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Navigating Past the Tragedy of the Commons

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Navigating Past the Tragedy of the Commons

Abstract

Privatization of environmental resources is a promising approach for mitigating the tragedy of the commons. The present paper focuses on the impact and theoretical underpinnings of privatization within economic structures. The first part lays out a strong ethical case against state ownership, rooted in the belief that the state's claim to ownership inherently involves coercion, which likens taxation to theft due to its compulsory nature. The second part provides evidence that privatization leads to enhanced profitability and efficiency across sectors. The third part discusses the necessity of robust corporate governance and legal reforms post-privatization to ensure environmental protections are not compromised in the pursuit of economic benefits. As demonstrated by successful corporate practices, profitability can coexist with ecological mindfulness when companies are incentivized to protect the environment.

Keywords

Tragedy of the commons, privatization, Ostrom, Hardin

JEL Code

Q20, P14, Q54

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1. Introduction

The Tragedy of the Commons is a moniker for a situation in which individuals, who act independently according to their own supposedly rational self-interest, behave contrary to the common good of all users by exhausting or damaging 'the commons,' any collection of shared resources. This concept is widely discussed in economics, ecology, and other social sciences; it highlights the mutual problem of finite resources being overused and potentially destroyed due to unrestricted access and lack of personal accountability.

What is the problem, we are attempting to overcome? It is that insufficient attention is given to the tragedy of the commons, whether by scholars or public policy activists. One important aspect of the current debate on the issue involves the contribution of Elinor Ostrom, 2009 Nobel Prize winner in economics. The objective of the paper is to shed light on this myriad of challenges. Its justification to offer a new look at the problem.

The structure of the paper is as follows: Section II of the present paper is to a great degree devoted to the thoughts and writings of Garrett Hardin. The focus of section III is likewise aimed at those of Elinor Ostrom. The burden of section IV is to consider Block's critique of Ostrom. In section V we analyze privatization, and in VI. we consider a case in point, whales. We conclude in section VII.

2. Hardin

This concept was popularized by Garrett Hardin in his 1968 essay "The Tragedy of the Commons," published in the journal *Science*. Hardin's essay built upon the earlier work of William Forster Lloyd, who, in 1833, first discussed the adverse effects of unregulated grazing on common land in England.¹

In his long-overlooked pamphlet, Lloyd concluded that the reason for the degradation of the common acreage and the comparable fertility of the contiguous private plots was the result of a misunderstood expansion in herds. When a common herdsman saw the individual benefit of another potential bovine and the dispersed cost, he 'rationally'² would acquire more cattle until environmental collapse. In scare quotes rationality places itself, and if every rancher is doing the same, the cost overwhelms the resource. In reality, these ranchers are not acting rationally by expanding without taking into account the true cost of their decisions. Assume that these entrepreneurs did understand the long-run consequences and that all the commons ranchers obeyed proper conservation. If one maledict gives in to baser impulses and expands, once again offloading the cost, then all the ranchers must follow suit in order not to be cheated. The tragedy ensues.³

¹https://www.google.com/search?q=william+forster+lloyd&rlz=1C1CHBD_enUS796US796&oq=William+Forster+Lloyd&gs_lcrp=EgZjaHJvbWUqCggAEAAy4wIYgAQyCggAEAAy4wIYgAQyBwgBEC4YgAQyBwgCEAAy4wIYgAQyCAgDEAAyFhgeMgoIBBAAGIAEGKIEqAIAAsAIB&sourceid=chrome&ie=UTF-8

² From his own individual point of view

³ Garrett Hardin, "Tragedy of the Commons - Econlib," Econlib, 2018, <https://www.econlib.org/library/Enc/TragedyoftheCommons.html>.

Hardin expanded on Lloyd's hypothetical example of overuse of a common resource,⁴ using it to discuss broader issues such as overpopulation and environmental degradation. His essay stressed the inevitability of ruin if individuals continue to prioritize their personal benefits over the collective good. He notably calls into question Adam Smith's support of the invisible hand. While Smith did not explicitly assert that a self-interested economic agent always contributes to the public good by intending his own gain, he did promote the notion that looking out for oneself involves looking out for others.⁵ This claim is not at all true when considering the commons.

