

The Public's Guide to Climate Change Mitigation: Contemporary Crises

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ABSTRACT: Contemporary challenges regarding climate change, global wealth disparity, and resource depletion are in many ways emblematic of systemic flaws borne out of anthropocentric philosophy. As an introduction to *The Public's Guide to Climate Change Mitigation*, this article reviews the features of the modern economic system which have contributed to contemporary challenges, and seeks to demonstrate that mitigation in itself will not be enough to resolve a global crisis that demands holistic change. Key points include instrumentalist ideologies evolving from Enlightenment thinking, the inherent limitations of the growth system and the corporate and administrative inabilities to adapt within sustainable boundaries, and the effects of neoliberalism on ecological and socio-cultural challenges. By reviewing each subsystem's influence on the global economic, social, and ecological systems, deeper understandings of contemporary ideologies can be achieved; this can then lead to recognizing current societal inabilities to address systemic flaws, and serve to begin reimagining the system as a whole to be more in line with demands for sustainability.

KEYWORDS: administrative capabilities, anthropocene, climate change, ecology, economic growth, enlightenment, global crises, holistic change, instrumentalism, mitigation, modern ideologies, neoliberalism, resource depletion, systems, wealth disparity

Contemporary Crises

Modern economic theory

The modern economy rests on several theories, the effects of which can be presented as the driving forces of the contemporary global crises: primarily, economic thought, and in many respects political and social thought, considers the global system to be made up of independent parts and places little to no value on their interconnections (Norgaard 2015). In the same way, nonhuman species are assumed to have a value equivalent to their utility to humans; a pig, for example, is valued only for its utility to provide meat for humans. The high value in this utility, dictated by market demand, has caused soaring rates of pork production with little value for consequent ecological disruption (Daly 1991). And because of this ideological gap, there still does not exist any "market price" or monetary compensation owed for social or ecological damage (Löwy 2005).

The second theory is similar to the first by centering the standard economic model around the individual who has maximum utility and minimal social influence. Societal obligation is considered a "cost" and is avoided, with the individual's donations being attributed solely to altruism (Norgaard 2015). Using altruism as the sole motivation for resolving global crises in no case will maximize welfare, and will rather appeal to conscience as it slowly dissipates from existence (Pezzey and Toman, 2002; Hardin 1968). When seeking to resolve contemporary crises, many economists and scholars will attempt to apply these two theories, and are unable to recognize that the logic used to create a problem is different from the logic needed to resolve it (Norgaard 2015).

The ideological foundation of the modern economic system has permeated much of what we do; reinforced by the media, politics, and entrepreneurial fables, our belief in individualism and to each of us the individual right to expand as much as we want to has become the default perspective that we apply to all of our problems (Norgaard 2015). It has become clear that the laws we follow now that were developed in ancient times are no longer as relevant, and yet we still adhere to them blindly (Hardin 1968). Have we not yet noticed that there is something

fundamentally wrong with our thinking, instead of some errors that need some fine-tuning (Kaplow and Shavel 2003)?

Neoliberal globalization

Many scholars point to industrialization as the propagation of growth-driven ideologies that have contributed to the climate crisis. But while industrialization can be traced to fossil fuel commercialization in the 19th century, or even to the 20th century's boom in production and consumption, it can be argued that globalization, beginning with the second wave of neoliberalism in the 1980s, has manifested itself as the true driving force behind global contemporary crises of pollution, poverty, and disease. Neoliberal globalization, or the expansion of transnational corporations to foster a single globalized economy, was initially presented as a movement for global equality that would disseminate new technologies worldwide (Byrne and Glover 2002); it was also expected to make goods cheaper and therefore more accessible to others, which underscored material goods as the means to social fulfillment. Concerns of pollution were abated by the "Environmental Kuznets Curve," which predicted pollution would initially rise but then quickly decrease as new, energy-efficient technologies permeated production cycles worldwide (Byrne and Glover 2002).

In decades to follow, the primary stakeholders in neoliberal development were institutions including the World Bank, the World Trade Organization, the International Monetary Fund, and the World Economic Forum, as well as political bodies such as the United Nations. The proliferation of these institutions along with multinational corporations in a global hegemony over local cultures and norms has initiated a trend of "cultural disintegration," where dominant Western powers overtake indigenous cultures and reduce the remaining cultural barriers to corporate control (Byrne and Glover 2002). Both contemporary ideologies and the existing infrastructural systems enforce this expansion, mandated by a widespread societal faith in expanding markets (Norgaard 2015).

