

U.S. PROPERTY LAW: A REVISED VIEW

KAMAILE A.N. TURČAN*

INTRODUCTION

The individual's sole dominion over a parcel of land—to the exclusion of others in the community or the public at large—is a myth, despite the prevalence of this view in conventional U.S. property law.¹ In practice, the rights and obligations in any one parcel of land is a mixture of individual, community, and public interests coexisting in that land. It is the *proportion* of those interests, not the outright exclusion of any one interest, that defines ownership.²

A revised view of property law, defined in this Article, recognizes the proportionality of individual, community, and public interests coexisting in property. That proportionality, not the mythical “individual rights,” governs the complex property regimes that have evolved in the United States.

In Part I, the conventional view of property law fails when contrasted with real-world practice. The familiar metaphor in property law—the “bundle of sticks” representing the collection of property entitlements

* Juris Doctor, University of Hawai'i, William S. Richardson School of Law. Partner, Jones Day. Former law clerk to Associate Justice Sonia Sotomayor of the Supreme Court of the United States, Judge Richard R. Clifton of the U.S. Court of Appeals for the Ninth Circuit, and Judge David A. Ezra of the U.S. District Court for the District of Hawai'i. The views expressed herein are those of the author and do not reflect the views of Jones Day or any other affiliation.

¹ See, e.g., Carol M. Rose, *Canons of Property Talk, or, Blackstone's Anxiety*, 108 YALE L.J. 601, 603 (1998) [hereinafter Rose, *Canons of Property Talk*] (explaining that “the notion of property as exclusive dominion . . . is far from self-evident, and it was even less self-evident when Blackstone wrote [those] lines”); compare WILLIAM B. STOEBUCK & DALE WHITMAN, *THE LAW OF PROPERTY* 2 (West Group 3rd ed. 2000) (endorsing a view of property law which says, “That is property to which the following label can be attached. To the world: Keep off unless you have my permission, which I may grant or withhold. Signed: Private citizen. Endorsed: The state.” (citation omitted)), *with id.* at 516 (noting the individual's sole dominion over land is not true today and was not true when Blackstone formulated the principle).

² As explained herein, the term “ownership” does not accurately portray the complex and interrelated set of interests in land. This Article adopts this terminology, which will be familiar to readers, for the sake of discussion.

an owner may claim—describes the world as seen through the eyes of individual private property owners.³ The metaphor largely ignores the existence of communities or the broader public, thus reinforcing the incorrect view that individual rights are distinct and without context in the larger socio-political structure.

Property regimes that reflect mixed interests in land already exist in the United States and throughout the world, despite the narrow view about the necessity of individual private property. Approximately half the world's land is held communally, and even in property strictly demarcated as "private," "public," or "common," all properties actually have elements of individual, public, and community interests.⁴ Conventional focus on individual private property stems from and reinforces an oversimplified view of property law that is blind to the complex and sophisticated approaches to property rights that have developed over millennia. The revised view here explicitly accounts for the proportional interests in land and allows property law to continue to evolve.

In Part II, the bundle of sticks metaphor gives way to a new metaphor that represents the revised view of property law. The proportionality inherent in this revised view then supports a range of mixed property regimes that encompass the complex relationship between persons, society, and the land. The property regimes vary according to locality and type of land parcel at issue, whether residential condominium units, single-family homes, livestock grazing lands, community gardens, or large-scale agriculture. In the context of arable land, property regimes must reflect the proportionally high community and public interests in land capable of producing agricultural products—that is, food to sustain society.

In Part III, the revised view moves property theory forward to meet the challenges of food security in the twenty-first century. Land (it must be said) forms the basis of society's food production. Under prevailing Anglo-American property theory, private ownership of agricultural land generally entails the right to grow and sell crops as one pleases, without regard to how much arable land is available in the region, how neighboring land has been used, or whether the surrounding community has access to fresh food. Food supply chains lengthen, and crops are increasingly grown for export rather than for local consumption, as

³ See Myrl L. Duncan, *Reconceiving the Bundle of Sticks: Land as a Community-Based Resource*, 32 ENV'T L. 773, 774–99 (2002).

