GNARLY TREE SUSTAINABILITY INSTITUTE

# Case Study: Carbon Tax in Colombia

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Colombia's carbon tax was introduced in 2016 primarily as a tool to raise revenue after the international decline in oil prices that started in 2014. The decline saw oil revenues fall from 3.3 percent of the gross national product of Colombia to almost zero and substantially decreased the country's total income. To mitigate the effect of this decline on the economy, a series of tax reforms were introduced that aimed to simplify tax codes, prevent evasion, and modernize regulation. The carbon tax was a part of the larger tax reform effort, which lowered the new tax's visibility and hence made it less vulnerable to criticism and opposition. It was also seen as a tool to boost Colombia's chances of being nominated to the Organization for Economic Cooperation and Development (OECD).

The carbon tax rate was initially set at USD $5/ton $CO_2e$ with an annual increase of 1 percent plus inflation until it reaches USD $10. It is an upstream tax that applies to producers of fossil fuels for the domestic market and direct importers of fossil fuels (see Sankey diagram in appendix). The tax does not cover all fossil fuels – it applies to gasoline, kerosene, diesel, fuel oil, natural gas that is used by industry in refining of hydrocarbons and petrochemicals, and industrial uses of liquefied petroleum gas (LPG). Notable exemptions from the tax include coal use and domestic natural gas use. As designed, the tax covers 24 percent of GHG emissions and is collected by producers and importers.

To reduce the tax burden on entities and to encourage investment in mitigation technology, entities could claim partial or complete waivers if they submitted carbon offset certificates that conformed to certain criteria, including accreditation by UNFCCC, Colombia's National Accreditation Body, or a member of the International Accreditation Forum.[2]

### Jurisdictional Context/Background

- Per-capita GDP (USD): $6,428 (2019)
- Population: 50 million (2019)
- Major GHG emission sources: transportation (41 percent) and industrial sector (28 percent)
- Human development index: 0.767 out of 1.0 (2019)
- Government capacity[1] (out of 100 2014):
  - Voice & accountability: 47.8
  - Political stability and absence of violence/ terrorism: 11.0
  - Government effectiveness: 49.5
  - Regulatory quality: 67.8
  - Rule of law: 44.7
  - Control of corruption: 44.2

**Regulatory Context:** Colombia instituted the carbon tax as part of a larger existing regulatory framework and institutional structure designed to meet their international emission reduction commitments, including a National Climate Change Policy, a National Climate Change System, an Inter-Ministerial Committee on Climate Change, sector-specific Mitigation Action Plans, and others. Colombia is also developing an emissions trading scheme (ETS) as part of its international commitments.

**Revenue Handling:** Revenues from the Colombian Carbon Tax are earmarked specifically for environmental purposes. Initially, the revenues were managed by the Fund for Sustainable Environment and Rural Sustainable Development. However, the revenues are now channeled mostly through the Peace Fund of Colombia which is overseeing the Final Agreement of Peace.[3] Specifically, the distribution of the revenues is as follows: 25 percent for adaptation financing (i.e., control of coastal erosion, conservation of strategic

[1] World Bank (2021)
[2] Criteria enumerated on Verra.org (2017)
[3] The peace process between the national government of Colombia and the Revolutionary Armed Forces of Colombia (FARC-EP) brought an end to the Colombian conflict, which was a low-intensity asymmetric war over influence in the Colombian territory.

| Fossil Fuel | Unit | Fee |
|---|---|---|
| Natural gas | $m^3$ | US$ 0,0107 |
| Liquefied petroleum gas | Galón | US$ 0,0347 |
| Gasoline | Galón | US$ 0,0493 |
| Kerosene & Jet Fuel | Galón | US$ 0,0540 |
| ACPM (diesel fuel) | Galón | US$ 0,0553 |
| Fuel Oil | Galón | US$ 0,0647 |

**Figure 1: Tax Value per Fossil Fuel**[4]

ecosystems, and water sources conservation), 5 percent to the National System of Protected Areas, and 70 percent to post-conflict solutions.

**Price Impact:** The tax was designed to prevent distortion of the fossil fuel tariffs to a great extent. Currently, it comprises only 2 percent of the price of gasoline or ACPM diesel (see figure). Additionally, the tax reforms were designed to allow companies to request tax breaks if they had invested in mitigation projects.

