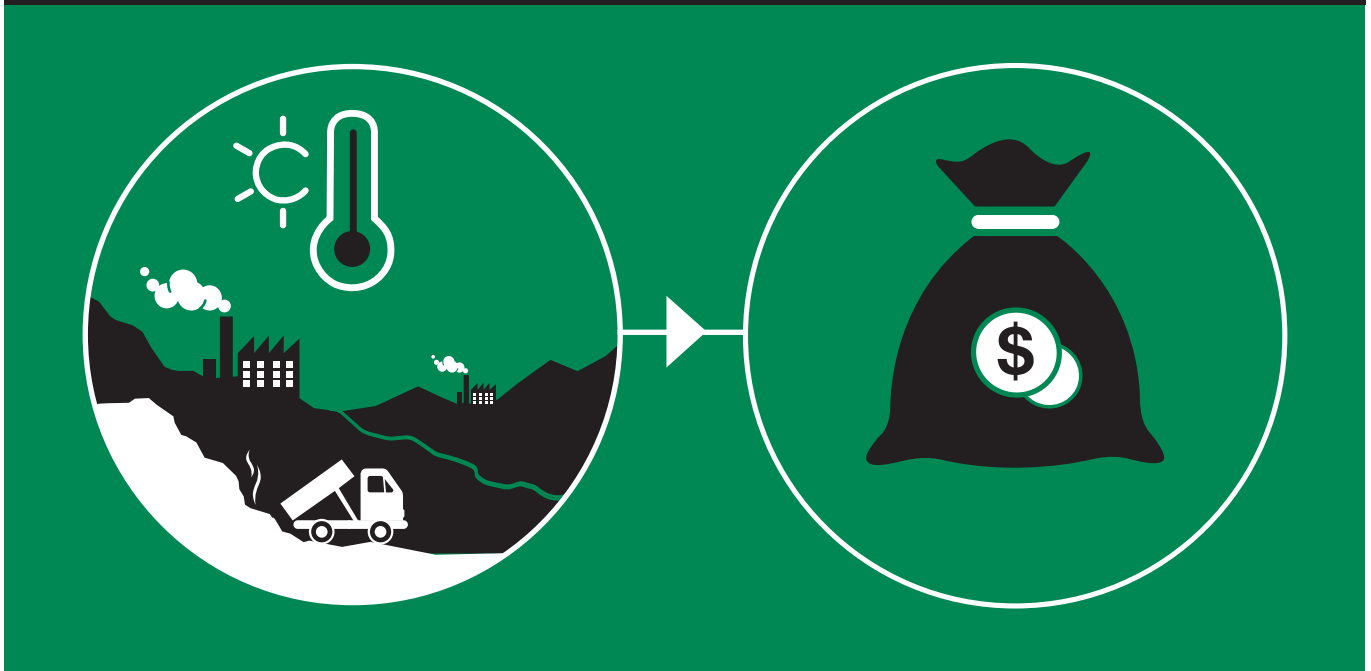


Carbon taxes

Progressive Taxation Briefing



What are carbon taxes?

Carbon taxes are a type of environmental taxes aimed at encouraging a reduction in carbon emissions, growing in popularity around the world.

There is currently no uniform definition for what constitutes an environmental tax, although it is generally identified as any tax associated with an environmental item or good – even if there is no explicit environmental motivation for the tax, and even if it is implemented merely with the objective of raising revenues. There is ongoing debate on whether it is necessary to distinguish between environmental taxes that have an explicit environmental purpose and effect (such as carbon taxes), and those that do not.¹ Environmental taxes can take many forms, such as taxes on energy, transport, pollution or resource extraction.

Most often, environmental taxes are excise taxes² imposed on a product or production process, levied either on import,

during a production process or at the stage of purchase. Excise taxes tend to be the most popular policy approach to environmental taxes because they are relatively simple and easy to administer.

Environmental excise taxes can be levied as a percentage of the final product price, (such as a fuel tax on consumption, applied as a percentage of the retail price), or as a price per volume or weight of polluting substance. The latter is the approach adopted in carbon taxes, which tend to be priced per ton of carbon.

