An aerial photograph of a deep, layered canyon. The rock walls show distinct horizontal strata in various shades of red, orange, and brown. A winding dirt road curves through the lower right portion of the canyon, with a few small vehicles visible on it. The overall scene is dramatic and rugged.

CHALLENGING GREEN GROWTH

BY JAN CAMENISCH

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Introduction

In 2015 all UN member states adopted the UN's 2030 Agenda for Sustainable Development. The core of this Agenda are the sustainable development goals (SDG's). It includes 17 goals with specific targets. The 8th UN sustainable development goal (SDG 8) aims for sustainable economic growth and targets the development of fair and human worthy employment. In this text I want to focus on the first part of this goal, the sustainable economic growth. Specifically, this focuses on the targets 8.1, a minimum of 7 per cent growth of the gross domestic product (GDP), and 8.4, increase progressively global resource efficiency in consumption and production. With this framework we can see that SDG 8 targets green growth.

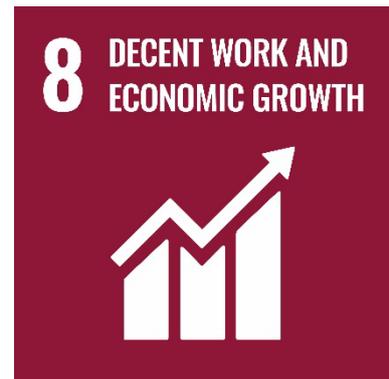
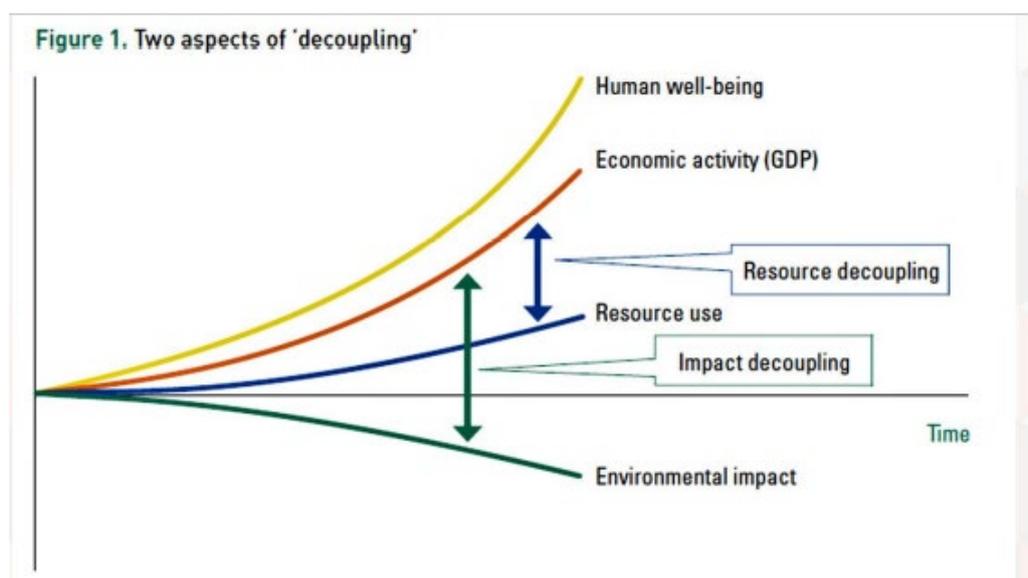


Figure a SDG 8 Decent Work and economic growth (Public Domain)

Green growth is an idea that is present in most strategies in the fight against climate change. The goal of this text is not only to challenge the SDG's insistence on growth but also to encourage the reader to explore a variety of ideas and theories in their opinion making. I want to establish a definition for Green Growth and Decoupling, afterwards I want to examine some Challenges of Green Growth (Using the example of solar panels) and finally I will present the Debunking Decoupling Report by EEB as an example of research critical against green growth.

Green Growth and Decoupling

First, we should define what is meant by green growth. Green growth focuses on environmentally sustainable economic growth. The term decoupling is usually used in discussions about green growth. It is also mentioned in the target 8.4 of the SDG 8. Decoupling is the separation of economic growth and the usage of resources (resource decoupling) or environmental impact (impact decoupling). It can be divided into relative decoupling, which would lower the material use or environmental impact in comparison to economic growth and absolute decoupling, which would mean that the economy can grow without the usage of resources or without environmental impact. Decoupling is imperative for green growth because it is the only way to grow the economy more sustainable



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So how can we achieve this decoupling-effect? Things that come to mind are transitioning to renewable energy, developing more durable products that don't need to be replaced quickly and exploring the possibilities of a circular economy model. The goal of this text is not to discredit any of those ideas. I support all these measures and think we should aim for more policies, which would enhance the research necessary and target faster implementation of required technologies and laws. The goal of this text is to give a more nuanced opinion on the challenges of green growth and to motivate people to create their own opinions on green growth with more background knowledge. I admit that there are social components to economic growth which are positive and that a lot of countries still depend on economic growth to establish a higher quality of life for their citizens because of that I specifically want to criticise green growth in already developed countries and want to note that green growth should be used in developing countries to raise the quality of life to a certain point.

