

Sustainability Matters

11th October, 2018

A fortnightly selection of topical **news and views** about economic, social and environmental issues.
Designed especially for accountants and those who use the services of accountants.

Sustainability Matters is;

- Compiled and published by Ray Skinner of *Sustainability Matters*, providers of specialist services relating to sustainability and business support. **Business achieving a tomorrow for tomorrow's children.**

'Most Important Years in history': Major UN Report Sounds Last-minute Climate Alarm

"Only the remaking of the human world in a generation can now prevent serious, far reaching and once-avoidable climate change impacts, according to the global scientific community.

"In a major report released on Monday [8th October], the UN's climate science body found limiting warming to 1.5C, compared to 2C, would spare a vast sweep of people and life on earth from devastating impacts.

"To hold warming to this limit, the scientists said unequivocally that carbon pollution must fall to 'net zero' in around three decades: a huge and immediate transformation, for which governments have shown little inclination so far.

"The next few years are probably the most important in our history', said Debra Roberts, co-chair of the Intergovernmental Panel on Climate Change's (IPCC) research into the impacts of warming.

"The report from the IPCC is a compilation of existing scientific knowledge, distilled into a 33-page summary presented to governments. If and how policymakers respond to it will decide the future of vulnerable communities around the world.

"I have no doubt historians will look back at these findings as one of the defining moments in the course of human affairs', the lead climate negotiator for small island states Amjad Abdulla said. 'I urge all civilised nations to take responsibility for it by dramatically increasing our efforts to cut the emissions responsible for the crisis.'

"To pay for this transformation, the world will have invested almost a trillion dollars a year, every year to 2050. ...

"Some of the tools needed are available, they just need scaling up. Renewable deployment would need to be six times faster than it is today, said Adnan Z. Amin, the director general of the International Renewable Energy Agency. That was 'technically feasible and economically attractive', he added.

More: www.climatechangenews.com/2018/10/08/important-years-history-major-un-report-sounds-last-minute-climate-alarm/

Source: *Climate Home News*, 8th October 2018. ❖

'We're Moving to Higher Ground': America's Era of Climate Mass Migration is Here

"By the end of this century, sea level rises alone could displace 13m people. Many states will have to grapple with hordes of residents seeking dry ground. But, as one expert says, 'No state is unaffected by this' [Lengthy article.]

More: www.theguardian.com/environment/2018/sep/24/americas-era-of-climate-mass-migration-is-here

Source: *Carbon News*, 25th September 2018. ❖

SUSTAINABILITY WORKING GROUP

At the Group's meeting on 9th October 2001 Peter Hays (Past President) reported the proposed remit about a sustainable development reporting committee had been provided to ICANZ secretariat. Subsequently, Peter Casey, Alistair Boulton and Raechel Cummins meet ICANZ management which approved the Group's remit being presented to ICANZ's November AGM. ❖

Global Warming 1.5°C

"Entitled 'Global Warming of 1.5 °C an IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty' was released on 8th October 2018 together with a 'Summary for Policymakers' and other documents. The summary was formally approved at the First Joint Session of Working Groups I, II and III of the IPCC and accepted by the 48th Session of the IPCC, Incheon, Republic of Korea, 6th October 2018.

A huge amount of commentary has and will arise. The summary a no frills document with a very austere and bland appearance is the result of much internal debate with some proposed content removed from the eventually accepted final version.

More: www.ipcc.ch/report/sr15/, with 34 page summary of 1.05Mb at http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

Source: *Carbon News*, and others 8th October 2018. ❖

37 Things You Need to Know about 1.5C Global Warming

"The UN published a summary on the science of 1.5C global warming on Monday [8th October]. It's a big deal.

"This is the first time the Intergovernmental Panel on Climate Change (IPCC) has gathered evidence on the tougher target demanded by countries on the front line of climate impacts.