There are several commons resources which are depleted due to the insidious nature of supposedly rational yet misinformed self-interest in this context. Hardin named a few in his seminal work in addition to ranching, such as overfishing, deforestation, overuse of National Parks, even overconsumption of parking slots in Massachusetts during the holidays.⁶ To this one can add even more examples, like unregulated hunting, water misuse, or air pollution. Then there are more esoteric commons, like the overuse of public transport during busy rush hours, the over-prescription of antibiotics that gives rise to more virulent diseases, or noise pollution in popular areas.⁷ Where there is a common resource, there is abuse. These examples illustrate that the exploitation of natural resources without considering their finite nature or the broader impact on the community and the planet can lead to severe negative environmental and societal consequences. Species go extinct! Waterways dry up! Noise pollution leads to tinnitus en mass! What can one do to stop these abuses of shared resources?⁸

Garrett Hardin suggested that the solution to the tragedy of the commons lies in mutual coercion that is agreed upon by the majority of the afflicted. He asserts that some level of coercion or regulation is necessary to protect shared resources from being depleted by individual actions. Some miracle technology that halves consumption would be of no use, as human decision-making would remain unchanged; resource consumption would quickly rise to the previous level.

Perhaps the most obvious method is the establishment of new regulations to limit the use of the commons. As previous laws were not stringent enough to truly protect property, Hardin's "solution is to

⁴ Here is a plaintive series of questions of the latter: "Why are the cattle on a common so puny and stunted? Why is the common itself so bare-worn, and cropped so differently from the adjoining inclosures (sic)?" source: <https://www.econlib.org/library/Enc/TragedyoftheCommons.html>

⁵ Garrett Hardin, "The Tragedy of the Commons by Garrett Hardin - the Garrett Hardin Society - Articles," www.garretthardinsociety.org, December 13, 1968, https://www.garretthardinsociety.org/articles/art_tragedy_of_the_commons.html.

⁶ Ibid.

⁷ Chris Drew, "26 Tragedy of the Commons Examples (2024)," helpfulprofessor.com, July 13, 2023, <http://helpfulprofessor.com/tragedy-of-the-commons-examples>.

⁸ One solution is privatization. On water, see Block, Walter E. and Peter Lothian Nelson. 2015. *Water Capitalism: The Case for Privatizing Oceans, Rivers, Lakes, and Aquifers*. New York City, N.Y.: Lexington Books, Rowman and Littlefield; regarding pollution: Rothbard, Murray N. 1982. "Law, Property Rights, and Air Pollution," *Cato Journal*, Vol. 2, No. 1, Spring; reprinted in *Economics and the Environment: A Reconciliation*, Walter E. Block, ed., Vancouver: The Fraser Institute, 1990, pp. 233-279. <http://www.mises.org/rothbard/lawproperty.pdf>; <http://mises.org/story/2120>

augment statutory law with administrative law.”⁹ Where existing law and judgements do not suffice, one must invent new methods of governance to suit the increasingly complex world that is affected by uninformed decisions, in his view. Quotas on fishing, limits on pollution emissions, or regulations on land use are all potential solutions from this perspective. Mobilizing the legal system is just a codified form of communal understanding, another proposed solution. If the ranchers but realized they were destroying their own lively hoods, they could agree on a community management plan to stop such abuse. Hardin thinks that this solution would only work in smaller areas with a strong sense of responsibility. Also, with fewer economic actors involved, the transactions costs¹⁰ would be lower, and this would further facilitate such cooperative ventures.

Another part of the solution is essential: furthering education. If everyone afflicted by the tragedy is aware of its mechanisms, if they were truly rational agents, they would voluntarily limit their consumption. An educated individual might come to this proposed solution, privatization.

If, as Adam Smith purported, the invisible hand led to the common good, the tragedy of the commons would no longer plague the economy.¹¹ Yet, the application of market forces to unowned land leads to abuse and degradation. Privatization of environmental resources is a promising approach for mitigating the tragedy of the commons. Here one must highlight the argument that by assigning private property rights, individuals and corporate entities would have a vested interest in the sustainable management and conservation of these resources, aligning personal incentives, or self-interest, with the long-term health and/or availability of these resources. As man only pretends to be a rational animal and cannot be trusted outside small communities with the protection of his most precious resources. In this way, there will be hopefully an incentive to maintain the environment, as one cannot profit from a depleted resource.