**Economic Outcomes:** At the end of 2017, a revenue of USD $159 million was generated from carbon taxes, falling short of the Ministry of the Economy's projections that the USD $5 tax would yield around USD $200 million of additional revenues annually. In 2018, revenues were even lower, reaching only USD $98 million.[4]

**Challenges:** The diversion of the revenue to the Peace Fund received substantial backlash as many saw it as a deviation from the original objective of the tax, which was to fund environmental protection activities. Additionally, almost a third of carbon revenues qualified for tax breaks for mitigation offset projects, the impact of which could not be measured in the absence of a robust monitoring and verification system. The low tax rate has also been criticized because it is unlikely to substantially impact demand.

Finally, the tax has been heavily criticized for the exemption granted to coal, which had been a result of lobbying by coal interest groups. Colombia is the sixth largest exporter of coal, and it is anticipated that the price for coal in international markets will decline in future years. This could result in increased burning of coal domestically as it becomes a cheaper alternative to other energy sources, which may ultimately increase GHG emissions. Additionally, inclusion of coal would increase the revenues collected under the tax by approximately 30 percent.[5]

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[4] Mogollon (2019)
[5] Ibid.

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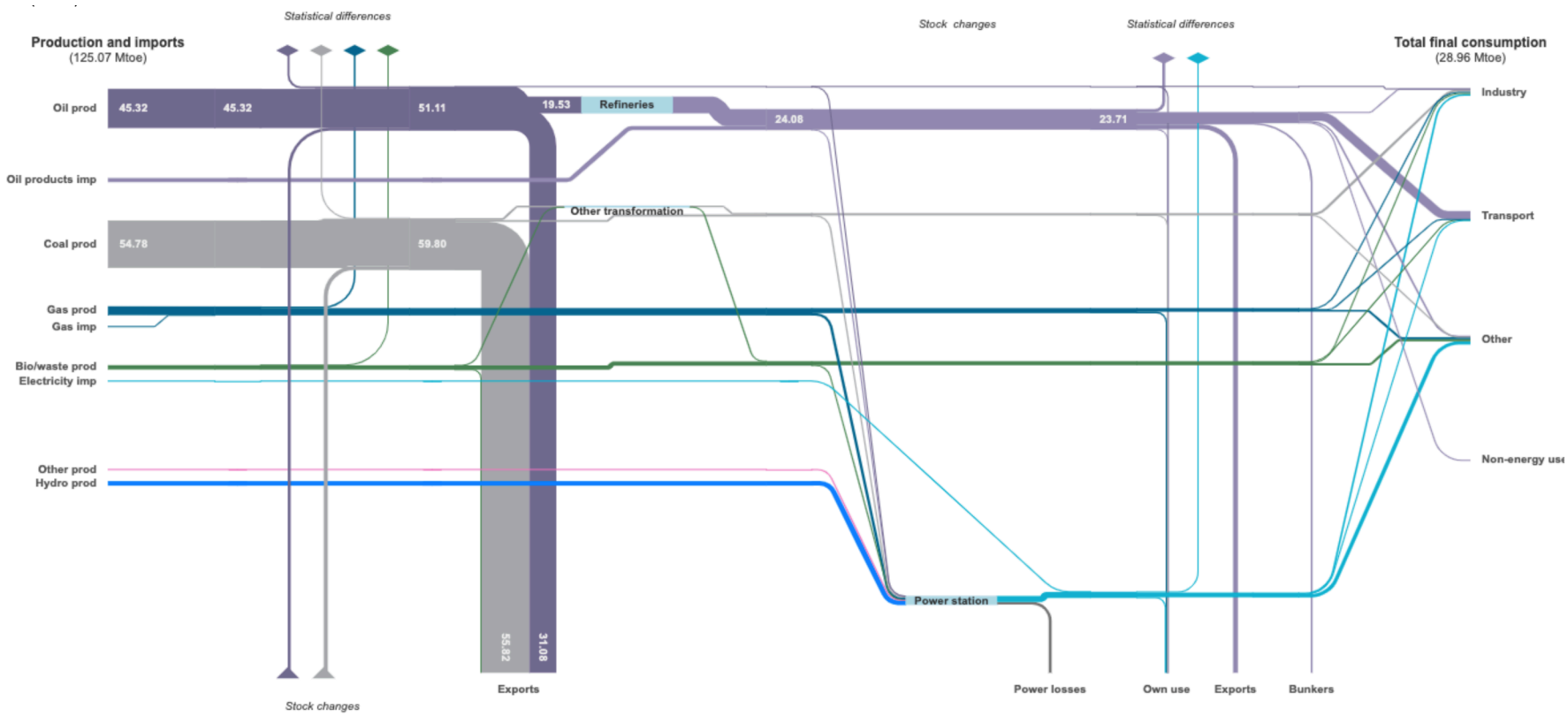


**Figure 2: Colombia Sankey Diagram (Balance, 2018)[6]**

[6] IEA (2021)