Environmental taxes tend to be used to try to influence behaviour and discourage the consumption of more polluting substances. Carbon taxes are typically levied on the extraction, import or use of crude oil, gas or coal and calculated on the basis of carbon content. As this cost is passed down the line, it will inflict a higher price on fuels and energy coming from fossil fuels, making carbon-intensive fuels, like diesel, relatively more expensive than less carbon intensive ones. A tax on carbon content of fuels will therefore in theory have the effect of incentivising reduced

consumption of fossil fuels (and their products), encouraging energy efficiency, and shifting towards alternative energy sources such as renewables. It may also have the effect of stimulating the consumption of natural gas as a cheaper alternative over diesel.

► Other policy approaches

While carbon tax is by far the most popular approach in terms of taxation measures targeting CO₂ emissions, several other – sometimes complementary – ideas have been gaining attention in international debates:

Carbon Added Tax (CAT). Under a VAT-type system, a CAT is a tax on carbon emissions added at each stage of the production process. The application of a CAT will result in the final consumer paying for the full carbon footprint (the cumulative value of carbon emissions) incurred by the product throughout its entire production chain, whereas producers can claim credit for the CAT they paid which does not correspond to the emissions they were directly responsible for. There are no known examples of a CAT in operation, although it has been widely discussed as a policy option.

Climate Damages Tax (CDT). Proposals for a Climate Damages Tax³ were put forward by civil society in 2018. Like many of the carbon taxes, the CDT would represent a charge on the extraction of each tonne of coal, barrel of oil or cubic litre of gas, calculated at a consistent global rate based on how much CO₂ is embedded within the fossil fuel. At the moment, many countries struggle to raise tax revenues on natural resource extraction commensurate with the external costs of environmental degradation.⁴ The idea of the CDT is that fossil fuel companies, who already pay royalties (or similar) to the states where they operate, would pay an extra amount on the volume they extract. The CDT would need to be structured to prohibit companies from trickling this cost onto consumers, and to ensure that it is progressive, i.e. those with greater ability to pay – who are also often more responsible for higher levels of greenhouse gas emissions – are contributing the most.⁵

Border Carbon Adjustment (BCA). This is a policy that is consistent with the establishment of a carbon

tax. A border carbon adjustment is a tax levied on imports at a price equivalent to the carbon tax (or price) being applied domestically. It is a measure aimed at protecting a country's domestic internal market against international competition, either by employing a carbon tax on imported products that have not previously been subject to one or exempting domestically produced products from a carbon tax when the final product is destined for export. An import BCA is therefore commensurate to the carbon tax employed domestically by a given country.

Looking at different policy approaches is particularly important within the context of environmental tax reform, where the goal might be emissions reduction or revenue generation – or both. The options that work best for any one given jurisdiction will depend on a combination of factors such as a jurisdiction's emissions profile, energy and tax policy objectives, climate change risk profile, and capacity for tax administration.

Ensuring progressivity of carbon taxes

As indirect taxes levied on environmental 'bads' such as carbon, environmental taxes have the effect of inflicting a higher price on products purchased by consumers. They tend to be regressive, because by imposing a uniform burden on all consumers – without consideration of income, purchasing power or gender – poorer people will pay a disproportionately higher amount of their available income on such taxes. Some taxes, such as those on energy products for domestic use (e.g. gas and oil products used for heating and cooking), also have a greater impact on women – as they tend to spend a higher proportion of their disposable income on household items and expenses.

In order to make an environmental tax more progressive, tools such as differential rates for different sectors or groups, with lower ones for those the poor rely on most, like residential transport, could be used. A typical example of an energy tax designed to compensate for inherent regressivity would be the granting of lower energy tax rates

to low-income households, or even subsidising the cost of energy up to a pre-determined threshold.⁶ Well-targeted tax exemptions and reduced rates can be important mechanisms in ensuring progressivity, but require sound tax administration capacity as a result of a more complex system.

Alternatively, environmental taxes such as the carbon tax could be balanced out by changes in other taxes. 'Distributional neutrality' in the targeted redistribution of resources to select groups aims for a net zero change, by reducing for example, income taxes so that the overall tax burden on consumers does not increase in the long run. But this also means that the tax is 'revenue neutral' – no new funds are generated for environmental and sustainable development goals. In fact, administering the tax could end up being a net revenue loss. Indeed, this problem applies to both cash transfers or dividends and distributional neutrality.

