



# ADDRESSING AIR POLLUTION THROUGH PROPERTY RIGHTS AND NUISANCE LAW

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## **Abstract**

*Our thesis is that the best way to deal with the challenge of air pollution is based on private property rights and nuisance law. In this perspective, pollution of the air is akin to trespass, not a negative externality or external diseconomy. Thus, pollution of the air is not an instance of a market failure. Rather, the opposite is the case: it constitutes government failure. The government has taken on the role of protecting the environment by quelling air pollution. It has done so by implementing a plethora of regulations, requirements, and prohibitions. These have been deemed necessary since the government first began its efforts in this regard by eliminating the legal possibility of suing those who emitted pollution into the air and were thus guilty of trespass. In other words, the government first disallowed the free enterprise way of solving the problem; when pollution continued, they blamed the very institution they had prohibited from operating in the first place for the problem. Then, they instituted a “solution” that would not have been needed had they not proscribed the free enterprise resolution. What should now occur? We should “turn back the clock” to what would have naturally occurred did the state not become involved: allow the victims of pollution trespass to sue for damages.*

**Keywords:** *Pollution; externalities; property rights; law.*

## **1 INTRODUCTION**

In the US, much of today's political dialogue focuses on climate change and the environment – a worthy concern considering the number of scientists who warn of its damaging and irreparable consequences. Often this debate on environmental issues places the onus to save the

planet on private actors. Manufacturers, energy producers, transportation industries, fisheries, and consumers are often blamed for pollution and the destruction of natural environments. Perhaps this culpability is reasonably directed. After all, 70% of global greenhouse gas emissions, which are the primary climate change contributors, come from the energy production and utilization industry, manufacturing, and transportation. This gaslighting of private actors, though, ignores the coordination problem which explains the difficulties of organizing disparate and remote

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groups with wide-ranging interests. Every environmental actor has an interest in enhancing his position and it is nearly impossible to coordinate every industry and consumer around environmental issues.

The only group that has the power and enforcement capability to compel coordination is the state, which has consistently failed to protect the environment. So long as the government allows private actors to pollute without penalty, air quality will continue to worsen. In the US, easements are given to industries that move into towns and poison air and water sources. Eminent domain allows companies with some claimed semblance of public value to seize property and expose outlying areas to undue risks with the government's approval. If one seeks injunctive relief for the violation of one's property rights, one is all too often denied because of a perverse weighting of social equity. Ultimately, the legal standards for holding environmental violators accountable often don't allow victims to seek justice, thus propping up groups that pollute.

Some argue the solution to environmental challenges is to give the state more coercive power to control polluters. This paper will argue that there is an alternative approach based on the proper enforcement of property rights. Rothbard's (1982) paper outlines how an alternative normative legal philosophy based on libertarian values can tackle one of the more controversial environmental property rights violations: air pollution.

For many, the idea of free enterprise rules saving the environment is, at first glance, absurd. Aren't markets what got us into this mess? No. The problem is that, in the US, property rights have been undermined and not allowed to perform their proper function. The philosophy of private property rights has failed the environment because the government and legal systems have all but prevented it from operating. A reordering of environmental law and property rights would allow individuals to hold polluters accountable. In looking at how this would work, it is easy to see how an oil spill or the disposal of toxic waste would constitute an enforceable property rights violation, but oftentimes it can be hard to conceptualize how the same principles apply to air pollution. This present paper outlines a new normative approach

to property rights, air pollution, and torts based on Rothbard's libertarian approach and will attempt to address the unanswered concerns of those unconvinced by free market environmentalism.

