The economic impact of healthy eating as part of Scottish climate change policy

Topic: (2.2) Environmental IO Modelling (2)
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Recently, the Scottish Governmentâ€™s Climate Change Plan has set out ambitious targets for the reduction by 66% from 1990 levels. This also notes the important role, and necessary changes, for the agriculture sector in contributing to this target. Research from scientists at the Oxford Martin School, reported upon earlier this year, stated that â€œadhering to health guidelines on meat consumption could cut global food-related emissions by nearly a third by 2050â€•. In this paper we model the impact upon the wider Scottish economy and Scottish-level emissions measures if households in Scotland were to reduce their meat consumption along these lines.
In this initial exercise, we use an environmentally augmented Input-Output (IO) methodology, with a disaggregated agricultural sector, to track the impact of such a reduction in household demand for meat upon domestic agricultural production, upon key economic aggregates such as Scottish GDP and employment, and on Scotlandâ€™s overall greenhouse gas emissions. This analysis shows the sectoral breakdown of these aggregate impacts, and may be extended to show how they split along other dimensions e.g. geographic splits, or split by skill level etc.
We set out two future ambitions for this work: first, extending the analysis to consider other ecosystem services and natural capital stocks associated with agriculture, drawing upon evidence from the Scottish Governmentâ€™s Natural Assets Strategic Research Programme; and second, how our results would vary when implemented within a computable general equilibrium (CGE) model in which we can more naturally consider the system-wide impacts of price or productivity changes.