Decoupling in practice

Let us examine firstly the probably most prominent topic in the fight against climate change: The transition from fossil fuels to renewable energy. Fossil-fuel-dependency is definitely a topic which has arrived in the political mainstream and a net-zero-emissions target is nowadays mandatory in every reputable strategy against human caused climate change and we are taking without a doubt steps into the right direction in that regard.



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For example, Switzerland has almost doubled its solar energy production from the year 2015 to the year 2019 (Bundesamt für Statistik, 2019, S. 48). What we need to consider is that climate isn't the only factor that we should focus on. Solar panels, as used in my example, and the batteries required for saving the energy are built with a lot of rare materials. The mining of these materials can have immense toxicological impacts on the environment (Rollet, 2019). This does not only hurt the life in water (SDG 14) but also the life on land (SDG 15). With the current expansion of solar power we will



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have to enhance the volume of mining significantly and with the incentive of long term economic growth we probably be dependent on mining in the foreseeable future. We could add at this point the fact that, at least in the status quo, workers in those mines are not sufficiently protected from the toxicity and usually are not compensated fairly (Meyer, Guguen, Pantland, 2019). An argument against that point would be that the Sustainable development goals try to protect those workers, but we won't be able to change those conditions over night. So, we will probably enhance this exploitation (at least in the short-term) with the necessity for more of those rare materials. So the economic growth pursuit in SDG 8 is built on the back of unfair employment (SDG 8 wants to develop fair employment). Furthermore, I want to mention at this point in the text that the usage of GDP growth is alarming, even if GDP is used as an indicator by most countries. But GDP was never meant to measure societal welfare. GDP is a monetary measurement which is incapable to account for inequality, mental and physical health and the overall well being of a society (Partington, 2019). GDP

growth is not fit to measure growth which should enhance the wellbeing of the most vulnerable people on earth.

Further we must admit that a grand transition to solar panels is not a definite solution. Solar panels have a life span of 30 years and users of solar panels are incentivised to replace their panels before the end of their life cycle for more efficient panels (Atasu, Duran, Van Wassenhove, 2021). Solar panels also get more affordable every year. All these factors will lead to a wave of solar trash. It currently costs 20 to 30 USD to recycle one solar panel. Disposing it in a landfill costs 1 to 2 USD. I must admit that there is the potential for an increase of efficiency in this recycling process. But it is also not valid to disregard the immense threat of landfills filled with solar panels because of a potential increase in efficiency. This threat also extends to other important technologies for green growth such as blades of wind turbines or batteries of electrical vehicles.

We depend on the transition to renewable energy and the problems we will face with these energy sources are inevitable. The important takeaway in this section is that green growth will worsen these impacts because of its growing demands for energy. Jason Hickel (2020) states that even after a full transition the global stock of solar panels, wind turbines and batteries would need to double every thirty or forty years to meet the growing energy demands set by economic growth. This is a frightening estimate if we look at the ecological costs that it would bring with it.



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Decoupling debunked

A report by the European Environmental Bureau (EEB) released in 2019 states that most of the decoupling they recorded was relative. They mentioned that the absolute decoupling that they reviewed was only in a short period of time and usually only concern specific resources or impacts in specific locations. In their findings they write that there is currently no empirical evidence for fast enough, global, permanent decoupling. They list seven reasons for this:

1. Rising energy expenditures
2. Rebound effects
3. Problem shifting
4. The underestimated impact of services
5. Limited potential of recycling
6. Insufficient and inappropriate technological change
7. Cost shifting

Further they state that the situation will may require downscaling of economic production and consumption. Examining all the points made in the paper would not only blow up the frame of this text, but it would also be not aligned with the reason I write this text. There are probably enough



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economists working on debunking “decoupling debunked” and there are already enough people arguing that the report is politically bias. More important to my text is this statement made in the report: “From this perspective, it appears urgent for policy-makers to pay more attention to and support the developing diversity of alternatives to green growth.” It is notable in this section of the text, that EEB is not alone in this line of thinking.

Halliki Kreinin and Ernest Aigner (2021) analyse the specific targets of SDG 8 and propose indicators which are necessary to measure our progress towards the 2030 Agendas goals. Some of the focuses of these indicators land on sustainable welfare in line with the earths carrying capacity, how dependent households are on economic growth (this could show degrow possibilities in certain areas in the world), material and energy use footprints of the economy and other factors as well. They state that they don't think these goals are the solution but want to use it as a starting point for further discussions. A discussion that is urgent in their opinion because they conclude that SDG 8 leads to not only unsustainable but also unjust outcomes. Jason Hickel (2019) proposed that the imperative growth set in SDG 8 should be removed and resource use per capita should be observed to reduce the resource consumption.

Conclusion

Even if we don't think "Decoupling debunked" is right in their interpretations and reasoning, we should still try to use the thought process behind it and other alternative growth research to challenge the status quo in modern climate politics. We should admit that the SDG's are steps in the right directions, but I hope that you can admit that we shouldn't let these goals stay intellectually unchallenged. This moment in time has the possibility for political, economic and social change and these opportunities should be explored. My goal is that I was able to awake your curiosity and that this text will encourage you to inform yourself more about growth alternatives. Furthermore, I want to encourage the reader to read studies and books for the fight against climate change outside their own field. We are facing a holistic problem which cannot be answered with one field of expertise and we need to understand the ecological, social and economic facets of the problem.

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