Hardin has concerns about private property’s role, acknowledging that it favors the ridiculously wealthy and their decedents:

“We must admit that our legal system of private property plus inheritance is unjust--but we put up with it because we are not convinced, at the moment, that anyone has invented a better system. The alternative of the commons is too horrifying to contemplate. Injustice is preferable to total ruin.”¹²

Before this paper begins extolling the virtue of privatization, there should be honorable mention of the alternatives. Garrett Hardin is not the only leading name in the economic discussion of the tragedy of the commons.

⁹ Garrett, “Society.”

¹⁰ Coase has emphasized the importance of this consideration. See on this Coase, Ronald. 1960. “The Problem of Social Cost.” *Journal of Law and Economics* 3 (October): 1–44. Reprinted in Coase (1988). <http://www.sfu.ca/~allen/CoaseJLE1960.pdf>

¹¹ Garrett, “Society.”

¹² *Ibid.*

3. Ostrom

Elinor Ostrom's work on this topic earned her the Nobel Memorial Prize in Economic Sciences, the first ever earned by a woman. *Governing the Commons: The Evolution of Institutions for Collective Action*, published in 1990, challenges conventional wisdom about the management of common-pool resources (CPRs).¹³ Through extensive fieldwork and case studies ranging from irrigation systems in Spain to communal fisheries in Turkey, Ostrom identifies the conditions under which communities can successfully manage CPRs in a sustainable manner without resorting to centralized control or privatization.¹⁴

She argues that groups of users can develop complex systems of governance and rules that allow for the equitable and sustainable utilization of shared resources. Ostrom introduces eight design principles for effective group governance of the commons, including clearly defined boundaries, congruence between appropriation and provision rules and local conditions, collective-choice arrangements, monitoring, graduated sanctions, conflict-resolution mechanisms, minimal recognition of rights to organize, and nested enterprises for larger common-pool resources.¹⁵

Governing the Commons made a profound impact on the study of economics, political science, and environmental studies, by offering understanding of human cooperation that goes beyond self-interest and attains the potential for communities to govern shared resources effectively. It challenges the notion that only private ownership or government intervention can prevent the overexploitation of resources, highlighting the role of local governance and community-driven solutions.

4. Block

Ostrom's book is considered by many a well-written and fully defended seminal work in economic theory. Walter Block, noted libertarian economist, disagrees. In a review of her work, he distills each of her arguments about fisheries and irrigation systems down to a silver bullet of an argument. He alleges that Ostrom's examples of successful common property management are actually instances of partnership arrangements rather than a true commons, thereby undermining her critique of private property rights.¹⁶

Furthermore, by disparaging the essential nature of property rights, he asserts that Ostrom's work is immoral and inefficient.¹⁷ In a larger work Block coauthored with Ivan Jankovic, *Tragedy of the Partnership: A Critique of Elinor Ostrom*, these two authors expand upon this initial critique of her conceptual framework. They maintain that Ostrom's model mistakenly identifies exclusive group management of resources as a novel form of governance, overlooking its nature as actual private property.

¹³ Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*, *Internet Archive* (Cambridge University Press), 8, <https://archive.org/details/ElinorOstromGoverningTheCommons/page/n3/mode/2up>.

¹⁴ Ostrom, *Governing the Commons*, 81, 143.

¹⁵ *Ibid.*, 90.

¹⁶ Block, Walter. 2011A. "Review of Ostrom's *Governing the Commons*," *Libertarian Papers*, September 1, 3, <http://libertarianpapers.org/21-review-ostroms-governing-commons/>.

¹⁷ Block, "Review," 8.

