

Should forestry be included in regulatory carbon pricing?

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ECA

Inclusion of forestry in regulatory carbon prices has conceptual difficulties

Regulatory carbon pricing instruments (CPI), including emissions trading systems (ETEs) and carbon taxes, aim to incentivise emissions reductions by placing a price on the externalities caused by greenhouse gas emissions. CPI are increasingly popular tools being used by governments to incentivise achievement of climate targets. A primary attraction of these instruments is their flexibility to allow the market to decide which emissions abatement options an economy should implement, thereby leading to economically efficient emissions reductions.

The flexibility these market based instruments provide can lead to difficulties in scheme design. A lot of the value of allowing the market to decide which abatement options are most efficient is that governments do not have the information needed to identify those options through central planning. However, what the market cannot decide is which sectors, and therefore the scope of possible mitigation actions, should be covered by the scheme. Governments must first determine where to set the boundaries for scope, but setting too broad or too narrow a boundary due to limited information can lead to the system not functioning properly.

One commonly debated aspect of sectoral coverage is whether to include forestry and land use change emissions (or removals) within regulatory carbon pricing. Three main conceptual points tend to form the crux of this debate:

- Forestry *removals* come from a conceptually and technically different marginal abatement

cost curve (MACC) to *reducing* emissions from economic activity.

- Removals only contribute to reduction in net emissions and not gross emissions which can only be lowered through emissions reductions.
- Forestry removals are associated with the short-term biological carbon cycle, and therefore have different long-term implications relative to emissions releasing geological carbon from the long term geological carbon cycle.

Key issues regarding the function of CPI as a result of these points are two-fold:

- In some countries and markets marginal cost of removals from forestry is lower than the marginal cost of abatement of many emissions, therefore emitters will tend to purchase forest removals rather than invest in abatement actions.
- Allowing forest removals to be included within a system effectively loosens the cap on emissions that is being set by a regulatory carbon pricing instrument, because these removals will provide additional units to those allocated to emitters. This will weaken the incentive provided by the mechanism.

As an example, the New Zealand Emissions Trading Scheme (NZ ETS) has had limited impact on emissions due to inclusion of forestry removals

The New Zealand ETS is the flagship emissions reduction mechanism in the country, and is unique

worldwide in that it directly includes forestry. Owners of plantation forests (usually non-native pine) can register their forests in the ETS and earn New Zealand Units (NZUs, the carbon units traded in the NZ ETS) as trees grown and sequester carbon from the atmosphere.

However, the abundance of exotic forestry in the New Zealand ETS has brought down the price of NZUs and at present that price is below the cost of investing in energy efficiency or changing to low carbon technologies.

Furthermore recent modelling indicates that the large amount of forestry registered with the NZ ETS is expected to generate more NZUs than needed by emitters, effectively increasing the cap on emissions imposed by the scheme.

As a result the NZ ETS is not causing the gross emissions reductions that the scheme is intending to deliver. The New Zealand government is currently assessing options for revision of the NZ ETS to try and address this issue and strengthen the incentive provided by the NZ ETS.

The policy objective of the instrument must be considered when deciding whether to include forestry

The arguments above do not necessarily imply that removals from forestry should never be included within regulatory CPI, however they shouldn't be

relied on to fully substitute for the more expensive and difficult work of reducing fossil emissions.

If the primary purpose of the CPI is decided to be reducing emissions, then caution must be taken with the inclusion of forestry to prevent the situation seen in New Zealand where the NZ ETS has effectively become an offset market that is not incentivising meaningful reductions.

In some jurisdictions, the MACC curves for emissions reductions and forestry removals may be such that both can be included without issue. Alternatively, there might be cases where a limited percentage of emitters' obligations can be covered with forestry credits if it is decided that incentivising a limited amount of reforestation is desirable. In an extreme case, it might be decided that the main function of the scheme is to provide a platform for purchase of forestry offsets, in which case unrestricted use of these units would be desirable.

Whatever the case, it is first important to clearly define the objective of the CPI. Once the objective is defined, the decision of whether and how to include forestry can be made considering if inclusion is likely to support or risk the achievement of that objective. As a participant in a recent ECA workshop expressed it, *"We don't want to send the message you can meet your obligations to reduce emissions by planting a few trees"*.

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