



Benalla Sustainable Future Group

Newsletter 28

August 2020

Benalla Sustainable
Future Group Inc.
PO Box 642
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President's Message

Climate Change, Carbon and COVID - are we all at C?

Over the past couple of months, I have read various commentaries regarding the relationship between the Covid-19 pandemic and carbon emissions, and the potential positive effect on climate change, due to less traffic on our roads.

The downside, however, is that we have become even more of a 'takeaway' society, and the proliferation of throwaway coffee cups and polystyrene food containers, is a disturbing outcome. Try as I might to convince coffee baristas to accept my keep cup, explaining that they could make my coffee in a china mug and pour it into my keep cup, logic and common sense had gone out the window, as they all insisted Covid health regulations required them to use takeaway cups - which they handed to me with ungloved hands!!

This all might seem trivial, but it is actually symptomatic of a more wide-reaching problem that concerns me in this current period of crisis. Have we become a society that is totally compliant to expert advice without question, worn down by the enormity of all the problems we face? Have we lost the will to question decisions of government thrust upon us, either because of the uncertainty of where this is all heading, or because of the threat of the penalties for non-compliance?

Please understand that I am not questioning the dangers of this Covid-19 pandemic. Rather, I am concerned about the type of society that may be evolving from the pandemic. There are extreme reactions already in evidence around the world, ranging from the desperation of poor people deprived of health care and essential supplies, to the arrogance and selfishness of those people (politicians, elite sports people, beach revellers, etc.) who either don't think or care about the effect of their actions on others. These

are not new issues, but my concern is that they will become more prevalent and extreme, the longer the pandemic continues.

As for the effect on climate change, the reduction in carbon emissions has helped, but the proposals to lead us towards economic recovery in Australia will not, especially if Scott Morrison's gas-weighted committee has its way. Whichever way I look at gas as a means of providing energy, it is still burning a fossil fuel, producing carbon dioxide and methane, and certainly not alleviating the problem of climate change. Renewables create emissions in their manufacturing phase and in the mining of the construction materials, but that is the end of the story, unlike gas and coal.

Finally, if you missed the last episode of 'Road to Now' on ABC TV (30th June), try to watch it on iview, as it dealt with natural disasters, and in particular, those associated with climate events - a stark reminder of the need to take urgent action on climate change.

Peter Holmes

Next BCFG Meeting?

Your guess is as good as ours.

The committee will monitor the situation in Victoria, and call a general meeting/AGM when we are allowed to have a reasonable number of attendees.

At this point in time, I have organised the guest speakers for the climate talks for late November, after the Council elections, so that we can invite the new Council, etc.

Our next scheduled date for a meeting is on September 10th or 17th, when Helen Haines will be talking about Community Energy, but even that date is very questionable now.

As noted in our last newsletter, the Benalla Food Co-op continues to operate and has put all necessary procedures in place.

Until we can meet again, stay safe.

