GREEN GROWTH OR DEGROWTH: TWO OPPOSING PATHS TO ENVIRONMENTAL SUSTAINABILITY

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In the wake of worsening climate change, environmental sustainability is more important than ever if we wish to mitigate disaster and preserve our way of life. This paper will compare two methods of achieving environmental sustainability. The first is green growth, which attempts to replace non-renewable natural resources with renewable ones, and increase efficiency, while continuing to let the economy grow as usual. The second is degrowth, which advocates for a radical restructuring of society, and accepts a decrease in economic growth as a necessary consequence. The comparison will show that green growth is not good enough, because the mass consumption that results from endless economic growth is partly what drove greenhouse gas levels to what they are today. A drastic change in consumption patterns is needed to deal with climate change, and degrowth seems more likely to achieve this.

As climate change continues to threaten the environment and our way of life, we must take a critical look at how we live our lives and whether our current measure of success is compatible with preserving our habitat. The relationship between economic growth and environmental sustainability matters because environmental sustainability is more important than ever for mitigating the effects of climate change. According to the 2018 report by the Intergovernmental Panel on Climate Change (IPCC) on the impacts of global warming, the global mean surface temperature (GMST) has risen by about 1°C over pre-industrial levels due to human activity.[1] At this rate, we will likely reach 1.5°C of warming between 2030 and

[1] IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. In Press.

2052.[2] This implies long-lasting or irreversible impact on nature and human life, such as extreme heat in many inhabited areas, higher instances of heavy precipitation and droughts, and a rise in sea level between 0.26 and 0.77 metres by 2100.[3] The report stresses that these impacts will be far worse if we let the GMST rise to 2°C and beyond. It therefore urges policymakers to make efforts to reduce CO_2 emissions by 45% of 2010 levels by 2030, reaching net-zero by 2050.[4] The current pathway outlined by the Paris agreement for 2030 is not enough to cap the temperature rise at 1.5°C, so more drastic changes in how we handle land, infrastructure, energy and industrial systems are needed.[5]

This essay will examine two opposing solutions to climate change in ecological economics, green growth and degrowth. After evaluating the feasibility of each solution and addressing their criticisms, degrowth will be taken as the better path forward.

RELEVANT CONCEPTS AND DEFINITIONS

The size of a country's economy is usually measured by its gross domestic product (GDP), or the value of all goods and services that country produced in one year.[6] Therefore, economic growth occurs when GDP increases. It also determines a country's standard of living.[7] Environmental sustainability is the practice of not using renewable resources faster than they can be regenerated by ecosystems.[8] It requires a transition away from non-renewable resources and reducing the impact of pollutants to avoid damaging the ecosystem.[9] Closely related is the concept of sustainable development, which aims to alleviate poverty while also preserving the environment for future generations.[10] Economic growth contributes to climate change because it currently depends heavily on the production and consumption of fossil fuels, as well as promoting a culture in which everything is disposable, and where the exploitation of natural resources is merely collateral damage.

SOLUTION 1: HAVE YOUR ECONOMIC GROWTH AND GREEN IT TOO

Green growth is a popular solution for climate change in political and academic discourse.[11] Supporters of this view in ecological economics see market failures as

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[2] IPCC, 2018: Summary for Policymakers.
[3]Ibid.
[4]Ibid.
[5]Ibid.
[6]OpenStax, 19.5 How Well GDP Measures the Well-Being of Society. OpenStax CNX. Oct 3, 2018 http://cnx.org/contents/bf615922-e33d-4b8b-ab49-7096b67d132d@10.
[7]Ibid.
[8]Eric Mintz, Osvaldo Croci, and David Close. *Politics, Power and the Common Good: an Introduction to Political Science* (Toronto: Pearson, 2019), 493.
[9]Mintz, Croci, and Close, *Politics, Power and the Common Good,* 493.
[10]Ibid.
[11]Maria Sandberg, Kristian Klockars, and Kristoffer Wilén. "Green Growth or Degrowth? Assessing the Normative Justifications for Environmental Sustainability and Economic Growth

a reason for environmental degradation and propose the decoupling (i.e. separation) of economic growth from the use of natural resources.[12] That is, GDP continues to rise while the use of natural resources decreases, and technological innovations are made to increase the efficiency and use of renewable resources.[13] There is no substantial change in patterns and levels of consumption.[14]

