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# Dual discounting in forest sector climate change mitigation

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Discussions regarding the efficiency of climate change mitigation efforts are predicated on future costs and benefits and thus heavily influenced by discounting. One such regime, dual discounting, involves discounting carbon values differently from non-carbon values; the argument being that environmental values are becoming scarcer and thus should not be subject to regular discounting. Previous stand-level analyses show that discounting carbon with a lower rate than non-carbon values improves the profitability of forest-based climate change mitigation projects such as afforestation. We challenge this result for cases where the forest has initial carbon stock. Using the national forest inventories of Norway and a partial, spatial equilibrium model of the Norwegian forest sector, we find that discounting carbon less than non-carbon values increases harvest and consequently decreases carbon sequestration in the short term. Lowering the carbon discount rate leads to more investments in forestry and thereby substantially higher long-term climate change mitigation efforts.

**Keywords:** Climate policies, boreal forests, economics, partial equilibrium, forest sector modeling, discounting