## 2 LEGAL STANDARDS

Before establishing a libertarian analysis of property rights and environmentalism, it is important to acknowledge the current legal standards for private nuisance violations - an interference in someone's ability to use or enjoy his land. The two often cited cases on the issue are *Madison v Ducktown Sulphur, Copper & Iron Company* and *Hulbert v California Portland Cement Company*. In the first, Tennessee law outlined nuisance violations and the Tennessee Supreme Court acknowledged that the Ducktown mining company's pollutants were affecting the complainants' ability to use their farms and land as they did before the mining company's arrival. The complainants sought injunctive relief, but the courts refused, arguing that, in balancing the social equities of the two parties, the mining company was just too important to the town. Although the courts allowed Madison to sue for damages, they effectively stripped the complainants of their property rights and minimized their damages to the actual estimated costs. Similarly, in *Hulbert*, the California Portland Cement Company was releasing cement particles through the air onto Hulbert's property. The dust crusted all of the complainant's plants and found its way through the house vents, making life unpleasant. The court, in its decision, emphasized the size of the cement company's payroll and denied injunctive relief as a balancing of suffering. When it comes to rights, in contrast, there can be no conflict, and thus no need for any "balancing" between them. If there is a seeming conflict between them, one or the other or perhaps both are misspecified. For example, the "right" of a tenant to pay a low rent seemingly conflicts with the right of the landlord to charge whatever fee he wishes. But no, there is no such thing as a "right" of a renter to pay any particular amount. What about the right to engage in free speech on the property of other people? There is no such right.

This "balancing" approach to nuisance violations strips people of their property rights and is the reason pollution goes largely unpunished. Although the courts do sometimes allow victims of

nuisances to sue for damages, it is important to recognize that most only receive compensation for only monetary damages, which often doesn't properly describe a property owner's valuation of damages.

The libertarian alternative to this system of weighing social efficiencies would give each person absolute property rights that extend to nuisance violations. The standardized enforcement of these property rights would lead to more accountability against polluters who would prioritize the proper negotiation, management, and minimization of pollutants to avoid costly litigation or injunctive relief. For this reality to take shape, though, a normative approach to property rights must have clear boundaries and be consistently enforced. Rothbard offers a concise understanding of what this would look like: "No action should be considered illicit or illegal unless it invades, or aggresses against, the person or just property of another. Only invasive actions should be declared illegal and combated with the full power of the law. The invasion must be concrete and physical" (Rothbard 1982, p. 127).

Though effective in outlining a basic standard, there are holes in this legal approach that Rothbard and libertarian theory adequately fill relating to, the burden of guilt, causality, and liability. On the burden of proof, libertarian theory tells us that this should fall squarely on the plaintiff. If the axiom of libertarian law is that no person should threaten or initiate an act of aggression against other persons or their property and that everything else should be allowed, then it should follow that punishable acts of aggression should be overt. In any cases where it is unclear whether the defendant is guilty, nothing should be done. The plaintiffs, if they want the present situation changed, must prove that they have been wronged. At present, this line can be hard to draw, but, with clear and defined property rights, a bright line should be more easily distinguishable. Contrary to contemporary law, the libertarian theory holds that the presumption of innocence for defendants and the strict burden of proof for plaintiffs in criminal cases should also apply to civil tort cases. Rothbard (1982, p. 138) explains this by saying "For libertarians, the test of guilt must not be tied to the degree of punishment." The coercive nature of guilt in tort suits requires, for

supporters of this philosophy, the same standard of proof as contemporary criminal cases.

Regarding causality, Rothbard (1982) suggests the rigid proof beyond a reasonable doubt test. That means that correlation and, according to Epstein, "substantial factors" have little to do with proximate causation. In the case of air pollution, if an insensible pollutant is released at a level deemed insignificant to one's health, despite that chemical being cancerous in large quantities, the polluter cannot be considered at cause for a property rights violation. If, however, a certain level of that pollutant is found to have statistically significant damaging effects on one's health, exceeding natural risk factors beyond a reasonable doubt, a polluter would be at fault for depositing a greater amount than that level into someone's air. This may seem like an insurmountable causality standard for the layperson, and perhaps it is under the current legal system. It is easy for lawyers who specialize in air pollution law to cast doubt on the causality of pollution to health risks when judges and juries have no knowledge or expertise on the issue. Libertarian legal theory, however, would implement a system of private courts that would allow jurists to specialize in specific areas of law that the public court system simply cannot fulfill. These private courts are presently common in some industries and allow expert judges who know the issues at play to decide cases more efficiently between industry insiders (Richman 2004). This would create more uniform expectations and causality standards for air pollution cases.

