TRANSCRIPT

Sustainability Myths: Part 2

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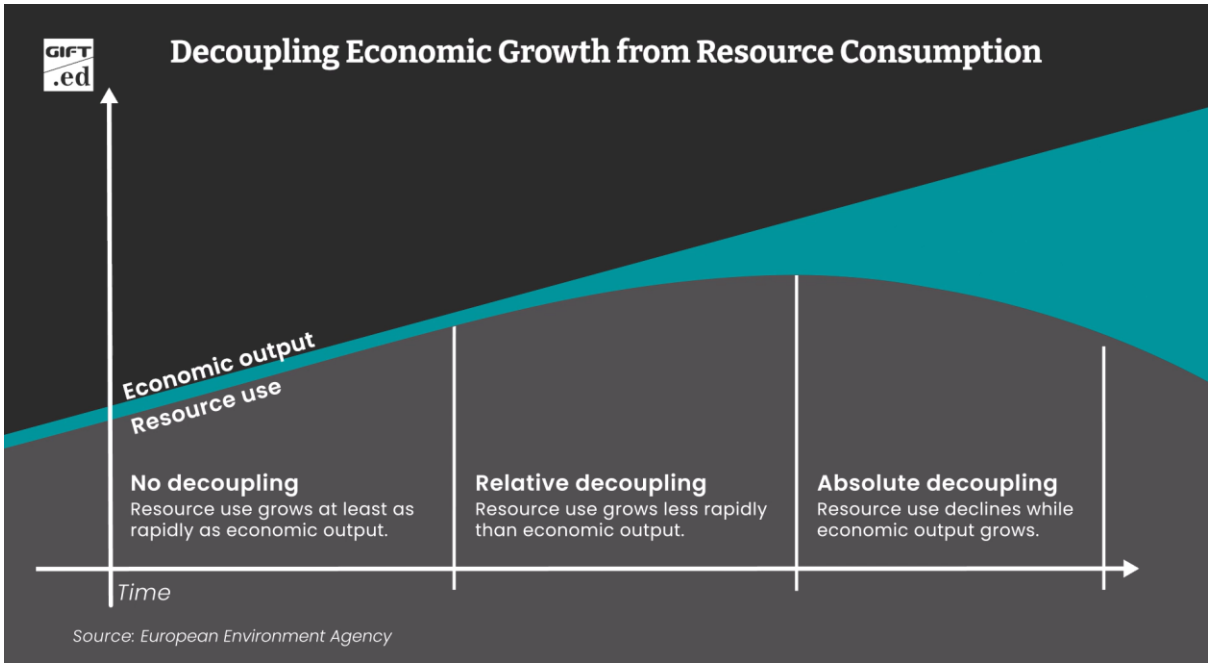
In the last chapter we debunked two big myths of sustainability: the belief in a universal understanding of sustainability; and that consumption-driven growth can ever be sustainable.

In this chapter, we'll explore two more myths, which deal with how solutions to sustainability challenges are envisaged. In particular, that the free market and technology will be the primary levers to solve society's challenges.

Myth 3: The 'Invisible Hand will Solve our Sustainability Problem

The realisation that the 'invisible hand' of the free market and initiatives like environmental, social and governance ESG investing can single-handedly address sustainability challenges is a myth increasingly coming to light.

