



Editorial



Unsustainable Consumption and Production: Case of Easter Island?

Prof. dr. habil. Jurgis K. Staniškis
Editor-in-Chief

Kaunas University of Technology, Institute of Environmental Engineering

The extraordinary growth of global economic activity has no historical precedent. It is almost five times the size compared to half a century ago. The economic growth is supposed to deliver prosperity: higher incomes, richer lives, an improved quality of life for us all. But as the economy expands, so do the resource implications associated with it. In the last quarter of the century the global economy has doubled, while an estimated 60% of the world's ecosystems have been degraded. Nevertheless, there are two billion people who still live on less than 2 USD per day. What will happen if all of them try to aspire to the level of affluence achieved in the OECD countries? A world in which things simply go as usual will need to be 15 times the size of this one by 2050 and 40 times bigger by the end of the century. How will such economy look like? Will it really offer a credible vision for a shared and lasting prosperity?

The conventional response of the modern capitalist economies to the dilemma of growth is “decoupling”: continual economic growth declining material throughput. Evidence for relative declining resource intensities is relatively easy to identify. For instance, the energy required to produce a unit of economic output declined by a third in the last thirty years. At the same time evidence for overall (absolute) reductions in resource throughput is much harder to find. For instance, the improvements in energy and carbon intensity mentioned above were offset by increases in the scale of economic activity over the same period. Global carbon emissions from energy use have increased by 40% since 1990. Worryingly, in some cases, even relative decoupling is not happening. Resource in the use of some structural materials has been declining globally since 2000, as the emerging economies build up physical infrastructures, leading to accelerating resource throughput.

At the same time, the profit motive stimulates a continual search by producers for newer, better and cheaper products and services. This so called process of “creative destruction” is what drives economic growth forward. But the continual production of novelty would be of little value to firms if there is no market for the consumption of novelty in households. The restless desire of the consumer is the perfect complement for the restless innovation of the entrepreneur. Taken together these two self-reinforcing processes are exactly what is needed to drive growth forwards. The “iron cage of consumerism” is a system in which no one is free. It is an anxious and ultimately pathological system which remains economically (not environmentally) viable as long as liquidity is preserved and consumption rises. It collapses when either of these stalls.

Human beings are often accused of repeating their errors and not learning from their mistakes. Recently, just one week ago, on my way back from the Easter Island I was reflecting on possible lessons from the island's past, that could serve as a case study of how not to manage resources, growth and population.

The island where the first settlers arrived sometime between 600 and 900 AD was very different from the island I saw today. It was something of a Polynesian paradise: up to 70% of its surface covered with palm trees and edible plants, as well as an abundance of seabirds and fish. Those first years have been dedicated to exploring the island for everything that it offered, and planting the crops that settlers had brought with them, as well as dedicating themselves to increasing the animal and human population on the island. Ancestor worship was common throughout Polynesia, with the idea that an important person's mana or spiritual power, continued

to be valid and able to affect the outcome of events after their death. On the island, when a chief or important member of a tribe died, a statue (moai) was commissioned from the quarry and transported across the island back to his village, where it would be erected in such a way as to overlook the village and his descendants.

As the islanders became more proficient in the art of carving and transporting, stone statues of the moai began to increase. The earliest statues tend to be small and rather crudely carved while the later ones are larger and more stylized, with the largest moai being found still in the quarry, unfinished from when the moai carving period came to its end. This is a testament to how central these figures were to islanders, and how their life revolved around these creations. It has been suggested that their isolation from all other people fueled this outlet of trade and creativity – lacking any other significant way to direct their skills and resources.

However, as the population and activities grew, so did pressures on the island's environment. Deforestation of the island's trees gradually increased, and as this main resource was depleted, the islanders found it hard to continue making rope, canoes, and all the necessities to hunt and fish, and ultimately, support the culture that produced the giant stone figureheads. Apparently, the lack of the resources on the island caused inter-tribal wars, which led to clans attacking each other in search of supplies, destroying their enemy's moai. Given that a village's moai had been set up in order to offer those villagers mana and protection, it makes perfect sense for an enemy tribe to want to overthrow them, much in the same way as invading countries topple the statues of former dictators today. By throwing them overboard, as was normally the case, the statues' faces, and particularly their eyes, were buried and no longer visible, therefore negating any power that the moai might have still possessed. By the end of the glory of the Easter Island culture, the population had crashed in numbers, and the residents – with little food or other ways to obtain sustenance – resorted to cannibalism and a bare subsistence. Subsequent raids by powers such as Peru and Bolivia devastated the population even more including wise men who could still read and write Rongo Rongo tablets, the real remaining mystery on Easter Island. International outcry soon followed, but it was too late: just 111 people remained on the totally and forever ecologically devastated island (having been at perhaps 14 000 or more during the peak of moai period).

Final thought: when the islanders set up their large moai on top of platforms 1 000 years ago, it was partly with the intention of obtaining favours from the gods and being provided with success, security and wealth. It seems that our intention based on unsustainable consumption and production has the same goals for the whole planet. Do we ever think about a possible end of the story?

The model of the modern economy is based on the growth imperative. As we see, this model was always unstable ecologically; it has now proven itself unstable economically as well. It was systematic, sanctioned widely and with one clear aim in mind: the continuation and protection of economic growth. "The failure of this strategy is disastrous in all sorts of way. Not least for the impacts that it is having across the world, in particular in poorer communities. But the idea that growth can deliver us from the crisis is also deeply problematic. Responses which aim to restore the status quo, even if they succeed in the short term, simply return us to a condition of financial and ecological unsustainability" (Tim Jackson, *Prosperity without growth?* Report. March, 2009).

Main issues of the development strategies will be discussed at the second international conference "Sustainable Consumption and Production: How to Make it Possible?" on 29-30 of September, 2011 at Kaunas University of Technology. The conference is organized to mark the 20th anniversary of the Institute of Environmental Engineering.