



Submission to the
New Zealand Productivity Commission
Low Emissions Economy
Draft Report

8th June 2018

Introduction

The Tauranga Carbon Reduction Group is an informal group of around 90 people who are committed to raising awareness of the need to reduce carbon emissions and to support activities to that end. Our members come from a wide range of organisations and businesses around the region. We are pleased to submit to this report as we believe that the Commission is making very important contributions to discussions and policy on climate change. This submission follows our previous submission in October 2017 (attached).

Overview

This group is impressed with the breadth and depth of this draft report, particularly in terms of the treatment of incentives, institutions and other policies directed toward minimising greenhouse gas emissions. We would like to congratulate the Commission on its work. We hope that we can enhance it by making some comments that may supplement this report, in relation to the social dimensions of climate change policy and action, as well as afforestation policy.

The social dimensions of emission control

While the report makes many references to the society, it is principally as a responder to or an environment in which policy is undertaken. Society is seen as reacting to market signals, regulations, and specialised institutions etc. There is broad reference to social costs, social capital and social risks but very little to social initiatives. The report does not consider the many independent organisations within society which may be influential, nor of the impact of societal attitudes and media influences. Government needs to be open to and work in conjunction with such entities and play an important role in stimulating and legitimising such actors.

Many aspects of society may be illustrated by the following.

1. The range of specialised campaigning organisations such as Generation Zero and Pure Advantage that have stimulated action in climate change for many years, as well as

other established organisations such The Royal Society which have also made major contributions to understanding and action in climate change.

2. Dominant social views. The report makes reference to political consensus, but consensus throughout the society as a whole is also highly influential. Attitudes in society are unlikely to be uniform, but dominant views can often be identified. Consider for instance the following two contrasting views:
 - a. Climate change has basically quite uncertain and people can only be expected to respond to it if it is to their financial advantage reasonably convenient. Such an attitude has been common and arguable re-enforced by the rhetoric and policies of recent governments.
 - b. Climate change is threatening our future and a low emission economy is essential for our continuing prosperity. Action warrants a considerable investment, social change and if necessary sacrifices to ensure a successful transformation. Such beliefs are more in line with current government policies and are supported by much of the rhetoric.

A key factor in determining such views will be the extent to which people are inclined to consider the importance of the broader society and its future, in contrast, or in conjunction, with their own self-interest. While government cannot control such views, they can influence them in many ways.

3. The importance of gaining consensus on community views can hardly be overstated, having widespread impacts throughout society. For instance:
 - a. The influence the the personal lives of individuals and families within society in the way they adapt their values and activities, such as in their economies they make, the food they eat, the amount and style of travel, levels of consumption, and their willingness to share their experiences with others.
 - b. The support and cooperation that society would give to the many organisations concerned about climate in financial contributions, participation and in compliance with their recommendations.
 - c. The support the society would give to political leaders, both locally and nationally, in their promotion of low emission policies, and be tolerant to the changes and perhaps sacrifices required.
 - d. The attitudes and efforts of those within institutions such as universities and government departments that are implementing or otherwise contributing to low emission goals. Public consensus can influence the inclination of staff to respond constructively to government policies and guidance and to foresee the most productive ways of achieving national goals.
4. Education needs far greater attention, at school, university and general community. This is a primary means of developing the framework for creating community consensus, and for developing the skills for responding effectively to the challenges of the low carbon economy and supporting the leaders and organisations that lead that transition.

5. The diverse roles of leadership need to be better recognised. While the term is used in conjunction with the Climate Commission and in reference to government procurement and biofuels use, leadership in development of broad social consensus is also of vital importance. For instance, significant factors include:
 - a. the consistency and commitment with which government leaders promote climate policy is significant.
 - b. the initiatives leaders take in listening to a broad range of participants and bringing relevant participants with common interests together to learn from each other.

6. Investment is a case in point. Socially Responsible Investments (SRI) arose not from prospective economic gain, but from a sense of the values that investors felt were important. Similarly, the switch from fossil fuel investments to low emission technology will be motivated more by values than by economic game.

