

# CARBON DIVIDENDS AS TAX JUSTICE

*feature*  
James K. Boyce

*The urgent need to respond to the climate emergency is forcing rapid change on many different aspects of human life, from the generation of power to the design of transport systems and the organization of the built environment. Here James K. Boyce shows that the very way we think about property will have to change, and change rapidly, if we are stave off catastrophic rises in temperature.*

A carbon price can advance tax justice in two key ways. First, charging polluters for use of the biosphere's limited capacity to recycle carbon, rather than letting it continue to be used and abused free-of-charge, would help end the greatest environmental theft in human history. Second, returning the money to the people would give concrete expression to the ethical principle that the gifts of nature belong to all in common and equal measure.

To do this, any carbon pricing policy must meet two key tests. First, it must be effective: the price must be robust enough to ensure

that we progress rapidly to the clean energy economy of the future. Second, it must be equitable: the policy must improve the lives of working families rather than adding to their burdens.

## Effectiveness: The climate policy litmus test

The litmus test for effective climate policy is whether it will keep enough fossil fuel in the ground to prevent global temperatures from rising more than 1.5–2°C above pre-industrial levels. Many policies can serve this goal, but there is only one way to be

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In the *Astronomica* the Roman poet Manilius wrote of 'the commonwealth of the sky.' It is time to take the idea seriously; the atmosphere is a common possession. Picture by Lelyan Abu Snehah, released under a Creative Commons CC BY-SA 4.0 license.

certain that we achieve it: put a hard ceiling on the amount of fossil carbon we allow to enter the economy and then ratchet it down steadily over time.

The most straightforward way to do so is to issue carbon permits up to the level set by the ceiling. If the target is to cut emissions

by 85% in 30 years, for example, this means cutting the number of permits by 6% each year. At every tanker port, pipeline terminal, and coal mine head, fossil fuel corporations would be required to surrender one permit for each ton of carbon they bring into the economy. When these permits are auctioned, the firms will bid what they

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expect to recoup from higher prices paid by consumers. The carbon price is the inexorable result of a hard limit on supply.

How high the price will go cannot be known in advance. It will depend, among other things, on how fast renewable energy costs continue to fall. Extrapolating from past experience, however, we would expect a 6% per year reduction in the supply of fossil fuels to translate into roughly a 10% per year increase in their price. If so, fossil fuel prices would double in about seven years and quadruple in fifteen.

If other policies, like smart regulations and public investment, also help to reduce demand for fossil fuels, the price increase will be smaller. Indeed, if these other policies are so successful that they achieve the targeted emissions reduction on their own, the supply limit will be redundant and the permit price will fall to zero. In this case the carbon price, like fire insurance, would turn out to be unnecessary – but optimism is not a good reason to forego insurance.

Just setting a carbon price and hoping it will do the job is not enough: the price must be anchored to a hard trajectory for reducing emissions. Likewise, just investing in mass transit or enacting fuel economy standards and hoping for the best is not enough. We

know these will help, but we cannot know exactly how much.

Today the time has passed when just hoping for the best is good enough. We need to make absolutely certain that we cut emissions decisively in the coming years. And we need to face up to the reality that comes with this objective: higher prices on fossil fuels.

### Equity: The carbon dividend

The carbon dividend – returning the revenue to the people as equal payments to every woman, man, and child – provides a way to mesh carbon pricing with the goal of building an economy that is more equitable as well as more sustainable.<sup>1</sup>

The idea can be illustrated with an analogy. Imagine that 1,000 people work in an office building whose parking lot has only 300 spaces. If everyone could park for free, the result would be chronic excess demand and congestion. To prevent this, a parking fee is charged that limits demand to fit the lot's capacity. Every month the proceeds from the fee are distributed in equal payments to everyone who works in the building. Those who take public transport or bicycle

to work come out well ahead: they pay nothing and get their share of the revenue. Those who carpool to work more-or-less break even. And those who commute daily in a single-occupancy vehicle pay more into the revenue pot than they get back. Carbon dividends apply the same logic to parking fossil carbon in the atmosphere.

