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We must change how we live

The pandemic is yet another warning sign of humanity living at odds with the resources of our planet. Either we follow a new path to a sustainable future, or nature will change it for us

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Each year for the last three decades, the Global Footprint Network has been tracking Earth Overshoot Day – the day when humanity’s demand for natural resources and services exceeds what the Earth can regenerate in that year.

In 2019, Earth Overshoot Day came on 31 July, the earliest ever, as humanity’s hunger for natural resources grew. This year, a fall in consumption due to pandemic

◀ **Shea butter production process near Chiana, Ghana.** Shea trees act as a buffer against desertification, are a resilient source of food and generate export income. Equally valuable, the shea butter industry is dominated by women, creating employment, independence and security

lockdowns moved the date back to 22 August. Good news? Not exactly. At a time of global recession and belt tightening, humanity still needs 1.6 planets to sustain it.

Something is seriously wrong with how our economies and societies operate. We need to use the pandemic recovery to build back better – which means putting nature at the heart of every economic decision and ensuring that humanity only takes what the planet can afford to give.

Crisis of production and consumption

Our way of life has caused the triple planetary crisis of climate change, biodiversity loss and pollution, damaging the health of people and planet. We see it in the current pandemic, which is linked to the loss of nature. We see it in the wildfires that are becoming increasingly frequent across the globe. We see it in the millions of people who die each year from air pollution.

The key culprit for this crisis is unsustainable resource use. Research from the International Resource Panel (IRP) shows that in 2017, natural resource extraction and processing accounted for around half of global greenhouse gas (GHG) emissions, and significant global biodiversity loss and water stress.

Patterns of consumption are changing with globalisation, outsourcing and economic growth, but the overall trend remains upwards. A 'historical trends' scenario on natural resource use developed by the IRP shows that without remedial action by 2060 we can expect material use to more than double to 190 billion tonnes, GHG emissions to increase by 43 per cent, industrial water withdrawal to increase by up to 100 per cent, and agricultural land to increase by 20 per cent – reducing forests by 10 per cent and natural habitat by around 20 per cent.

This scenario assumes the continuation of historical trends in population growth, per-

capita economic growth, material intensity of economic activity, rates and patterns of urbanisation, technological change within sectors and climate policy outcomes.

This vision of the future is undoubtedly grim, but we have the power to ensure it does not come to pass. We already have a global roadmap to follow in the Sustainable Development Goals (SDGs), the Paris Agreement and other international agreements. Our job, in the wake of the pandemic, is to follow this roadmap towards just and inclusive economic models that protect nature and the world's poor and vulnerable.

Shunning traditional growth measures

A key step in supporting this roadmap is an urgent rethink of how we track growth and prosperity. Yes, we have targets on sustainability, biodiversity, climate change and land degradation neutrality in the global roadmap. Natural resources are within the scope of many of the SDGs. But, at the national level, GDP does not account for damage to nature, the impacts of climate change and pollution – despite over half of the world's GDP being dependent on nature.

We can see the narrow focus on GDP growth during the pandemic. Headlines are focused on GDP falling as consumption, the engine that drives modern economies, falters. A lot of stimulus measures are focused on getting consumption going again. This is understandable. People have lost their jobs and many more will do so as businesses fail. They need to be protected. But simply restarting the consumption engine will only bring bigger crises in the future. Wasteful consumption contributes to biodiversity loss, climate change and pandemics like COVID-19.

Measuring and managing the health of nature and the climate, and incorporating necessary changes in the compass of progress are therefore key. This is where indicators such as the Inclusive Wealth Index (IWI) can be so important. The IWI looks at three types of capital – produced, human and natural – showing nations how their economic decisions impact the planet. For example, in the last Inclusive

Wealth report, UNEP found that natural capital globally was falling at 0.7 per cent each year, even while produced and human capital grew.

We need to shift to the IWI, or something similar, as the primary indicator of economic progress. The UK's independent global review of the economics of biodiversity, led by Sir Partha Dasgupta, makes this point. The interim report, issued earlier this year, calls for an acknowledgement that the human economy is embedded within nature. It points to the need to look beyond GDP to recognise the limits nature places on the economy and reshape our understanding of sustainable economic growth.

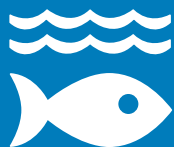
Reducing resource demand through decoupling

The ultimate goal is to decouple natural resource use and environmental impacts from economic activity. As Professor Dasgupta says, this means asking ourselves difficult questions on what and how we consume and how we manage our waste.

Some resource efficiency measures can bring both resource consumption and emissions down. To give a specific example, designing houses with lighter, low-carbon materials and more efficient use of space can, by 2050, reduce emissions from the construction, operation and deconstruction of homes by up to 40 per cent in the G7 and 70 per cent in China and India.