⁴ See *infra* Section I.B.3.

farmers and food suppliers pursue national and international markets. The community and public interests in agricultural land are largely ignored from a legal and policy perspective. But in times of disaster and food supply chain disruptions—World War I, World War II, and the COVID-19 pandemic—access to a regional food supply is critical to not only food security but also to municipal resiliency planning and national security. Property regimes reflecting the revised view of property law will correct existing vulnerabilities by accounting for the proportionality of interests in these lands. In this way, food security serves as just one example of how the revised view can assist in the necessary evolution of property law to capture the individual-community-public interests in land.

I. A REVISED VIEW OF U.S. PROPERTY LAW: INDIVIDUAL, COMMUNITY, AND PUBLIC INTERESTS

Despite its inaccuracy, the Blackstonian conception of the individual's "sole and despotic dominion . . . over the external things of the world, in total exclusion of the right of any other individual in the universe"⁵ retains considerable influence over real property law in the Anglo-American tradition. Its influence is evident even in property theory that supposedly eschews the absolutist view of property ownership.⁶ Indeed, although the conventional approach to property law now conceives of property as a set of rights in something rather than complete possession of that thing, the prevailing "bundle of sticks" metaphor reflects a narrow focus on individual rights harkening back to Blackstone.⁷

But an individual's sole dominion over a piece of property is a myth that is not representative of property as it has evolved in today's world.⁸ In actuality, property in the United States and around the world is a complex and sophisticated mix of individual, community, and public interests in land.

⁵ 2 WILLIAM BLACKSTONE, COMMENTARIES *2.

⁶ See *infra* Section I.A.

⁷ See Duncan, *supra* note 3, at 789–90.

⁸ See Rose, *Canons of Property Talk*, *supra* note 1, at 631 (critiquing the notion of exclusive dominion); STOEBUCK & WHITMAN, *supra* note 1, at 516 ("These famous words by Blackstone are not true today and were not true when written. Blackstone's words have to be understood in a special sense, referring to the pure concept of 'property.' Of course he knew well, as we know today, that there are many legal limitations upon the actual use and enjoyment of property rights in land.").

A. *Property, Defined by Myth*

“Property” is no easy thing to define.⁹ Property, or, more precisely, rights in property, are reflective of a philosophy; they do not exist of themselves.¹⁰ They are created—and then enforced—by society, based on legislative enactments, judicial opinions, and custom, which reflect the judgments and values of the society as a whole.¹¹ This is especially true of rights in real property—land.¹²

Land is unlike objects based entirely on a human construct, such as contracts or intellectual property. Land exists whether or not there is a population to lay claim to it. It exists independent of whatever legal framework is constructed to govern behavior surrounding the land. Society overlays a legal apparatus identifying rights to use the land and defining social relationships around that land. “Land” becomes “property” when there is societal recognition that persons have a legal interest or title in that land that is enforceable against others.¹³ Real property is thus ultimately a relationship between persons, society, law, and the land: the property regime.¹⁴

What, then, does it mean for an individual to “own property”? The very phrase is a remnant of an outmoded idea stuck in the collective consciousness from the days of Blackstone, when the concept of property involved a single individual possessing in totality a tangible object.¹⁵

⁹ See, e.g., O. Lee Reed, *What Is “Property”?*, 41 AM. BUS. L.J. 459, 459–64 (2004) (describing various approaches to defining property); Carol M. Rose, *Property as the Keystone Right?*, 71 NOTRE DAME L. REV. 329, 329–33 (1996) (discussing the role of property in the political order and in relation to other constitutional rights); JOSEPH WILLIAM SINGER, INTRODUCTION TO PROPERTY (2nd ed. 2005) (noting that there is “more disagreement about property law than one might imagine” and that “the law of property is conflicted, controversial, and interesting”); STOEBUCK & WHITMAN, *supra* note 1, at 2 (“The institution of ‘private’ property has, of course, been the subject of vigorous criticism in the Western world from very early times.”).

¹⁰ See SINGER, *supra* note 9, at 2–19 (presenting overview of various theories of property ownership).

¹¹ See *id.* at 5–6 (discussing legal relations in the context of property). To put a finer point on it, rights in property reflect the values of those who have influence to sway societal rules.

¹² See STOEBUCK & WHITMAN, *supra* note 1, at 10–11 (distinguishing real property from personal property).

