

# Current green growth policies are not enough to reach Paris Agreement climate targets

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New research suggests that green growth climate mitigation policies are not sufficient for reaching the ambitious targets of the Paris Agreement, to limit global warming to well below 2°C by the end of the century.

Green growth policies dominate the [climate](#) change mitigation discourse, but how much can they contribute to rapid decarbonisation? Jonas Sonnenschein at Lund University has assessed the effects and potential of green growth climate mitigation policies in his Ph.D. thesis "Green growth and rapid decarbonisation? Assessing [policy](#) objectives, instrument choice and behavioural mechanisms."

"Green growth policies are largely incompatible with rapid reductions of CO<sub>2</sub> emissions because they put too strong a focus on [economic development](#), because they frequently disregard people's actual behaviours, and because they often neglect more stringent policy interventions such as regulations and standards," explains Jonas Sonnenschein.

Findings of the thesis suggest that, so far, green growth policies have not been effective in driving the rapid decarbonisation that is needed to reach the Paris Targets. Two [case studies](#) support this claim, including a study of South Korea's national Green Growth Strategy after the 2008/09 Global Financial Crisis, and a study of public support of the development of low-carbon energy technologies in the Nordic countries.

"We need to research and suggest climate change mitigation policies that are truly consistent with the Paris targets to be able to effectively drive the rapid decarbonisation that is needed. The South Korean case has shown that growth-oriented green growth strategies can at best make a dent in the emissions pathway, but more stringent policies are needed to reach the Paris targets," says Jonas Sonnenschein.

Furthermore, the support of low-carbon technology innovation also needs to reflect the need for rapid decarbonisation. The Nordic case study has shown that public financing of research and development has been too cautious in the past and focused on commercial aspects rather than decarbonisation potential, summarizes Jonas Sonnenschein.

Investigating the impact of behavioural factors is also central in the thesis and there are different ways these factors can affect the design and choice of green growth climate policies.

"In my thesis, I investigated green growth climate policies considering both technology and behavioural change. I found that going beyond technology change, insights about behavioural factors can support policy-making and drive the effectiveness of green growth climate mitigation policies. Technology change as such is not sufficient for climate change mitigation and we need to pay more attention to the impact behavioural insights can have on policy-making," says Jonas Sonnenschein.

One policy that has often been suggested to achieve larger reductions of CO<sub>2</sub> emissions is [carbon pricing](#). To understand the behavioural mechanisms in relation to carbon pricing, two case studies were conducted, one that focused on the UK market for energy-efficient appliances, and one on personal transport in Sweden.

In the case study in Sweden, participants were asked whether and how much they were willing to pay for climate surcharge on air tickets, for a similar surcharge on fuels, and finally for offsetting their CO<sub>2</sub> emissions voluntarily. The results show that most people were willing to pay for the climate surcharge on air tickets, followed by the surcharge on fuels and voluntary offsetting.

"The findings illustrate that behavioural studies can provide valuable insights to support the choice, design and implementation of green growth climate policies," argues Jonas Sonnenschein.

"Carbon pricing can be a central element in the green growth climate policy mix if it considers such behavioural insights. Carbon pricing must be mandatory, comprehensive, create strong price incentive, consider differentiated rates, be framed well, and earmark revenues for climate

change mitigation to be able to drive rapid decarbonisation," concludes Jonas Sonnenschein.

Provided by Lund University

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