I am pleased that MfE has offered this opportunity to have a say on the most serious, most difficult and potentially most divisive problem facing NZ and the planet. We need to take responsibility for handing on a liveable (ideally a better) NZ to our children and grandchildren. The short window of consultation and a weasel document biased by spin has given rise to suspicion that “consultation” is a sham - but nevertheless you are given the benefit of the doubt as the issues are too important not to be addressed by all thoughtful citizens.

The Weasel Document

(1) The introduction sets the tone - that Climate Change (CC) is an unwanted burden, that pollution is an unwanted and unaffordable cost, that NZ is a special case that must be spared from complying with Rest of World rules. As an essay in guardianship for our descendants, we are covered in shame. Far from being “ambitious”, NZ policy as set out on INDC is dominated by “How can we do less?” It acknowledges that farming, forestry and fishing are especially vulnerable to CC, but proposes to do as little as possible, or less, nothing.

(2) Climate Change Document (CCD) correctly says addressing the 48% agricultural emissions will be difficult, and responds by sidelining the issue. There is no chance the international community will accept $10m a year on research as an adequate and appropriate response; cf Canada's $10 billion.

Methane (CH₄) and Nitrous Oxide (N₂O) are very serious, with Global Warming Potentials (GWP$s) of 34 and 298 respectively (GWP for CO₂ = 1). Furthermore the vast majority of methane breaks down to CO₂ and 2H₂O, which in turn are the two big contributors to CC. N₂O is readily addressed, the perfect target for smart long-term Government policy.

(3) Infometrics numbers on costs are quoted on page 14. Not quoted is their assumption that 80% of necessary carbon units are purchased offshore and at NZD$50 per unit. Reliance on offshore purchases is grossly irresponsible:

(a) if all countries rely on 80% offshore purchases, the outcome is absurd;
(b) it is more than possible that offshore purchasing will be prohibited; therefore a policy dominated by offshore purchases is ultra vires, not a policy within the competence of NZ govt to implement. NZ must present a proposal that it can implement;
(c) even if permitted, the cost of CU's will likely be double the $50 assumption (estimate range quoted is NZD60-200) – and subject to market volatility (= manipulation by speculators). No Govt should be surrendering our autonomy to international currency speculators and condemning us to the kind of hole in which many countries, e.g. Greece and Argentina have been trapped.
(d) CCD omits the costs of doing nothing. The Stern Report leaves no doubt that the cost of doing nothing will be many times greater than the cost of an informed intelligent response.
(e) $3.5b cost (page 13) reads as a scary number, but should be seen as relative to an $80b growth expectation. It is likely in the same range as ACC or EQC levy. Cost of doing nothing and then coping with sea-level rise in tens or maybe hundreds – of metres as Antarctica melts will be a million times greater. Imagine our six main cities under water – and a lake from New Orleans/St Louis to Chicago. Even a ten-metre rise will wipe out Tokelau, Tuvalu and many Pacific islands – and we have a responsibility to look after their interests.

(f) Costing assumes all costs will be passed on to be borne equally by all family households. How about the cost of pollution being borne by the polluters (cf. Cost of getting on a plane). If the rich corporations cannot afford to pay their costs, let them be first on the road to extinction. (We know their answer, the poor have always been the cannon fodder).

(g) If all the world participates, NZ’s relative competitive position does not change, and could even improve.

(h) Concept of “fair”. CCD offers comparisons with USA, Australia and Europe, implying that this is a reasonable comparison with Rest of World. Actually our GDP per capita is $43k, when half the world’s countries are living on under $6k (UN, 2013). What will half the world’s countries think is fair?

(I) Future is uncertain especially for 20-100 years ahead. CC may be exponential but so is technological evolution. That gives NZ room to be ambitious and optimistic, not blinkered by short-term economic projections and timid evasion of the unavoidable challenge.

Now to your questions:

Q1. Do you agree with the above objectives?
- “fair and ambitious” - they are neither. Exclude the escape clauses re agriculture and renewable electricity. International audiences will.

Alternative desirable objectives:
Pledge real and determined action to reduce carbon emissions in NZ. EU, USA & Canada have all pledged to get down to 6 tonnes of carbon emissions per head (while NZ proposes to stick with 18 tonnes). All these ‘free-market’ economies propose to rely mainly on regulation to compel reductions – but the notion of regulation is omitted by the CCD and excluded from the Infometrics analysis.

Acknowledge that CH4 and N2O have far greater global warming potentials than CO2. N2O is 11% of our emissions, with GWP of 298, so simply control fertiliser use. (In USA, EPA reports that 74% of N2O comes from nitrogenous fertiliser spread by agriculture). Some regional councils already impose controls on fertiliser inputs; the rest are heading down the same path. It is coming anyway, so be smart and make it part of our INDC.

Electricity – Emphasise a goal of 100% renewable (not far to go), for a loud endorsement of our clean green brand. Stomp on electricity companies obstructing use of LED and solar energy.

Electrification of transport. Recommending walking and biking is bizarre. Focus on heavy trucks, which per annum can emit 1000 times as much as a car. Tax their emissions, and they will find the necessary technology. USA et al. are compelling reduction by regulation.

Q2. What do you think the nature of the NZ emissions and economy means for the level of target we set?

Level should be set no lower than the members of “our club”, i.e. USA & EU, viz 25-40% reduction. Note that EU’s pledge is actually “at least” 40%, USA 26-28%, Canada 30%. Forestry ten years from now will be irrelevant as a carbon sink. NZ should not publicly propose
casuistry around accounting rules, not a good look. The big threat to NZ is actions other governments might take if NZ is perceived as not doing enough.

Q3 What would be a reasonable reduction in annual household consumption?
How about 0.1% of the cost of rebuilding 50% of each of our six main cities? Think Christchurch at $40billion. Prudence now will be very cheap.

Q4 New opportunities

Most likely – electrification of transport, more public transport, more photovoltaic panels.

Q5 – How should NZ take into account future uncertainties in technology and costs?
Uncertainties are uncertain. So be optimistic and assume lots of invention will occur, mostly unexpected/unpredictable. Reduction in ruminant methane will be limited, maybe maximum 6%; do the research, but it is not the get-out-of-jail card; ruminants have invested 50 million years in evolving bacteria to maximise conversion of grass into methane. Solar energy has gigantic potential, but is absurdly underused in NZ and resisted by the electricity industry.

Resist all carbon-increasing activity, i.e. all oil and gas exploration, above all shale, which is very high in CH₄. Given that ruminant methane emission is so intractable, NZ could offer suspension of oil and gas exploration as the quid pro quo for tolerance of otherwise unacceptable emissions.

Costs are certain to rise, particularly purchasing overseas carbon credits – and will be volatile, at the mercy of international speculators. Buying our way out of jail is a very high-risk path to take, just to avoid doing anything real and prudent – and anyway we don’t have the money to do it.

Thank you for your attention. I will be pleased to answer any queries or offer clarifications.