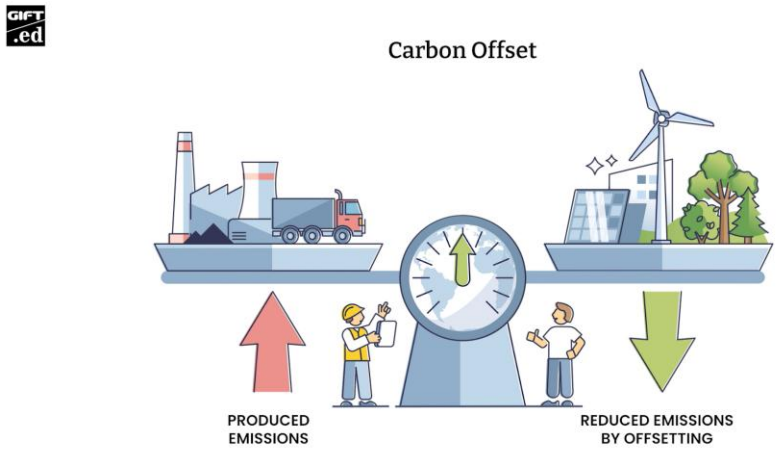
In the last chapter, we established the need to decouple economic growth from resource consumption. Yet, for the most part, markets are not incentivised to do this and instead prioritise short term profit, which can undermine long term sustainability goals.



The assumption that markets and companies will generate effective solutions to society's challenges is based on the invisible hand, which is that in pursuit of profits, businesses will inevitably allocate resources to innovation in the areas of climate change, pollution, access to basic needs and so on.

However, historically speaking, unregulated business activity does not take into account social or environmental externalities, and is consequently a major driver of sustainability challenges. That doesn't mean business is bad, but even if the free market encourages business activity to become more sustainable, it does not address the root causes.

Sustainability has been likened to a public good, which is a service provided to society without profit in mind. Corporations, by their very nature, are not built to do this. Rather, they are built to produce goods and services as cheaply as possible in order to sell more. At a systemic level, the result is that markets are incentivised to disguise the failure to reduce negative outcomes of economic activity by offsetting.



An example of this exists in the carbon trading market, in which carbon offsetting by planting trees or capturing CO2 is used to preserve the status quo. But fundamentally, there is not an economic equivalent between CO2 emissions and offsets. Simply put, there are not enough trees in the world to offset society's carbon, and nor will there ever be, especially if populations in lower-income countries seek to emulate the consumption levels of high-income countries.

The core issue is this, at the moment, it is impossible to make products without also releasing CO2. More generally, it is also impossible to consume goods and services without also depleting our resource base. This is in part due to a social behaviour which is termed the 'tragedy of the commons'. This basically means that a public resource like our air quality, has been abused by governments, businesses and people because no one owns it.

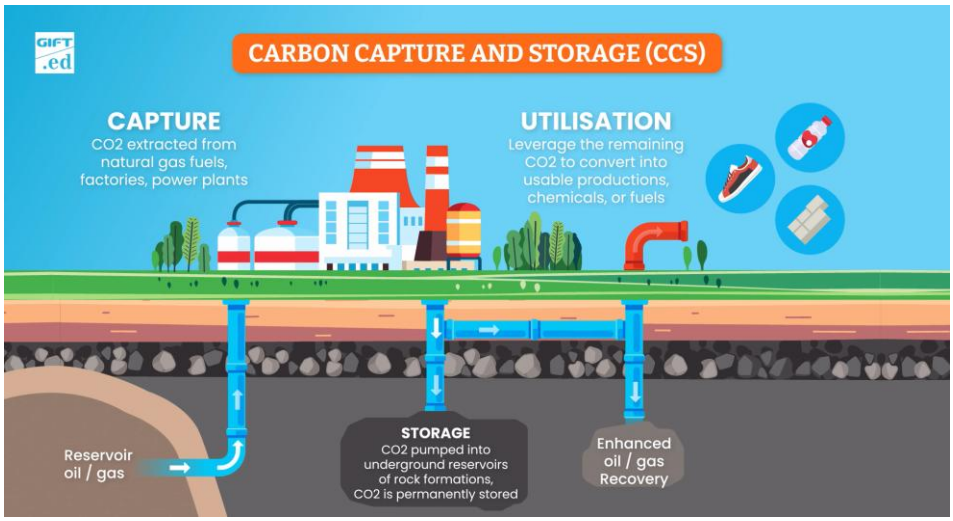
This applies to other resources like fishing and seawater quality. It has also manifested in another tragedy– the 'tragedy of the horizon'. As highlighted in a landmark 2015 speech by the former governor of the bank of England, Mark Carney. The concept was simple. Climate change creates tremendous risks for financial markets, but these mounting risks are ignored by investors due to the market's tendency towards a short term outlook.