¹³ See SINGER, *supra* note 9, at 5–6; STOEBUCK & WHITMAN, *supra* note 1, at 2 (“[P]roperty’ is comprised of legal relations between persons with respect to ‘things.’”).

¹⁴ See, e.g., SINGER, *supra* note 9, at 2–19; ERIC T. FREYFOGLE & BRADLEY C. KARKKAINEN, PROPERTY LAW: POWER, GOVERNANCE, AND THE COMMON GOOD 1–2 (West 2012).

¹⁵ See BLACKSTONE, *supra* note 5, at *258.

Property ownership has evolved to consist of a set of rights in something.¹⁶ The tangible thing (here, land) is simply the object of the set of rights one possesses in relation to others.¹⁷ Each property right therefore represents the “social relationship between a resource user and other potential users, with respect to a particular object, place, or feature of the land.”¹⁸

Within this paradigm of property as a collection of rights, the “bundle of sticks” or “bundle of rights” is the prevailing metaphor to conceive of and discuss rights in property—narrowly focused on the *individual’s* rights in property.¹⁹ In this paradigm, ownership is divided into component parts. Each stick represents a right which, when viewed in aggregate, represents the entirety of rights in land or, when disaggregated, can be transferred or otherwise diminished individually on a one-by-one basis.²⁰ These rights include the right to enter the property, the right to use the property, the right to exclude others from the property, the right to derive income from that property, the right to alienate (sell or lease) the property, and ultimately the right to transfer or destroy rights in

¹⁶ See, e.g., *Dickman v. Comm’r*, 465 U.S. 330, 336 (1984) (“‘Property’ is more than just the physical thing—the land, the bricks, the mortar—it is also the sum of all the rights and powers incident to ownership of the physical thing.” (quoting *Passailaigue v. United States*, 224 F. Supp. 682, 686 (M.D. Ga. 1963))).

¹⁷ See SINGER, *supra* note 9, at 15.

¹⁸ Dylan Oliver Malagrino, *Applying Communal Theories to Urban Property: An Anthropological Look at Using the Elaboration of Common Property Regimes to Reduce Social Exclusion from Housing Markets*, 10 U.C. DAVIS BUS. L.J. 33, 42 (2009) (quoting Elinor Ostrom & Edella Schlager, *The Formation of Property Rights*, in *RIGHTS TO NATURE: ECOLOGICAL, ECONOMIC, CULTURAL, AND POLITICAL PRINCIPLES OF INSTITUTIONS FOR THE ENVIRONMENT*, 127–56 (1996)).

¹⁹ See, e.g., *Henneford v. Silas Mason Co.*, 300 U.S. 577, 582 (1936) (Cardozo, J.) (“The privilege of use is only one attribute, among many, of the bundle of privileges that make up property or ownership.”); SINGER, *supra* note 9, at 5–6; STOEBUCK & WHITMAN, *supra* note 1, at 6; DAVID L. CALLIES ET AL., *CONCISE INTRODUCTION TO PROPERTY LAW 1* (LexisNexis 1st ed. 2011) [hereinafter CALLIES, *CONCISE INTRODUCTION*]; Rose, *Canons of Property Talk*, *supra* note 1, at 612; Robert J. Goldstein, *Green Wood in the Bundle of Sticks: Fitting Environmental Ethics and Ecology into Real Property Law*, 25 B.C. ENV’T AFF. L. REV. 347, 364–74 (1998); Anna di Robilant, *Property: A Bundle of Sticks or a Tree?*, 66 VAND. L. REV. 869, 873–90 (2013); see generally Abraham Bell & Gideon Parchomovsky, *A Theory of Property*, 90 CORNELL L. REV. 531 (2005) (providing historical overview of various approaches to property, including the natural rights model, the contract model, the ownership model, the labor theory model, and the bundle of sticks model, and advocating for a value theory model of ownership).

Since at least as early as the 1930s, the image of the bundle of stick has dominated the discussion about and adjudication of property rights. See Duncan, *supra* note 3, at 774–75 & n.1.