In his book *Greening the Global Economy*, economist Robert Pollin details a plan for achieving the IPCC's global emissions reduction target of 20 billion tons within 20 years (2.3 tons per capita).[15] The main idea is for most countries to invest between 1.5 and 2% of their annual GDP in energy efficiency and clean renewable energy, while also reducing their use of coal, oil and natural gas by 35%.[16] He argues that economic growth will be healthily maintained, because their investments will reduce energy costs while also expanding job opportunities.[17] According to his research, "clean energy investment projects consistently generate more jobs for a given amount of spending than maintaining or expanding a country's existing fossil fuel energy infrastructure."[18]

Some have criticized green growth because they view economic growth as fundamentally incompatible with environmental sustainability. Although proponents of green growth claim to have the normative ideal of preserving the environment, this vision in practice still prioritizes the economy.[19] There is an argument that economic growth is an extension of consumerism, and that its main goal is to produce more and more consumer goods, while also requiring fossil fuels to achieve this. The divide between rich and poor is also considered an inevitable consequence of this goal. In the last 20 years, no decoupling has been achieved in developed countries, and achieving this would require at least ten times the improvements in efficiency than we've ever seen in the past.[20] One possible reason is the tendency for a rebound effect: when efficiency improves and prices go down, consumption goes up.[21] Therefore, green growth is unlikely to preserve the environment enough, and if it does, it will not happen fast enough.[22] It also appears

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through Critical Social Theory." Journal of Cleaner Production 206 (January 2019): 133–41. doi:10.1016/j.jclepro.2018.09.175.

[12]Ibid.

[13]Ibid.

[14]Ibid.

[15]Robert Pollin. "Introduction: The Global Green Energy Challenge," ch. 1 in *Greening the Global Economy* (Cambridge, MA: MIT Press, 2015).

[16]Pollin. "Introduction: The Global Green Energy Challenge," ch. 1.

[17]Ibid.

[18]Ibid.

[19]Sandberg et al., *Green growth or degrowth?*

[20]Ibid.

[21]Giorgos Kallis. 2011. "In Defence of Degrowth." Ecological Economics 70 (5): 873–80. doi:10.1016/j.ecolecon.2010.12.007.

[22]Sandberg et al., *Green growth or degrowth?*

to have a conflict of interest in preserving the status quo (with some changes) over preserving the environment.
This critical look at capitalism and economic growth as a driving force for our society suggests a more radical alternative to fighting climate change: degrowth.

SOLUTION 2: DISMANTLE THE SYSTEM

Both a social movement and an academic field, degrowth can be defined as a "socially sustainable process of downscaling […] material production and consumption."[23] As opposed to green growth, it is based on prioritizing sufficiency over efficiency, and accepts a decrease in GDP as a consequence (but not a goal) of achieving environmental sustainability.[24] It also argues that prioritizing GDP makes it more difficult to implement environmental policies, since any of these policies must still allow for economic growth.[25] Degrowth has three main goals: reduce the environmental impact of human activities, redistribute wealth, and switch to a more communal society.[26]

The first goal is achieved by reducing the consumption of energy, promoting local production and consumption, and changing consumption patterns.[27] This latter requirement is the opposite of green growth, which does not seek to change anything about consumption beyond the types of resources used to fuel it. The two other goals reflect its vision as a social movement that seeks to break free from what it perceives as pitfalls of capitalism and Western individualism, which also contribute to environmental degradation. Degrowth lacks the policy support that is given to green growth, but its potential can be shown by studying the impact of reducing consumption in developed countries. [28] For example, a 2016 study found that the carbon footprint of households could be reduced by one quarter or more by making changes such as reducing car use and adopting plant-based diets.[29] If this change could be applied globally (and to a larger extent), there would be a dramatic reduction in greenhouse gas emissions, and it may be achieved faster than via the blueprint of green growth.

