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# **“We Need to Discuss Degrowth”: Alternative Economics Education as Key for Meeting the Sustainable Development Goals**

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**UNIVERSITY OF BERGEN**

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**To achieve meaningful progress toward sustainability, we need to shift perspectives from economic growth to degrowth through radical socio-economic educational reform. We illustrate how the nexus of SDG 4 (inclusive education) and SDG 8 (economic growth) can inform both SDG 13 (climate action) and SDG 14 (life below water) to address challenges with growth.**

### 3 key points

- Despite over half a century of rigorous evidence supporting the catastrophic threats of anthropogenic climate change, little to no emphasis has emerged within the realm of economic scholarship to address these challenges.
- Cascading environmental impacts on the ocean threaten essential ecosystem functions supporting life. Yet pressures from over-exploitation continue to rise as we seek to further intensify extractive practices in the ocean.
- Radical changes are needed, especially at the educational level, including curriculum on economic reform, degrowth principles and sustainable skills training, to instigate and inform much needed policy reform.

### Introduction

The coronavirus pandemic has reminded the world about the perils of exponential growth. In light of this heightened awareness, this policy brief examines a key contradiction at the heart of the sustainable development goals (SDGs); that of aiming for infinite economic growth within a finite planet. This brief details how the available evidence calls into question the prevailing 'green growth' paradigm. Instead, it argues that it is time to seriously consider an alternative 'degrowth' approach. For this, it is vital that higher education institutions adopt a pluralistic approach to research and teaching about alternative economic models that do not rely on continuous economic growth.

The power of exponential function lies in how it results in compounding growth that quickly leads to gigantic numbers. Whilst it may not sound like much, just a 3% growth rate means that the size of the world's economy will double in just twenty years. In just a hundred years this seemingly small growth rate leads to a five-fold doubling in the size of the economy. So, it becomes 2, then 4, then 8, then 16, then 32!!! times larger than it was to begin with (see figure 1). The evidence is clear that our economic system is already trampling over ecological thresholds - accelerating the worsening climate crisis and biodiversity collapse, undermining the ecosystems that sustain us (IPCC 2018, IPBES 2019). Now imagine the impact of an economy 32 times as large in just a century's time - yet this is currently the aim of all world governments and the SDGs! (Hickel 2019).

The pursuit of endless economic growth makes the transition to a sustainable future next to impossible to achieve, so fundamental questions need to be asked about our existing economic structures and what alternatives might look like. This is a crucial task for higher education institutions in the 21st century. Goal 4.7 of the SDGs calls for the world to "ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development [ESD]" (UN, 2015). Here, we set out why a pluralist approach to economic ESD teaching, which explores degrowth scenarios, is crucial if future policy makers are to have the necessary skills and training to dismantle the current destructive economic system and build a sustainable alternative.

### Analysis

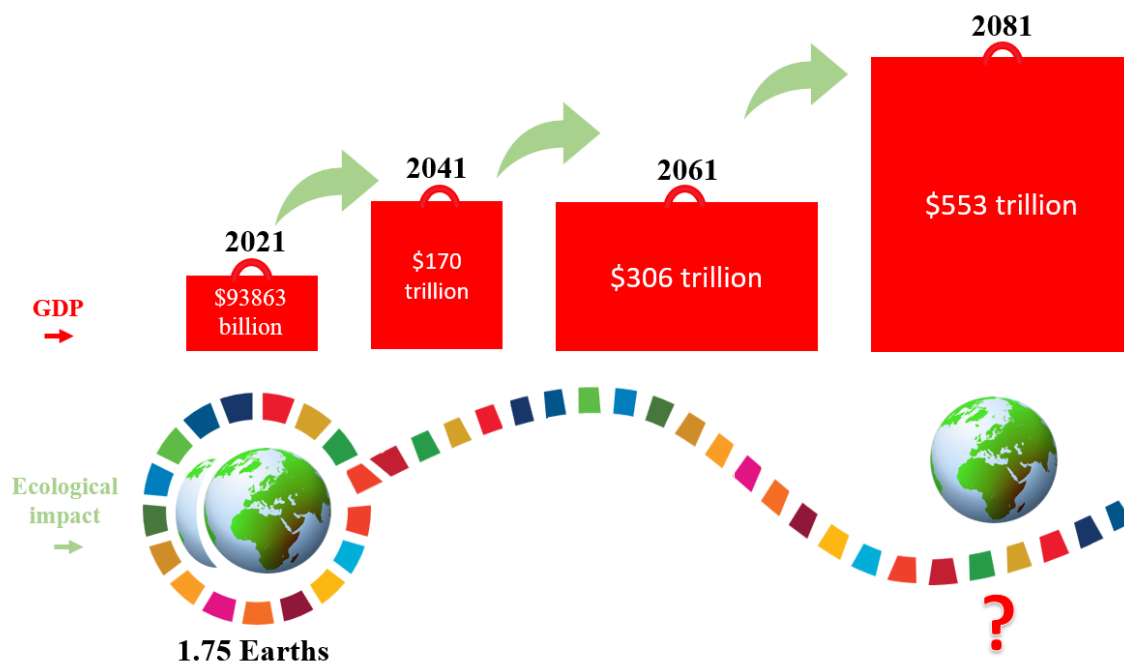
SDG 8 seeks to "Promote sustained, inclusive and sustainable economic growth and the other goals". The incongruity between "sustained growth" and transitioning to a "sustainable" economic system is never acknowledged. Attempts to reconcile this contradiction usually rely on the rhetoric of "green growth", the notion that we will be able to totally decouple environmental impacts from economic growth. However, the academic literature is increasingly clear that such a decoupling is not occurring. The environmental impact of growth may actually be intensifying (this literature is reviewed by Hickel and Kallis, 2020, see also Parrique et al 2019). For instance, environmental scientists have estimated a sustainable material throughput of the global economy at 50 billion tons per year. Yet we are already exceeding this by 70% and material demand is continuing to increase by 3.85% per year.

