

Rethink 'cost-benefit analysis' to tackle climate crisis

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In a new paper, a group of leading researchers and policy experts argue that improving and enriching existing policy analysis methods – including costs and benefits among multiple other factors such as uncertainty, resilience and a better understanding of innovation – would lead to better decisions.

It addresses the recent amendment of the UK's guidelines for policy

analysis, which identifies the need for special treatment of policies that aim to drive systemic "transformational change," including [climate policies](#).

The paper's authors say "inadequacies" in the way policies are devised might be hindering global climate action.

Ahead of the vital COP26 UN climate change conference in Glasgow later this year, they offer improved principles for policymaking during times of dynamic and transformational change.

The paper comes from the Economics of Energy Innovation and System Transition (EEIST) project, led by the University of Exeter.

"Calculations of the economic costs and benefits of policies, although they are considered alongside other considerations, have substantial influence on decisions," said EEIST director Dr Jean-Francois Mercure, of Exeter's Global Systems Institute.

"In periods of rapid change – like now – it's extremely difficult to accurately estimate these costs and benefits, especially far in the future."

"We don't have enough certainty about the future to make sufficiently reliable predictions, so we need to consider how to use uncertainty to our advantage."

"This is what our framework offers."

As well as switching the focus away from an excessive reliance on costs, benefits and economic valuation, towards evaluating risks, opportunities and resilience, the new framework:

- considers multiple interacting factors, acknowledging that

changes will need to be made in light of changing circumstances.

- analyzes processes of transformation instead of predicting outcomes at a moment in time.

Co-author Simon Sharpe, policy lead for COP26 at the UK Government's Cabinet Office, said: "Policymaking on issues such as [climate change](#) involves fundamental uncertainty, widely differing interests and the potential for structural change in the economy."

"We make better decisions when these factors are the focus of our analysis, not assumed away or left on the sidelines."

In one example of "static" [cost-benefit analysis](#) hindering global climate action, such analysis suggested that replacing coal with gas would be the cheapest way to reduce [carbon emissions](#).

However, this ignored the dynamic "feedbacks" (self-reinforcing chain reactions) that through a complex process of cumulative innovation and industrial development, eventually drove renewables to become the cheapest form of electricity generation.

During the COVID pandemic, governments have been forced to react quickly to rapidly changing situations, and this may offer hope for more agile policy in future.

The EEIST research team will further develop the framework and analyze its benefits for policymakers as they respond to the accelerating climate crisis.

The paper, published in the journal *Global Environmental Change*, is entitled: "Risk-opportunity analysis for transformative policy design and appraisal."

More information: Jean-Francois Mercure et al, Risk-opportunity analysis for transformative policy design and appraisal, *Global Environmental Change* (2021). [DOI: 10.1016/j.gloenvcha.2021.102359](https://doi.org/10.1016/j.gloenvcha.2021.102359)

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