Sustainability Matters

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Learning Through Doing: The Role of Academia in Driving Sustainability

"Academia is increasingly placing sustainability at the heart of the modern curriculum, with students keen to learn about the discipline in a hands-on practical way, says Isabella Mascarenhas, Vice President, Grass Roots Education & Social Impact at RS Group.

'But for sustainability efforts to succeed over the long term, organisations in sectors such as electronic engineering need a pipeline of technical talent who can think and act differently and help accelerate change. That requirement puts the onus on academia to successfully embed sustainability in the modern curriculum - ensuring students embrace crucial topics such as eco-design in exciting and creative ways.

"Historically, disciplines such as sustainability have been taught from textbooks in a theory-based manner. But times are changing. Universities and colleges are increasingly collaborating closely with other stakeholders, such as professional engineering institutions and charities, to develop more first-hand practical learning. This approach engages students more effectively and provides them with a deeper understanding of a subject that will be critical in the world of

"So, what does this new approach to sustainability teaching look like in reality? One of the most successful initiatives has been the Engineering for People Design Challenge organised by the charity Engineers Without Borders UK which is embedded in the engineering curriculum of more than 11,000 first- and second-year students, making it a mandatory part of the degree course. The initiative allows students to investigate and respond to real-world problems early in their education without real-world pressures and risks. This approach gives them the skills, knowledge, and experience to address global and local issues. [Long'ish article1.

More: www.edie.net/learning-through-doing-the-role-of-

academia-in-driving-sustainability

Source: edie, 16th August 2023

Editor: The same applies to accountants, lawyers, economists, insurers, investment managers and

bankers.

Unexpected Benefits of Having Bank Branches in Local Communities

A 2005 Reserve Bank of India policy incentivises banks to open branches in underserved areas. This has occurred in 19 districts and has been linked to lower rates of acute illnesses, lower pregnancy risks, higher vaccination rates, lower medical expenses, lower morbidity rates, and improved school and work attendance.

Other positive multiplier impacts include businesses being able to obtain improved access to finance. Access to health insurance has also improved – unlike developed countries, in India this is obtained via banks.

The article does not mention the nature of the bank incentives

More: www.eco-business.com/opinion/the-health-benefits-offinancial-inclusion

Source: eco-Business.com, 29th August 2023.

Critics of 'Degrowth' Economics Say it's Unworkable - But from an Ecologist's Perspective, it's Inevitable

"You may not have noticed, but earlier this month [August] we passed Earth overshoot day, when humanity's demands for ecological resources and services exceeded what our planet can regenerate annually.

"Many economists criticising the developing degrowth movement fail to appreciate this critical point of Earth's biophysical limits.

"Ecologists on the other hand see the human economy as a subset of the biosphere. Their perspective highlights the urgency with which we need to reduce our demands on the biosphere to avoid a disastrous ecological collapse, with consequences for us and all other species.

"Many degrowth scholars (as well as critics) focus on features of capitalism as the cause of this ecological overshoot. But while capitalism may be problematic, many civilisations destroyed ecosystems to the point of collapse long before it became our dominant economic model.

"Capitalism, powered by the availability of cheap and abundant fossil energy, has indeed resulted in unprecedented and global biosphere disruption. But the direct cause remains the excessive volume and speed with which resources are extracted and wastes returned to the environment.

"From an ecologist's perspective, degrowth is inevitable on our current trajectory. 'To grasp the necessity of reducing ecological overshoot we must understand its current status. We can do this by examining a variety of empirical studies.

"Material flows and planetary boundaries. Analysis of material flows in the economy shows we are currently extracting more than 100 billion tons of natural materials annually, and rising. This greatly exceeds natural processes – erosion, volcanic eruptions and earthquakes – which move materials around the globe.

"Such massive human-driven material flows can destroy ecosystems, cause pollution and drive species extinct.

"Only about 10% of these resource flows are potentially renewable.

"Humans have now transgressed at least six of nine planetary boundaries. Each boundary has distinct limits, but in some instances the overshoot is at least double the safe operating level.

"The climate crisis is seen as a problem requiring a solution rather than a symptom of overshoot. The problem is generally formulated as looking for a way to maintain current lifestyles in the wealthy world, rather than reducing overshoot.