### 3 HOMESTEADING AND NUISANCE LAW

Ultimately, enforcing air pollution property rights violations is an issue plagued by unclear and degraded property rights. As it stands, courts have thrown out individuals' rights to injunctive relief in most air pollution-related torts. Reframing property rights using libertarian values would help create clear and defined understandings of air pollution rights and violations. The two bedrock values of libertarian theory, according to Rothbard (1982, p. 145), are "Everyone has an absolute property right over his or her own body; and (b) everyone has an absolute property right over previously unowned natural resources that which he first occupies and

brings to use.” This “homesteading” principle prioritizes the first use of land or resources as the mechanism for ownership. Staking off the land does not imply ownership; mixing labor with the land and/or resource utilization does. As much as property rights focus on land and tangible property, one can also homestead the right to emit noise, divert water, or even pollute. A common example of this is that of an airport. Airports emit noise at a level that can severely impact people’s ability to use and enjoy their land. Property near airports is consistently valued lower than might otherwise be the case for this reason. If an airport is built in the middle of nowhere, it has every right to land and sends off the loudest planes it can find. They are not violating anyone’s right to reasonable noise levels as there was no one around before them to disturb them. In mixing their labor with the land, so to speak, the airport created a noise easement right that extends to whatever maximum decibel they were contributing before the surrounding areas developed. Although the airport might only own the land its buildings and runways rested upon, its noise easement extends as far as the noise it had first emitted. Anyone who correspondingly homesteaded the airport’s surrounding areas knows what they are getting into and has no right to quiet.

In applying the homesteading principle to air pollution, the same rules apply. Air is unique, though, in that its utilization is often less well-defined. There are several theories of ownership for air. The first is the *ad coelum* rule which says that a person owns all the land above and below his property, in the form of a decreasing-sized triangle downward, and an increasing-sized triangle upward. This is not compatible with the homesteading principle, which requires a person to contribute value to the miles of land and airspace above and below to own them.

Another suggests that private airspace should be scrapped altogether. Unfortunately, clean and uncrowded air is a scarce resource, and planes buzzing just a couple hundred feet above head would constitute a clear violation of the use and enjoyment of a person’s land. The logical implication here is that planes may of course take off and land near airports, at increasing or decreasing altitudes, since they have homesteaded that right by being the first to do so.

However, when they are flying over other people’s property not under the aegis of homesteading, they must fly at a high enough height to not interfere with the property rights of those located below.

The third, which is often applied in law is a “zone” theory that grants the lower airspace above one’s head ownership. Prosser (1971, p. 70) defines the zone as “so much of the space above him as is essential to the complete use and enjoyment of the land” This understanding of airspace aligns well with the homesteading principle and would certainly grant someone ownership of the immediately visible and consumable airspace they had homesteaded.

So, if an industrial factory is built in an unoccupied area, they have every right to pollute as much as they desire up to the limit when they do so at an amount or in a fashion that aggresses against another person’s prior appropriated zone of airspace. That factory could emit cancerous chemicals into the air, but the more quantity it emits the more likely those chemicals are to travel further into prior appropriated areas owned by others. This system of property rights would force polluters to choose between building in areas where their smog wouldn’t affect others or properly managing and minimizing pollutants. Because each person has an absolute right against invasions of their property, a polluter who wanted to build in an occupied area would have to negotiate terms with every person whose property would be affected by their pollution or risk tort action against them. Unlike the current legal system, there would be no weighing of subjective social benefits in tort suits which overwhelmingly sway in favor of polluters.

Even clearly defined property rights are only as good as the uniformity and degree of their enforcement. The current method for enforcing air pollution violations is nuisance law which generally involves the intangible invasion that interferes with a person’s economic use or enjoyment of property. Unlike trespass, which requires an invasion by a tangible mass, nuisances require damages to be enforceable. Intangible objects such as noise, odors, air pollution, excessive light, or other disturbances of comfort must be damaging to the use or enjoyment of property to be considered a

nuisance. For example, radio waves carry satellite tv and radio channels across various frequencies, which invade people's property. They do not, however, constitute a nuisance as they are insensible and do not cause damage to anyone's health or property. If, however, a new factory begins emitting smog, visible and odorous, onto a person's property, the unsettling gas would be a clear nuisance violation subject to a tort action. Similarly, insensible but objectively harmful pollutants or radiation would constitute nuisances as they are damaging to a person's health. Air pollution that is neither detectable nor damaging to a person's health or property, though, does not constitute a nuisance as it does not damage or interfere with the use and enjoyment of property. Air pollution of this variety, therefore, should not constitute an act of aggression. Radio waves are yet another example.