In urban settings, markets create access to material goods, while in rural settings, particularly in the farming industry, efficiency-driven streamlining for market demand has reduced crop variety and therefore the self-sufficiency of farmers (Norgaard 2015). The reduced ecological resilience created by these monocultures also raises vulnerability to crop diseases, an outbreak of which could pose serious disruptions in a highly interconnected market distribution system (Centeno 2015). Because of market faith, specialization and mass production have come to subsume the once ethical and responsible aspects of commercialization (Norgaard 2015). Levels of pollution have also grown exponentially, despite the argument that globalization will permeate non-polluting technologies; the Environmental Kuznets Curve is now revealed to be inapplicable to carbon dioxide, in refutation of continued market faith. In transportation, a pound of carbon dioxide is emitted for every mile a private car drives; this amounts to over 25 billion pounds of CO₂ emitted annually; in product development, waste is constantly emitted into the atmosphere, the land, and the water, not to mention the disposal of final products by consumers. (Goodstein and Polansky 2017).

Ultimately, the impacts of globalization have led certain scholars to anticipate that a business-as-usual course of action will raise global temperatures over as much as ten degrees Fahrenheit. Knowing this, why is there still an unyielding faith to market trajectory: what does globalization seem to offer that still outweighs these consequences (Harris 2017)?

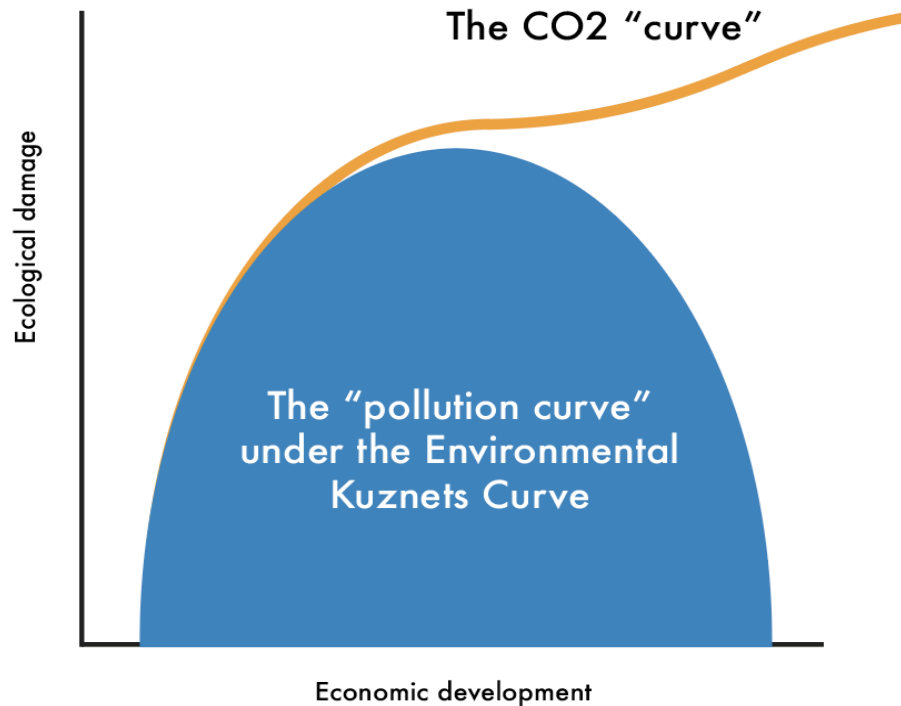


Figure 1. The Environmental Kuznets Curve, used as the argument that globalization would distribute technologies to reduce pollution following an initial peak, is inapplicable to carbon dioxide emissions

The basis of globalization lies in market faith, with the understanding that the growth achieved by leading enterprises is suited to determine societal trajectories. Both growth and globalization have been posited as solutions to poverty, unemployment, and crime as measured in terms of real output (Norgaard 2015). Moreover, growth has been argued as creating more economic opportunity than redistributive measures such as the welfare system (Daly 1991). However, it is not questioned enough whether growth is a true means of achieving widespread prosperity and equality. Growth in itself implies not only the greater use of materials, but a shift from using renewable to nonrenewable materials, namely fossil fuels and their byproducts (Fischer-Kowalski 2011). The need to continually build upon growth has additionally led to value concavity, also known as planned obsolescence; in effect, waste levels have risen exponentially (Boulding 1966). Politicians and economists are now focused enough on growth in terms of real throughput that it has become increasingly difficult to account for social and ecological costs; this calls for a shift in values and ideologies (Foley 2007). Though free trade theoretically resonates as the most egalitarian of economic theories, it has historically favored Western industries through self-reinforcing loops originating from colonialist resource advantages; as Western companies expand, the more resources, public credibility, revenue, and power they garner, and against which local, indigenous industries are unable to compete with (Byrne and Glover 2002). This domination of public goods has now come to be known by some as “environmental colonialism,” the term echoing the feedback loops used by Europeans who used technological advantages to dominate indigenous peoples and lands (Byrne and Glover 2002). In retrospect, globalization contributes to colonialist sentiments and anthropocentric trends, leaving few better off in the long run (Goodstein and Polansky 2017).