"It validates their concerns, showing that the difference between 1.5C and 2C – the upper limit governments committed to in the Paris Agreement – is critical to millions of people's homes, jobs and lives.

"As to whether it is feasible to halt the temperature rise at 1.5C above pre-industrial levels, the report has no easy answers. What it does is elucidate the options.

"It was a mammoth undertaking, with 91 authors from 40 countries compiling evidence from more than 6,000 papers and addressing 42,001 comments from experts and governments.

"Most important years in history': major UN report sounds last-minute climate alarm

"In a tense meeting in South Korea last week, government representatives haggled with scientists for six days to produce a 33-page summary of four in-depth chapters.

"The result of writing by committee is a somewhat dense and technical document. Here is our breakdown of the key messages and omissions, and their political significance.

"We have followed the structure of the IPCC report, in four sections.

- Understanding 1.5C warming
- Impacts and threats
- Pathways to 1.5C
- Ramping up action

[Followed by brief bullet points of each of the 37 items.]

More: www.climatechangenews.com/2018/10/08/37-things-need-know-1-5c-global-warming/

Source: *Climate Home News*, 8th October 2018. ❖

We Must Reduce Greenhouse Gas Emissions to Net Zero or Face More Floods

"The authoritative new report by the Intergovernmental Panel on Climate Change sets the world a clear target: we must reduce emissions of greenhouse gases to net zero by the middle of this century to have a reasonable chance of limiting global warming to 1.5C", writes Sir Nicholas Stern.

"Every government should read this report and recognise the clear choice we now have.

"Accelerate the transition to clean and sustainable growth or suffer the mounting damage from sea level rise, floods and droughts that will severely hinder efforts to tackle poverty, raise living standards and improve prosperity.

"The report, prepared by leading researchers from around the world, warns that the world has already warmed by about 1C since the middle of the 19th century, and could reach 1.5C at the current rate of warming before the middle of this century.

"Human activities are currently emitting about 42bn tonnes of carbon dioxide every year, and at that rate the carbon budget – allowing us a 50-50 chance of keeping warming to 1.5C – would be exhausted within 20 years.

"Even 1.5C of warming would have brutal consequences, according to the report. Poor people, in particular, would suffer as the threat of food and water shortages increase in some parts of the world.

"But the report makes clear that allowing warming to reach 2C would create risks that any reasonable person would regard as deeply dangerous. ... [Heat maps and other graphics] ...

"We have in our grasp the opportunity to choose a safer and more prosperous future.

More: www.theguardian.com/environment/2018/oct/08/we-must-reduce-greenhouse-gas-emissions-to-net-zero-or-face-more-floods

Source: *Carbon News*, 9th October 2018. ❖

Intended Consequences: Impact Assessment for Sustainable Regional Futures

"In New Zealand, there is much interest in planning for sustainable regional futures. Regional policies and plans help provincial towns and rural areas deal with the big futures issues, such as climate change, sea-level rise, sustainable social and economic development and enhanced community resilience. Impact assessment is used in New Zealand as a tool to manage the effects of development, including under the Resource Management Act and the Local Government Act.

"Regions are proposing a number of initiatives and projects to enhance regional development, including transport and other infrastructure, forestry, water resource management, tourism development and visitor management, along with initiatives around housing and employment. But do we have the necessary methods and skills to apply impact assessment in support of these developments? Do we fully understand all their effects and how to monitor and manage them? Are sustainability objectives built into the planning process throughout?

"Anticipating and managing the impacts of development on the environment, society and economy is essential at the strategic level as well as for particular projects. This conference will consider the opportunities and challenges in applying impact assessment to regional development.

"This two day conference at the Havelock North Function Centre will bring together invited speakers and submitted poster papers, with examples and case studies. NZAIA invites the diverse impact assessment community in central regional and local government, universities, iwi, consultancies, the private sector and NGOs to attend. Graduate students are particularly welcome.

