research highlights

EMISSIONS REDUCTION

The low carbon diet

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National carbon markets are seen as instrumental in reducing global carbon emissions until binding international agreements come into effect. However, many governments fear that pricing carbon can have a negative effect on the economy. Modelling the potential adoption of Australia's Emissions Reduction Fund (ERF) by various industries and agriculture up to 2020, Duy Nong and Mahinda Siriwardana from Colorado State University, USA and University of New England, Australia, respectively, find that meeting ambitious emissions reduction targets would reduce national gross domestic product (GDP) by only about 0.55%.

The researchers estimated the subsidy every industrial and agricultural sector can achieve through energy efficiency, alternative energy, changes in production levels and resource efficiency. They model two scenarios. In the first scenario they assume that the total ERF budget of US\$1.86 billion is consumed by 2020 and further energy efficiency measures are pursued in various industrial sectors. In the second scenario they assume that the emissions reduction target of 279 $MtCO_2$-e is achieved and the proposed budget is stretched until this target is met. The impact of emissions reduction measures on various industry-specific parameters, such as market prices of commodities, is then modelled. Macroeconomic indicators are calculated based on changes in all industrial and agricultural sectors. The researchers project a less than 0.6% decrease in GDP up to 2020 and a slight increase in consumer price index for either scenario, showing that emissions reduction need not be disastrous for the economy.

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