Sustainable development

It is clear that neither free nor regulated trade may govern or restructure the capabilities of transnational corporations on a global scale (Byrne and Glover 2002). The proposals that have been

suggested relate solely to efficiency as a mechanism of growth to induce profits. Reducing energy or material expenditure, while positive, does not create accountability for social or environmental costs, and rather encourages against these considerations as they are unhelpful to profit margin-building. Global governance bodies such as the UN have also not proposed scaling back the global economy or even enhancing regulation; rather, the Brundtland Commission proposed expansion of the world economy by a factor of five to ten; it is recognized by independent scholars, however, that expansion by even a factor of four is ecologically impossible when considering current levels of production and waste (Daly 1991). Democratic bodies are just as ineffective; instead of offering guidance and informed critique, it has become standard to offer either an overwhelming plethora of choices or a single government mandate (Thaler and Sunstein, 2008); recommendations to divide investments between private and public causes have also been either omitted or forgotten (Pezzey and Toman 2002).

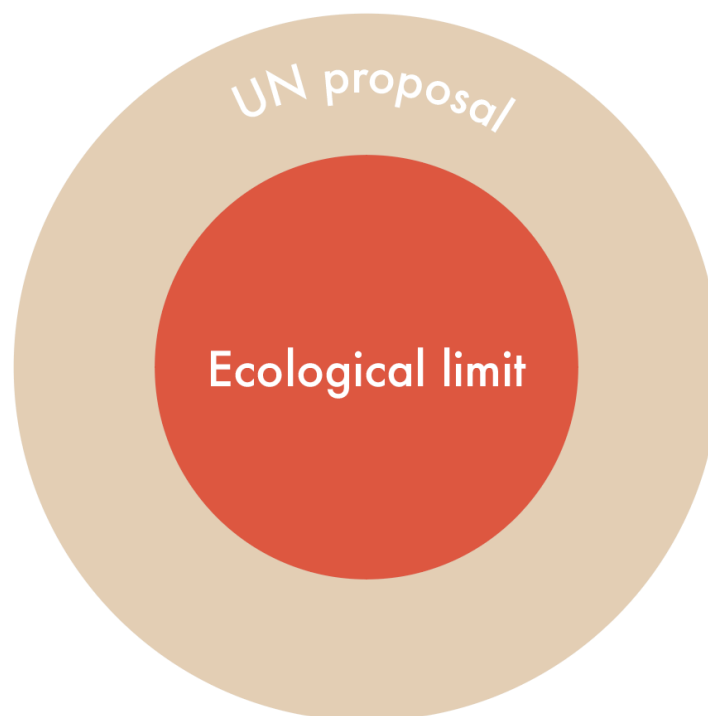


Figure 2. The UN proposed economic expansion far beyond ecological limits in the Brundtland Commission (Daly 1991)

Progressive scholars demonstrate that the primary issue with government involvement is the influence transnational corporations and development leaders have on the decision-making process (Goodstein and Polansky 2017). Corporate leaders remain aware of sustainability rhetoric in the general public, and adopt terms of “sustainable development” as ways of maintaining growth through terms such as “green” and “eco-friendly” (Byrne and Glover 2002). Sustainable development advocates claim that new technology can be adopted on a global scale to reverse destructive trends; however, as the Environmental Kuznets curve proves, growth expands carbon dioxide emissions and overall waste levels, despite innovative efforts (Byrne and Glover 2002). The dominance corporations pose over political and social institutions by way of resources and financial power has allowed the construction of feedback loops which allow the wealthy to continue on paths of growth unhindered by social responsibility; among these feedback loops include disproportionate income taxes and corporate protection from injustice claims. Furthermore, democratic legislation often awards power to a small elite, such that public movements for net positive changes that may impact corporate elite are blocked by that very elite.

The current state of affairs is such that it might be referred to as a “dictatorship of multinationals,” while the sustainability mission has become interchangeable with a quest for efficiency, with socio ecological justice left behind in the race for profit and growth (Pezzey and Toman 2002). The question now remains as to redeveloping global ideologies — and with them the infrastructural systems in place — in order to repair the damage created by capitalism, colonialism, and the Anthropocene (Löwy 2005).

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