

BOOK REVIEW

Navigating Environmental Crisis

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Peter A. Victor. 2023. *Escape from Overshoot: Economics for a Planet in Peril*. Gabriola Island, BC: New Society Publishers. 320. ISBN 978-0-865-71975-0

*Uses sound economics to map a path out of overshoot.
Highly recommended.* —HERMAN DALY

ESCAPE FROM OVERSHOOT



ECONOMICS FOR
A PLANET IN PERIL

PETER A. VICTOR

It is necessary now more than ever to be conscious of and consider the environmental toll that human activity has wreaked upon the Earth. Natural resource stocks are running out, and greenhouse gas (GHG) emissions are on the rise, directly affecting the rate of climate change. These changes will impact not only our longevity and survival but also the larger ecosystem, which includes non-human life forms. Peter A. Victor, a professor emeritus at York University's Faculty of Environmental and Urban Change, and a pioneering ecological economist, in this book presciently addresses the dangers associated with the

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Published by Indian Society for Ecological Economics (INSEE), c/o Institute of Economic Growth, University Enclave, North Campus, Delhi 110007.

ISSN: 2581–6152 (print); 2581–6101 (web).

DOI: <https://doi.org/10.37773/ees.v8i1.1453>

present state of affairs, beginning with the concept of overshoot. According to him, “[w]hen any organism exceeds the capacity of its environment to sustain it, it is in overshoot” which “can also be true of humans when our use of what nature provides is greater than nature’s capacity to regenerate” (3). An environment’s capacity to optimally sustain a population is known as its carrying capacity. This is important in understanding overshoot, as human demands “from the biosphere had begun to exceed what the biosphere could provide through its capacity to regenerate” (7).

The first three sections of the book outline historical trends in carrying capacity, which are viewed in relation to the exponential increase in the human population since the 1800s. Overshooting the carrying capacity can lead to a decrease in the population, an increase in deaths, and a depleted ecosystem. To comprehend the ecological consequences of overshoot and its impact on an ecosystem’s carrying capacity, the ecological footprint of human activities is assessed. This approach “asked how much of the regenerative capacity of the biosphere—its biocapacity—was being used to support human activities” “instead of asking, what size of population can be supported by a given carrying capacity” (9). The biocapacity is measured in global hectares (gha) and can be estimated globally, nationally, and even locally, based on the “biological productivity of different land uses (e.g., forests compared to pasture) and in yields within the same land use (e.g., tropical forests compared to boreal forests)” (7). We are already overshooting, and every year, the regenerative capacity of the Earth is fully used before the end of the year. When that happens, it is observed as Earth Overshoot Day. The biocapacity of a depleted ecosystem can increase if efforts are made to support it, such as through an agroecological approach or by increasing agricultural output through intensive efforts. The ecological footprint also captures data on consumption levels, income inequality, living spaces, food habits, and standards of living.

As the author points out, “differences among the ecological footprints of people living in high-income countries pale in comparison to the differences in average ecological footprints of people in countries grouped by income levels” (11). Thus, evaluating the ecological footprint aids in determining the extent of overshoot; however, how the overshoot is managed is not accounted for in the calculation. It has also been argued that planetary boundaries exist in areas such as ozone depletion, climate change, ocean acidification, and land use, which, if transgressed, would significantly increase the risk of catastrophe. Much of the concern regarding catastrophe stems from the economic nature of growth and progress, which is dealt with in the second part of the book, in which the author considers the economy as another subsystem among Earth’s systems, which is not seen as

independent of it, as was the case in the past. For the future, the author lays out a conical perspective that is divided into five categories based on the likelihood of the occurrence of events and scenarios: preposterous, possible, probable, plausible, and preferable.