More: https://theconversation.com/critics-of-degrowtheconomics-say-its-unworkable-but-from-an-ecologists-

perspective-its-inevitable-211496

Source: Simon Harvey, 17th August 2023; 'This article is a simple introduction to the notion of de-growth and it's ecological inevitability. TNS and Planetary Boundaries aligned. It's a nicely articulated and simply put explanation.

Framing Messages Around the Climate Emergency

"The vast majority of people in industrialised countries now accept global overheating constitutes a serious environmental crisis and it has been largely caused by human action. Nevertheless, public commitment to making changes at household and community level and, most importantly, to demanding meaningful action from governments, both nationally and internationally, remains weak.

"Michael Hanne asks how climate activists can 'frame' discussion more effectively to turn public anxiety into upward pressure on government to act. He analyses the presentations of the many wonderful previous speakers in the Our Climate Declaration series, assembling a repertoire of the most effective devices they use to talk about the climate emergency. Those devices, he argues, take the form primarily of linked metaphors (or analogies) and narratives (or stories). Choice of metaphor is crucial in framing discussion and a fresh metaphor may reframe that discussion entirely. He goes on to propose broad communication strategies which climate activists could be using in their struggle to inform and persuade the public. ...

When/Where: 13th September, 7:00 - 8:30pm. Online

More:

www.ourclimatedeclaration.org.nz/framing messages around the climate emergency

Source: Our Climate Declaration, 21st August 2023.



Sir Jonathon Porritt Accuses the Two Chrises Failing at Climate Leadership

"July 6th was Sir Jonathon Porritt's birthday - it was also the planet's hottest day ever recorded.

"The renowned environmentalist was in Auckland telling finance leaders they have the power to alter the course of our rapidly warming trajectory. And saying our politicians are failing us.

"I've got to admit I'm disappointed by the quality of leadership from both party leaders at the moment – from both Christophers on climate change, both have chosen to drop it down the list of priorities at exactly the time where quality leadership would tell us we need to pick up the pace', he told Newshub.

More: www.newshub.co.nz/home/politics/2023/07/leadingbritish-environmentalist-sir-jonathon-porritt-accuseschris-hipkins-christopher-luxon-of-failing-at-climate-<u>leadership.html</u> plus

www.linkedin.com/feed/update/activity:70919622336

26259457

Source: Simon Harvey, LinkedIn comment, 5th August.

Calls for 'Ecocide' Law in Scotland to Punish Those Who Destroy Nature Like War Criminals

"Plans for a groundbreaking new 'ecocide' law in Scotland to punish those who destroy nature have been hailed by campaigners.

"If backed by MSPs, Scotland could become one of the first countries in the world to establish a specific crime for mass environmental damage and destruction - such as deforestation or oil spills.

"Activists say it would complete a decade-long campaign for global recognition of ecocide by the inspiring Scots barrister Polly Higgins, who died in 2019.

More: www.dailyrecord.co.uk/news/scottishnews/momentum-new-ecocide-law-scotland-30737565 plus www.scottishlegal.com/articles/campaigners-backproposals-for-ecocide-law-in-scotland

Source: atAdvocacy News, 23rd August 2023.



The Transition to an 'Economy of Enough'

"Rather than a Productivity Commission, how about we have a Sufficiency Commission instead, whose goal would be to meet our needs within biophysical limits?

"Opinion: On one autumnal afternoon in 2013, the late Jeanette Fitzsimons addressed a hall full of people in the leafy town of Waikanae on the Kāpiti Coast. Unusually, for a former academic and seasoned politician, she began her address with a story about a certain slow-witted but very likeable bear - who had indulged in a bit too much honey while visiting his friend Rabbit and got stuck in Rabbit's doorway on his way out.

"In the story much discussion ensued on ways to resolve this predicament, including Rabbit moving to a bigger tree, or cutting a bigger doorway. But in the end it was Christopher Robin who sagely concluded, 'Pooh, you will just have to stay there and not eat any more until you lose weight'.

"What if we made sufficiency a central guiding principal of our economy, as countries such as France are starting to do? What might that look like? I don't know the answer to this, but I am convinced it is a question which needs to be explored. We have a Productivity Commission whose goal is to boost our economy's productivity. How about a Sufficiency Commission, whose goal would be to make our economy more sufficient, meeting New Zealanders' needs within the biophysical limits of our country and the planet? With the best minds from government, industry, the Māori economy and academia, we could begin to shape the foundation for a more resilient economy - one much better able to withstand a future of escalating disruption and instability.