When/Where: Wed/Thurs 28th/29th November, Havelock North

More: www.nzaia.org.nz/nzaia2018conference.html

Source: *Tieke: ECO Alerts & Events*, 3rd October 2018. ❖

While Economic Growth Continues We'll Never Kick Our Fossil Fuels Habit

George Monbiot

"We're getting there, aren't we? We're making the transition towards an all-electric future. We can now leave fossil fuels in the ground and thwart climate breakdown. Or so you might imagine, if you follow the technology news.

"So how come oil production, for the first time in history, is about to hit 100m barrels a day? How come the oil industry expects demand to climb until the 2030s? How is it that in Germany, whose energy transition (Energiewende) was supposed to be a model for the world, protesters are being beaten by police as they try to defend the 12,000-year-old Hambacher forest from an opencast mine extracting lignite – the dirtiest form of coal? Why have investments in Canadian tar sands – the dirtiest source of oil – doubled in a year?

"The answer is, growth. There may be more electric vehicles on the world's roads, but there are also more internal combustion engines. There be more bicycles, but there are also more planes. It doesn't matter how many good things we do: preventing climate breakdown means ceasing to do bad things. Given that economic growth, in nations that are already rich enough to meet the needs of all, requires an increase in pointless consumption, it is hard to see how it can ever be decoupled from the assault on the living planet.

"When a low-carbon industry expands within a growing economy, the money it generates stimulates high-carbon industry. Anyone who works in this field knows environmental entrepreneurs, eco-consultants and green business managers who use their earnings to pay for holidays in distant parts of the world and the flights required to get there. Electric vehicles have driven a new resource rush, particularly for lithium, that is already polluting rivers and trashing precious wild places. Clean growth is as much of an oxymoron as clean coal. But making this obvious statement in public life is treated as political suicide.

"Let's be embarrassing. Let's break the silence, however uncomfortable it makes us and others feel. Let's talk about the great unmentionables: not just climate breakdown, but also growth and consumerism. Let's create the political space in which well-intentioned parties can act. Let us talk a better world into being. [Lengthy.]

More:

www.theguardian.com/commentisfree/2018/sep/26/economic-growth-fossil-fuels-habit-oil-industry

Source: Editor, 2nd October 2018

Editor: New Zealand and burgeoning air travel mentioned. ❖

Introducing Shareable

"Shareable is an award-winning non-profit news, action and connection hub for the sharing transformation. The sharing transformation is a movement of movements emerging from the grassroots up to solve today's biggest challenges, which old, top-down institutions are failing to address.

"Behind these failing industrial-age institutions are outmoded beliefs about how the world works – that ordinary people can't govern themselves directly; that nonstop economic growth leads to widespread prosperity; and that more stuff leads to more happiness. Amid crisis, a new way forward is emerging – the sharing transformation. Its big, global, and impacts every part of society.

"New and resurgent solutions are democratising how we produce, consume, govern, and solve social problems. The maker movement, collaborative consumption, the solidarity economy, open source software, transition towns, open government, and social enterprise are just a few of the movements showing a way forward based on sharing.

"The sharing transformation shows it's possible to govern ourselves, build a green economy that serves everyone, and create meaningful lives together. It also shows we can solve the world's biggest challenges – like poverty and global warming – by unleashing the power of collaboration....

More: www.shareable.net/about

Source: Editor, 3rd October, via Post Carbon Institute. ❖

Humans Are Not Just the Problem; They Are the Solution to Climate Change

"After decades of trying to engage people with solutions to climate change, it's time to go beyond behaviour change and recognise people as agents of change, rather than objects to be changed.

"Researchers remind us almost daily that time is running out – they warn us that we have only a few years to 'bend the curves' of greenhouse gas emissions. The world is warming, and the consequences are increasingly visible – more rapidly than many scientists expected. Scientists are increasingly concerned that we will at some point reach tipping points where it becomes difficult to avoid a 'hothouse Earth.'