Chapters 3 and 4 deal with the economic concept of growth as it evolved from classical economics to contemporary policy-making. The author remarks that the linear conception of growth is nowhere more prominent than in the modern economic idea of progress. Among the classical economists, the author discusses in detail the theories of Smith, Keynes, and Marx, thus mapping out an economic terrain that is both richly informed and conceptually multifaceted. They also differ in their analyses of capitalism, especially as it was expanding as the dominant mode of production during the Industrial Revolution. The author also looks at their theories in hindsight, examining the contributions they made to economics in promoting a more ecologically sensitive understanding. Marx, in fact, was cognizant of the “natural capital” that capitalists owned and profited from. The author also refers to M. Stanley Jevons and his study of coal production in Britain, which, as the author writes, “is critical when forecasting the contribution that technological advances can make to reducing and avoiding overshoot” (60). There was also the “marginal revolution” in economics, which argued that market prices were based on the marginal utility of commodities, which is an incremental change based on minuscule changes—not in productive forces but in market forces—ushering in the era of neoclassical economics. Living by standards and consumption determined by the market, with complete disregard for the availability of the Earth’s natural resources, has brought us ever closer to the planetary peril of overshoot.

Environmental economics, pioneered by Arthur Pigou, Wassily Leontief, Frederick Soddy, and Kenneth Boulding, among many others, addresses issues such as pollution and emission of GHGs, leading to new approaches such as “environmentally extended input-output analysis” (67). Such approaches have been used by scholars to compare and compute data on ecological footprints. Such segues made it possible for ecological economics to be discussed seriously, where both materials and energy follow the laws of thermodynamics. The author also borrows the notion of exclusion and rivalry. The former “exists when there are enforceable property rights that entitle the owner to exclude others from using something,” and the latter is discussed in terms of “refer[ring] only to whether the use or consumption of an item by one person necessarily prevents its use or consumption by another” (75).

The most interesting juggernauts are described in Chapters 5 and 6, which present alternative visions and current trends that can help us escape the overshoot. Interesting observations can be found in demographic and technology trends, such as the increasing concentration of people living and working in urban areas and social media. The author argues that

[the] prevailing growth paradigm, and the stories we tell ourselves about the future, tend to reinforce the idea that the future will look a lot like the present, with a linear progression to ever-greater prosperity and technological complexity—until, because of overshoot and its effects, it doesn't. (149)

Green growth is “the idea that economic growth can continue indefinitely while at the same time resource requirements and environmental impacts decline” (153). This growth is dependent on the market, as it is based on the observation of the GDP. The author suggests three types of decoupling: relative, absolute, and strong (or sufficient) decoupling, wherein the “greater the difference between the rate of emissions intensity reduction and the rate of economic growth, the greater is the rate of reduction in emissions” (159). This leads to a growth of many colours, wherein efficiency and economic growth have become emblematic of green growth. Escaping overshoot requires a move towards green investments made through taxation, borrowing, and revenues; however, the green economy is found to be inadequate to entirely correct for overshoot, and so the author ponders the possibilities of post growth and degrowth.

Chapters 7 to 9 build a case and a model for “a post growth era in which wellbeing increases while throughput stabilizes then declines is what makes post growth both plausible, preferable, and a potential escape from overshoot” (179). The author offers a solution based on the steady-state economy proposed by Herman Daly “in direct response to his concern with overshoot” (182). This solution emphasizes the maintenance of stocks that can rejuvenate the biosphere as well as support the throughput of both the population and the resources it requires within the capacity of the ecosystem, remaining sensitive to its biological limits. He discusses many economic models and working scenarios, such as the circular economy, the well-being economy, Buen Vivir (or living well), doughnut economics, regenerative economics, degrowth, and eco-socialism. Bodies like the United Nations Framework Convention on Climate Change (UNFCCC) play an important role in bringing countries together to set common reduction targets at the Conferences of the Parties (COP) debates. He also discusses Earth4All, based on the system dynamics design of Jay Forrester, which was also used by the authors of the book, *Limits to Growth*. Through these and other simulations, the author demonstrates the escape scenario, which is “not an objective, but simply an outcome of other initiatives

included in the Escape scenario to reduce material flows, GHG emissions, and the ecological footprint, without significantly affecting employment and reducing inequality” (242).

The book is a highly valuable resource for a diverse audience, including policymakers, environmentalists, economists, and concerned activists. It provides actionable insights into the pressing need to rethink the economic growth model considering environmental constraints, offers a robust framework for advocating for systematic changes that address ecological limits, presents a fresh perspective on aligning economic activities with planetary boundaries, and empowers concerned citizens and activists to engage more effectively in public discussions on sustainability and environmental stewardship.

Conflict of Interest Statement: No potential conflict of interest was reported by the author.