Everyone gets the same dividend, regardless of their own carbon footprint, so everyone has an incentive to reduce their use of fossil fuels. Those who fly often in airplanes, heat and cool bigger homes, and so on, will pay more in higher fuel prices than they receive in dividends. But the majority of households consume lower-than-average amounts of fossil fuels, because the average is pulled up by the outsized carbon footprints of the top one percent. As a result, they come out ahead in sheer pocketbook terms, without even counting the environmental benefits of reducing emissions.

A recent study that analyzed the net impact of carbon dividends in the United States with a price of \$50 per ton of carbon dioxide found that average incomes in the poorest tenth of the population would go up by about 5%; in the richest tenth they would go down by about 1%.<sup>2</sup> Higher prices would increase these impacts. Carbon dividends alone would not be enough to reverse extreme income inequality, but they would be a step in the right direction.

Some revenue from carbon pricing could be devoted to public investment, too. Government spending accounts for a non-trivial fraction of fossil fuel use, and recycling a comparable share of carbon revenue to government would keep it whole.

By earmarking a fair share of public investment for communities that have suffered disproportionate environmental harm from the fossil-fueled economy – from polluted neighborhoods in urban areas to rural communities afflicted by the toxic legacies of fossil fuel extraction – this, too, would advance the goal of equity.<sup>3</sup>

### Climate policy: Beyond “eat your broccoli”

Too often, climate change has been framed exclusively as a threat that requires the present generation to make sacrifices for the sake of future generations. The result is to give climate policy an ‘eat your broccoli’ flavour: you ought to swallow it even if you don't like it.

Instead, the clean energy transition can and should be framed as something that will benefit working people here and now, too. It will create millions of new jobs here and now.<sup>4</sup> It will bring about cleaner air,

<sup>1</sup> James Boyce, *The Case for Carbon Dividends* (Cambridge, 2019).

<sup>2</sup> Anders Fremstad and Mark Paul ‘The Impact of a Carbon Tax on Inequality’, *Ecological Economics*, Volume 163, pp. 88–97, 2019.

<sup>3</sup> The Union of Concerned Scientists, *The Hidden Costs of Fossil Fuels*, 30 August, 2016.

<sup>4</sup> Robert Pollin, *Job Opportunities for the Green Economy: A State-by-State Picture of Occupations that Gain from Green Investments*, Political Economy Research Institute, University of Massachusetts, Amherst, June 2008.

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saving lives here and now.<sup>5</sup> And with carbon dividends in the policy mix, it will lift net incomes for the majority of households.

These benefits can change the narrative on climate policy. Instead of a tradeoff between economic prosperity and environmental protection – a false choice all too often posed by proponents of climate action as well as its opponents – the two can go hand-in-hand. And instead of awaiting an international agreement on how to curb emissions, the here-and-now benefits can be sufficiently compelling for countries to act regardless of what others do.

### Dividends: Beyond carbon

The ethical underpinning of carbon dividends is the principle that the gifts of nature – in this case, the limited capacity of the atmosphere to safely absorb emissions – belong in common and equal measure to all. This implies that we share not only the duty to safeguard natural assets for future generations, but also the right to income derived from charging for use of this scarce resource (rather than, as at present, allowing it be used and abused free of charge).

A carbon price-and-dividend policy would transform the carbon-absorptive capacity of the atmosphere into a new kind of property that is distinct from both private property and public property as conventionally understood. Unlike private property, the right to receive dividends cannot be bought and sold, or owned by corporations, or concentrated in a few hands. Unlike public property, it does not belong to the government: it belongs to the people. Instead it could be termed universal property, signifying rights that are individual, perfectly egalitarian, and inalienable.

In the first decade or two, carbon dividends are likely to grow larger, even as emissions are curtailed, for the simple reason that the carbon price is likely to rise faster than the quantity declines (in the language of Econ 101, demand for fossil fuels is price inelastic). But eventually, as the clean energy transition nears completion, the revenues and dividends will dry up. An interesting question to ask is whether the public may then want to apply the universal property model to other natural assets, such as minerals or the electromagnetic spectrum, or to human-made infrastructure. Were this to occur, apart from helping to solve the climate crisis, carbon dividends could also illuminate

a new way to remedy widening economic inequality, the other defining challenge of our times.

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<sup>5</sup> American Public Health Association, *The Public Health Impact of Energy Policy in the United States*, 13 November, 2018.