"But just as there are physical tipping points that can irreversibly change the Earth system dynamics, there are social tipping points that can move us towards a sustainable world. But how do we transform at the rate, scale, magnitude and depth called for by the research, in an equitable, ethical and sustainable way?

"My research at the University of Oslo focuses on the change part of climate change, and especially the social and human dimensions of sustainability transformations and the relationship between individual change, collective change, and systems change. While we recognise that technology and measurement are important, we know that people are truly the solutions to climate change, and at the moment they are underutilised.

"Part of the reason for this may be how we perceive the problem itself;

- How we think about change: What's missing? ...
- Diving deeper
- Beyond behavioural change

"So, what's really missing from our current approaches are the strategies and stories which connect with people and make them the heroes. The stories which allow people to be the protagonists, rather than merely objects which need to be changed. After decades of trying to engage people with solutions to climate change, it is time to engage people as the solutions to climate change. In other words, to recognise people as agents of change, rather than objects to be changed. Humans are not just the problem; they are the solution to climate change!

More: www.ethicalcorp.com/humans-are-not-just-the-problem-they-are-solution-climate-change-sponsored

Source: Ethical Corp, (sponsored) 5th October 2018. ❖

How to Make Air Conditioning More Sustainable

"WHAT is the single most effective way to reduce greenhouse-gas emissions? Go vegetarian? Replant the Amazon? Cycle to work? None of the above. The answer is: make air-conditioners radically better. On one calculation, replacing refrigerants which damage the atmosphere would reduce total greenhouse gases by the equivalent of 90bn tonnes of CO₂ by 2050. Making the units more energy-efficient could double that. By contrast, if half the world's population were to give up meat, it would save 66bn tonnes of CO₂. Replanting ⅓ two-thirds of degraded tropical forests would save 61bn tonnes. A ⅓ increase in global bicycle journeys would save just 2.3bn tonnes.

"Air-conditioning is one of the world's great overlooked industries. Automobiles and air-conditioners were invented at roughly the same time, and both have had a huge impact on where people live and work. Unlike cars, though, air-conditioners have drawn little criticism for their social impact, emissions or energy efficiency. Most hot countries do not have rules to govern their energy use. There is not even a common English word for 'coolth' (the opposite of warmth).

"Yet air-conditioning has done more than most things to benefit humankind. Lee Kuan Yew, the first prime minister of Singapore, called it 'perhaps one of the signal inventions of history'.

More: www.economist.com/leaders/2018/08/25/how-to-make-air-conditioning-more-sustainable plus www.economist.com/node/21748809/comments

Source: Alan Skinner, 30th September 2018

Editor: Sign in required to view more. ❖

Students Build a Car which Runs on Air

"CAIRO – A group of Egyptian students has designed a vehicle they say will battle rising energy prices and promote clean energy by running on nothing but air.

"The undergraduate students, who built the vehicle as part of their graduation project from Helwan University just outside Cairo, are rolling out a prototype one-person vehicle that runs on compressed oxygen.

"The go-kart-like vehicle comes as Egypt pushes ahead with painful economic reforms that include deep cuts to energy subsidies, measures tied to a three-year \$12 billion IMF loan program it began in late 2016.

"The students say their vehicle can hit 40 km/hr and last 30 km before needing to be refuelled and it only costs about US\$1,000 to build. ...

More: <https://nypost.com/2018/08/09/these-students-built-a-car-that-runs-on-air/>

Source: *Tieke: ECO Alerts & Events*, 12th Sept 2018. ❖

Kiwi Ingenuity Shines at Energy Efficiency Awards

"Winners of the EECA Business Awards 2018 have been announced and New Zealand's economy and environment are the biggest winners of all.

"The theme this year was 'innovation and leadership' and only the largest of NZ's energy users were eligible to enter.

"An outstanding selection of energy efficiency and low emission stories were submitted by businesses, health and education providers and the public sector – and the University of Waikato set to work as judges to separate the good from the great, from the totally awesome....

