

## The Methane Deception.

Methane is a major problem for New Zealand? It's a potent greenhouse gas? We have to set harsh targets and cutbacks? Right??? Wrong!!!! It is a mostly a deception – the Methane Deception.

### 1. The extent deception. It is minute – trivial.

**Summary: Ruminant methane is a minor gas too trivial and insignificant to be taxed.**

When Wikipedia says all methane is only 0.00018%<sup>1</sup> of the atmosphere it is difficult to grasp the triviality of that statistic. Imagine this: if the whole of the atmosphere was the distance from Auckland Airport to Los Angeles (10,496 kms) then all methane on the planet would cover a small part of the push back on the apron at Auckland Airport – about **19 metres**.

However, a big chunk of the planet's methane is natural with ruminant methane (emissions from sheep, cattle, gazelles, buffalo) making up just **14%**<sup>2</sup>. Of that 14% New Zealand farmers struggle to reach just **1%** of all those ruminant emissions. Back to the airport, and all the planet's ruminant methane is equivalent to **2.5 metres** and New Zealand farmers' emissions are represented by **25 millimetres** or an inch if you are still catching up with metrics.

One needs a very vivid imagination to see how 2.5 metres over 10,496 kms can play any influential role and that is before one tries to comprehend how 25 millimetres even registers.

### 2. The rapid growth deception

**Summary: The accumulation of methane in the atmosphere is exaggerated.**

Methane is currently around 1.9 parts per million. Its current growth rate is approximately 7 to 9 parts per billion<sup>3</sup> (**b**). For long periods it has not grown, and no one knows why. That 7 - 9 parts per billion of growth equals 0.5% per year. Using the analogy above it would take 11 years for the 19 metres to grow to 20 metres or 210 years to double. And we are still on the pushback at the airport.

Seriously? After 100 years all our methane would cover a paltry 40 metres in 10,496 kms. A crisis? The end of the world?

**Note:** By the way, New Zealand's ruminant methane emissions are falling steadily. Farmers are already taking responsibility and have reached net zero.

### 3. The heavyweight greenhouse gas deception – avoiding water vapour.

**Summary: Methane is measured incorrectly deceiving us by over-stating its effectiveness.**

All greenhouse gases are only 1% of the atmosphere (yes!!! – just 1%) so I could be comparing 25 millimetres (NZ's ruminant methane) with 104.96 kms (1% of the 10,496 kms). Still sounds a ridiculous comparison. For every methane molecule there are at least 250 CO<sub>2</sub> molecules and over New Zealand on most days, some 8,000 to 10,000 H<sub>2</sub>O molecules<sup>4</sup>. They are all doing the same thing. They are competing to bump into and absorb radiating heat, so the one lonely methane molecule suffers a serious handicap. It is grossly outnumbered.

It is water vapour that does the heavy lifting in absorbing radiation, not methane. Yet, water vapour barely gets mentioned. It's part of the deception.

#### 4. The shocking 'weight versus volume' deception

**Summary: We use weight, not volume deceiving ourselves over methane's warming ability**

We use weight when explaining that methane does more damage than CO<sub>2</sub> when absorbing radiation. The literature always compares an extra kilogram of methane with an extra kilogram of CO<sub>2</sub>. A recent headline stated, "Methane grows about 25 tera-grams per year".

However, methane has four hydrogen atoms and is very much lighter than CO<sub>2</sub>. A kilogram of methane would contain 2.75 times as many molecules as a kilogram of CO<sub>2</sub>. Methane's atomic mass is 16 (C=12, H=1), whilst CO<sub>2</sub> (O=16) has a mass of 44. So, one kilogram of methane has 2.75 times the number of molecules in an equal weight of CO<sub>2</sub>.

Any warming occurs molecule by molecule. Comparing the two gases by weight is like comparing apples with onions. Try finding that on the Ministry for the Environment's website.

Therefore, if equal volumes of the two gases are compared, rather than equal weights, the Intergovernmental Panel on Climate Change's (IPCC) own metric for measuring the Global Warming Potential (GWP) of methane is grossly over-stated. Molecule for molecule, the warming ability of methane compared to carbon dioxide is 28/2.75 times – i.e. a much more modest **multiplier of 10**.

That reduces agriculture's so-called emissions contribution from "nearly half of the country's liability" to 17%. That is a massive correction. The deception is almost unbelievable.

**Note:** The single methane molecule is claimed by the IPCC to be 28 times more effective than the CO<sub>2</sub> molecule at absorbing heat. Many scientists going back to Tyndall in the 1860's strongly dispute this figure arguing for a multiplier of less than 10.

#### 5. The Deception of "Potentials"

**Summary: The IPCC focuses on the effects of adding extra weight of greenhouse gas emissions without recognising the relative rate of current accumulation, therefore distorting the facts.**

Using the basic facts and assumptions already discussed – methane at 1.9 parts per million, increasing at 7 - 9 parts per billion, doubling over 240 years, with a relative single molecule potency of 28 times CO<sub>2</sub>, we can then calculate methane's contribution to warming the planet at 0.001 C per year. That is not measurable. It means that over 100 years all methane can move the average temperature around the planet by 0.1C – also, virtually impossible to register.

As the sun rose this morning the temperature rose 0.001°C every half a second. It is a trivial, insignificant amount.

This is not denying climate change. It is happening. It just is not happening as quickly as often portrayed.