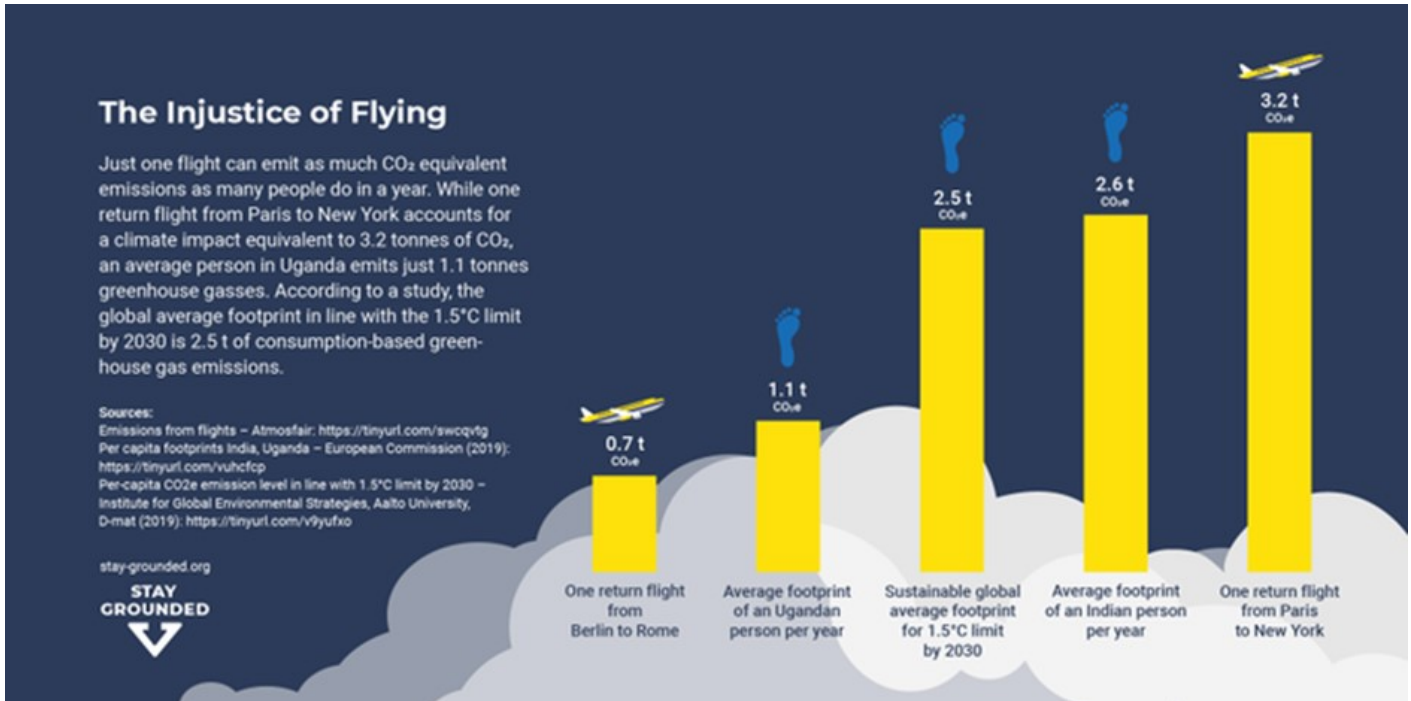
"Earth provides enough to satisfy every man's need, but not every man's greed." - Mahatma Gandhi

Cold Choices for a Warming Planet

Wondering about another article for the newsletter I have just checked a twitter post from [Stay Grounded](#).

'To keep the global temperature rise below 1.5 degrees, emissions must be reduced to 2.5 tonnes CO₂e per person per year by 2030. One long-haul flight alone can exceed this budget - per person!'

The article contained an infographic headed 'The Injustice of Flying'. Where is your footprint? The Australian per capita footprint is about 18t CO₂e. I have tried to analyse my footprint and found it to be about 8t CO₂e.



Data for the infographic comes from the Institute for Global Environmental Strategies, Aalto University (A?) and there is a link to this A? report, [1.5 Degree Lifestyles](#). Addressing climate change will require radical changes in lifestyles as the report shows that we need to have a 2.5t CO₂e by 2030 to achieve the 1.5 degree C limit to warming by 2050. This report links to another A? report [Cold choices for a warming planet](#) which 'lays out the massive extent to which our lifestyles need to change if we are to slow down global warming'.

'When the countries of the world came together in Paris in 2015 to build consensus on climate change, they collectively agreed to pursue measures that would limit the rise in global temperatures to 1.5 degrees Celsius. Since then, much of the research into how countries can meet this target has focused on sustainable energy production, reforestation, and technologies for carbon capture. Very little has been done to address the 1.5 degree target at the level of the individual; to provide people with insights into what changes they should make in their own lives to limit their carbon footprints.'

The 2050 target for lifestyle carbon footprints comparable with the 1.5 degree C aspirational target of the Paris Agreement is 0.7t CO₂e per capita.

The report also points out that although there are lifestyle changes we need to make we live with a heavy carbon overhead embedded in our society which is beyond our immediate control. This carbon overhead can only be addressed by policymakers and businesses to assist us to realise a decarbonised society by 2050.

The full 1.5 Degree Lifestyles report can be [downloaded here](#).

Peter Maddock

Editor's Note:

To avoid any confusion with the figures in the graphic, here they are in tabular form:

tCo ₂ e/capita/flight	tCo ₂ e/capita/year	tCo ₂ e/capita/year	tCo ₂ e/capita/year	tCo ₂ e/capita/flight
Berlin-Rome	Ugandan	2030 goal 1.5C 2050	Indian	Paris-New York
.7	1.1	2.5	2.6	3.2

Yes, one air flight can blow a whole year's carbon budget. I think we've blown the 1.5C target but to avoid a 2.0C catastrophe we still have to get down to these levels. The COVID-19 pandemic has paused many flights. Peter's personal footprint is roughly that of eight Ugandans or three Indians and his impact is half that of the average Australian. Few people are really prepared to face the challenge - the choices are stark.

From Anthropocene to Ecocene by 2050?