“Simply, the legal and economic essence of private property is not ‘single individual ownership’; the critical elements, rather, are transfer-ability and excludability - the ability to prevent non-owners from the use and exploitation of the resource in question. Something can be owned by more than one owner, and this is called a private partnership: the contractual arrangement in which two or more people share the proceeds of the use of a given resource or good, according to the stipulations of an agreed upon contract.”¹⁸

Block and Jankovic follow this with historical examples of private governance in which arbitration and community-based enforcement mechanisms were able to function perfectly well without state interference.¹⁹ The authors additionally analyze Ostrom's proposed conditions for successful commons governance, arguing that these conditions are not unique to commons but are equally applicable to any and all types of private property arrangements. They suggest Ostrom's principles, like clearly defined boundaries and congruence between appropriation and provision rules, describe the essential features of private property, not the distinguishing characteristics of a commons.²⁰

All this to say, there is no third option for a libertarian when considering how to solve the tragedy of the commons. As a proponent of libertarian total privatization, in a jointly authored book, *Space Capitalism*, Peter Nelson and Walter Block discuss the ethics and economics of the question in their third chapter, “Why Privatize Anything?”²¹ They confront both topics in a tripartite manner, first assessing the ethicality of ownership under state, commons, and private.

5. Privatization

The first part lays out a strong ethical case against state ownership, rooted in the belief that the state's claim to ownership inherently involves coercion and initiatory violence, likening taxation to theft due to its compulsory nature. This argument is supported by referencing historical and philosophical texts such as John Locke, suggesting that any form of state ownership or taxation lacks voluntary consent from all individuals, thereby failing to meet the ethical standards of legitimate ownership.²² In contrast, private ownership is presented as ethically superior because it is based on voluntary transactions and the homesteading principle.²³

¹⁸ Block, Walter and Ivan Jankovic. 2016. “Tragedy of the Partnership: A Critique of Elinor Ostrom,” *The American Journal of Economics and Sociology* 75, no. 2: 291, <http://www.jstor.org/stable/43818691>.

¹⁹ Block et al., “Tragedy of the Partnership,” 299.

²⁰ Ibid., 306-307.

²¹ Block, Walter and Peter Lothian Nelson. 2018. “Why Privatize Anything?,” in *Space Capitalism: How Humans Will Colonize Planets, Moons, and Asteroids* (Palgrave Macmillan: Springer International Publishing), 27.

²² Block et al., “Why Privatize Anything?,” 28.

²³ For the case in behalf of privatization, see Hoppe, Hans-Hermann. 2011. “Of Private, Common, and Public Property and the Rationale for Total Privatization,” *Libertarian Papers* 3, 1. <http://libertarianpapers.org/2011/1-hoppe-private-common-and-public-property/>; Block, Walter E. 2019. *Property Rights: The Argument for Privatization*. Palgrave Macmillan; <https://www.palgrave.com/in/book/9783030283520>; Anderson, Terry L. and

Every exchange under laissez-faire capitalism is consensual, rooted in the initial appropriation of unowned resources through labor and subsequent voluntary exchanges. This framework is posited as the most ethical form of property ownership, as it respects individual rights and consent.²⁴ The economic considerations of the same systems occur. The critique of state ownership for its inefficiency and inability to respond to consumer needs effectively, as compared to the market mechanism under private ownership is of relevance. We must also not lose sight of the fact that the bureaucratic nature of state ownership and the lack of a profit-and-loss system result in a misallocation of resources and a failure to meet consumer demands efficiently.²⁵ The tragedy of the commons is again an example of the economic inefficiency of non-ownership, where the lack of clear property rights leads to overuse and depletion of resources. This is contrasted with private ownership, where the market mechanism and property rights lead to a more efficient allocation and conservation of resources. Block and Nelson advocate a system of property rights rooted in voluntary exchange and individual liberty. This argument is made within a libertarian framework that values individual rights and market efficiency as the cornerstones of a just and prosperous society.

These principles of market efficiency and individual rights are what ground the assertion that privatization of environmental resources can significantly mitigate the tragedy of the commons, leading to better conservation and resource management. However, theoretical grounds are not enough. Empirical findings are often more persuasive.

