

Ecological Climate Economics. Real Climate Policy and Economic Growth

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Climate economics has not picked up sufficiently key topics debated in the field of ecological economics such as sustainable consumption, reduced working time and taking a systems perspective aligning socio-economic and natural systems' analysis. Reviewing prominent economic as well as integrated assessment models used in the analysis of climate change, we identify potential weaknesses in methodological assumptions usually made and their implications for policy responses to climate change. Further, in a macroeconomic growth model with a global warming module, we suggest the relationship between per capita income, labor and energy productivity as the relevant nexus between growth and the accumulation of greenhouse gases. We find important policy implications associated with truly meeting the 2 degree warming target, which is the policy objective for many policymakers, and end with broader suggestions for improving economic analysis and integrated assessment modelling.