More: www.newsroom.co.nz/the-transition-to-an-economy-

of-enough

Source: Editor, 27th August 2023.



To Avoid Doubt Company Directors Now **Have Enhanced Clarity About Their Duties**

"The Companies (Directors Duties) Amendment Bill has received royal assent and came into force on 8th August 2023. Section 131 of the Companies Act 2023 now includes the following duty for directors in New Zealand:

"To avoid doubt, in considering the best interests of a company or holding company for the purposes of this section, a director may consider matters other than the maximisation of profit (for example, environmental, social, and governance matters)'.

"Despite the clarity the Bill will provide, legal opinions had already concluded directors should consider material climate and nature matters. The 2019 legal opinion by Chapman Tripp for the Aotearoa Circle concludes 'directors must act reasonably to inform themselves about, consider and decide how to respond to climate change risk, as they would any other financial risk'. A subsequent legal opinion in 2023 also by Chapman Tripp for The Aotearoa Circle advises prudent directors and businesses should be starting on the path to identify, assess and manage nature-related risks, particularly if they depend on the environment for their business model.

www.charteredaccountantsanz.com/news-and-More: analysis/news/companies-directors-duties amendment-bill-receives-royal-assent plus www.iod.org.nz/news/articles/the-companiesdirectors-duties-amendment-bill-has-been-passed

Source: CA ANZ, Regional News, 21st August 2023

Editor: The later merits reading as; 'The Select Committee couldn't agree the original Bill should be passed, but recommended amendments to it all the same. It completely removed the original Bill's reference to the five non-exhaustive ESG factors, and simply provided that directors may consider matters other than the maximisation of profit. ...

Funding to Upgrade Hot Water Heating

"If your business uses hot water for day-to-day operations, you can apply for up to 50% co-funding to upgrade your hot water heating.

"When you switch from an old, inefficient electric system or one which uses fossil fuel such as natural gas, to a hot water heat pump, you'll:

Reduce your costs, and

Reduce the carbon footprint of your business.

More: www.business.govt.nz/news/upgrade-your-hot-water-

heat-pump-with-up-to-50-co-funding

Source: Ministry of Business, Innovation. and Employment

(MBIE), 24th August 2023.

To Save the Planet, Should We Really Be Moving Slower?

"Bill McKibben, 5th July, 2023

"John Maynard Keynes once observed that dating from 'say, to two thousand years before Christ – down to the beginning of the 18th century, there was no very great change in the standard of life of the average man living in the civilised centres of the earth. Ups and downs certainly. Visitations of plague, famine, and war. Golden intervals. But no progressive, violent change.' At best, he calculated, the average standard of living had no more than doubled in the previous four millennia, essentially because, when that epoch began, we already knew about fire, banking, the sail, the plough, mathematics; we learned little new which would have accelerated economic growth; and throughout that stretch the planet mostly ran on the muscles of people and animals, supplemented by the power of wind and water.

"Then, in the eighteenth and nineteenth centuries, we started to harness the combustion of coal, gas, and oil, and everything changed. That's because a barrel of oil contains 5.8 million British thermal units' worth of energy. Nate Hagens, the director of the Institute for the Study of Energy & Our Future, ran the numbers: 'One barrel of oil has the same amount of energy of up to 25,000 hours of hard human labour, which is 12.5 years of work. At \$20 per hour, this is \$500,000 of labour per barrel.' A barrel of oil costs about US\$70 at this week's market price.

"To call that energy revolution liberating hardly suffices. Suddenly, people could easily

"In an ideal world, we would have staged all this work. We would have already reformed our cities so they were more efficient and our corporate structures so they were less avaricious before we mined the lithium and built the E.V.s. But we don't live in an ideal world; we live in a world where we're going to be very lucky to make it through the next decades with a climate system more or less intact.

"We have no choice but to build renewable energy, and its attendant appliances, and to do it fast. But it would be a shame to waste the vast effort entailed simply trying to recreate our current society on a lower-carbon basis, because we'd soon run into the other barriers the degrowth activists warn of, from too much nitrogen to too little solidarity.

"Instead of halting the build-out of green energy, it would be wise to use that enormous process, one of the biggest economic shifts in human history, to nudge our societies toward greater equality and greater conviviality. An E.V. is a good way to cut carbon emissions, but so, it turns out, is a four-day workweek. Do them both, and a thousand other things – and fast – and we might have a shot.

