

# Carbon Taxing Rights in Coal-Exporting Economy

## Exploring the Potential of a Fiscal Strategy Centered on Indonesia's Upstream Carbon Tax

This analysis examines how Indonesia's upstream carbon tax can be harmonised with international taxation frameworks. The aim is to enhance the capacity of coal-exporting developing nations to engage meaningfully and fairly in the global energy transition.

### Authors

Annas Sultansyah brings over 17 years of expertise in the Indonesian fiscal system, particularly within the natural resources and energy sectors. Currently, he is pursuing a doctoral research degree at Monash University, focusing on fiscal, energy, and environmental policy. He goes beyond mere statistics, utilising insights from political economy, real-world stakeholder perspectives, and systems thinking to reveal what constitutes effective and equitable policy.

### Affiliations



## Why Indonesia's Coal Matters for 21<sup>st</sup> Century?

- Global decarbonisation depends on whether emerging markets and developing economies (EMDEs) can finance and manage a rapid shift to renewable energy
- EMDEs like Indonesia face a critical choice: brown lock-in or green leapfrog
- Indonesia stands as the largest exporter of thermal coal, with coal revenues being vital for its fiscal stability, while also increasing climate risks globally
- The main limitation is fiscal space and institutional capacity, not technology
- **Therefore, fiscal policy design must enable Indonesia to align its carbon tax framework with its institutional capabilities, allowing taxing rights to follow the production source (supply-side). This approach would encourage carbon producers to engage while also addressing the issue of global carbon leakage.**



Held between rising hopes and coal-filled skies, Indonesia seeks a fiscal compass to guide a gentler future.

## Indonesia as a Case Study

Indonesia's carbon tax implementation is messy despite its potential to aid transition.

- Adaptation of complex downstream designs from developed economies, focusing only on domestic combustions. (demand-side, location of emissions)
- Resulting **capacity mismatches and low incentives for participation**
- Ongoing delays and dilution in the rollout continue to hinder progress

## The Upstream Carbon Tax (UCT)

Implementing a levy on the carbon content of coal during extraction (tCO<sub>2</sub>e), aligned with current royalty systems and earmarked revenue, designed for a capacity-constrained coal-exporting EMDE.

- Works with existing institutional capacity
- Increases revenue (both domestic & export) designated for reliable transition finance
- **Affirms Indonesia's right to tax the carbon embedded in all coal extraction, including the majority that is exported**

## International Tax Challenges

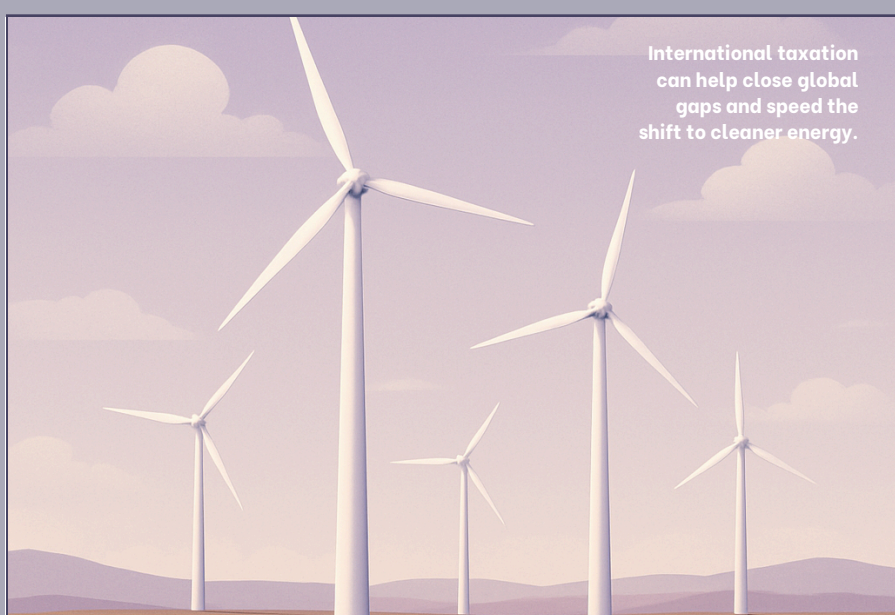
Resource-exporting EMDEs lose taxing rights on carbon (UCT) without global acknowledgement.

- **Classification Problem:** The "other taxes" label restricting foreign tax credits and affecting the global minimum tax
- **Border Carbon Measures:** Importing states may tax emissions without acknowledging UCT, resulting in double taxation on CO<sub>2</sub>e
- **Recognition of Origin Principle (supply-side) for coal is essential, carbon tax levied ex-ante when it enters the economy**

## Analysis & Recommendation

- **Principle 1:** The origin state (fuel source) has a legitimate right to impose an upstream carbon tax on tCO<sub>2</sub>e.
- **Principle 2:** Importing states should recognise credible upstream carbon taxes in Border Carbon Measures (CBAM) regimes and in their assessment of overall tax effort.
- **Principle 3:** Global minimum tax rules shouldn't classify strong carbon pricing jurisdictions as fiscally "weak" due to reliance on environmental taxes.

Framework Category	Origin (Ex-Ante) vs. Destination (Ex-Post)	Global Taxation Interaction	Global Trade Interaction	The Legal Bridge	Transition Finance
<b>Key Conflict / Interaction</b>	"Analytical Indistinctness": Indonesia taxes the Supply Side (Origin), while the EU taxes the Demand Side (Destination).	Risk of the "Triple Tax Trap" where carbon is taxed at the mine, at the border, and via Pillar Two top-up taxes.	EU Article 9 requires carbon price deductions to be "Net of Rebates." Direct subsidies disqualify domestic credits.	Pillar Two ETR Dilution: Domestic carbon taxes often fail to qualify as "covered taxes," lowering Effective Tax Rates (ETR).	Global lack of "Reliable Finance" for carbon-fuels producers to transition to green energy (addressing supply).
<b>Technical Design &amp; Solution</b>	Define the levy as an explicit carbon price on tCO <sub>2</sub> e potential, legally asserting Origin taxing rights.	Use MRV-verified data (SRN-PPI) to replace EU "Default Values," potentially proving lower emissions than the 10% worst-case benchmark.	Earmark revenue for a National Decarbonization Fund (Transition Finance) to avoid being legally classified as a "rebate."	Implement Qualified Refundable Tax Credits (QRTCs) for green investments, which are treated as "Income" in the 2026 framework.	Link upstream revenue directly to renewable generations and green infrastructure to justify the "Origin" tax as a mitigation tool.
<b>Impact on Global Standards (CBAM/GMT)</b>	Prevents "tax base export" to the EU by internalizing the environmental externality at the production source.	Share the burden of proof between the EU and the Indonesian producer, significantly reducing border certificate costs.	Satisfies EU compliance as public green investment (non-distortive) rather than a trade-distortive subsidy.	Protects ETR: Ensures the carbon price doesn't trigger a 15% Top-Up tax under the OECD Side-by-Side Package.	Aligns Indonesia with the EU Green Deal and Pillar One/Two logic, creating a unified global tax narrative.



International taxation can help close global gaps and speed the shift to cleaner energy.

## Key Features for Reliable UCT

In the international taxation terms, **essential characteristics** for a reliable Indonesian Upstream Carbon Tax on coal extraction include:

- **Earmarked revenue** for green transition, not returned to mining companies.
- **Tax levied per tonne of CO<sub>2</sub> equivalent** at coal extraction, similar to downstream carbon taxes or ETS.
- **UCT integration** with the Indonesia Carbon Unit Registry System and international carbon frameworks.

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