"Privatization and Its Benefits: Theory and Evidence" extensively covers the impact and theoretical underpinnings of privatization within various economic structures, both in developed and developing countries. Privatization is aimed at increasing microeconomic efficiency, stimulating economic growth, and decreasing public sector borrowing by reducing unnecessary subsidies.²⁶

This process is argued to rectify inefficiencies that stem from incentive and contracting issues prevalent in public ownership. Public managers often face less accountability and pursue different objectives than their private counterparts, which leads to suboptimal outcomes in state-owned enterprises. Sheshinski and Lopez-Calva provide evidence that privatization leads to enhanced profitability and efficiency across numerous sectors of the economy, with more significant improvements seen in competitive sectors compared to monopolistic ones. These authors highlight that while full privatization generally yields more substantial benefits than the partial version thereof, the monopoly

Peter J. Hill, editors. 1996. *The privatization process : a worldwide perspective*, Lanham, Md.: Rowman & Littlefield Publishers; Butler, Eamonn, ed., 1988, *The Mechanics of Privatization*, London: Adam Smith Institute; Hanke, Steve H., ed., 1987. *Privatization and Development*, San Francisco: Institute for Contemporary Studies; Matthews, Lipton. 2021. "Get Radical on Privatization." August 25; <https://mises.org/power-market/get-radical-privatization>; Megginson, W. Netter, J. 2001. "From State to Market: A Survey of Empirical Studies on Privatization." *Journal of Economic Literature*, 39(2): 321-89.

²⁴ Op cit, fn. 23, 30

²⁵ Ibid., 33

²⁶ Eytan Sheshinski and Luis Lopez-Calva , "Privatization and Its Benefits: Theory and Evidence," *CESifo Economic Studies* 49, no. 3 (January 1, 2003): 429, <https://doi.org/10.1093/cesifo/49.3.429>.

power in certain sectors²⁷ can lead to profitability outpacing productivity gains, posing regulatory challenges.²⁸

From a macroeconomic perspective, although concrete evidence is less pronounced, the trends suggest positive effects on public sector deficits, foreign direct investment, and stock market capitalization. Additionally, the discussion shifts towards the necessity of robust corporate governance and legal reforms post-privatization to safeguard investor interests and maximize the benefits of privatization.²⁹ In summary, while privatization can deliver significant economic advantages, Sheshinski and Lopez-Calva claim that these benefits are contingent upon the establishment of stringent regulatory frameworks and governance structures³⁰ to address the challenges that arise with privatization initiatives.³¹

Privatization can lead to improvements in efficiency and profitability in various sectors. However, the success of privatization in managing environmental resources effectively depends significantly on the

²⁷ For the case that “monopoly power” can only exist in government operation, such as for the post office, or sanitation, or regulated taxi cabs, see Anderson, William, Walter E. Block, Thomas J. DiLorenzo, Ilana Mercer, Leon Snyman and Christopher Westley. 2001. “The Microsoft Corporation in Collision with Antitrust Law,” *The Journal of Social, Political and Economic Studies*, Vol. 26, No. 1, Winter, pp. 287-302. Armentano, Dominick T. 1999. *Antitrust: The Case for Repeal*. Revised 2nd ed., Auburn AL: Mises Institute. Block, Walter E. 1994. “Total Repeal of Anti-trust Legislation: A Critique of Bork, Brozen and Posner,” *Review of Austrian Economics*, Vol. 8, No. 1, pp. 35-70. DiLorenzo, Tom and Jack High. 1988. “Antitrust and Competition, Historically Considered,” *Economic Inquiry*, Vol. 26, No. 1, pp. 423-435, July. Henderson, David R. 2013. “The Robber Barons: Neither Robbers nor Barons.” *Library of Economics and Liberty*. March 4; <http://www.econlib.org/cgi-bin/printarticle2.pl?file=Columns/y2013/Hendersonbarons.html>. McChesney, Fred. 1991. “Antitrust and Regulation: Chicago's Contradictory Views,” *Cato Journal*, Vol. 10; <https://www.cato.org/sites/cato.org/files/serials/files/cato-journal/1991/1/cj10n3-10.pdf>. McGee, John S. 1958. “Predatory Price Cutting: The Standard Oil (New Jersey) Case,” *The Journal of Law and Economics*, October, pp. 137-169; <https://www.journals.uchicago.edu/toc/jle/1958/1>. Rothbard, Murray N. (2004 [1962]). *Man, Economy and State*, Auburn AL: Ludwig von Mises Institute, Scholar's Edition; <http://www.mises.org/rothbard/mes.asp>. Shugart II, William F. 1987. “Don't Revise the Clayton Act, Scrap It!,” 6 *Cato Journal*, 925. Smith, Jr., Fred L. 1983. “Why not Abolish Antitrust?,” *Regulation*, Jan-Feb, 23; <http://cei.org/op-eds-and-articles/why-not-abolish-antitrust>. The argument in brief is that monopoly only exists in cases where competition is illegal. If any one company were to take over 100% of an industry, but competition with it were legal, it would be a single seller, not a monopolist.

