

# 22<sup>nd</sup> August 2020

22<sup>nd</sup> August 2020 | Matt Mimms

22<sup>nd</sup> August might seem like a pretty unremarkable day on the face of it. It will of course be the birth date, the death date, the wedding anniversary for countless millions around the world. Notably, it is the birth date of Claude Debussy and Deng Xiaoping, and in death, for Jomo Kenyatta and Richard III. James Cook landed in Australia in 1770, Yacht America won the first America's Cup regatta in 1851, Theodore Roosevelt was the first US President to ride in a car in 1902, and the BBC began their first TV broadcast on this day in 1932<sup>1</sup>.

However, 22 August in 2020 marks an important milestone. Known as Earth Overshoot Day<sup>2</sup>, "it marks the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year". From now til the rest of the year, we will in effect be depleting the earth's natural resources over and above the earth's ability to regenerate, and accumulating waste over and above the earth's ability to absorb, mainly in the form of carbon dioxide. This is according to the Global Footprint Network<sup>3</sup>, an award-winning international research organisation focussed on developing and promoting tools for advancing sustainability. So how does this work?

First developed in the early 1990s, the Global Footprint Network assesses the relationship between humankind's Ecological Footprint and its Biocapacity. Put simply, that is the relationship between the ecological assets and resources that a given population requires to produce what it consumes (e.g. food, timber and other resources) and to absorb its waste, especially carbon emissions; and a region's (e.g. a city, state or nation) biocapacity to meet these demands.

Where a region's ecological footprint exceeds its biocapacity, an ecological deficit exists. Similarly, if the contrary is true, a biological reserve is present.

The Global Footprint Network has assessed this relationship since 1993 and with data going back to 1961. This has been done for cities, regions, states, countries, and the world. Since the 1970s, humanity has been in ecological deficit or overshoot, the demand on resources exceeding what Earth can regenerate each year. Today we use the equivalent of 1.6 Earths to provide the resources we use and absorb our waste. Put another way, it now takes the Earth one year and eight months to regenerate what we use in a year. The deficit shows itself in several ways; through overfishing, overharvesting forests, and emitting more carbon dioxide and other greenhouse gases than can be absorbed. Whilst the relationship is of course not linear (i.e. we don't literally start using more than the earth can provide), Earth Overshoot Day is a calendar year manifestation of this ecological deficit.

There are substantial differences across regions and countries as to whether a deficit or surplus occurs. This will depend on a few factors like the level of industrialisation and economic development, population size, land mass and biodiversity. For example, Singapore has a biological deficit of 9,950% (the percentage that the Ecological Footprint exceeds biocapacity), Saudi Arabia by 1,390%, the US by 122% and the UK by 301%. On the other hand, French Guiana has an ecological reserve of 3,980% (the percentage that biocapacity exceeds the Ecological Footprint), Brazil by 209%, Australia by 85% and New Zealand by 97%.

The work done by the Global Footprint Network illustrates that Humankind is using more resources than the earth can provide, we are depleting our natural capital, and if this goes unchecked, the consequences will be dire.

Countries, governments, global institutions have recognized this for some time, and therefore policy and agreement at a national and supra-national level has been and is continuing to be formulated (with various degrees of success and cooperation). This includes the Paris Climate Agreement, the UN Sustainable Development Goals (both of which New Zealand is signed up to); it is why we are seeing legislation like The Carbon Zero Act and the NZ Emissions Trading Scheme; and why there are initiatives around the world that have recognized the important role that finance plays in shaping a more sustainable future (including the New Zealand Sustainable Finance Forum).

Earth Overshoot day arrives later this year than for the last 2 (when it fell on 29<sup>th</sup> July). On the face of it, this is an encouraging sign though can be firmly attributed to COVID-19 (and due to the impact of lockdowns on economic production and consumption and the reduction in carbon dioxide emissions). The Climate Action Tracker estimates global CO2 emissions are likely to fall by between 4 and 11% in 2020, the International Energy Association predicts an 8% fall. However, these falls (and benefits) may well be short lived and much will depend on global policy. At the end of 2019, the world remained somewhat off course to achieve the goal of keeping global temperature increases to below 1.5°C. It is estimated that emissions of greenhouse gases must fall by 7.6% per annum for the next decade to achieve this target<sup>4</sup>. Last year they were up, and growth has averaged 1.5% for the past decade<sup>5</sup>. Looking at history, emissions have typically increased sharply post an economic downturn. In the 2010, emissions were up 6% on the previous (GFC-affected) year<sup>6</sup>.

In the current COVID-influenced environment, there is perhaps an excellent opportunity through national and global co-ordinated action, (the latter sadly and largely missing in the fight to date against COVID-19), not to go back to the same old ways, but to do things cleaner, fairer and better. Already groups and organisations around the world are calling for this and offering policy solutions. From the UK's Committee on Climate Change to the Club of Rome, from the Carbon Tracker Initiative, and Oxford University's Smith School of Enterprise to the New Zealand Sustainable Finance Forum, these groups are (in some cases) drawing on research and making recommendations to build back better. To date, whilst the rhetoric and intent from Governments has been positive, action has been thin on the ground with few countries yet to swing into action. It is worth highlighting one initiative from Pakistan, where unemployed day labourers have been given new jobs planting saplings as part of the country's 10 Billion Tree Tsunami programme. Prime Minister Imran Khan stated, "This tragic crisis provided an opportunity and we grabbed it: nurturing nature has come to the economic rescue of thousands of people"<sup>7</sup>.

August 22<sup>nd</sup> is an illustration of the fact that we are living in an unsustainable way, that the world's economies are arguably running a giant Ponzi scheme. International treaties, government policy and individual choice all have a role to play to steer a path towards a more sustainable future. Finance is also key, and this of course includes investing in a more responsible and sustainable way.

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## References

<sup>1</sup><https://www.ontthisday.com/birthdays/august/22>

<sup>2</sup><https://www.overshootday.org/>

<sup>3</sup><https://www.footprintnetwork.org/>

<sup>4</sup><https://www.carbonbrief.org/analysis-coronavirus-set-to-cause-largest-ever-annual-fall-in-co2-emissions>

<sup>5</sup><https://www.theguardian.com/environment/2019/nov/26/united-nations-global-effort-cut-emissions-stop-climate-chaos-2030>

<sup>6</sup><https://www.bbc.com/news/science-environment-52485712>

<sup>7</sup>Building Back Better: Post COVID-19 Recovery Planning. A Report for the Aotearoa Circle by Sir Jonathon Porritt (Forum for the Future) – June 2020

Disclaimer - Matthew Mimms is a board member of the Responsible Investment Association of Australasia and is a member of the technical working group for the NZ Sustainable Finance Forum.

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