²⁰ See Duncan, *supra* note 3, at 774.

that property.²¹ Inherent in the term “owner” is the recognition that property ownership is a matter of degree; ownership is not an absolute right in property but is rather a “relative measure of one’s interest in property[.]”²² The bundle concept thereby reflects that the right to real property is really a collection of interests in a parcel of land, as distinguished from the absolute ownership model.²³ And it encompasses the idea that there are different ways that people can use or claim rights in a single parcel of land or even in components of that parcel. This metaphor to signify the collection of rights that make up the various aspects attendant to property “ownership” is sufficiently established in property law that the U.S. Supreme Court has accepted its premise as a starting point for its property jurisprudence.²⁴

Despite its prevalence as the model for property rights, the bundle of sticks metaphor is incomplete. Blackstone’s hyperfocus on the individual’s rights in property imbues the metaphor.²⁵ The very concept of the bundle of sticks suggests that the individual’s interest in the property is entirely isolated from anything else; from other individuals, from the surrounding community, and from public rules and regulations.²⁶ Similarly,

²¹ Goldstein, *supra* note 19, at 375; SINGER, *supra* note 9, at 2; STOEBUCK & WHITMAN, *supra* note 1, at 6; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 1, 100–63; Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 730–31 (1998). Property law evolves in accordance with state-specific common law and legislative enactments, and so is not uniform, but the enumerated rights here are universally recognized rights in property. *See United States v. Craft*, 535 U.S. 274, 278 (2002) (“State law determines [] which sticks are in a person’s bundle.”); Goldstein, *supra* note 19, at 349–51.

²² Goldstein, *supra* note 19, at 383.

²³ *See* discussion *infra* Section I.B.1.

²⁴ *See, e.g., Craft*, 535 U.S. at 278 (“A common idiom describes property as a “bundle of sticks”—a collection of individual rights which, in certain combinations, constitute property.”); *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027 (1992) (referencing “the State’s power over[] the ‘bundle of rights’ that [citizens] acquire when they obtain title to property”); *Dolan v. City of Tigard*, 512 U.S. 374, 393 (1994) (“As we have noted, this right to exclude others is one of the most essential sticks in the bundle of rights that are commonly characterized as property.” (quoting *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979))).

²⁵ *See infra* notes 26–35 and accompanying text.

²⁶ *See Loreto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435 (1982) (“The power to exclude has traditionally been considered one of the most treasured strands in the owner’s bundle of property rights”); *Craft*, 535 U.S. at 283 (identifying the “most essential property rights: the right to use the property, to receive income produced by it, and to exclude others from it”); *Dolan*, 512 U.S. at 393 (“As we have noted, this right to exclude others is ‘one of the most essential sticks in the bundle of rights that are commonly characterized as property.’” (quoting *Kaiser Aetna*, 444 U.S. at 176); *Kaiser Aetna*, 444 U.S. at 176, 179–80 (characterizing the right to exclude as “one of the most essential

there is a tendency to equate the term “property” with “private property.”²⁷ This default assumption is so ingrained in property theory that law school texts entitled simply “property” focus almost exclusively on the legal rules attendant to *individual, private* property rights, with public or community interests in property referenced—if at all—as a restriction on individual rights rather than as part of the property regime itself.²⁸

Under this model, for example, owners of single-family homes or condominium units might consider themselves to be private owners of their dwellings, notwithstanding their obligations to abide nuisance laws and zoning ordinances and frontage setbacks imposed by the government or to abide by covenants and common-element rules set by the collective governance of the homeowners’ association.²⁹ In this context, the proportion of individual interest is relatively high when compared with the collective interest in this type of land use, and so the myth of purely individual land ownership may appear innocuous. But in other contexts, where the proportion of community and public interest in the land is higher, the myth not only misleads, but also harms those broader interests.

Thus, the fundamental failure of the bundle of sticks metaphor is that it encourages the misconception that property ownership is merely a collection of individual rights, without any recognition of the obligations and broader public and community interests accompanying those rights.³⁰ It retains focus on the Blackstonian individual, and suggests—incorrectly—that individual rights are disconnected from and can be regarded separately from the rest.³¹ So although the bundle metaphor recognizes that property rights can be disaggregated, each “stick” continues to represent an individual right that fails to encompass all the other concomitant obligations and community-public interests. It thereby

sticks in the bundle of [property] rights,” and declaring that it is “universally held to be a fundamental element of the property right”).

