

## Climate Change Contribution Consultation

Contribution from Neil Mander

Address: [REDACTED]

Telephone: [REDACTED]

Mobile [REDACTED]

Email: [REDACTED]

### Introduction

It is increasingly becoming widely known that climate change is happening, and that it is directly linked to the increase of greenhouse gases (GHG) in the atmosphere. The carbon dioxide (CO<sub>2</sub>) level is now 400 parts per million (ppm) and is steadily rising. Other gases such as methane and nitrogen oxides also make a contribution. The immediate effects are a general overall warming of our climate with consequent changes in weather patterns with increased and more violent bad weather events, ie more storms, droughts and floods. Glaciers are melting faster than they are replenished from their source snow fields, and the polar ice-caps are diminishing.

The fifth IPCC assessment report issued in early 2014 presents a truly frightening picture of where we are currently headed 23. It warns of falling crop yields, dwindling fish catches, regions becoming too arid to farm effectively, agricultural and living areas lost to major rises in sea level and an increasing number of extreme weather events such as floods, storms, droughts and heat waves. The expected outcomes include severe humanitarian crises, food shortages, population displacements, armed conflicts and mass extinctions.

It is becoming increasingly obvious that urgent action is needed, on a global scale, to deal with the challenge, and prevent a runaway and potentially catastrophic situation.

International attention has been focussed on the challenge, at the international conferences at Rio, Kyoto and Copenhagen but these had no more than very limited success.

There is now to be an international conference in Paris later this year, which will attempt to reach international agreement on moves to deal with the threat.

### Objectives for New Zealand

New Zealand must attend and participate in the Paris conference. It must present our proposals and must be prepared to take on a leading role, and certainly not be a mere follower.

NZ, although only a small contributor to the total global GHG emissions, has one of the highest pro-rata per population emission rates and has done little to actually reduce these. "Creative accounting" and the use of purchased credits, eg "Ukrainian hot air" or our high proportion of hydro generation of electric power, are not in any way an adequate response and only serve to bring NZ into disrespect in the eyes of other countries.

NZ is often quoted as "punching above its weight" in the international setting, and is seen as being a leader and not a follower in dealing to international problems. The

international campaign and the resultant Convention to ban anti-personnel landmines was an example. NZ is highly respected because of this.

The NZ Plan must therefore lead to a real decrease in NZ's actual CO<sub>2</sub> emissions, with specific targets to be met.

In general terms, three objectives for NZ's contribution have been proposed as:

- it must guide New Zealand over the long term in the global transition to a low emissions world;
- it is seen as a fair and ambitious contribution – both by international and domestic audiences; and
- costs and impacts on society are managed appropriately.

These are very generic objectives and easily lost in "business as usual" with pressure from strong vested interests to dilute specific requirements, or provide numerous exemptions.

The long term aim must be to achieve an 80% reduction in 1990 gross greenhouse gas emissions by 2050. Proportional reductions must be made each year in the intervening years.

NZ must therefore present a strong action plan with detailed proposals, not just one or two token items, but a whole raft of steps, each with specified measurable outcomes and the means of implementation. Each will make a contribution to the total, and each is important. Some progress is being made on some, but much more is needed.

### **New Zealand's Action Plan**

Some steps include:

- Convert transport fuels to higher-efficiency fuels and engines, and to bio-fuels.  
The present Road User Charges for diesel powered cars to be reduced to encourage the move towards high-efficiency diesel engines instead of petrol. At present cars are unfairly charged the same as trucks of much greater weight and hence wear and tear on the roads.
- Convert long-distance transport to more efficient modes, eg, coastal shipping and rail instead of long-haul trucks.
- Double track and electrify the whole of the Auckland-Wellington Main Trunk and the Frankton Junction to Tauranga Railway.
- Improve public transport, particularly in cities. The passengers of 30 cars will fit in one bus. The passengers of 100 cars will fit in one short train.
- Increase forestry planting and replanting. Conversion of forests into dairying farms must cease now.
- Improve the standards of home insulation and thus reduce the need for heating by electricity, fossil fuels. The use of clean-burning wood burners is carbon-

neutral where trees are planted to maintain the balance of wood harvesting and growing.

- Encourage electricity generation from renewables, eg wind, photo-voltaic and tides.
- Encourage the provision of solar hot water (SHW) on industrial, commercial and residential scales. Many new houses are being built, and SHW should be included on them as standard.
- Encourage a widespread and major change of viewpoint in public attitudes, so that they see and accept the need for action.

Individual steps on their own, such as the introduction of electric cars, although attractive, are not enough. It has to be accepted that such single measures are totally inadequate, that ALL must be done.

A specific plan with multiple practical measures and a defined means of implementing those measures is required to demonstrate that our international commitments are achievable. The approach presented in the consultation document, which is based on minor CO<sub>2</sub> emission reductions achievable under a business-as-usual strategy combined with purchasing of Carbon Credits from overseas, will not be seen in the international forum as either doing our fair share or being ambitious.

## **Conclusion**

Climate change is already happening, with its results of rising global temperatures, increasing violent weather events or storm, drought and floods. Glaciers and polar icecaps are melting faster than they are being replenished. With rising temperatures, tropical disease vectors will move into the present temperate climate zones.

A concerted global effort is needed to counteract the changes, with participation from all nations, doing everything possible to minimise fossil fuel use, to maximise the replacement by renewable energy sources, to plan communities better and to exploit available new technologies.

New Zealand is well placed to participate in this work, not only for its own benefit, but also to guide and assist other nations.

## **References**

Engineers for Social Responsibility Inc website: [www.esr.org.nz](http://www.esr.org.nz) - Climate change papers page.

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