**Note:** All the planet's ruminant methane is only responsible for 14% of that 0.001C rise whatever that minute warming looks like.

## 6. The Deception of Ignoring Article 2 of the Paris Accord

**Summary: New Zealand signed the Paris Agreement. It is clear. Mitigation methods should not threaten food production.**

The Paris Agreement is a legally binding international treaty on climate change. It states very clearly,

“(b) Increasing the ability to... foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;”

We feed 40 million people. Government and industry modelling shows imposing methane taxes will reduce production from meat and wool farms by **20%** and dairy units by at least **5%**. It directly contravenes the Paris Agreement.

The less-developed world (the Global South) would have rejected the Paris Agreement if the food assurance had not been spelled out in the document in unambiguous terms. Whatever might be threatened by future global warming, the spectre of famine and malnutrition was more immediate and much worse.

The fear of food shortages is now greater than ever. The United Nation’s World Food Program states “we are knocking on famine’s door”, while the World Bank is issuing monthly updates on “rising food insecurity”.

New Zealand is politically and morally bound to respect and abide by its terms.

## 7. The Leakage Deception

**Summary: The production that gets cut by taxing methane in New Zealand will be produced elsewhere by countries with a higher carbon footprint.**

We are the most emissions efficient country on the planet. Even with our shipping factored in we produce food with less Greenhouse Gas emissions than anyone else. Because New Zealand is the only nation to adopt methane taxing reducing production, other countries, who are not going to allow more millions to starve, will step up, increase their production to fill the gap, thus adding even more emissions.

This highlights the absurdity of how our restrictive measures will increase overall global emissions on the planet.

## 8. The Deception involving the Electro-magnetic Spectrum

**Summary: When the role of the electro-magnetic spectrum is factored in methane is found to be a very poor absorber of out-going radiation.**

Up until very recently there was a very poor understanding of the role played by the wavelengths on incoming and out-going radiation. All greenhouse gas molecules can only operate in certain bands on the electro-magnetic spectrum. It is like operating a radio. The sound is all around us but can only be picked up at certain bands.

Methane may be present in minute amounts across the whole atmosphere, but it can only absorb radiation in two weak bands severely limiting its warming potential. Water vapour however operates in wide, strong bands outperforming methane.

It is like you can only find “methane” on two, weak volume places on the radio dial but “water vapour” operates on high volume on almost all stations. “Water vapour” crowds out methane on the two stations.

These are the findings of many scientists. It was focused on heavily by Wijngaarden (York University) and Happer (Princeton University) who concluded that despite the methane molecule itself being accorded high potency in the laboratory without water vapour, it is actually weak and insignificant when it competes with water vapour in real air.

This study has not been refuted or its findings superseded. Indeed, their conclusions for different climate zones accord very closely with actual satellite records. This is in contrast to the 100 or so climate models that are hugely out of line with today’s temperatures.

## 9. The Cost Deception

**Summary: The measures forced on the community by the Government because of deceptive overstated methane emissions are going to damage our economy drastically.**

The projected losses of revenue from farming trying to meet unrealistic taxes and associated compliance costs plus the effects of forest planting on good farmland are going to be devastating on our economy.

Professors Macey and Frame say we are committed to spending \$30 billion on foreign carbon credits by 2030. That is \$3.5b per year for agricultural methane and the obligation to pay this fine rests on all taxpayers. We are volunteering to pay at least \$2.5 billion/annum more than the IPCC calculates.

That's close to \$1,000/household extra every year – in exchange for what? Just what do we buy with these huge voluntary payments? And how will the Government raise that sort of money? Increased GST rate?

As well food prices will rise, more and more rural communities will shrivel and die, jobs will be lost and our standard of living deteriorate. The sad commentary is that much of the planting of pines on high quality farmland will never be harvested as the trees are too far from the port. The investors have made their money from subsidies they don’t need to sell a tree. A future eyesore for our kids and a huge fire risk for our country.

## 10. The IPCC Deception

**Summary: Up until 2020 the IPCC said New Zealand had a major problem with nearly half of all our emissions coming from agriculture. In its latest report the IPCC said, “oops. We got it wrong. We overstated agricultures contribution by 300% to 400%.”**

It is almost beyond belief that the Government, all its departments, our universities, and the Climate Change Commission have used the IPCC findings as their source of truth until the latest AR6 report that recognised the huge travesty of blaming farmers for half our problems. Having adopted the IPCC’s findings without question, suddenly, they have deceptively ignored their most recent report.

The IPCC AR6 report, page 1016 of Chapter 7, said: “...expressing methane emissions as CO2 equivalent of 28, overstates the effect on global surface temperature by a factor of 300% - 400%”.

### All of this raises questions:

1. Are we determined to use facts, current science and IPCC results or is there some other agenda in play?
2. Are we so biased we are prepared to damage our best performing industry, wreck our rural communities, gouge our economy even though the truth is evident?
3. Climate change is real. The earth is warming. Ruminant methane is simply not making any measurable or concerning contribution. Please support our farmers who are fighting this non-sensical, unjustified methane tax, with its expensive recording, administration and added stress?

#### References:

<sup>1</sup> [https://en.wikipedia.org/wiki/Methane\\_emissions](https://en.wikipedia.org/wiki/Methane_emissions)

<sup>2</sup> <https://www.frontiersin.org/articles/10.3389/fmicb.2018.02161/full>

<sup>3</sup>

