

**Topic:** Climate change – implications for strategies in policy and farming

**Submitting author:** Mittenzwei, Klaus

**E-mail address:** klaus.mittenzwei@nibio.no

**Affiliation:** NIBIO, Norway

## **Is a green tax on red meat a feasible strategy to achieve Norwegian GHG-emission targets for agriculture?**

*Klaus Mittenzwei*

Norway has decided to follow the EU in setting ambitious targets for reducing greenhouse gas (GHG) emissions from agriculture. The aim is to reduce GHG-emissions by 40 per cent by 2030. The paper discusses three policy measures to achieve this target in Norway: Reduced direct payments to red meat (beef, sheep, and lamb), a consumption fee for red meat, and informational measures that align red meat consumption with official public health recommendations.

The per capita consumption of red meat has shown a negative development in recent years. A continuation of that trend will positively contribute in the challenge to reach the emission target. However, there is currently a significant import of red meat that is expected to be reduced before domestic production eventually will fall.

Model results based on the sector model Jordmod indicate that all policy options have significant effects on Norwegian agriculture. The current level of the EU carbon tax is used as a proxy for the reduced direct payments and the consumption fee. The implicit amount of 410 (820) nkr per ton CO<sub>2</sub>-equivalent translates into a reduction of between 5 (7) per cent and is far from achieving the 40 per cent target. The result is partly based on some stickiness in the model that prevents an immediate fall in production due to lower profitability. A moderate change in the diet from red meat to white meat follows from the implementation of the policies. The consumption fee and the reduced payments have, in principle, the same effect on agriculture. This result relies on the assumption that import protection is no longer prohibitive at a commodity basis, and only partially prohibitive at the processed food level.