

Summary of High Country Carbon Project Launch

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Merino Inc has chosen to support this project. The following is a summary of the day held in November to kick off this exciting collaboration.

Present at the launch were organisers of the project, project steering committee, funders and supporters. This group mainly consisted of people from organisations such as Ecan, DOC, Forest and Bird, Federated Farmers, Linz, Landcare Research and press representatives.

Jim Morris started the day explaining how the project was initiated (thanks to the outcomes of his Tenure Review which he didn't think had the best outcomes in terms of environmental sustainability or protection – not saying much about DOC!). His personal confusion and questions surrounding the Carbon Scheme added to this. Hence, his personal aims for this project include:

- High Country farmers having the ability to become Carbon neutral
- Enabling High Country farmers to increase their knowledge and understanding of the whole Carbon issue
- Enabling High Country farmers to distinguish themselves within the Carbon scheme

It was pointed out that low land farmers will most likely be able to meet the Carbon requirements by planting out small areas of exotic trees; however, district plans in the high country prohibit this type of action...

- So how do the High Country community get on?
- Information required includes needing to know what carbon is sequestered in the High Country
- Current rules disallow anything less than 5m in height as a carbon sink – ruling out just about all types of ground cover in the high country

This project's main role is based on the Carbon Issue within the High Country; however, this may extend out to include other issues, such as long-term sustainability of the High Country, and where positive changes could benefit all. Larry Burrows from Landcare Research gave some overseas examples, including:

- In Scotland – the government pays farmers to maintain their amenity values, to ensure the tourism industry is maintained
- In Denmark – a beer producer pays land owners upstream to maintain water quality, to ensure the quality of their beer is preserved

At present, some relationships on farm are known in regards to Carbon – in fact, as stocking rates increase, carbon soil levels decrease – opening up the suggestion that if farmers were to destock on the high country, soil carbon levels could in fact increase – however, would the government pay for this?

Recently there has been a large report released (researched and written by CRO's and Universities), summarising soil carbon issues in New Zealand. However, there is a huge gap in information when it comes to the High Country. Absolutely no data was included on land use, carbon or soils within the high country environment in the report.

What is immediately required for this study is example properties which show changes in land use over the years – examples include retirement fence lines, instalment of rabbit fences etc. These examples need to be relatively old to make the data more robust – greater than 10 years ideal. Once these sites have been identified, intensive sampling will begin this coming autumn (March/April 2010). Several sites will be required to cover different climate types (dry vs. wet), and geology types (different soils) within the high country, to get best coverage.

The next step of the project will be to make a national model based on the collected data – this will not be an individual model, as the amount of funding and work required to do that wouldn't fit within the realms of this projects resources'.

When questioned as to what the 'High Country' represents for this project, the following answer was given: "Country where exotic trees (e.g. pines) are not appropriate" – which is being dictated by district plans. This indicates that this project will be applicable for just about all those merino farmers we represent.

The current ruling of ground cover less than 5m in height not being included as a method of carbon sequestration was made by government, and we are one of only a few countries that have imposed this – many countries have included all ground cover, as well as soil carbon content. The next round for changes within government for this ruling is in 2012 – hence the need to start collecting data immediately to present to government to get this ruling amended. If this change occurs, it will allow property owners the ability to make more management choices. In fact, Mathew Clark from Linz suggested that this will be a very helpful tool in linking farming with conservation.

So in summary, all agreed that this project is quite unique, in that there hasn't been a project where all bodies represented are after the same outcome – sustainability of the high country. All agreed that if land owners had the financial incentive and means to do so, more would prefer to look after the conservation values of their properties. However, at present, the government doesn't incentivise farmers in any way, and most are in the position that they cannot afford to drop stock

numbers, even though most would appreciate they need to. If farmers in the high country were able to derive an income from preserving their environment, most would likely do so.

WHAT DO WE HOPE TO ACHIEVE

Sustainability of very large areas of New Zealand's high country land could be advanced by access to carbon markets, and potentially other ecosystem service markets. This is currently hindered by a lack of information on actual sequestration rates on these lands, the reality of those markets in relation to non-forested land, and the relationship between sequestered carbon and other environmental services as increased carbon storage does not necessarily confer increases in sustainable land use.

The project would clarify a new business opportunity related to sustainable high country land-use by individual land-owners, and also address wider implications for climate change mitigation for farmers and New Zealand. It would also collate and disseminate to farmers the results of many related studies that are currently researching climate change and sustainable land-use.

More specifically, this 4 year project will improve and clarify the quantification of carbon storage and sequestration rates in the high country. It will also identify other ecosystem services from high country land, and will clarify relationships between high country land management and provision of carbon and those other ecosystem services. It will identify existing and evolving markets for carbon and other ecosystem services, and those most promising and amenable for high country land managers. It will help to quantify the potential benefits (environmental and financial) of market participation, and the work needed to enable participation.

This research will also enable land managers to position themselves for a carbon-priced future by mitigating emissions arising as a result of their current operations.

HOW WILL WE ACHIEVE IT

This project is divided into 2 stages. **Part A** will carry out field sampling and quantification of carbon stock sequestration on High Country Lands and analyse those results. Part A is the initial focus of this proposal and would be completed in years 1 and 2. **Part B** would review the relationships between land-use change, land management, land cover, and high country ecosystem services as well as the evolving markets that would deal with those assets. It would include additional field

sampling if considered necessary following the results of Part A. Part B will be subject to a future SFF funding proposal and be completed in years 3 and 4.