This is seen in climate change, but also in other critical sustainability challenges like pollution, biodiversity loss and more. In summary, the fact that markets cannot perform optimally when presented with existential threats is a well-known economic theory. However, this does not mean markets have no role to play in facilitating sustainability. Rather, governments and consumers will eventually have to demand changes that place limits on socially and environmentally destructive economic activity, and markets will respond in kind. Now we'll move on to the final myth that technology can be a cure all for our sustainability challenges.

Myth 4: Technology is the Panacea

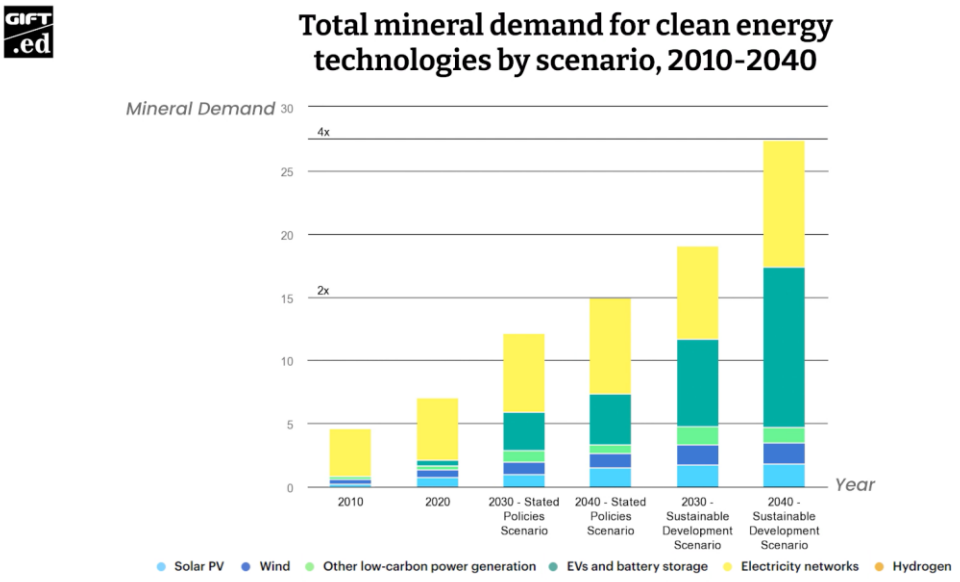
When faced with the realities that there is no universal understanding of sustainability, or that our prevailing economies and markets are not well suited to solving society's challenges, it can be tempting to resort to the belief that advancements in technology will provide the answer. This is the fourth and final myth we'll be exploring together.

The reality is many of the technologies we envisage to help address sustainability challenges do not even exist yet. Or if they do exist, their uptake and impact at scale has been underwhelming at best. Take carbon capture and storage, or CCS. This technology captures carbon as it's produced and stores it. The world's largest direct air capture plant came online in 2022, and it can collect about 4000 tonnes of CO2 a year, about as much CO2 as is emitted globally every 4 seconds.