7. The Climate Commission needs to be set within a broad-based future-looking institution such as a Commission for the Future to engage with the many diverse issues which impact on climate change, and determine what will be possible in the future, and that climate change may contribute to. This may engage with the Sustainable Development Goals (SDGs) and other initiatives that promote broad-based thinking towards the future.

There are many ways in which subtle social attitudes and processes can play a major role in the way that the society will contribute, or otherwise, in the effectiveness in any transformation to a low carbon economy. It is important that any transformation take into account and promote these processes to achieve the societal engagement required for success.

Agricultural Impact on Emissions

Some easy to understand numbers

NZ gross GHG emissions is 80 M/tons

After 2020 the forestry offset drops to 12 M/tons

The 1,000,000 hectare tree planting will generate 26 M/tons per year [if all Radiata Pine]?

Any other species of trees will capture less in varying degrees

A proper study should be undertaken of how many hectares of trees can be planted, of what type and where.

The price of carbon credits will be the driving force of how many trees are planted, and would also define the NZ ETS program.

For instance, we could have up to 50 M/tons of carbon credits a year @ \$25.00 = \$1.25 billion a year.

We need to consider whether forest owners be able to sell the credits overseas?

Consider modest reductions in our present emissions profile :

Below are in M/Tons with possible reductions

Source	Current Emissions	Possible Reductions	Remaining Emissions
Waste	4	1	3
Industrial Proc.	5	1	4
Transport	14	7	7
Energy	21	6	15
Agriculture	36	5	31
Total	80	20	60

This leaves 10 M/tons to be further offset or reductions to be worked on to reach Net Zero by 2050.

Consider that around 2050 a lot of trees could be cut down with significant emissions.

One needs to consider the design demands on the ETS With all those carbon credits being available per year, with the requirements for a decent return for the forestry and the carbon emitter being able to buy.

Much discussion in the report was about increasing the price of carbon over the next 30yrs, so the mechanism needs to be clarified.

The mechanism is not explained [free market , cap , or policy decision]

Consider the process of forcing change to cleaner technologies by increasing the carbon price. This change is as yet unspecified except cars to EVs.

For example 1 litre of petrol produces 2392 gms of Co2, or about 16.8 c/litre at \$25/tonne.

It is most likely that the price of carbon would have to be \$100.00 per ton [67c/ litre] to change cars to EVs in any great numbers.

Commercial vehicles will pass on any increased cost to the consumer , unless there is alterative EV with 1000 km one charge vehicles.

Another example is if the whole Dairy industry processing plants wanted to go to electricity for heat Generation. Is there enough generation capacity [NO], and would the grid support this [NO]?

What the NZ ETS has to do is support change, not force change. There-in is the delicate balance of price of carbon to encourage change where there is alternatives, and phasing in others and wait for the tech to catch up.

The 3 scenarios.

Some good points made but there are real concerns about the assumption that 500,000 to 1,000,000 hectares of rich fertile dairy is going into Horticulture.

The report needs to consider what sort of horticulture, the scale, [export or home consumption] or in what areas is this most likely. On past experience in NZ it takes 20 yrs to mature a new industry , build processing and secure markets.

Almost everything that grows in the world has been tried NZ, so we need it start now and keep foremost in our mind Climate Proof FOOD. And Horticulture that does not disturb the soil.

Lastly if the sciences are right we will have a rising sea level of 1 to 5 meters by 2100 . this will

change our coastal areas, roads, cities and food production for ever, so we need to plan and budget for it.

Conclusion

The Productivity Commission paper is a good start, but needs further consideration in the social and change dynamics of transformation, including afforestation. Climate change is a challenge that needs active participation of the whole of society, including all levels of government, public services, business, civil society organisations and the community as a whole. We need to ensure that we are effectively engaged with international climate agreements and doing the best possible to minimise global damage to the environment on which our future depends.

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