good farm
PLANNING HUB

Taking an Integrated Approach to Farm Planning:

Module 7: Environment – Greenhouse Gases

Environment – Greenhouse Gases

The Good Farm Planning Principles for Greenhouse Gases are:

1. Know your farm's greenhouse gas emissions
2. Identify opportunities to reduce your farm's greenhouse gas emissions and capture carbon
3. Choose your actions – the Greenhouse Gas Farm Plan guidance has plenty of information about greenhouse gas adaptation and mitigation
4. Keep records, monitor and review.

These principles are discussed in more detail in the **Good Farm Planning Principles here**.

This plan can be used together with other Ministry for Primary Industries (MPI) modules to form an integrated approach to farm planning, or you can use it to supplement your existing farm plan (such as one you might have as part of your industry assurance programme).

Step 1: Know your farm, obligations, and goals

This is your story. If you completed the basic farm plan module, refer to your vision for the farm. What are the key parts of this vision, and the values and goals regarding the environment that you want to achieve in this plan?

Values and goals:

Knowing your farm and recording this knowledge can help identify any gaps and risks that might be present and can form a base for the rest of your farm plan.

1. How do you currently measure and calculate your greenhouse gas emissions?
2. What are your greenhouse gas emissions?
3. What are your greenhouse gases made up of?
4. Have you looked into opportunities to reduce your farm's emissions and capture carbon?
5. Where do you record your greenhouse gas data and actions?
6. What actions have you already taken or started to take to minimise your environmental impact?

Photos can also be a great way to show information about your farm and to highlight any of the work you are already doing. Some of this information may also be easier to record on maps, making it easier to identify potential actions.

Have a think through those questions and record your thinking here:

Steps 2 & 3: Assess and Develop

Based on your vision, the values, and goals you have identified, and the information you have just recorded, what are the risks and opportunities regarding the environment for your farm and catchment? This risk assessment matrix helps set out how to highlight areas of your risks:

	Impact				
	Negligible	**Minor**	**Moderate**	**Significant**	**Severe**
Very likely	Low-medium	Medium	Medium-high	High	High
Likely	Low	Low-medium	Medium	Medium-high	High
Possible	Low	Low-medium	Medium	Medium-high	Medium-high
Unlikely	Low	Low-medium	Low-medium	Medium	Medium-high
Very unlikely	Low	Low	Low-medium	Medium	Medium

Once you have identified the risk, identify any existing actions already in place to manage this risk and whether they are still appropriate. Do these existing measures do enough to mitigate the risk? If needed, identify new actions to supplement or replace the existing actions. It is also important to record who is responsible for managing these actions and, if possible, the date the actions need to be reviewed or completed by. Some of these actions may also be connected to improving freshwater quality or biodiversity on your farm.

This action plan will help manage your risks and maximise opportunities. Use any maps you might have (including any maps you may have pulled together in your basic farm plan) to record where you are implementing any actions. Take photos of the current state to use as a reference point and to highlight any improvement.

Note that you are likely to have more risks than this table provides space for. There is an actions table on the IFP support and tools page that provides additional tables you can use to make sure all your risks and actions are identified.

For example:

Risk identified	Rating	Existing actions	New actions (if needed)	Due date	Responsible person	Evidence
Some land is less productive, could capture and store carbon.	Medium/ high	Fenced off less productive land in paddock 3, began planting exotic forest. Fence off wet area of paddock five.	Convert wet area of paddock five into wetland.	June 2024 March 2023 December 2025	xxx xxx	Inspection Inspection Site inspection, planting records.
Livestock effluent from stand-off pads is a significant source of greenhouse gas emissions.	High	Carry out solids separation to prevent solids entering anaerobic storage ponds. Actively manage the effluent pond to its lowest level, regularly remove and apply any solids to pasture. Regularly monitor effluent composition and record location of effluent applications to optimise fertiliser applications on effluent blocks.	Construction of a stand-off pad, effluent is captured and reused as fertiliser.	First Monday of every month First Monday of every month On-going. May 2023.	xxx xxx xxx xxx	Site inspection Site inspection, irrigation records. Irrigation records. Site inspection, infrastructure records.

Risk identified	Rating	Existing actions	New actions (if needed)	Due date	Responsible person	Evidence

Step 4: Monitor

The use of performance measures to track and record progress helps with deciding actions and reporting progress. Record what worked well, what went wrong and why. Take photos to keep record and monitor progress.

Action	Yes/No	Notes
What did you achieve that you were proud of?		
Have you started to monitor your animal's feed intake through your feed budget?		
How are you tracking in reducing your greenhouse gases?		

Step 5: Review

It is important to review and update your farm plan regularly – it should be a living document. Reviews are a 'snapshot' of your operational issues and should be used to improve implementation. It is about asking the right questions and working with others to get the answers. This is a good opportunity to involve farm staff to help identify challenges and find new solutions. What, if anything, would you change and why?

Question	Notes
Are we doing the right thing? Are our numbers changing? If not, why not?	
Are there better ways to achieve the same results?	
Was there enough time, money, and people to get the job done?	

Notes

Useful links/information

DairyNZ, **Beef + Lamb New Zealand**, **Horticulture NZ**, **FAR**, and **Deer NZ** all have resources relating to climate change. **Beef + Lamb New Zealand** have built an emission reduction toolbox designed to help you manage and reduce your greenhouse gas emissions without compromising productivity.

Ag Matters provides practical information, backed by science to help you familiarise yourself with climate change and what it could mean for your farm.

Your regional council or unitary authority will also have local information on climate change and greenhouse gases:

- **Auckland Council**
- **Bay of Plenty Regional Council**
- **Environment Canterbury**
- **Environment Southland**
- **Gisborne District Council**
- **Greater Wellington Regional Council**
- **Hawkes Bay Regional Council**
- **Horizons Regional Council**
- **Marlborough District Council**
- **Nelson City Council**
- **Northland Regional Council**
- **Otago Regional Council**
- **Taranaki Regional Council**
- **Tasman District Council**
- **Waikato Regional Council**
- **West Coast Regional Council**