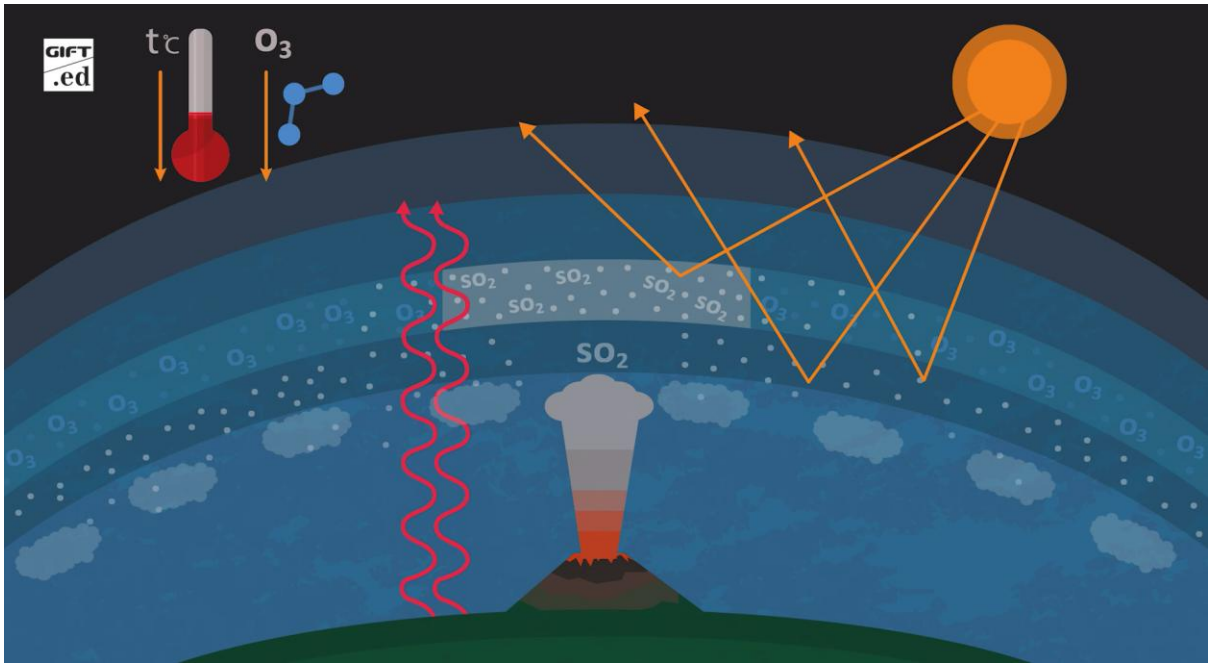
To put things into perspective, we would need almost 8 million of these high tech, high cost facilities to capture all the CO2 we emit on an annual basis. Although CCS and similar technologies can be used to reduce emissions for companies and countries alike, they are also often far too expensive for the global majority and cannot be replicated around the world at sufficient scale and speed to achieve the impact in the time frames needed.

Another example is in the green transformation towards using renewable energy. While this transformation can go a long way towards reducing our reliance on fossil fuels, it's expected that this shift to green technologies will require a 400% to 600% increase in the amount of critical minerals we use today. Needless to say, this would have significant social, environmental and geopolitical implications.



Source: IEA, Total mineral demand for clean energy technologies by scenario, 2010-2040, IEA, Paris

The lack of pragmatic, cost effective and adaptable tech solutions has not stopped the march towards large scale technological solutions like geoengineering, despite their potential for unknown and damaging consequences. For example, in 2022, the US National Academies of Sciences recommended allocating up to 200 million US dollars to explore how light reflecting particles could be injected into the upper atmosphere to reduce the amount of sunshine the Earth receives as a means of cooling down the planet.



The potential consequences of this are unknown and could impact the whole world in ways that are impossible to foresee. Ultimately, while technological innovation remains essential to address sustainability challenges, we cannot put all our eggs in one basket. The perpetuation of the myth that technology is a silver bullet for sustainability makes it easier for public and private sector leadership, as well as the average person, to abdicate responsibility to address existential threats like climate change. This is easier than accepting the reality that government intervention limits consumption and transforming the way we run our economies is the only viable solution.

As we navigate the complex landscape of sustainability, it is essential to recognise and address the myths that can hinder progress towards a more sustainable world. To effectively redesign society, governments, businesses, civil societies and consumers need to look beyond the status quo and challenge beliefs that may be deeply rooted in our collective understanding of sustainability.

In the next and final chapter of this core module, we'll hear again from Professor Jeffrey Sachs, president of the UN Sustainable Development Solutions Network, on how we can start to reimagine sustainability.