²⁸ Sheshinski et al., “Privitization,” 430-432.

²⁹ Ibid., 450-455.

³⁰ Ibid., 455-459.

³¹ For the case that no such government regulations are needed in this context, nor, indeed, in any other, see Bailey, Ronald. 2013. “Federal Regulations Have Made You 75 Percent Poorer.” June 21; http://reason.com/archives/2013/06/21/federal-regulations-have-made-you-75-per?utm_source=Ludwig+von+Mises+Institute+of+Canada+Daily+List&utm_campaign=0de4c7acb3-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_6c2fea3584-0de4c7acb3-274221537. Block, Walter E., Robert W. McGee and Kristin Spissinger. 1999. “No Policy is Good Policy: A Radical Proposal for U.S. Industrial Policy,” *Glendale Law Review*, Vol. 17, No. 1, pp. 47-58; http://www.walterblock.com/publications/no_policy_good_policy.pdf. Hughes, Jonathan R.T. 1977. *The Governmental Habit: Economic Controls from Colonial Times to the Present*. New York: Basic Books. Loucks, Michael K. and Alexandra M. Gorman. 2012. “Who Regulates The Regulators?” May 2; <https://www.forbes.com/sites/realspin/2012/05/02/who-regulates-the-regulators/?sh=30ec6ad17783>

regulatory frameworks in place and the ability to enforce them according to Sheshinski and Lopez-Calva. For environmental resource management, privatization might introduce better technologies, more efficient practices, and innovations driven by profit motives which could lead to more sustainable management of resources. However, in the perspective of these two scholars, without stringent regulatory oversight, the risk of prioritizing profit over environmental protection can be high. Thus, while privatization has the potential to address inefficiencies, its success in the context of environmental management is contingent upon the establishment of robust regulatory mechanisms that ensure environmental protections are not compromised in the pursuit of economic benefits.

How then can one align profit with environmental protection? How can one abate the tragedy of the commons by leveraging market forces in such a way that profit does not overrun the environment? Block, in sharp contrast, would prioritize property rights. By strengthening property rights one can empower individuals and businesses to take legal action against polluters who damage their property, incentivizing pollution reduction. Additionally, owners would be led by Adam Smith's "invisible hand"³² to care for what environmental resources remains, as they would be unable to simply find more in the public.

Additionally, companies could utilize market signals and consumer preferences to guide businesses by virtue signaling as a business strategy to environmentally minded customers while also protecting pivotal resources. Firms that adopt environmentally friendly practices can gain a competitive edge as consumers increasingly prefer sustainable products. For example, L'Oréal recognized that forest management issues could affect its brand and risk significant financial loss. To combat this, the company has set up a €50 million fund to restore ecosystems and made commitments to prevent deforestation. Nestlé plans to distribute 2.8 million shade trees to cocoa farmers in Côte d'Ivoire and Ghana by 2022 and train them in agroforestry to enhance plantation ecosystems and soil health. Nestlé Malaysia is involved in a reforestation program, planting saplings along the Kinabatangan River to support forest restoration efforts. Mastercard, along with over 30 partners, has committed to restoring 100 million trees in five years through the Priceless Planet Coalition. The campaign includes a consumer engagement element where customers can opt to donate for tree planting at the point of sale.³³

Regulation is key when considering how best to leverage market benefits, and while a staunch libertarian might not like adhering to regulatory bodies, they can be beneficial. Rabobank, in collaboration with the UN Environment Programme, has created a \$150 million guarantee fund to encourage \$1 billion in sustainable agriculture investments within the food and agricultural sectors.³⁴ Hawaiian Legacy Hardwoods (HLH) stands as a paragon of libertarian principles in action, showcasing how private

³² Smith, Adam. 1937 [1776]. *The Wealth of Nations*, New York: Modern Library

³³ Gill Einhorn, Jean-Charles Guinchard, and Wijnand DeWit, "3 Reasons Companies Are Investing in Forest Conservation and Restoration, and How They Do It," World Economic Forum, June 7, 2021, <https://www.weforum.org/agenda/2021/06/3-reasons-companies-are-investing-in-forest-conservation-and-restoration-and-how-they-do-it/>.