Critics of degrowth have said that it cannot achieve climate stabilization because decreasing GDP would only have a marginal effect on CO_2 emissions. For example, Pollin estimates that a 10% reduction in GDP alone would only reduce emissions by 10% in 20 years, which is far from the IPCC's target of 40%.[30] Even if degrowth was established, investments in energy efficiency and renewable energy would

[23]Sandberg et al., *Green growth or degrowth?*
[24]Ibid.
[25]Ibid.
[26]Ibid.
[27]Ibid.
[28]Ibid.
[29]Ibid.
[30]Pollin, *Greening the Global Economy*, 108.

have to account for most of the emissions reduction.[31] He also believes that the enormous job losses that would occur under degrowth are unacceptable if a good standard of living is to be maintained.[32]

This criticism misunderstands the objective of degrowth by reducing it to a contraction of GDP. There is a difference between a goal and an inevitable consequence, and the impact of degrowth on GDP is the latter. Furthermore, degrowth is not the same thing as negative GDP growth, otherwise known as a recession or depression, which both cause massive unemployment and financial insecurity.[33] Not only does the definition of degrowth require sustainability, but its hypothesis is that economic degrowth can be made sustainable by changing the institutions and systems that govern us.[34]

Discussion

Comparing the two solutions, degrowth appears to be the more favourable one for effecting significant reduction in greenhouse gas emissions. Pollin's estimate that 10% of GDP reduction is equivalent to 10% fewer emissions (and is therefore insufficient) is a rather short-sighted indictment, because it does not consider the possibility, in line with his arithmetic, of a 40% GDP reduction to achieve 40% fewer emissions (the IPCC's target). This is probably because in a capitalist system, such a reduction would result in major economic instability. But this shows that the real problem is not in reducing GDP, but in our society's dependence on a system that is environmentally unsustainable.

There is also no reason to assume that energy efficiency and clean renewable energy cannot be pursued without a growing economy. If we can shift our measure of success away from the accumulation of wealth and power and move it toward a collective goal of improving human (and non-human) life, the predicted loss of jobs would not be an issue. Instead of a decoupling of GDP and nonrenewable natural resources, degrowth proposes a decoupling of society from capital. It is not yet clear what this would precisely look like, but that does not mean it should not be considered. Sustainable degrowth policies vary among proponents, but they include a shift toward more co-operative living, exchange systems that do not involve money, a 21-hour work week, basic income, an emphasis on local economies, redistribution of wealth, expansion of public services and taxing environmental damage.[35]

[31]Ibid, 108.
[32]Ibid, 109.
[33]Kallis, *In defense of degrowth.*
[34]Ibid.
[35]Kallis, *In defense of degrowth.*

It is also worth mentioning that a planned economy that drastically restructured the United States has worked in the past during the Second World War.[36] Consumerism was eschewed to maintain the war effort, and frugality became the social ideal.[37] If that scale of collective action in such an important economic powerhouse can be achieved to fight off fascism, it can happen again to fight off the threat of climate change. Because climate change is a much less straightforward "enemy" than Nazi Germany, another challenge is to convince the public and those in power that it is an equally, if not more, important crisis. This can be achieved in various ways, such as changing the current narrative in the media that understates the severity of the problem and encouraging more activism and grassroots movements to spread awareness. This second course of action is already happening, with an exponential increase in climate change protests around the world, partially inspired by Greta Thunberg's harsh but justified criticism of the failure of world leaders in addressing the issue. If this momentum can be sustained, there is hope that systemic change can happen, and a massive upheaval of how society believes one should live their life can be undertaken.

CONCLUSION

Although green growth is a tempting way for capitalists to hang onto their system, it does not seem to be a viable solution for climate change. The failure to decouple GDP growth from natural resource use in the last 20 years reveals how deeply entrenched this system is in our society. Rather than appealing to climate stabilization as a means to preserve the current system, a great restructuring of how this world functions is the way forward. Climate change is a global emergency, and should be treated as such, because radical problems require radical solutions. Because the post-capitalist world proposed by degrowth is currently unclear,[38] more research needs to be done to bring it from theory to practice.

[36]Ibid.
[37]Ibid.
[38]Kallis, *In defense of degrowth*

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