#### Book reviews

Veronika Meduna

# Towards a Warmer World: What climate change will mean for New Zealand's future

## Ralph Chapman Time of Useful Consciousness: Acting urgently on climate change

Reviewed by Geoff Gregory\*

These two books are in the series from Bridget Williams Books entitled BWB Texts, described as 'short books on big subjects from great New Zealand writers'. They complement each other in describing what climate change will mean for our future and what actions are needed now to reduce the causes and mitigate the effects of climate change.

Veronica Meduna, a prize-winning science writer, describes the research results of experts in many disciplines which together show clearly that the huge burden of carbon dioxide released by human activities is resulting in heating of the oceans and atmosphere as well as the land. Besides melting ice shelves and glaciers and raising sea levels, this is changing large-scale weather patterns (causing storms and droughts) and ocean currents, and this in turn is affecting the survival of our agricultural industries and native species and threatening communities and development in coastal and low-lying regions and on islands.

One of many pertinent facts reported in this book is that the last time global warming of more than 2°C above that experienced in recent decades was in the last interglacial, 125 thousand years ago, when humans were hunter/gatherers and naturally occurring global warming raised sea levels by 6–10 metres. This is what we can expect in the not too distant future as human-generated warming approaches the same benchmark. Veronika Meduna relates this to the future faced by New Zealand and its neighbouring small island states, and suggests that flexible adaptive management strategies will be needed at all levels of political planning.

Professor Ralph Chapman, a negotiator for the New Zealand government on the Kyoto Protocol from which the recent UN Climate Change Conference in Paris arose, considers that a combination of 'tipping points', or points of no return, such as melting of the Greenland, West Antarctic, and East Antarctic ice sheets, disrupted climate systems, and accumulating costs of

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## Towards a Warmer World What Climate Change Will Mean for New Zealand's Future

### VERONIKA MEDUNA

'COLLECTIVELY WE ARE NOW PUSHING EARTH INTO CRITICAL MODE'

**BWB** Texts

## Time of Useful Consciousness

Acting Urgently on Climate Change

RALPH CHAPMAN

WHAT ACTIONS IN THIS TIME PERIOD ARE TRULY VITAL, AND WILL WE TAKE THEM?

**BWB** Texts

departing from the current global economic trajectory and its associated social patterns of production and consumption, will be unlikely to prevent a 3°C rise in global warming by 2100. He expresses the urgent need for New Zealand to have a clear, coherent and integrated strategy for assisting communities to introduce low-carbon initiatives. The strategy will also have to handle 'obdurate resistance' from fossil fuel industries, and roading and housing developers, and 'more diffuse resistance from those more generally lacking awareness of the dizzying rate of change of the science and projected impacts of climate change'.

Note that both books were published before the recent Paris Agreement, in which countries committed to 'holding the increase in the global average temperature to well below 2°C above pre-industrial levels' ['pre-industrial levels' being approximately 0.9°C below present temperatures, I believe]. I suspect that, while commending the not-insignificant achievement of 196 nations reaching an agreement, Professor Chapman might be disappointed by the muted pledges by some of the developed nations, including New Zealand. However, he warns against allowing pessimistic thinking to set in. He assesses the situation as being far from helpless, and points to available or emerging technological and policy solutions that can be applied. He asks: 'Is it fair to future generations to sleepwalk into climate instability, essentially for a very temporary extension of this generation's current prosperity?' and urges us to 'act smartly, in both senses of the word', while there is still time.

Both books are well referenced with authoritative research papers and reports, and Veronika Meduna's book has interviews with local experts. They are inexpensive and can be bought as ebooks. Both should be compulsory reading for policymakers, and could lend direction to public awareness programmes and political action.