

Climate Injustice

A Critical Review of "What Do Climate Change Winners Owe, and to Whom?"

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ABSTRACT

The Polluter Pays, Then Receives (PPTR) principle claims that, had an agent innocently benefited from climate change, it owes moral obligations to the polluters who contributed to a warmer globe. This critical review assesses the evidence, the externalities argument, and the luck egalitarian approach and suggests that there are profound flaws in each of them. In consequence, the PPTR fails to accomplish its objective to incentivise efficient practices since polluting should neither be incentivised nor considered an efficient practice.

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SUMMARY

The Polluter Pays, Then Receives (PPTR) principle distinguishes itself from common climate justice principles in that, PPTR is the first to draw attention to positive externalities generated by pollution and to claim that net winners of climate change should transfer their gains to polluters rather than net climate losers.

Although climate change disrupts the living conditions of humans in the form of reduced health, safety, and ecosystem services, net winners of climate change exist because greenhouse gas (GHG) emissions generate positive externalities alongside negative ones. Evidence suggests that some regions, especially those with colder climates, are benefiting from global warming. Namely, longer summers in polar regions boost tourism, ice-free passages promote oceanic trade, and some high-latitude regions see an increase in crop yields.

The externalities argument holds that, to best benefit society, the gains should be transferred to those who generated positive externalities. Two intuitions support this conclusion. First, if actors are responsive to incentives, they will not act prosocially if they are unaffected by the consequences of those actions. Second, correcting the incentives to encourage the generation of more positive externalities is constructive to society. The entire argument is based on the condition that net winners from climate change exist, which entails two elements, 1) an agent, who contribute to the generation of 2) externalities, both positive and negative. One limitation of this paper is that, while background injustices may exist in climate gains, this possibility is not discussed for it would complicate the argument.

There are four types of beneficiaries from GHG emissions: 1) emitters of GHGs who externalize the social cost of polluting, 2) indirect beneficiaries including heirs and employees of emitters, whose gains should be regarded the same as direct polluters, 3) passive net winners who benefited from the changing climate despite having zero changes in their practices, and 4) active net winners who gained through responding to climate change (e.g. enterprises that provide adaptation solutions to reduce the negative effects of global warming). The four types are not mutually exclusive. Type-1 and 2 beneficiaries are labelled as *the polluters*, while type-3 and type-4 gains are respectively considered lucky and deserved gains. Hence, an agent is a net climate winner when its passive gains and active gains under the new climate combined exceed the profitability of that of the old climate, and contrarily, a net loser.

The PPTR principle claims that, while polluters should fully compensate climate victims, net winners of climate change are indebted to emitters, not to climate sufferers. PPTR is distinguished from dominant climate justice principles such as the Polluter Pays Principle (PPP), the Beneficiary Pays Principle (BPP), and the Ability to Pay Principle (APP) in that only PPTR justifies that winners owe their benefits to emitters. While PPP proposes that only polluters are to bear the costs of climate change, APP points to those with sufficient resources, and BPP indicates that net winners should compensate net losers rather than emitters.

The two objectives of the PPTR principle are to ensure the compensation of harm and to incentivise efficient practices by systematically addressing positive externalities. PPTR is defended by the symmetry between benefits and losses. While active net winners should enjoy their gains, passive winners owe their benefits to the emitters, but only on the grounds that the polluters have compensated the climate victims for generating negative externalities. While BPP advocates argue that the polluters may no longer exist upon reparation, the PPTR mechanism appeals to countries and firms to pay for the entities' wrongdoing in such cases.

Active and passive net winners are distinguished to illustrate why the former is entitled to its gains, but the latter is not. This is justified by two arguments. The first is that, according to the "desert-based justice" theory, active winners should enjoy climate gains because they took responsibility in response to climate change. Second, without such distinction, as in BPP, active winners will be penalized for innovative climate adaptation, which is counterproductive.

Furthermore, passive winners should compensate emitters rather than net losers. If the ideal case that all externalities are internalised cannot be achieved, the *hierarchy of claims* concept holds that restoring the losses of the victims is of priority, and net winners transferring their gains to the polluters is secondary. There are three specific non-ideal cases to address. In Case 1, when emitters no longer exist, the net losers are secondary recipients of the transferred gains. If emitters are unwilling to compensate net losers for generating negative externalities, which is Case 2, they are automatically excluded from the compensation scheme, making the net losers the recipients instead. Regarding Case 3, wherein emitters are making an effort but are unable to fully repair the consequences, passive winners would direct the funds initially for emitters towards the harmed and transfer the surplus to emitters. This resembles the *joint and several liability* concept in tort law, in which one of several tortfeasors should compensate the plaintiff and obtain partial reimbursement from the other tortfeasors.