³⁴ Einhorn et al., "3 Reasons."

enterprise can not only thrive but also play a crucial role in the protection and restoration of natural ecosystems.³⁵

Here is yet another example: “Consumer WTP analyses reveal that consumers are willing to pay a premium for eggs produced without cages or other non-traditional production methods. According to Wulandari et al (2020), 87% of respondents will pay more for free-range chicken eggs if the price increases by 5- 20%.”³⁶

While they do accept funding from the government³⁷ for half their expenses, Hawaiian Legacy Hardwoods markets their Koa forest as a product. They began implementing a sustainable harvest strategy, planting three trees for every one cut down and using computer chips to track each tree's entire lifecycle. This allowed them to offer a legacy program that allows individuals and corporations to pay for planting trees that will never be harvested, providing GPS coordinates and naming rights for each tree. This is on top of developing an ecotourism venture that invites guests to visit or stay in the forest. They have even gone as far as to create a carbon credit program, certified by the Gold Standard, a private carbon regulatory body based in Switzerland.³⁸ This allows individuals and businesses to offset their carbon footprint, with sales supporting sustainable forest management. Now for every tree they cut for the valuable Koa wood, they plant three more. By leveraging market mechanisms, proprietary technologies, and private investment, HLH has created a model that not only preserves the majestic Koa forests of Hawaii but also demonstrates the potential of libertarian solutions to foster significant environmental recovery and sustainability. Free market environmentalism, is not an oxymoron.

³⁵ Ben Schiller, “5 Ways to Conserve a Forest by Making Money from It,” Fast Company, June 8, 2016, <https://www.fastcompany.com/3047010/5-ways-to-serve-a-forest-by-making-money-from-it>.

³⁶https://www.google.com/search?q=customers+are+willing+to+pay+a+premium+for+free+range+eggs&rlz=1C1C HBD_enUS796US796&oq=customers+are+willing+to+pay+a+premium+for+free+range+eggs&gs_lcrp=EgZjaHJvbW UyBggAEEUYOTIHCAEQIRigATIHCAIQIRigAdIBCjlxMTQzajBqMTWoAgCwAgA&sourceid=chrome&ie=UTF-8

³⁷ In the libertarian view, it is perfectly acceptable, even virtuous, to accept money from government. For, the state, at least in the strictest version of this philosophy, is a criminal gang. And the fewer of their ill gotten gains they retain the better, for the sake of justice. For a defense of this claim see Block, Walter E. 2002. “Accepting Government Subsidies,” Fraser Forum, February, p. 27; http://oldfraser.lexi.net/publications/forum/2002/02/section_13.html; Block, Walter E. 2007. “Ron Paul and Matching Funds,” October 1; <http://archive.lewrockwell.com/block/block86.html>; Block, Walter E. 2011B. “May a Libertarian Take Money From the Government?” March 11; <http://archive.lewrockwell.com/block/block175.html>; <https://www.lewrockwell.com/2011/03/walter-e-block/may-a-libertarian-take-money-from-the-government/>; Block, Walter E. and Chris Arakaky. 2008. “Taking Government Money for Grad School?” May 23; <http://archive.lewrockwell.com/block/block100.html>; Gress, Jonathan and Walter E. Block. 2020. “The Ethics of Public Spending.” *Journal of Libertarian Studies*, Vol. 24, No. 2, pp. 434–444; https://cdn.mises.org/jls_24_2_gress_block.pdf

³⁸ <https://www.google.com/search?client=firefox-b-1-d&q=the+Gold+Standard%2C+a+carbon+regulatory+body+based+in+Switzerland>.