It is important, also, to note that no person has the right not to be affected by nuisances of nature. This is to say that no person is responsible for naturally occurring damages or nuisances on their property that affect their neighbors. If a privately owned volcano erupts, discarding a foot of soot onto a neighboring property, the volcano owner has no responsibility for damages. Tort action should only be taken if there is strict causality between a property owner's actions and an act of nature.

#### 4 DISPELLING MYTHS AND CONCERNS

So far, this paper has set forth a libertarian approach to property rights and air pollution that establishes homesteading as the mode of absolute ownership of property, defines nuisances, distinguishes aggression from legal and allowable pollution, and properly extends the burden to prove strict causality at the door of the plaintiff. Under this normative approach to air pollution, people aggressed against by smog, toxic pollutants, or other damaging air pollutants would be able to seek both injunctions and damages. Better yet, polluters without prior appropriated pollution easements would be encouraged to negotiate the terms of their existence before polluting. Ultimately, this would internalize environmental "externalities" and force responsibility onto those who wish to pollute. This would incentivize research into cleaner

alternatives to transportation, manufacturing, and energy extraction and development while manifesting stricter pollution management standards. The remainder of this essay will seek to dispel various concerns about the efficacy of free-market environmentalism in addressing air pollution.

If homesteading rules applied and public and unowned land was suddenly up for grabs, wouldn't there be a dash to claim that land and establish pollution easements? Wouldn't all polluters rush to establish as many pollution easements as possible?

There quite possibly might be an influx of industries, which might want to establish pollution easements on newly privatized land before others arrive. Currently, the federal Government owns 28% of land in the US- about 640 million acres (Vincent 2020). One could only assume that many investors are salivating at the prospect of being able to utilize the vast forests and resources found on this land. Of course, potential polluters will have to compete with the millions of other actors who might consider moving to, developing, or farming this land. The more individual owners stake claims on newly privatized land, the more polluters who want to move to nearby locations will have to negotiate their entrance. This concern, though, minimizes the huge number of current polluters who would, suddenly, be held to new pollution standards. Any person who held his property before a nuisance polluter's entrance into the airspace could seek injunctive relief against them. Most already established polluters would have to minimize pollutants to unactionable levels, negotiate the terms of their polluting, or relocate. This would, likely, more than offset any new polluters that might take advantage of unclaimed land.

It cannot be denied, however, that a sudden move in the direction of the libertarian legal code would indeed introduce more than just a little bit of chaos. But this would not constitute the dreaded "market failure," the bane of free enterprise. Rather, the disorder is the result of *any* unexpected and abrupt change in the legal code, whether an improvement or the very opposite. For example, when alcohol prohibition was introduced in the United States, and then, again, when it was rescinded, upon both occasions disorder and confusion ensued.

Wouldn't this system of homesteading and nuisances inhibit the creation of new businesses that pollute? How could anyone ever pollute under this system?

New industries that sought to pollute would be expected to negotiate payments and pollution terms with the neighboring property owners for as far as their pollution traveled, to be sure. This would raise the barrier costs of entry for those industries that expect to pollute at nuisance levels. Thankfully, markets are flexible, and polluters would innovate new methods of production, energy extraction, and pollution management that are cleaner. Those industries that cannot adapt can find relief from the burdens of negotiating with large numbers of property owners by working with "sky trusts" (Torres 2001). These organizations are an intermediary between polluters and pollutes. They negotiate, collect, and manage fees for air pollution disposal. They pay persons whose property is adversely affected and collect fees from those who engage in these activities. Of course, a refocusing of property rights is always going to be at the expense of those actors and industries that benefited from their degradation. Many polluters, who have been propped up by a coercive legal system, will inevitably have new costs imposed upon them associated with their nuisance and trespass violations. What is wrong with that, though? Increased costs to new polluters are the cost of justice in the absence of coercion.

