



Executive summary

Some of the focus of international climate policy is shifting from emissions reductions (mitigation) toward supplementary climate interventions, such as adaptation, negative emissions technologies (NETs) and solar radiation management (SRM).

This policy brief argues that mitigation must remain the central pillar of climate policy, and calls for increased urgency and ambition.

While the supplementary interventions will play an important role, they face severe geophysical and ethical constraints, which are often glossed over. Moreover, over-reliance on them shifts risks from today's affluent decision-makers to poor, vulnerable, and future people, as well as to non-human nature.

Policy recommendations

1. Increase the ambition of emissions reductions as central pillar and priority of climate policy;
2. Increase the urgency in the implementation of the “low-hanging fruit” mitigation strategies;
3. Choose effective mitigation strategies which do not negatively impact vulnerable people or the natural environment;
4. Increase awareness of the potentials as well as geophysical and ethical constraints of the supplementary interventions;

Doubling down on emissions reductions

5. Clarify the role of all climate interventions through honest climate change communication;
6. Govern research into the supplementary interventions responsibly and increase the focus on researching mitigation;

Key research findings

Adaptation, NETs and SRM: constraints and policy implications

The main ethical problem is that relying more on the supplementary interventions will *transfer risks* from current decision-makers and polluters to poor, vulnerable and future people, as well as non-human nature.

There are severe geophysical constraints to each of the supplementary interventions.

The only way to prevent these issues is by increasing the urgency and ambition of emissions reductions and limiting the reliance on adaptation, NETs and SRM.

This has the following implications for climate policy:

- Emissions reductions are the central pillar; urgency and ambition should be increased;
- Adaptation is essential to alleviate climate we cannot avoid, but should be kept as limited as possible to reduce risks and cultural losses;

- NETs will be necessary to tackle the most-difficult-to-abate and legacy emissions, but they should be reserved for these emissions only due to sustainability limits;
- SRM can only be considered as a fallback: it should be avoided, or if really unavoidable, be kept as limited as possible.

In similar vein, research into adaptation, NETs and SRM is necessary, but should not detract from further research into mitigation strategies, which is even more crucial

The moral hazard argument

The moral hazard argument is the concern that reliance on adaptation, NETs and SRM will reduce our commitment to urgent and ambitious emissions reductions.

This process is problematic due to the constraints and ethical issues noted above. Moreover, the same international political hurdles (geopolitics, governance complications, collective action) impeding mitigation will obstruct the supplementary interventions as well. So it is inconsistent to take the failure of emission reductions as a given while believing that the supplementary interventions will fare better.

Empirical research shows that when accurately informed about the supplementary interventions, the public's support for emissions reductions does not weaken.

The moral hazard should rather be interpreted as a structural process. Emissions reductions challenge the vested interests in fossil-fuels, the emphasis on unfettered economic growth, and consumerist patterns. Adaptation and especially NETs and SRM, in contrast, align well with the techno-optimism embedded in the liberal-capitalist worldview. Therefore, the supplementary interventions seem politically and economically more attractive.

Responsible emissions reductions

Mitigation is sometimes criticised for impeding development and poverty reduction. However, delayed mitigation poses far greater long-term risks to the poor. Well-governed and well-chosen emissions reductions strategies can avoid these risks and have synergies with the Sustainable Development Goals.

There is a large but as of yet untapped potential of “low-hanging fruit” – cheap, effective and readily available mitigation options, such as wind and solar energy, carbon sequestration in agriculture, reduced conversion of forests and other ecosystems, ecosystem restoration, reducing demand for energy in buildings, investing in fuel-efficient or electric vehicles, shifting to public transportation, and increasing efficiency in shipping and aviation.

The priority of climate policy should be to scale-up deployment of these familiar and effective emissions reduction strategies as urgently as possible.

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