The heating of the dark: an agony in Christchurch

(With thanks and apologies to Lewis Carroll)

“Preface: I will not (as I might) point to the strong moral purpose of this poem.”1

And fogs arose around the River Thames in 1952 and powerful Snarks were jumping out of coal fires, buses, trucks and cars. They entwined themselves in the fog and caused thousands of people to die. ‘We must search for these Snarks and deal with them’ said Dr WHO. The family of Snarks that lived in coal was banished. Some were sent to China and Japan where there were Dragons which consumed them.

All seemed satisfactory for a time but in most countries excess deaths continued in the winter. Was there another family of Snarks causing problems? Was there something wrong with our houses? Everyone knows that a Snark can jump through glass of single thickness.

An even worse possibility was considered. Had the Snarks which had been sent to China and Japan produced offspring inside the dragons? These could have found new life in the cars, trucks and buses, made from the dragons’ droppings, and these could cause problems anywhere.

‘We must act quickly’ said Kapitan Minif-Eaw. We are “enveloped in absolute mystery.”1 ‘We urgently need an update of our Ha’pence report’ to “ensure an objective assessment and avoid obvious errors which might mislead”.2 ‘The expense of contracting-out does not matter—it sits in another column. Get like-minded people of standing, or those who have worked with us, to peer review the report. Don’t worry about contrary submissions or criticisms we have received. Ignore them. We must win the game.’

“Navigation was always a difficult art
Though with only one ship and one bell…
…the Captain they trusted so well
Had only one notion for crossing the ocean
And that was to tingle his bell.”1

In keeping with this, whilst there are several families of Snark, the Updated Ha'pence Report remained blinkered by the one which lives in PM10. Although “particles of different sizes typically have different sources and different chemical and biological composition (and) the mechanisms of particle toxicity are complex and still not fully understood… all PM10 is considered equally toxic.”3

Whilst “assessment of air pollution effects should ideally include an appraisal of the sum of scientific evidence from laboratory, clinical and epidemiological studies, that…is beyond the scope of this report.”3 Although “there is evidence that both proximity to busy roads and nitrogen dioxide exposure have important health impacts it was not possible to quantify these exposures..”3

Geocoding of health outcomes “is not sufficiently accurate for studies based on proximity to roads. There is insufficient representative nitrogen dioxide monitoring
data on which to base an assessment of human exposures…PM$_{10}$ has more extensive local observations than any other pollutant.”

Therefore, “PM$_{10}$ is the best available indicator of air pollution exposure currently in New Zealand...Although PM$_{2.5}$ rather than PM$_{10}$ is increasingly used in overseas assessments, there is insufficient information currently available in New Zealand to undertake a robust assessment of PM$_{2.5}$ effects.”

“The Jury had each formed a different view (Long before the indictment was read)”

This report, funded by Kapitan Minif-Eaw and three other sponsors, “may be used by New Zealand Government agencies as a reference in the development of policy.” ‘After all’, said Kapitan Minif-Eaw ‘decisions are more efficient if you ignore information that doesn’t fit. A “weight of evidence” approach is less arduous, uncertain or time-consuming than trying to find the truth or prove untruth. It will give an answer when scientists are still unsure. Although the scientific evidence does not prove causation, I am sure that PM$_{10}$, including salt-spray PM$_{10}$ and dust PM$_{10}$, is the cause of premature death.

“The bowsprit got mixed with the rudder sometimes. It was not the slightest use to appeal to the Bellman about it—he would only refer to his Naval Code and read out in pathetic tones Admiralty instructions which none of them had ever been able to understand.”

A giant Taniwha arose from the swamp and shook the buildings. Many people were killed. Fortunately, the weather was mild and the Snark could not cause too many more deaths. ‘But wait’ It said, ‘next year there will be cold weather and I may have a new strain of flu virus to help me. Then you will feel my ongoing power. The need for warmth will force poor people to crowded places like shopping malls where I shall also attack.’ And the people were frightened, many houses had been shattered, and at times the electricity had failed.

Leutnant He-man was worried. He consulted Kapitan Minif-Eaw. ‘The people are restive. Some still want their wood burners. Others do not believe all that we tell them. What shall we do?’ ‘They need answers and truth’ said Kapitan Minif-Eaw.
‘The expense does not matter—anyway, the ratepayers are paying. We must win the game. Take out three full-page advertisements.’ After all, “What I tell you three times is true.”1

‘I’ll give it to them then’ said Leutnant He-man. “We have spent $46 million on the problem. Home heating is the major cause of pollution; and it’s PM$_{10}$ particles which are responsible; we must now meet a national target of three high pollution days a year by 2016 and only one by 2020; air pollution in Christchurch results in 158 premature deaths annually in those aged 30 years and over; new homes are not permitted to install wood burners or open fires; this includes new homes being rebuilt due to the quakes; we are concerned for people in difficult circumstances after the earthquakes.”4

“They claimed it with smiles and soap.”1,5

Kapitan Minif-Eaw addressed his staff. ‘Although Europe allows 35 days in excess each year and America allows up to three times the level once a year, this has no bearing on our situation. We should lead the world and then we will be admired in International Forums—well—at least for our audacity.’

As darkness descended, the fire hearths and wood stoves remained cold. Increased admissions to hospital of patients with severe flu caused some consternation. The continuing excess deaths in winter raised questions in the Parliament.

Kapitan Minif-Eaw found it difficult to respond and Leutnant He-man said he was only doing his duty by carrying out orders. Kapitan Minif-Eaw pointed out ‘The experience of pursuing this social experiment on the basis of an unresolved theory is not all negative. Other countries will benefit from our mistakes. I am, however, concerned about my staff at this time of employment uncertainty, and even for their physical safety because the Snark might turn out to be a Boojum.’

“……..beware of the day
If your Snark be a Boojum! For then
You will softly and suddenly vanish away
And never be met with again.”1

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References:
5. A reference to TH Huxley’s reply to “Soapy Sam” (Samuel Wilberforce), 1860. “ I would not be ashamed to have a monkey as an ancestor but would be ashamed to be connected with a man who used his great gifts to obscure the truth.”