It is important to distinguish, though, that not every industry or factory that pollutes will be liable for nuisance violations. Only those who emit particularly dangerous or sensible gases into other's property would be held responsible. Many pollutants, in low quantities, pose no danger to anyone's health. Nature- including humans themselves – emits carbon dioxide and other chemical pollutants at low levels. De minimus is the rule here; the law does not concern itself with trifles. The expectation should be that each person is allowed to pollute at reasonable levels below the threshold of damaging neighbors' health.

Air pollution comes from so many places, how can people possibly protect their property from every polluter when each one is responsible for just a fraction of total pollutants?

Oftentimes, smog, noxious air, etc. is a result of many individual polluters who might be polluting at insignificant levels. The best example of this is transportation. Millions of cars around the world contribute significant amounts of soot, nitrogen oxides, carbon monoxide, and sulfur dioxide. Especially in cities, cars are one of the main contributors to dangerous air quality. It would be impossible, though, to sue every car owner in New York City for the quality of air as each, individually, contributes an unactionable amount of pollution. Block (2009) demonstrates that private roads hold the answer. In a free-market system that prioritizes homesteading as the mode of ownership, all roads would be privatized. Busy roads that produced a lot of pollution would be responsible for the amount that entered neighboring properties. Although a case could be made for suing the individual automobile owners as well, it is much more feasible to bring a tort action against the road owner. They, in turn, would have an economic incentive to minimize car pollutants on their roads. To do this, they can exact penalties on those cars that produce more pollutants and provide discounts for those that run cleanly.

Transportation is relatively unique, though, as most polluters own the land from which they emit. In cases where many individual factories that each pollutes at reasonable levels collectively contribute dangerous levels of pollutants, mass torts could be applied. This would look different than joinder cases which, conveniently for plaintiffs, combine multiple defendants who acted in concert with each other into one tort. Most nuisance cases involve several individual defendants who separately contribute to the nuisance. These defendants may differ in variety, percentage, and quantity of pollutants and the injuries are, therefore, separate. It is up to the plaintiff, then, who always bears the burden of proof, to appropriate fractional damages among the various defendants in multiple torts. Plaintiffs must be able to show a systematic approach to appropriation. This can be an arduous task- especially when some defendants might have homesteaded their low-level pollution easement before others.

Rothbard, himself, notes that plaintiffs might accomplish very little if proof beyond a reasonable doubt is strictly adhered to. Again, though, a system of private courts would be able to

approach data and air pollution science more technically. Perhaps that plus clear and well-defined property rights, and some experimentation in mass nuisance cases involving individual torts can work to create a universal standard for apportioning damages in such cases. This, however, is the job of an air pollution jurist.

Air pollution can travel across the world. How can property rights help reduce air pollution from other countries?

As it stands, very little is stopping global polluters from spilling greenhouse gases and toxic chemicals into the atmosphere. Worldwide environmental agreements such as the Paris climate accord include no enforcement mechanisms and underwhelmingly constitute nothing more than a set of goals. There have been many other overlapping international treaties signed throughout the 20th century that outline property and liability rules relating to the environment. These treaties, collectively, establish some semblance of international tort law and private actors would have an interest in preserving these systems. These tort laws might help deal with nuisances like air pollution, but oftentimes they are not enforceable and the only thing holding international polluters accountable are reputation mechanisms. Perhaps leading by example and showing other states how the enhancement of property rights can positively impact the environment is the best we can do.

***How could the poor afford to litigate against massive polluters with much more money?***

Again, private courts could be more efficient and tailored to fit the needs of a particular industry. Private courts would not be bogged down with the procedure of overloaded dockets and the jurists would become expert fact finders in whatever industry they worked in. Similarly, clear, and succinct understandings of universal property rights and their normative enforcement would take much of the uncertainty out of court deliberations. Environmental lawyers would often know, more certainly than now, whether a tort case was winnable and may provide their services for free on the assumption that they would receive a percentage of winnings on a contingency basis. Normative property rights and air pollution standards too would help avoid the litigation process. Polluters, who would know whether they

were violating their neighbor's property rights, would have a financial incentive to negotiate their entrance to an area before they polluted. Collectively, these factors would significantly lower the costs of resolving pollution disputes.