I have been struggling recently with continuing my involvement with BSGF and I have advised our President Peter Holmes I wish to relinquish my position as Secretary.

In part this has come to a head during discussions between some members of our group about the film 'Planet of the Humans' which has been freely available online since the 50th anniversary of Earth Day on April 22. The film was strongly criticised by environmental groups and groups representing renewable energy.

The film did use outdated information to criticise the performance of solar and renewable energy in general which was a disservice to the films other message about our overpopulation and overconsumption of resources, often without much, if any consideration for the ecological space occupied and required by non-human species on the planet.

I have now come to the position of seeing large scale renewables as a continuation and potentially an exacerbation of the human domination of the planet and its resources. While we have been mining the solar energy in coal and oil for some centuries, the proposal that Australia now becomes a Renewable Energy Superpower will result in using our landscape to mine solar energy directly. At the large scale proposed I can only see such infrastructure as an encroachment on the ecological space required by the non-human species of our planet.

Although I am concerned about the impact of large-scale renewables, I do think there may be an opportunity for local community energy which would most likely be rooftop solar. More generally I support the 'Localisation Movement' which hopes to reduce our emissions dramatically, for instance by reducing transport emissions, particularly food emissions.

Over the last few years I have been developing an Ecocentric world view which was probably reinforced by a number of books I have read and also from my reading of the freely available online publication 'The Ecological Citizen', confronting human supremacy in defence of the Earth:

<https://www.ecologicalcitizen.net/>.

Some authors equate the Anthropocene, the human created epoch to Human Supremacy.

Looking for some information on the Ecocene I came across this Huffington Post article

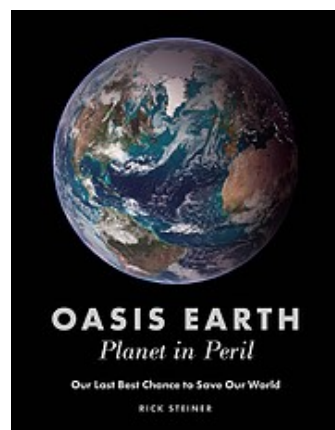
[***From Anthropocene To Ecocene by 2050?***](#)

which became the title for my article.

The author Richard Steiner writes, 'It is inevitable that the current Anthropocene era will evolve into an ecologically sustainable era - which can be called the 'Ecocene'. The current trajectory of environmental and social decline cannot continue much longer. Indeed, the Anthropocene will be gone in the blink of geologic time. The real question is: What will be left of the biosphere at the dawn of the Ecocene, e.g. what species, including H. sapiens, will survive the Anthropocene evolutionary bottleneck?'

Richard Steiner has a website from where you can freely download his book: **OASIS EARTH: Planet in Peril: Our last best chance to save our world:**
<https://www.oasis-earth.com/oasis-earth-planet-in-peril>.

The book begins with the Dedication, 'In honour of the 50th Anniversary of Earth Day (April 2020) and the United Nations World Environment Day (June), Oasis Earth is dedicated to our extraordinary Home Planet-for nurturing and sustaining the evolution of life over billions of years; for being patient with H. sapiens while we learn to control our destructive impulses; and for the remarkable resilience that will restore Earth in the coming Ecocene, with or without us'.



Peter Maddock

To Care for Humanity, We Must Care for Nature

"To care for humanity, we must care for nature," said United Nations Secretary-General António Guterres on World Environment Day in June.

This quote is from "[This is now the world's greatest threat – and it's not coronavirus](#)", an article from the World Economic Forum which says:

Affluence is the biggest threat to our world, according to a new scientific report.

True sustainability will only be achieved through drastic lifestyle changes, it argues.

The World Economic Forum has called for a great reset of capitalism in the wake of the pandemic.

This statement from the Forum is based on an article in Nature, titled [Scientists' Warning on Affluence](#) which explains that true sustainability calls for significant lifestyle changes, rather than hoping that more efficient use of resources will be enough.

The Forum article also mentions that even some economists now see growth itself is the problem, [Why A New Wave Of Economists Are Championing Slow Economic Growth](#). It seems our politicians and most economists will contemplate doing anything to maintain economic growth. So, it is good news, particularly for nature that some economists are arguing for a different approach. The article has interview highlights but also a link to listen to the complete interview.

