"The 'Hidden' Social Costs of Forestry Offsets"
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Background: Forestry Offsets for Climate Change Mitigation

Carbon offsets are in an increasingly popular means of reducing atmospheric greenhouse gas concentrations. You can voluntarily *offset* your emissions by paying someone else to do the job. In the case of forestry you pay someone to remove some greenhouse gas from the atmosphere by planting trees. Forestry offsets are a large and growing market worldwide but have been subject to various criticisms, mainly relating to quality control, rather than to timing.

What are the 'Hidden' Social Costs of Forestry Offsets?

Offsets purchasers are often striving to become *carbon-neutral*, i.e. to offset as much greenhouse gas as they emit. However, being carbon-neutral is not the same as being *cost-neutral*, i.e. to offset the cost to society of emissions. Forestry offsets, as they are typically implemented, are not cost-neutral. This is because the standard approach to forestry offsets results in a *time lag* between the emission of greenhouse gases and their removal. Forestry offsets are usually (but not always - see the Chicago Climate Exchange) sold *ex ante* and take several decades to take effect. In the meantime, the gases not offset are causing climate change and imposing a cost on society. This is the 'hidden' social cost of forestry offsets, 'hidden' because it is ignored in the standard evaluations of forestry offsets.

Estimating the 'Hidden' Social Costs of Forestry Offsets

The Hunt-Baum paper attempts to estimate the hidden costs of forestry offsets. The authors adapt from the 'DICE' integrated assessment model, which is widely used to estimate the *social costs of carbon*, and compare these with the profile of carbon sequestration by forests. For our test case (tropical Northern Queensland, using a discount rate declining from 4% to 2% over 100 years), we estimate that achieving cost-neutrality requires an approximately 27% increase in the area of forestry to be planted.

Recommendations

The major recommendation of the paper is that forestry offsets should be sold only after they have achieved the removal of CO_2e from the atmosphere, thereby avoiding hidden social costs. In addition, the paper recommends that developers reveal the carbon sequestration profile of their forestry offset products; thereby enabling more accurate comparison with other types of offsets.