Another way governments have been trying to mitigate the regressive effect of climate-related taxes is by linking them to a redistribution mechanism to compensate lower income groups for the increased costs, a factor that can also help secure political and popular endorsement of the tax. One option is earmarking the revenues from the tax for directed (cash) transfers or uniform lump sum dividends – also called rebates – paid to the taxpayer. Transformative social welfare policies, or co-benefits policies designed to foster the transition to a green economy, are typically deemed preferable to unconditional compensation such as cash transfers. Some scholars argue however that uniform lump sum payments are preferable to other mechanisms because of their high visibility, low implementation cost and progressive effect.⁷

In addition, some environmental taxes may particularly penalise poorer people when there are no better alternatives available to them such as public transport, access to renewable energy, or sustainable food. Policies should consider making these alternatives available first, in order to make it easier for individuals to make the right choice, instead of inflicting higher prices that would leave low-income households with no choice but to go without necessities.

Examples of good and bad uses of carbon taxes

A good environmental tax attaches a price to a negative externality (such as air pollution or carbon emissions), affecting producers' behaviour and leading to a reduction in polluting emissions – while not creating an excessive and disproportionate burden on citizens. The impact of the tax on the final consumer should be proportional to the individual's ability to pay.

Quite a few countries employ a carbon tax. Amongst them are many European countries, some provinces in Canada, Latin American countries, South Africa, Singapore and Japan.^{8, 9}

In Latin America, four countries employ carbon taxes: Argentina, Chile, Colombia and Mexico. The revenue proceeds of the tax in all but one (Colombia), go to the general budget as there is no obligation on the part of the countries in question to use any of the revenues for environmental purposes. In Colombia, where 100% of the proceeds of the tax are earmarked, 30% is designated for protecting against erosion in coastal areas, fighting deforestation, monitoring forested areas, preserving water sources and other strategic ecosystems, and fighting climate change.

While the carbon taxes in Latin America tend to be portrayed as success stories in the administration of carbon taxes, it is difficult to assess how progressive these taxes are as some of them have been in operation for less than ten years. Nevertheless, analyses by the Colombian government have shown that their carbon tax affected higher-income households more than lower-income households.¹⁰

The most recent example of a carbon tax being employed in the developing world is from South Africa. The South African carbon tax came into force in June 2019, and applies to greenhouse gas emissions from the industrial, power, building and transport sectors irrespective of the fossil fuel used. Eighty percent of South African greenhouse gas emissions are covered. However, for many sectors, tax exemptions ranging between 60% and 95% apply, in

order to compensate for fugitive (irregular or unintended) emissions, safeguard national industry against international trade exposure, or allow the offset of emissions deriving from mitigation projects. The government also provides some exemptions from the carbon tax to mitigate the burden on households and individuals.¹¹ The emphasis is thus on corporate entities and not individuals, although the carbon tax burden could be passed on to the final consumer through a normal production value chain. As a new regime, it is unclear whether the South African experience is in fact efficient, effective, and fair, however it has inspired other African countries to assess the feasibility of introducing carbon taxes into their own jurisdictions.

In Vietnam, the Environmental Protection Tax Law introduced a broad-based package of environmental taxes in 2012, covering a wide range of pollutants, and is considered to have led to positive behavioural change and reduced pollution and emissions.¹² At the same time, analyses showed that richer households paid a larger proportion of their income towards these taxes, likely due to the fact that a large part of the revenues were raised through transport fuel taxes. Transport fuel taxes are believed to be largely progressive in developing countries by being in effect luxury taxes, as private vehicle ownership is more likely for higher-income households – though there can be some negative impacts on lower-income groups through indirect effects on the price of public transport and food.¹³

Examples of unsuccessful uses of carbon taxes and similar environmental taxes include those that are either introduced with the main objective of raising revenue, resulting in little or no environmental benefit, or a lack of compensation to low-income households for the proportionately higher burden resulting from the tax.

In Mauritius, for example, the employment of the *Maurice Ile Durable* (MID) levy, a tax at the extraction point on fossil fuels, in combination with a number of other excise taxes, led to a negative environmental impact in the country. One of the primary objectives of environmentally-related taxation in Mauritius was revenue raising. For this reason, the tax rates employed on diesel, gasoline and coal were not commensurate with their carbon generation potential. As a result, whereas coal was only burdened by the MID, diesel and gasoline were subject to both the MID levy and excise duties, resulting in a move away from gasoline and diesel use to coal, a more carbon-intensive product. The overall outcome was a general increase in coal use in the country, leading to greater release of carbon emissions.