Decoupling will not happen spontaneously. Governments need to create well-designed and well-funded policy packages – both in the immediate aftermath of the pandemic and longer term. This means proper targets and indicators, national plans for sustainable resource use, and incentives, regulations and investments in the circular economy. It means taking advantage of 'leapfrogging' opportunities in countries or regions that are not yet locked into long-term carbon-intensive infrastructure – new infrastructure should be resilient and work with nature, not against it. And it also means making businesses understand that their future profitability depends on sustainable use of resources.

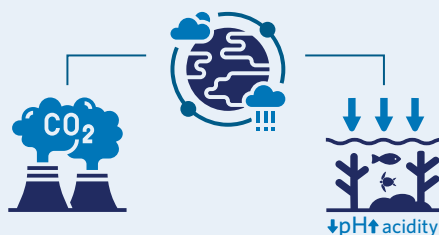
14 LIFE BELOW WATER



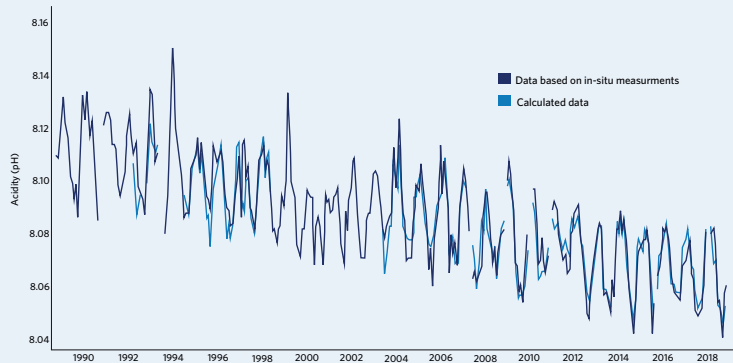
Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Ocean acidification continues to threaten marine environments and ecosystems services

A 100-150% rise in ocean acidity is projected by 2100, affecting half of all marine life

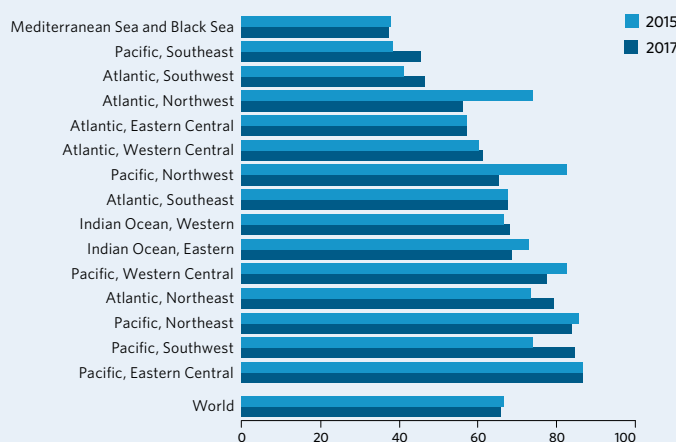


In recent decades, ocean acidification has been occurring 100 times faster than during natural events over the past 55 million years. These rapid chemical changes are an added pressure on marine ecosystems



Source: European Environment Agency. Data originate from the Aloha station pH time series, adapted from Dore, J.E., 2009

Proportion of fish stocks within biologically sustainable levels, by marine region, percentage



Source: Sustainable Development Goals Report 2020

Support to vulnerable sectors in a resource transition

Such moves will inevitably entail phasing out certain industries and sectors, particularly those built around fossil fuels. This is where much of the resistance to change lies. When communities see their job prospects disappearing, they are understandably unlikely to support an economic shift. The UK knows this all too well. The decline of the coal industry in the 1980s led to massive social upheaval and poverty for many towns dependent upon it.

We can look to Vietnam to see what is possible. Solar power was limited there only three years ago. Then the government offered to pay \$93.5 for every megawatt hour produced by big solar farms if they started operations before the end of June 2019. By 2019, investors had pumped in enough money to install capacity of over five gigawatts, or 44 per cent of Southeast Asia's total solar capacity. Hope is now growing that this solar boom will continue, displacing planned coal plants in Vietnam and the wider region – and, of course, providing jobs.

This example clearly shows that governments and the private sector will play a pivotal role in the green transition, with policies and incentives encouraging new opportunities that transform economies. It also shows that change, when it comes, can be lightning quick. Many expect to see even greater movement in the EU. By 2030, the EU is expected to mobilise around €150 billion under the Green Deal's Just Transition Mechanism to help its regions still most reliant on carbon-intensive industries shift to greener options.

We now have the perfect combination of factors to make these kinds of systemic shifts. The pandemic has given us a motivating warning: if we do not change how we live voluntarily, nature will do it for us in a way we will not like. We have never had a better understanding of the problems we face. We have never had more solutions to these problems. We have never had such high levels of public and political support for change. This is our biggest chance yet to shift our economies and societies back into harmony with nature. We must not waste it.●