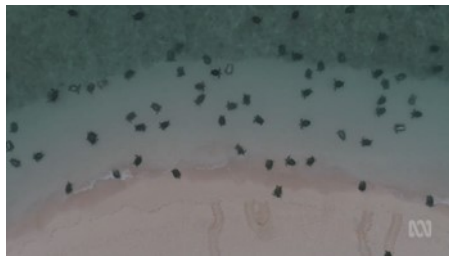
Interviewed are [Dietrich Vollrath](#), growth economist at the University of Houston. Author of '[Fully Grown: Why a Stagnant Economy Is a Sign of Success](#).' and [Kate Raworth](#), ecological economist at Oxford University's Environmental Change Institute. Author of '[Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist](#).'

Unfortunately, economic growth generally means expansion of human numbers and their consumption of natural resources which always impacts on the natural world. There must be a better way to balance human occupation of the biosphere with the needs of the natural world and its biodiversity.

Peter Maddock

Protecting Biodiversity

During the pandemic we have seen how locking down humans has resulted in wild animals seeking out deserted towns, and egg laying turtles returning to beaches they have avoided for years because of the presence of humans. The following screen shots are from 'The Drum' ABC Friday 24 July 2020 from about 31.20, which had a good section on the environment and Covid: <https://iview.abc.net.au/show/drum>.



I am currently reading E. O. Wilson's new book 'Half Earth'. Biologist and Pulitzer winner E.O. Wilson has spent his life studying animals and fighting for their conservation. As species go extinct at 1,000 times the normal rate thanks to human interference, Wilson's book holds a bold plan to preserve the world's biodiversity: set aside half of the entire planet for natural habitats: <https://www.half-earthproject.org/half-earth-book/#about-the-book>.

The Guardian has a good review of the book: <https://www.theguardian.com/books/2016/apr/11/half-earth-planets-fight-for-life-edward-o-wilson-review>.

In addition to the E. O. Wilson inspired 'Half Earth Project' the UN is also proposing to protect at least 30% of Earth to slow Extinctions, and Climate Change. Inside Climate News reports on [UN Proposes Protecting 30% of Earth to Slow Extinctions and Climate Change](#).

Another powerful book I have read recently dealing with biodiversity loss is 'Abundant Earth: Toward an Ecological Civilization' by Eileen Crist. Review available at Rewilding: <https://rewilding.org/abundant-earth-toward-an-ecological-civilization/> and [at Amazon](#): "In Abundant Earth, Eileen Crist not only documents the rising tide of biodiversity loss, but also lays out the drivers of this wholesale destruction and how we can push past them. Looking beyond the familiar litany of causes - a large and growing human population, rising livestock numbers, expanding economies and international trade, and spreading infrastructures and incursions upon wildlands - she asks the key question: if we know human expansionism is to blame for this ecological crisis, why are we not taking the needed steps to halt our expansionism?"

It seems to me the demands of economic growth for population growth must be substantially tempered to allow all species an ecological niche on earth.

Peter Maddock

Ecological Economics &

Will the transition to renewable energy damage the global macro-economy?

Recently I have investigated the Energy Return on Energy Invested (EROI) for a range of energy sources. I was particularly concerned about Solar PV and other renewables as some EROI calculations seemed to rate them low and not sufficient to justify their use.

EROI is simply the ratio of the Energy Delivered divided by Energy Required to Deliver this Energy. In the early days of the oil gushers one barrel of oil was invested to return one hundred barrels. Today one barrel returns much less as it is getting more difficult to extract oil.

The boundaries selected for doing the calculation of EROI are difficult to determine, and my research showed how analysts can choose boundaries to influence the outcome.

In a round about way my doubts about solar PV have been eased somewhat after I downloaded a free copy of [Ecological Economics: Solutions for the Future](#) which is a collection of papers delivered at ANZSEE (Australian New Zealand Society for Ecological Economics) conference 'Ecological Economics: Solutions Now and in the Future' held at RMIT University in Melbourne, Australia in November 2019.

Chapter 3 by Mark Diesendorf is: Will the transition to renewable energy damage the global macro-economy?

The paper concludes:

"Contrary to several previous studies, EROIs of wind and solar PV technologies at suitable locations are high and increasing. These variable renewables can provide the vast majority of annual electricity generation in the type of region considered in this chapter: high solar resources, medium to high wind resources, and low conventional hydro-electric potential".

"The technologies for electrifying all heating and most transportation are commercially available; the costs of batteries and hence electric vehicles are declining rapidly."

"Recent research finds that EROIs of fossil fuelled electricity technologies and systems are relatively small. Therefore, transition to energy systems based predominantly on renewable electricity may actually increase global EROI at the point of use, even when storage is included".

