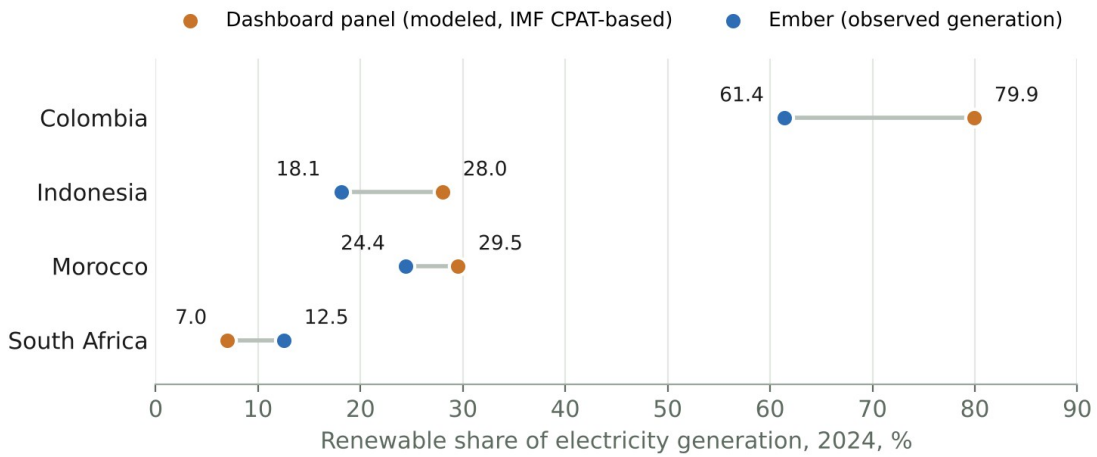
Indonesia: tax 10% of GDP, explicit fuel subsidies 3%: a revenue problem.

South Africa: tax 25% of GDP, net interest 19% of revenue: a debt-service problem.

Different levers, so different next questions.

Source: Paper 7.2 (2024 values as compiled); IMF fossil fuel subsidy data 2025 update.

A check against the publishers confirms most values and finds three faults



Mislabeled: the interest indicator is net interest; its filter drops net creditors.

Denominator: excise as a share of revenue reverses a reading.

Modeled vs observed: renewable shares 5–19 points off observed generation.

Source: Paper 7.2; Ember (2026).

The tools feed the rest of the program

The dashboard chooses the question: which lens matters before any model is run.

The excise diagnostic supplies checked tax rates and damage values to CPAT (section 5) and to carbon pricing (section 1).

The scenario tool (paper 6.5) takes the cost of capital into a country's budget and debt.

Next block: carbon pricing, with the Total Effective Carbon Price (paper 6.1).

Source: Section 7 overview.

What to do

What section 7 shows

Diesel: the case is mainly health and road safety.

Outside fuel: collection binds, not legislation.

One page separates revenue from debt-service problems.

Checks work: a benchmark, a definition and a label corrected.

Actions

Finance ministries: index specific excises; book each line separately; run the diagnostic every budget.

Analysts: find the binding constraint before choosing the lever.

Tool owners: publish the build; add a carbon-pricing block.