



There is a tussle emerging that may break into full scale, bitter verbal warfare.

On one side are the politicians with their regulatory powers. On the other side are a body of distinguished scientists armed with compelling findings. In between, caught in the crossfire, are farmers. The subject of the clash? Methane.

The “official” position is that nearly half New Zealand’s Greenhouse Gases (GHG’s) come from agricultural sources, mostly Methane, belched by farmers’ cattle and sheep. For New Zealand to have a credible position on reducing GHG emissions the politicians are saying those emissions must come down.

A few scientists have a dilemma. They understand that the method of calculating Methane emissions from ruminants is wrong and overstates the contribution Methane makes to warming by at least 400%. However their position, their statutory obligations and the intense and relentless heat from the media, the public and the green lobbyists leaves them in a quandary. Other scientists free from such constraints are openly defying the political pressure and stating that the measurement system is not able to be justified scientifically or morally.

The Climate Commission is required to step into the middle of this debate. They need to advise the Climate Change Minister on how to handle Methane emissions.

Farmers are caught in an invidious position. They dislike the constant barbs thrown at them about their handling of the environment. Facing being taxed for the Methane their stock produce may well be the proverbial straw that will break the “rural back”.

Part of the confusion for farmers is that they were expecting to be accepted as making a positive contribution to climate change. Every day supported by the sun, soil moisture, nutrients, the grass farmers grow sucks in massive amounts of the so-called no.1 enemy, Carbon dioxide (CO<sub>2</sub>). Without CO<sub>2</sub> there would be no vegetation, no grass, no trees, no vegetables, no fruit. Farmers have enjoyed the higher levels of CO<sub>2</sub> seeing greater yields in crops, grass and the growing numbers of trees on their property.

The amount of CO<sub>2</sub> needed on a farm for grass and these new trees on a farm is approximately the same amount as the ruminants – sheep and cattle - on that farm produce. This Methane emitted into the atmosphere changes into CO<sub>2</sub> and water vapour in a relatively short time. Because of this balanced situation farming interests are bewildered by continuing claims they need to reduce their ruminant emissions. How can there be any additional warming if there is no additional Greenhouse gas emitted?

How come we grow trees, even heavily subsidise them with taxpayer dollars to suck up CO<sub>2</sub> when no one wants to acknowledge the sequestering of the same CO<sub>2</sub> by grass and farmers’ trees?

Farming leaders have tried to cooperate with the politicians who keep demanding action. The rural lobby groups explained their position clearly in submissions on the Zero Carbon Bill only to be ignored. They have tried to 'stay in the tent' and debate only to find no politician wants to listen. Politics won that round.

Part of the issue is the Global Warming Potential (GWP) which is a fraught attempt by political interests to compare the warming effects of each of the various GHG's. Leading scientists resisted the request for such a comparison stating there were too many variables for any useful comparison and that trying to equate CO2 and Methane was akin to comparing apples and onions. The politicians won that round.

In 2018 a team of scientists at Oxford University led by Dr Myles Allen published a paper highlighting the flaws in the GWP model and proposing a new metric that they believe more fairly accounts for the different warming impacts of different types of emissions. Their new position reduced the impact of Methane to a quarter of the existing GWP where livestock numbers are stable - as they are in New Zealand. Many New Zealand scientists support this approach.

The problem according to climate scientists such as Professor Dave Frame, head of the Climate Change Research Institute at Victoria University of Wellington, New Zealand, is that the GWP model uses a 'one size fits all' approach to determine the warming effect of different climate gases.

Our politicians need to answer some questions:

- a. why is the natural cycle of CO2 – grass – Methane – CO2 (a balanced system) where no additional GHG is emitted, ignored ?
- b. why do they keep insisting on a comparative formula that is flawed and unable to be justified scientifically?
- c. why do the findings by credible scientists that adding more Methane from any source cannot add any warming due to the dominance of water vapour continue to get ignored?

These issues are critically important to rural New Zealand. At \$35.00 a tonne carbon price an average dairy farm could face an annual bill of \$60,000 if the full amount was charged. That is crippling to the farm and the rural community. A carbon price over \$100 a tonne as suggested by some authorities is unthinkable.

Even the current proposals of a reduction of ruminant Methane of between 24-47% below 2017 levels by 2050 will create unacceptable hardship.

There will be immense pressure on the members of the Climate Commission to come up with recommendations that please the politicians and the green lobby groups.

Will it be science or politics that wins this round?

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