Even better, due to the nature of air movement, it is rare that there is only one victim of damaging air pollution. So long as the victims are of common, singular interest, class action lawsuits can pool the damages of many individuals into a single suit, which could be more efficient and convenient for victims. Class actions are almost always free for victims to hop on to and are a little risk to those who sign on.

The poor would have affordable paths to litigation against even the biggest national polluters because reputation is highly important in this field. Let the word get out that the Acme Court favors rich litigants over poor ones, and that would pretty much end its continued operation. Also, there is the matter of comparison. Do government courts never favor the wealthy vis-a-vis the impoverished? Of course, they do. It is, alas, part of the human condition. So, the question is not whether private courts would succumb to this sort of evil. It is, rather, which institution would be *more* vulnerable to it. Here, the free enterprise system looks good in comparison, in that it is based on voluntary contributions and payments, not coercive taxation. A government court, no matter how corrupted, has never gone out of business. This would not at all apply to private counterparts.

***What about pollutants that don't constitute a nuisance, but contribute to climate change?***

Carbon dioxide in the atmosphere is the main contributor to climate change. In turn, climate change can cause massive destruction of property in the form of more intense and unpredictable storm seasons, sea level rise, and temperature changes. These all present themselves as acts of nature but can be exacerbated by global carbon polluters. This is tricky because, of course, carbon polluters cannot be held responsible for every out-of-season hurricane or statewide freeze in Texas. Under the burden of strict liability, it is nearly impossible to tie polluters to these acts of nature. Carbon dioxide pollutants, in large quantities, can cause headaches, dizziness, and fatigue, but rarely does it pool in large enough quantities to cause this health damage. Outside of locations

immediately proximal to mass carbon polluters, then, property owners have no recompense against the creators of climate change. In this sense, climate change is difficult for free market environmentalism to address.

Normative property rights enforcement can, hopefully, reduce the carbon pollution that brings smog to a neighboring property and, in doing so, reduce overall carbon emissions. As other pollutants that are more obviously damaging to health become more expensive to emit, the development of clean energy technologies will be accelerated, too. These technology alternatives can replace carbon-emitting technologies in time. Perhaps this is better than current environmental legal standards, which have no answer to climate change outside of coercive regulation and subsidies, which act as transfer payments.

In saying the foregoing in this section, we are allowing, *arguendo*, that climate change is anthropomorphic. There is an alternative view, however. It is that these claims of left-wing socialist environmentalists are false, merely an attempt to blame capitalism and promote central planning. In the 1970s, these critics claimed there was global cooling, and it was all the fault of economic freedom. In the 1990s, the charge was global warming, and again the free enterprise system was the culprit. Earlier in this century, the criticism of *laissez-faire* capitalism was that it brought about temperature change. The indictment kept changing, but the verdict stayed the same. It is difficult to take these reproaches seriously.

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## 5 CONCLUSION

Ultimately many concerns about free market environmentalism boil down to a distrust of capitalism. They are rooted in the philosophy that the government can save the environment more adequately and efficiently. If that were the case, though, would the government not have saved the environment by now? Instead, the state props up polluters by degrading their nuisance liabilities and removing their financial incentives to research cleaner alternatives.

This paper has presented an alternative normative model for property rights and nuisance torts that relies on libertarian theory to effectively moderate air pollution. This Rothbardian approach prioritizes homesteading as the mode of ownership, absolute rights of individuals to use and enjoy their property free from interference, the strict burden of proof on plaintiffs who allege damages against that right, and the normative enforcement of these standards by private courts.

Ultimately, this will lead to less air pollution and financial incentives to innovate cleaner alternatives to dirty industries. While doing so, would create a more just system of individual liberty without coercion. Torts against polluters have been stripped of their teeth for centuries and a reframing of property rights and nuisance law is necessary if we want to see a cleaner and more just world.

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