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PLOS CLIMATE

OPINION

How climate winners may actually help climate justice

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Introduction

It is an established fact that not all are affected equally by climate change. Some regions of the world suffer more than others [1] and, even within a region, some people—usually the most well off—are better equipped to handle the negative effects of climate change [2]. These discrepancies already pose ethical and political challenges about how to design (domestic and international) climate policy, and even foreign aid. But an increasingly well-documented phenomenon adds a layer of complication to climate justice: *climate winners*.

Climate winners are those who actually benefit from the changing climate. Some individuals, groups, sectors, or even regions can be expected to benefit from climate change (over decadal timescales). For instance, the climate for growing wine grapes improves in British Columbia, Canada, as the climate warms, or the tourism sector in northern Europe can be expected to improve. Note that this does not imply that the overall effect is positive: the costs for Californian growers may be greater than the benefits to British Columbian, and tourists may simply be substituting northern Europe for southern Europe. However, there are still groups that become climate winners.

The ethical challenge is not that climate winners benefit from climate change *per se*, but that they benefit from a phenomenon that is overall overwhelmingly harmful. We believe that climate winners have a part to play in redressing the inequalities brought about by climate change—indeed, we think some of their winnings are not legitimate because they were unearned, lucky windfalls. But the matter must be considered carefully. First, we do not claim that all climate gains are illegitimate, meaning that climate justice does not warrant confiscating all climate gains wholesale. Next, and perhaps somewhat unintuitively (at first), we argue that *some* of the illegitimate gains should be transferred to polluters—that is the unintuitive part—while the rest should be used to compensate those harmed by climate change [3].

Not all climate gains are created equal

How should we distinguish between the gains that should be transferred to emitters versus those that can be kept? On the one hand, we identify *passive gains*, which arise merely due to the climate becoming locally more hospitable. For example, when a resort owner profits from the region becoming more attractive due to climate change, these gains are passive, or even lucky, and are therefore undeserved. On the other hand, we label *active gains* those gains that arise due to active responses to the new climate. For example, when a farmer changes crops to

better adapt to the changed climate conditions, the resulting gains are active, and can thus be morally deserved.

There are two reasons to adopt this distinction. First, morally speaking, active gains lead to those climate winners earning or deserving their gains. Second, practically speaking, if the active gains were garnished, potential climate winners would lack incentive to adapt and innovate in response to climate change—since those winnings would not be theirs to keep. In contrast, passive gains require no incentivization.

In practice, most—if not all—climate winners experience some combination of active and passive gains. Furthermore, disentangling the two may be difficult. For example, when a farmer benefits simultaneously from the growing season becoming longer and from having changed crops accordingly, the line between passive and active gains can be difficult to draw. This is not an impossible feat, however. Statistical analysis can greatly help in making this distinction: by teasing out historical, pre-climate-change correlation between climate and profit —a benchmark for passive gains—and subtracting the result from the current observed profits, one can assess (deserved) active gains.

How climate winners can be part of the solution

We now turn to how the distinction between undeserved passive gains and deserved active gains can be relevant in practice. Because we view passive gains as illegitimate, we argue that they should be disgorged. The question remains, however, about what to do with them. At first glance, it might seem intuitive to transfer those gains to those who are harmed by climate change.

That said, we argue that both fairness and efficiency considerations call for another layer of transfers. Instead of climate winners compensating climate losers (so to speak), it is the polluters that should wholly compensate those harmed by climate change. *Provided they do so*, we argue that polluters are then entitled to *receiving* the climate winners' passive gains. If not, those gains are then used directly as compensation for climate harm. We have called this the "polluter pays, then receives" principle (PPTR, pronounced "Peter principle") [3].

The PPTR principle strikes a desirable balance between fairness and efficiency [4]. From a fairness perspective, it gives priority to compensating climate harm: polluters are rewarded only if they honor their duty to compensate harm. From the point of view of efficiency, the PPTR principle keeps track of positive externalities generated by GHG emissions. Although minor relative to the overall harm, keeping track of all externalities (both positive and negative) gives a more accurate picture of the overall social impacts of GHG emissions. If polluters fully compensate the harm they cause and, on top of that, generate additional benefits, the arguments against their right to a reward for those benefits become quite weak.

Regarding implementation, a climate policy based on the concept of hierarchy of claims would require revenues from a carbon tax, say, to be aimed at compensating the victims. Should these revenues not suffice, the revenue of a supplementary tax, such as a corporate tax (on profits, this time, not on emissions) levied on the winning sectors of the industry, would be used to further compensate climate victims. Should revenues from the carbon tax prove sufficient to compensate the harmed, those of the supplementary corporate tax would accrue to the emitters [3].

Conclusion

Our proposal is bold—but it is not *ad hoc*. We believe that the PPTR principle is actually just a manifestation of the broader project of aligning incentives by internalizing externalities. In the case of climate change, we have many negative externalities—but a few positive externalities.

In this case, those generating negative externalities should pay—but should also be rewarded for the positive externalities generated by those same emissions.

We believe that a systematic policy should address all externalities while giving moral precedence to correcting negative externalities before granting rewards for positive ones. Activities that generate positive impacts on society like research, teaching and charity work should be remunerated. Likewise, the (much smaller) positive externalities of climate change should also be rewarded—after the negative externalities have been internalized.

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