"Innovation Award *Hanmer Springs Thermal Pools and Spa*

The Canterbury tourist attraction is converting methane – a greenhouse gas and by-product of collecting underground thermal water – into electricity with a 65kw Capstone Turbine generator, which provides power to the facility.

"Public Sector Award *Victoria University of Wellington*

The University is more than a decade in to its comprehensive energy management programme and despite a 15% increase in floor space and an additional 500 equivalent full-time students in that time, energy use continues to drop, reducing greenhouse gas emissions by 2,800 tonnes per year. A combination of improved building management systems, renewable energy generation and student buy-in has achieved the result.

"Energy & Emissions Reduction Project Award *Goodman Property Trust*

Using the NABERSNZ tool to assess the performance of buildings and provide a benchmark to measure system optimisation and upgrades has led to an overall targeted rating of 4.5 stars for Goodman Property's seven waterfront commercial buildings, which support a 7,000 workforce. Lighting and HVAC are the main energy-efficiency heroes that have saved tenants more than \$1.1 million in operating costs since 2014, and avoided 775 tonnes of carbon emissions so far.

"Energy & Emissions Leadership Award *Roseline Klein, Watercare Services Ltd*

Energy efficiency is everybody's responsibility at Watercare, due to a staff engagement and empowerment strategy led by Roseline Klein. Making energy-saving a team effort and introducing technologies into a long term energy efficiency strategy has them set to achieve their energy neutrality targets for the waste-water plants.

"Large Energy User of the Year Award *Red Stag Timber*

The installation of a new 4.2MW steam turbine and a 10MW biomass boiler at Red Stag's wood-processing plant has closed the gap on their long term energy-efficiency and low-carbon business plan. Wood waste is used as renewable fuel to generate all the electricity the site needs, their energy self-sufficiency has put production up, and the power bill down.

More: www.eeca.govt.nz/news-and-events/media-releases/kiwi-ingenuity-shines-at-energy-efficiency-awards/

Source: *Carbon News*, 28th September 2018. ❖

Social Metrics Commission Launches a New Measure of UK Poverty

"The Social Metrics Commission (SMC) an independent commission founded in 2016, has brought together thinkers from the right and left with data and analytical experts to develop a new approach to measuring poverty. Currently there is no agreed UK government measure of poverty and the SMC's mission is to provide a new consensus around poverty measurement which enables action, informs policy making and so improves the lives of people in poverty, in real ways.

"For the first time, as well as looking at incomes, the new metric accounts for a range of inescapable costs that reduce people's spending power, and the positive impact of people's liquid assets on alleviating immediate poverty. These inescapable costs include rent or mortgage payments, childcare and the extra costs of disability. Liquid assets include savings, stocks and shares. The new metric reflects more accurately the realities and experiences of living in poverty than previous measures.

"The SMC report, [available below] reveals numerous key findings and challenges. The total number of [UK] people living in poverty is 14.2 million with the composition of poverty moving towards a better identification of children (4.5 million) and working-age adults (8.4 million). The good news is the shift away from pensioner poverty with far fewer pensioners living in poverty following a significant reduction of poverty amongst pension age couples, over the last 15 years.

"The report reveals people with a disability are much more likely to be living in poverty than previously thought, with around half of the 14.2 million people in poverty living in families with a disabled person.

"The report also reveals the persistence and depth of UK poverty. More than one in ten (12.1%) of the total UK population are in poverty now and have been in poverty for at least two of the previous three years. A further 2.5 million live less than 10% above the poverty line and are close to falling below it with relatively small changes to their circumstances; and around 2.7 million live less than 10% below it.

More: <http://socialmetricscommission.org.uk/social-metrics-commission-launches-a-new-measure-of-uk-poverty/> plus <http://socialmetricscommission.org.uk/MEASURING-POVERTY-FULL-REPORT.pdf> 147 pages, 2.12Mb

Source: SAN, 2nd October 2018

Editor: The research could be of value beyond the UK. ❖

How to Fix Our Air Conditioning Problem

"*The Economist* suggests three things: Better machines, better refrigerants and better buildings.