More: www.newyorker.com/news/daily-comment/to-save-the-planet-should-we-really-be-moving-slower

Source: *SnippETS*, 3rd August 2023.

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Potential of Rock Dust to Draw Down Huge Amounts of Carbon Dioxide

"Adding volcanic rock dust to cropland could help the world reach a key carbon removal goal, a new study finds.

"Rain absorbs carbon dioxide from the air as it falls, and it reacts with rocks on the ground to lock away carbon. To speed this process, scientists have proposed spreading crushed volcanic rock on farmland. The new study is among the first to model the effect of this strategy, called enhanced rock weathering, at scale.

"A simulation of more than 900 croplands spanning an area nearly the size of Australia suggests enhanced rock weathering could scrub some 64 billion tons of carbon dioxide from the atmosphere by the end of this century.

"The world currently produces around 37 billion tons of carbon dioxide yearly. To keep warming to 1.5 degrees C, the stated goal of the Paris Agreement, countries must not only slash emissions, but also remove at least 100 billion tons of carbon dioxide from the atmosphere.

"Spreading rock dust across all of world's croplands for the rest of this century, the study suggests, would draw down 215 billion tons of carbon dioxide. The findings were published in the journal *Earth's Future*.

"There's tremendous potential here', study coauthor Noah Planavsky, a geochemist at Yale University, said. Enhanced rock weathering may even work better as the climate warms because weathering happens faster in hot and humid conditions. Rock dust could also help revive depleted farms and improve yields. And the low cost of crushed volcanic rock would potentially make this strategy attractive for farmers.

More: https://e360.yale.edu/digest/enhanced-rock-

weathering-climate-change plus

https://agupubs.onlinelibrary.wiley.com/doi/10.1029/

2023EF003698 2pages

Source: Editor, 18th August 2023

Editor: Ouestion of adverse impacts on where the rock is

extracted from.

Report of the Expert Working Group on Managed Retreat: A Proposed System for Te Hekenga Rauora/Planned Relocation

"The Minister for Climate Change has asked the Parliamentary Environment Committee to open an inquiry into communityled retreat and adaptation funding.

"In anticipation of an inquiry, the Ministry for the Environment has published a paper, *Community-led retreat and adaptation funding – issues and options*. This paper looks at the current system and what new powers, roles and responsibilities might be needed to support community-led retreat, as well as how the costs of adaptation might be met.

"Community-led retreat means relocating homes, businesses, cultural sites or taonga out of harm's way, in a carefully planned process which involves the community at every step.

"The Ministry has also published a technical report into retreat by the Expert Working Group on Managed Retreat, chaired by Sir Terence Arnold KC and including experts in te ao Māori.

More: https://environment.govt.nz/news/inquiry-into-community-led-retreat/ plus
https://environment.govt.nz/assets/publications/climate-change/Report-of-the-Expert-Working-Group-on-Managed-Retreat.pdf 284 pages 5.29Mb and
https://planning.org.nz/Story?Action=View&Story id=1
000265

Source: SBC, 24th August 2023

Editor: The report has 57 recommendations.



Oil Exec Joined the BlackRock Board Weeks Before Government Climate Announcement

"The fund manager which launched a 'world first' climate investment fund for getting New Zealand to 100% clean energy appointed the CEO of the world's biggest oil company to its board just two weeks beforehand.

"BlackRock is an outspoken advocate for moving investments towards clean energy, but is also a major oil industry investor.

"Two weeks prior to the Government's 9th August revelation that it had partnered with the firm to launch a \$2bn New Zealand-based renewable energy fund, BlackRock announced it was appointing Amin Nasser, chief executive of oil giant Saudi Aramco, to its board of directors, a move seemingly at odds with its promises to shift towards climate-friendly investments. Aramco is the world's largest oil producer.

"Nasser's appointment went against everything BlackRock chief executive Larry Fink had been saying about being a leader in the green economy, and made BlackRock's board 'climate-conflicted'.

More: www.stuff.co.nz/environment/climatenews/300951097/manager-of-nzs-world-first-climate-

fund-appointed-ceo-of-worlds-biggest-oil-companytwo-weeks-earlier

Source: Forever Project, 18th August 2023.