We now illustrate why the inclusion of SDG 8 makes achieving other goals much harder if not impossible, using SDG 13 (climate action) and SDG 14 (life below water) as examples.

**SDG 13 focus:** A key insight of climate science has been that we can define a carbon budget associated with any given temperature target. The remaining budget for 1.5°C is incredibly tight - we now require an extremely high rate of decoupling of carbon emissions from economic growth if we are not to exceed it. The rates of deployment of low-carbon energy sources must be extremely large, if they are to not only displace or offset existing fossil fuel supply, but also to meet the huge increase in demand that continued economic growth requires. Such scenarios are increasingly seen as impossible to achieve, putting our climate targets out of reach. However, approaches that focus on reducing energy demand and the deliberate degrowth of developed economies would allow for much more plausible rates of clean energy deployment (Keyßer & Lenzen, 2021).

**SDG 14 Focus:** While the FAO (2020) predicts that approximately 65% of fish are sustainably caught, around 60% of these are fished to 'maximum sustainable levels', leaving little room for expansion. Despite this, fisheries are frequently hailed as a solution to global food inequalities and 'Blue growth'. As it currently stands, around 32.4% of fish are caught at unsustainable levels, and this is also thought to be on the rise. IPBES (2019) cautions that targets toward maximum sustainable yield may also lead to overexploitation, particularly for less productive (or bycatch) species. Marine ecosystems are threatened by rising temperatures, increasing acidification, habitat loss, and infrastructure development to name just a few. These combined threats, knowledge gaps, and a growing dependence on the 'Blue economy' increase the strain on the marine environment and threaten our ability to meet current sustainability targets.

**SDG 4 Focus:** Transitioning to a sustainable world economy will require that policy makers and business leaders are trained in alternative theories of economic development, are flexible in the models that they choose to work with, and not overly constrained to neoclassical economic thought. Unfortunately, the curricula of higher education institutions are still wedded to the dogma of economic growth, limiting the next generation of students in range of the ideas they need to build a sustainable future. Within the field of economics, we find a complete blind spot whereby the papers published in the top economics and finance journals still barely even address the globally unfolding crisis (see table 1). As Oswald and Stern (2019) state "If one looks at the main academic journals of economics, it is hard to avoid the view that economists are letting down the world".



**Figure 1. Projected growth of Global GDP and ecological impact.** Considering a growth of 3%, the 2021 global GDP will double by 2045. The Global Footprint Network (2019) currently estimates that the consumption of resources is overshooting nature's ability to regenerate at a rate of 1.75, meaning we are using the resources of 1.75 Earths. The impact of continued growth in GDP on the environment is as yet unquantifiable. 2021 GDP, Statista (2021)

Demands for change are emerging from the current generation of students, who are leading attempts to address this lack through grassroots advocacy groups (Rethinking Economics (2021) and Reteaching Economics), who have been working with the Quality Assurance Agency in the UK to redefine what an economics graduate should know and lobbying departments to embrace reform of economics education. They have done this by creating a database of opportunities for better economics education at undergraduate and postgraduate levels. Internationally there has been a call by 65 associations of economics students from over 30 different countries for a more pluralistic approach to teaching economics considering 21st century challenges (ISIPE 2014).

**Table 1** - Evidence of the absence of serious engagement with the ecological crises in the academic fields of economics, finance and business

Journal Type	Topic	Number of papers
Economics*	Climate change	57 out of 77,000
Finance**	Climate change	12 out of 20,725
Business & Finance***	Biodiversity loss	11 out of 47,000

\*Oswald & Stern (2019) - all papers published in the top nine economics journals.

\*\* Diaz-Rainey et al. (2017) - all papers in 21 finance journals over the period from 1998 - 2015.

\*\*\*Goodall & Oswald (2019) - all papers in 50 business & finance journals from 2000-2019.

## Conclusions

We have shown that progress towards the SDGs is being hampered by a core contradiction in the goals themselves, namely the continued focus on economic growth. Transitions to low-carbon energy sources are not occurring fast enough, and globally we are not seeing an absolute decoupling of carbon emissions from growth. Marine ecosystems face numerous threats and are additionally threatened by goals which seek to continue and expand exploitation. At the root of the many manifestations of the environmental crisis is an inability to question the core economic ideology of our times. The requirement for endless expansion in pursuit of GDP growth, this ultimately eats away at any environmental improvements we can bring about through other policies. It's urgent that policy makers are taught about alternative economic models and we suggest a fundamental reform in economics education is now required to pave a path toward an environmentally sustainable future

## Recommendations

- Follow examples from 'Rethinking Economics' and 'Reteaching Economics' groups, lobby for and establish networks within educational institutions focussed on curriculum reform and the discussion of alternative economic systems.
- Develop international partnerships focussed on sharing best practice on alternative economics teaching and its role in education for sustainable development.
- Efforts should be made by higher education institutions to promote life-long learning about alternative economic models that allow for degrowth, special attention should be made to communicate these ideas to policy makers, leaders in business and finance and civil society.

## IMPRINT

SDG Bergen Science Advice in collaboration with Bergen Summer Research School's 2021 PhD course holders professor Birgit Kopainsky, Dr. Hiwa Målen and Dr. Ingunn Johanne Ness.

### Relevance to the 2030 Agenda

A nexus of SDG 4 (inclusive education) and SDG 8 (economic growth) can inform both SDG 13 (climate action) and 14 (life below water) to address challenges with *growth*.

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