Finally, Canada is taken as an example to illustrate how the mechanism could be implemented at two scales, between sectors and between provinces within a nation. On the one hand, the within-country sectorial approach proposes that, by predicting climate trends and computing climate gains, authoritative institutions such as the IPCC could specify the required compensation of winning sectors in monetary terms. The biggest drawback is that for net winners like Canada, since negative externalities are few, emitters take little responsibility and yet receive abundant passive gains, leaving actual victims in other countries uncompensated. On the other hand, federalism allows a regional experiment of international implementation, with tax revenues remaining within each province. Nonetheless, this differs from the global application in that, while the central government has power over provinces, there is no world government to impose legislation on countries. Moreover, as illustrated in the previous subsection, some mixes of externalities may yield counterproductive results.

In conclusion, symmetrically assessing gains and losses and relocating resources by the PPTR compensation scheme incentivises efficient practices and prevents free-riding.

(Mintz-Woo & Leroux, 2021)

EVALUATION

The PPTR principle claims that, had an agent innocently benefited from climate change, it owes moral obligations to the polluters who contributed to a warmer globe. This critical review assesses the evidence, the externalities argument, and the luck egalitarian approach and suggests that there are profound flaws in each of them. In consequence, the PPTR fails to accomplish its objective to incentivise efficient practices since polluting should neither be incentivised nor considered an efficient practice.

Rather than primary research, the arguments are supported solely with secondary evidence. The paper neither conducts a methodological synthesis nor includes any meta-analyses in the reference list aside from a synthesis report by the IPCC (2014). Much of the discussion on climate ethics are conducted on a combination of a wide range of expert opinions from journal articles, which, according to *The Hierarchy of Evidence* (Brighton et al., 2003), are of lowest quality and have the highest risks of bias. Thus, the evidence provided in the article is insufficient to support the claims made by the authors.

Evidence for the existence of net winners is outdated and misrepresented. Given that this paper was published in November 2021, it is misleading to draw outdated evidence from the article *The impact of climate change on sugarbeet yield in the UK: 1976–2004* (Jaggard, 2007), which was published more than a decade ago; the findings are of low relevance to the current climate conditions because negative impacts of global warming have intensified in recent years (IPCC, 2021). Regarding evidence strength, while the article maintains that the IPCC suggests high-latitude regions being net winners, the panel's synthesis report merely suggests that a "smaller number of studies" (IPCC, 2014, p.51) relate positive impacts to such regions. There is no discussion on whether positive impacts are outweighed by the negative in the same regions. While the most common instrument to decide impact intensity is a country's GDP, as utilised in Nobel-winning economist Nordhaus' (2018) research, its effectiveness is debatable because the impact of climate change on social and environmental capital is not directly revealed by economic indicators. Hence, the article needs to equip the PPTR compensation mechanism with a more sensible tool on impact measurement. In conclusion, the paper has weak grounds to suggest that net winners exist.

There are good reasons to reject the underlying assumption of the externalities argument that polluters generate emissions out of good intentions, which makes them entitled to the passive winners' gains. The two guiding intuitions of the externalities argument collectively propose that incentivising positive externalities is constructive to society since fewer winter deaths and higher crop yields resulted from this *act of good*. Although the assumption is intuitively plausible, not only is the outcome of incentivising pollution detrimental, there is no evidence to suggest that polluters have the intention of generating positive externalities when producing emissions. Contrarily, regarding the proportion of externalities, the negative far exceed the positive, as acknowledged in the original article and supported by the IPCC report (2014). Therefore, paying emitters for polluting mostly rewards them for disrupting the ecosystem and causing widespread degradation of living conditions. Focusing on the wrongdoer's intention, Parr (2016) also defends the idea that negative impacts should not be incentivised. The authors also fail to identify the only group that are intentionally generating positive externalities, the active winners, who are more sensible candidates for compensation than the polluters. Since repaying polluters potentially does more harm than good and thus fails its own objectives, the PPTR mechanism should be rejected.

The luck egalitarian approach of relocating resources is impractical and unfair in the context of climate change. In the case of crop yield increase, a huge amount of accounting power would be needed to distinguish the gains from a slightly warmer climate from the gains resulting from increased soil tillage, changes in fertilisers, technological advancement, improved farming practices, and land use increase. Even when this accounting power is attainable, it is hardly a wise use of labour because the outcome of transferring the gains to the emitters simply makes polluting cheaper. The impracticality is more evident in achieving the objective of making the production of negative externalities more expensive and the positive more valued. Not only does the fact that positive and negative impacts are generated from the same source makes the outcomes inseparable, after balancing losses and gains of the polluter, emissions become more valued, and some positive externalities may

become unwanted. Even when the crop yield increase generates from a farmer's own efforts, any miscalculation in carbon accounting can charge the net winners more, thus discouraging innovation. Furthermore, in cases where the polluters no longer exist upon compensation, the PPTR mechanism appeals to countries to pay for the entities' wrongdoing, consequentially punishing the wrong target group by making the taxpayers the actual bursars.

While the authors attempt to defend the argument with social impacts and theoretical virtues, the line of reasoning is misleading, the claims are unsupported, and there has been a biased use of otherwise intuitively plausible premises. The conclusion that it best benefits society if polluters pay the climate victims and receive compensation from passive net winners therefore cannot be reached.

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