An Alternative to Plastic Building Wrap

"Many of us diligently wash and dry our clean soft plastic household waste items, collecting them in bags ready for dropping off at the supermarket or other collection point.

"On our way through the neighbourhood we might pass a new build, or a house being refurbished. Typically, there will be screeds of plastic wrapping the building – much of which likely goes straight to landfill.

"Could the shrink wraps on buildings be the largest of all the single-use soft plastic waste items?

"This plastic is an incredibly valuable resource. It takes a lot of energy and carbon emissions when making plastic into products. We should be thinking of alternatives to just disposing it in landfill, including options for reuse or recycling."

"Construction and demolition waste currently makes up to half of all waste going to landfill. In Auckland alone, plastic waste going to landfill can equate to as much as 25,000 tons every year, says Berry.

"Changing our practices around building plastic could make a significant difference.

"Consideration was given to various options, including tarpaulins, before they opted for the Keder system. This is a system involving fabric stretched over rails which allow it to slide into place. It can be used for mounting temporary structures, large-scale banners and signage.

"The product keeps the weather out, is more environmentally friendly and less unsightly than shrink wrap, says Roberts. The system itself is flexible with a variety of uses including marquees, tents, and awnings. The key feature being it is designed to be taken down and reused multiple times.

"Roberts says the Keder system is slightly more expensive than the single use plastic option, but not hugely so. And when the job is done you can roll it back up and use it again on the next job.

More: www.stuff.co.nz/environment/climate-

news/132719840/finding-solutions-for-the-biggestsingleuse-soft-plastic-waste-item-of-all plus www.kedersolutions.com/what-is-keder/

Source: Forever Project, 18th August 2023.

Sustainability: The Power of Industry Associations

"There's an elephant in the room when we talk about our sustainability actions. There's a big gap between the ambitions our industries have and the reality of what many small and medium enterprises (SMEs) can achieve. Industry associations have a powerful opportunity to fill this gap.

"While big players do and communicate a lot of valuable work, many SMEs need support to move forward. How can 'the little guys' tackle the big problems of sustainability? How can a small company develop systems and certifications to verify that they're contributing to a more sustainable built environment?

"The reality is many SMEs lack the resources to respond to what is asked of them. They don't have the people and time to work on new systems and they don't have the money to invest in Environmental Product Declarations (EPDs) and other certifications.

"We expect start-ups to come up with solutions to address climate change but, being small businesses to start with, they share the same struggles. We need to give them a way in.

"To support these businesses, we need to work with someone who knows the needs of the industry. Someone who can give them access to a pool of relevant resources and provide them with tools that work for their specific challenges. We also need someone who has enough clout to influence whole industries to move forward together.

More: www.thinkstep-anz.com/resrc/blogs/sustainability-

the-power-of-industry-associations/

Source: SBN, 3rd August 2023.

Editor: The same likely applies to 'small-time' professionals in regard to leadership and help from their membership

bodies.

Disappearance of Vultures Can Have Unforeseen Consequences – for Humans Too

"Vultures are often associated with death, but some vulture species are themselves at risk of extinction. What can their fate tell us about the interaction between humans and the natural world in our time?

"When vulture populations in India suddenly started collapsing at the turn of the millennium, the consequences were farreaching and unforeseen. Wild dogs took over the vultures' job of eating carrion, the dog population exploded, and there was a marked increase in the number of people being bitten by dogs and contracting rabies.

"A group of researchers from the University of Bath in the UK and the Institute of Economic Growth in India concluded the loss of vultures cost India over US \$30 billion,

"Never before have humans had such a strong influence on the life on earth as in our current era.

"The reason why the vulture population in India suddenly collapsed was farmers started giving the anti-inflammatory drug diclofenac to livestock in the 1990s. The vultures could not tolerate the medicine they ingested when they ate the carcasses and died shortly afterwards.

"Another big problem – and not just for vultures, but for birdlife in general – is the rapidly evolving renewable energy infrastructure, such as wind turbines and cables', says Schroer.

More: www.newswise.com/articles/vulture-decline-holds-unexpected-human-impact plus www.newswise.com/articles/vulture-decline-holds-unexpected-human-impact plus www.economist.com/graphic-detail/2023/08/22/the-sudden-demise-of-indian-vultures-killed-thousands-of-people

Source: The Economist, 23rd August 2023.

