

Developing a risk assessment framework for managing greenhouse gas emissions on farm

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The project 'Managing GHG emissions', which is part of DairyNZ's Transforming the Dairy Value Chain Primary Growth Partnership, aims to develop knowledge and tools for providing farmers with sound and consistent advice about on-farm greenhouse gas (GHG) management options. The knowledge and tools will be used to develop a network of trained farm advisors and rural professionals. Although there are currently no regulations or mechanisms to encourage farmers to adopt low GHG management options, this project helps the industry to be prepared and have a GHG competent workforce ready by the time GHG targets may be enforced. One of the tools is a risk assessment framework to assess the consequences of GHG mitigation options for the farm business. The framework includes financial, practical, regulatory, environmental, social and cultural risk categories. For each category, there are a range of 'risk indicators' and a 'traffic light' system to provide the likely impact (positive, negative or neutral) of a GHG management option on each indicator. The framework currently includes eight mitigation options, for which the impacts were assessed based on modelling, literature and website reviews, and expert knowledge. The framework was evaluated in a workshop with rural professionals and industry representatives. They assessed the usefulness of the concept and identified gaps in the 'risk indicators' and the mitigation options. The attendees considered the concept valuable for providing informed advice to farmers. They also identified some gaps in the risk indicators and mitigation options, and provided feedback on the content and the format of the risk assessment framework. We will present an outline of the risk assessment framework and an overview of the key mitigation options that are included. We will also discuss suggestions provided by the workshop attendees and the next steps for completing the framework.