6. Application

Let us now apply the theory to a particular case, whale extinction. In *Star Trek IV: The Voyage Home*³⁹ an alien probe, in the year 2286, is playing havoc with the earth. They are trying to contact whales, but not succeeding, since this species is now extinct. Admiral James T. Kirk, along with Spock, Doc, Scotty and the rest of the crew go back in time to San Francisco in 1986 to retrieve the only beings who can communicate with these destroyers of the earth, whales. Spoiler alert: they do so and save the planet in the 23rd century when they return to it.

But why are the whales no longer in existence at that time? It is due to the tragedy of the commons. Right now, in the 21st century, no one may own any of these creatures, privately. Thus, whale hunters have little incentive not to harvest them. If they leave them alone, hoping for the increased population that will ensue, some competitor will gather them up.⁴⁰

One possible solution to this morass is branding. This was the policy used on cattle before the advent of barbed wire. Thanks to modern electronic technology, this might now be accomplished by shooting a harmless GPS resistor into these animals, marking ownership. Would whales rustling undermine this system? We will not know until we try it.

A more radical solution to this challenge would be privatization of all the oceans on the planet (Block and Nelson, 2015). Then, all the species in any given waterway would be owned by the proprietor of that body of water. This idea, of course must be considered “food for thought” at best, since with the present state of the world it would be totally unfeasible. But if we cannot think “outside of the box” we are not doing our job as intellectuals.

7. Conclusion

Finally, as Hardin suggested was intrinsically important to any solution to the tragedy, education reigns supreme. By prioritizing individual rights, voluntary participation, and market mechanisms, a libertarian approach focuses on personal responsibility and the power of free-market capitalism to achieve environmental goals while still pursuing profit.

What are our suggestions, hopes, desires, for future research?

Privatization offers a viable solution to the tragedy of the commons by aligning individual interests with environmental conservation. While we acknowledge the intellectual contribution regarding communal resource management made by Ostrom, we ultimately endorse a market-oriented approach,

³⁹https://www.google.com/search?q=which+star+trek+movie+has+the+whales&rlz=1C1CHBD_enUS796US796&oq=which+star+trek+movie+&gs_lcrp=EgZjaHJvbWUqBwgAEAAyGAQyBwgAEAAyGAQyBggBEEUYOTIHCAIQABiABDIHCAMQABiABDIHCAQQABiABDIHCAUQABiABDIHCAYQABiABDIHCACQABiABDIHCAgQABiABDIHCAkQABiABNIBCTEwNDgzajBqNKgCALACAQ&sourceid=chrome&ie=UTF-8

⁴⁰ See on this Paniagua & Rayamajhee, 2024. On bison and the tragedy of the commons, see Hill, 2016.

as championed by Block, that leverages property rights and self-interest for sustainable stewardship. Privatization drives efficiency and innovation, allowing for the responsible use of resources. As demonstrated by successful corporate practices, profitability can coexist with ecological mindfulness when companies are incentivized to protect the environment. Instances such as Hawaiian Legacy Hardwoods further illustrate the power of market mechanisms to foster environmental recovery and sustainability through private enterprise.

This approach not only respects individual rights but also harnesses the dynamism of capitalism to address environmental challenges. With informed policies and a steadfast commitment to economic and environmental ethics, privatization can overcome the limitations of collective resource management, offering a pragmatic path to sustainable environmental governance.

Another avenue for future research involves adding to, further illustrating and improving the Ostrom theory of polycentric governance and applying it to solving natural resource management problems.⁴¹ It might seem to be a case of “strange bedfellows,” but combining that initiative with Austrian economics might well pay strong intellectual dividends. Why? Although not usually used even in the same sentence, both are philosophical perspectives on economics.⁴² Austrians, too, are involved in some of the same issues (Cordato, 2004.) But more intellectual investment in this rich vein might be fruitful.

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⁴¹ Pointing us in a welcome direction on such initiatives are Patala, Albareda & Halme, 2022; Rayamajhee & Paniagua, 2021; Ostrom, E. 2010; Carlisle & Gruby, 2019.

⁴² Most helpful in this regard might well be: Aligica & Wagner, 2020. Kirzner, 2017; Espinosa and Carreiro, 2021; Endres & Harper, 2020; Espinosa, Neira & Soto, 2021.

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