Perhaps the most notorious example of an unsuccessful attempt at scaling up environmental taxation comes from France, where public opposition to an increase in carbon taxes levied on fuel, particularly diesel and petrol, led to the rise of the so-called *gilets jaunes* (yellow vests) movement. The planned tax hike would have made driving from peripheral rural towns and city outskirts more expensive, and applied uniformly across all income groups. This policy came just one year after the same government decided to abolish the pre-existing wealth tax, and left the impression that the French government was failing to protect the less affluent.¹⁴ Lack of communication and foresight for the economic hardship faced by lower classes of society, plus the rush to implement the tax without public consultation, led to the eventual downfall of the French carbon tax plan.

Similar uprisings against increases in fuel prices have occurred in other countries where pricing policies have been put in effect, such as Australia (2013), Ireland (2014, over an increase in the water charge), Mexico (in 2017), and Canada (2018).¹⁵

Recommendations

▶▶ Governments should:

- **Have ample meaningful consultation** with citizens and civil society organisations in order to take the needs of marginalised groups into account in the design of carbon taxes.
- **Ensure progressivity of all carbon taxes in their design**, such as through well-targeted taxes that apply more to wealthy individuals and polluting corporations, as well as exemptions, thresholds and reduced rates, and/or incorporate an effective redistribution mechanism to compensate the more vulnerable groups in society for any inherent regressivity. In-depth impact assessments of proposed taxes must be carried out in order to identify potential (direct and indirect) impacts on economic and gender inequalities.
- **Ensure there is equitable access to sustainable alternatives before introducing carbon taxes.** Policy makers should consider whether certain communities have access to better alternatives (e.g. energy, transport, food). If these alternatives are not available, then communities will still be forced to use the unsustainable products, but will have to pay more for them. This will affect lower-income households disproportionately. Therefore, better alternatives need to be in place first before the tax gets implemented, so that the tax can act as a tool to encourage consumers to switch to the better alternatives.
- **Ensure the carbon tax policy has a positive environmental effect** for the country, and does not function solely as a revenue raiser. The taxes applied should be effective in advancing environmental policy objectives such as the reduction of CO2 emissions.
- **Consider a gradual introduction of taxes** in order to increase juridical certainty in the tax system and gain political support. For instance, in the case of a carbon tax, it could be introduced at a lower carbon price and gradually increased over years to eventually reach the target price.
- **Consider the introduction of a Climate Damages Tax on the extraction of coal, oil and gas** – putting the onus on those responsible for the root causes of climate change by following the ‘polluter pays’ principle, designed carefully to ensure it is progressive and does not unfairly penalise poorer people.
- **Ensure the new taxes do not negatively affect development policy objectives** by undermining revenue, trade or environmental policies in developing countries. This concerns in particular taxes with direct international implications, such as the Border Carbon Adjustment currently being considered at EU level. In-depth impact assessments of the proposed tax must be carried out in order to identify potential impacts on third countries.

This is one of a series of briefings on Progressive Taxation published by ActionAid International beginning in October 2018. You can find them at <https://actionaid.org/publications/2018/progressive-taxation-briefings>

► Endnotes

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2. For more information on excise taxes, see ActionAid (2018) *Progressive Taxation Briefings: Excise Taxes*
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5. <https://actionaid.org/sites/default/files/publications/Loss%20and%20Damage%20Finance%20and%20Hum....pdf>
6. David Klenert et al., *Making Carbon Pricing Work for Citizens*, 8 *Nature Climate Change* 669 (Aug. 2018)
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9. While some other African countries have taxes in place that are commonly referred to as a carbon tax, such as Zimbabwe and Zambia, those taxes are often not recognized as such in research, presumably due to methodological considerations and the nature of the taxes in question. For example, the “carbon tax” in Zambia is limited to a surcharge on engine efficiency to forestall the import of old cars.
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The logo for ActionAid, featuring the word "actionaid" in a bold, lowercase, sans-serif font. The "a" in "action" is stylized with a white exclamation point inside it.

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