"The energy invested in the transition to 100% renewable energy can be easily provided by renewable energy".

But there is a proviso in the last sentence of the chapter; "The limits are the finite resources of materials, land use constraints and the understanding that very large increases in energy use, even if supplied entirely by renewables, would cause adverse environment impacts apart from climate change. In the long run, on a finite planet, a steady-state biophysical economy is necessary (Daly 1977; Dietz & O'Neill 2013)".

Dr Mark Diesendorf was a guest speaker at the Swanpool Environmental Film Festival on 14 June 2014. His talk was 'A Sustainable Energy Future for Australia?'.

For our next newsletter I am doing some research on the work of Dr Susan Krumdieck from the [University of Canterbury NZ](#). Dr Susan Krumdieck raised concerns about renewable energy in the film 'Living the Change' presented at the 2018 Film Festival. This film is from [Happen Films](#) run by a delightful young couple Jordan Osmond and Antoinette Wilson. During Covid Jordan and Antoinette have been presenting Stories for a Changing World webinar/podcast interviews and they interviewed Dr Susan Krumdieck in episode 4. The title of this podcast is "[Rethinking Renewable Energy with Professor Susan Krumdieck](#)".

Peter Maddock

Editor's Note: Thanks Peter for this research. It's been a hot topic between some members!

Climate Change and seal level rise, in Geelong!

On the ABC News on 26th July there was a segment looking at sea level rise on the Bellarine Peninsula, <https://www.abc.net.au/news/2020-07-26/climate-change-sea-level-rises-prompt-action-in-coastal-towns/12383968>.

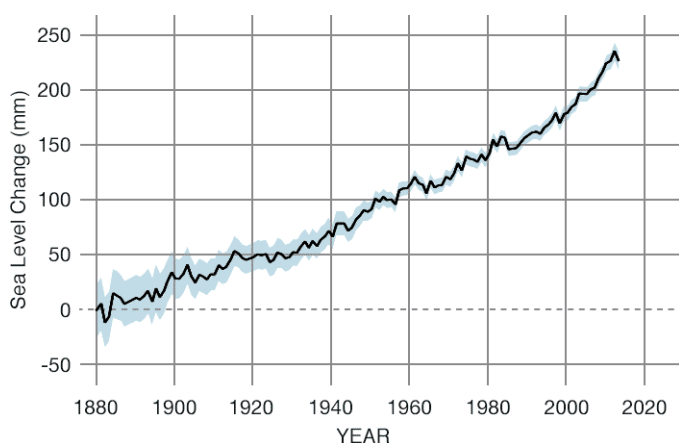
The Victorian Government has instructed all councils to plan for a 0.8m sea level rise by the year 2100. This is based on a 2007 report from the United Nations Intergovernmental Panel on Climate Change.

The City of Greater Geelong has identified 1,614 properties that will face inundation and has submitted an overlay to the Planning Minister. The overlay would require new buildings and renovations to meet certain conditions, such as ensuring floors were above predicted flood levels.

CSIRO climate scientist Dr Kathleen McInnes said previous predictions estimated sea level rises between 0.5m and 1m by the end of the century. She said sea levels rose about 1.8 millimetres per year over the 20th century but in the last 30 years, the rate of rise has increased to about 3.6 mm per year.

A local resident concerned for her granddaughter felt homeowners and businesses across the region need to be encouraged to reduce their carbon emissions. "We can live our lives with as small a carbon footprint as possible," she said. "It's all of our responsibility. We all make choices and, clearly, we need to solve the problems together."

Peter Maddock



Global Sea Level Rise - from climate. NASA.gov

Member Submitted Links

Some member submitted article links you might be interested in:

Solve the climate crisis and shift to clean energy. Write a letter to the editor: coal is taking up too much water! Member submitted email 4 May 2020 from [Australian Conservation Foundation](#).

Seizing the moment: how Australia can build a green economy from the Covid-19 wreckage. Adam Morton. [The Guardian Thu 14 May 2020](#).

US utilities are skipping the gas 'bridge' in transition from coal to renewables. Dennis Wamsted. [Renew Economy 6 July 2020](#).

Australia's metal gurus engineer two energy-storage breakthroughs. Natalie Filatoff. [PV Magazine Australia July 6 2020](#).

How Australia's state energy ministers are turning the tables on Angus Taylor. Simon Holmes à Court. [The Guardian Sat 11 Jul 2020](#).

How coastal communities on Victoria's Bellarine Peninsula are dealing with the reality of sea level rises. Nicole Mills. [ABC News 26 July 2020](#).



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