"This *TreeHugger* used to write that air conditioning was a response to really bad design, quoting Professor Cameron Tonkinwise who said, 'The window air conditioner allows architects to be lazy. We don't have to think about making a building work, because you can just buy a box.'

"But as I wrote recently, the world has changed, and so have I, recognising I was being an elitist writing from a detached old house in a temperate climate. Most people are not so lucky. ...

"You can't, as Cameron Tonkinwise put it, just add a box. You can't, as the Rocky Mountain Institute suggests, just sell someone a new HVAC unit. It starts with urban design and goes right down to the detail of how you build a wall. We have to get away from boxes and think about overall systems, the bigger picture, or as William Saletan put it years ago, we will be 'cooking our planet to refrigerate the diminishing part that's still habitable.'

More: www.treehugger.com/environmental-policy/how-fix-our-air-conditioning-problem.html plus <https://www.treehugger.com/clean-technology/4-reasons-why-heat-pumps-are-not-going-save-planet.html> – improve building efficiency to reduce demand

Source: Editor, 2nd October 2018. ❖

Social Enterprise World Forum 2018 in Edinburgh

"The Social Enterprise World Forum brings together social enterprise practitioners, support agencies, investors, public, private and government representatives. This year's event in Edinburgh brought together social enterprise leaders and champions from all continents. Our very own Rachel Brown shares her thoughts on the forum.

"In September I attended the Social Enterprise World Forum: a gathering of some 1400 individuals representing social enterprises, charities, business, academia, media and government. NZ was well represented

"My main thoughts are we must connect the social agents with the planetary systems. We need to be inclusive, to be audacious. The doers need to be thinkers and vice versa. We are not short on solutions – but we do need to use our supply chains and create an infrastructure which supports a new economy. To do this reimagining, we need to be radical, but importantly we need time to think – time to think about new structures which replace the dominant power base. We need democratising on scale. This is a long game and we must create a space for youth and democratise the movement. Here are 7 learnings from me:

- 1) We are at a time of change.
- 2) We need inclusive growth.
- 3) Some 'ah-ha's' on global action on circular economy and zero waste. ...
- 4) Embrace technology and artificial intelligence. ...
- 5) We must genuinely include youth. ...
- 6) Communication and storytelling are essential to drive change.
- 7) So a word of warning! We must connect 'social enterprise' to a sustainable planet.

"Here are some tips from Alastair Wilson of the UK School for Social Entrepreneurship. I could really relate to this when it comes to pitching, getting investment and driving your new business;

- Leading is lonely
- You need to be explicit about your values (or you will get the wrong support)
- You need to paint your vision – but include very tangible milestones as part of the pitch
- You need to be flexible and pragmatic
- You should admit your weaknesses and seek help – people love helping each other
- Remember new ideas DO NOT HAVE RULES
- Be true to yourself.

"A key African proverb was used a few times and I think it sums up the sentiment of the forum: 'If you want to go fast, go alone, but if you want to go far, go together.'

More: <https://sustainable.org.nz/sustainable-business-news/social-enterprise-world-forum-sewf-2018-edinburgh/>

Source: SBN, 2nd October 2018

Where in the World Do You Read

Sustainability Matters?

Upon reading the 27th September edition of *Sustainability Matters* a reader noted he was currently in a remote part of Nepal and had read it there. He then wondered where others have read it.

So, here's your opportunity: Where do you, or have you, read *Sustainability Matters*?

Action: eMail Ray ray@sustainabilitymatters.co.nz and we will publish the results

Source: Bruce Gilkison, 27th September 2018. ❖

Contributions and feedback are welcomed.

Send your news items, handy hints, case studies, suggestions, comments and questions to Ray Skinner of *Sustainability Matters*.

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