

Incorporating Provision Uncertainty in Choice Experiment Valuation Studies

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Abstract:

Environmental valuation literature often describes it as being certain that a new policy will also bring about the desired environmental change. However, respondents may factor in their own assessment of provision uncertainty in their valuation of proposed environmental changes, in a manner not observed by researchers. Even if respondents accept provision as certain, the relevant scenario is that the relation between an environmental policy and the outcomes pursued is characterised by hard-to-quantify uncertainties.

We address these issues using data from a recent CE eliciting respondents' preferences for different policy alternatives targeting the conservation of different groups of birds, whose geographical distribution areas may be affected by climate change. In addition policies came with varying levels of provision uncertainty. We formalise hypotheses setup both linear and multiplicative models allowing us to test these hypotheses.

Our results stress the importance of incorporating the degree of uncertainty into the valuation exercise. They also show that even if the provision uncertainty is defined across or only for specific attributes and levels, people may not perceive it so which should be accounted for in estimation of models. Finally, the results also suggest that respondents' prior beliefs on provision uncertainty play a significant role.