²⁷ Lee Anne Fennell, *Ostrom’s Law: Property Rights in the Commons*, 5 INT’L J. OF THE COMMONS 9, 11 (2011); see STOEBUCK & WHITMAN, *supra* note 1, at 2 (stating that “‘private’ property is the norm”); see also STOEBUCK & WHITMAN, *supra* note 1, at 25 (“Present estates in land carry with them, as their single most salient characteristic, the present right to exclusive possession of a particular parcel of land.”).

²⁸ See, e.g., STOEBUCK & WHITMAN, *supra* note 1, at xi–xii, 2–6, 224–40, 518–703 (holding discussion of government land use controls until chapter 9 and limiting discussion of community property to the marital property context); SINGER, *supra* note 9, at xi–xxiv (presenting individual rights in property first and introducing public or community rights as exceptions to an owner’s power to control property).

²⁹ See *infra* Section I.B.1.

³⁰ See Duncan, *supra* note 3, at 781; di Robilant, *supra* note 19, at 874; *infra* Section I.B.

³¹ See Duncan, *supra* note 3, at 782.

encourages a disregard for community and public interests in land. A new view, a new metaphor, is needed to accurately portray real property today.

B. The Actual, not Mythical, Nature of Property

As a social construct, property law has always evolved and been open to experimentation, with more combinations of individual, community, and public interests than is conventionally taught.³² From a holistic view, property law moved beyond the “bundle” myth long ago.

There are three predominant categories of property under conventional doctrine: private property, public property, and common property.³³ They are typically presented as entirely distinct, defined in relation to the rights (or lack thereof) of individuals.³⁴ Broadly speaking, the underlying assumptions are that the individual owns private property, the government owns public property, and no one owns common property.³⁵

But the reality is more nuanced—the result of thousands of years of human experiment in managing land and defining property. There is instead a mix of public, community, and individual interests in any particular parcel of land—regardless of its descriptor as public, common, or private—depending on the land at issue and what right is sought to be exercised on that land.³⁶ Numerous examples from the Anglo-American system and around the world evidence the intertwined systems of land use that have evolved over time.³⁷ In fact, the myth of pure individual land ownership is not an inevitability, indeed has not really ever existed, and need not form the basis of real property jurisprudence.

1. Private Property

Private property, as described above,³⁸ is conventionally understood in Anglo-American property law to refer to the collection of rights

³² See Jedidiah J. Kroncke, *Disciplining Utopia: The Future of Cooperative Landholding*, 49 ENV'T L. 453, 455–60 (2019).

³³ Some scholars identify four property right regimes by conceiving of “common property” separately from “open access” property. See, e.g., Malagrino, *supra* note 18, at 43. But as discussed *infra* Section I.B.3, this Article treats “open access” land as unmanaged common property.

³⁴ See Malagrino, *supra* note 18, at 43–44.

³⁵ See *id.*

³⁶ See *infra* Sections I.B.1–3.

³⁷ See *infra* Sections I.B.1–3.

³⁸ See *supra* Section I.A.

that an “owner” has in something, represented by the bundle of sticks.³⁹ When scholars discuss “private property,” there is usually an assumption baked into that discussion: the property at issue is owned by a single individual.⁴⁰ So much so that when scholars distinguish between communal and private property, they do not bother to specify that when they say “private,” they mean owned by one person.⁴¹ This default assumption is a misleading oversimplification of the nature of property ownership.

There is nothing inherently “individual” about private ownership. Take, for example, the single-family home, long the quintessential American dream. Even this ideal typically includes more than one person living under that same roof. Many persons may share the same household resources, especially in the case of multi-generational homes. To maintain the myth of individual private ownership, therefore, property theory essentially subsumed family members into one fictional individual.⁴² Expanding outward, that family shares an interest in the general ambiance of the neighborhood as well as the common elements or amenities that community members may share.⁴³ Even the market value of that single-family home is based significantly on other costs or externalities born by the community and the public, irrespective of the owner’s use, including schools, surrounding properties, and the absence or presence of blight.⁴⁴

³⁹ See, e.g., SINGER, *supra* note 9, at 2 (“Property concerns legal relations among people regarding control and disposition of valued resources. . . . Because ownership concerns a package of distinct entitlements, we should understand it as comprising a bundle of rights.”); STOEBUCK & WHITMAN, *supra* note 1, at 3 (“[P]roperty’ is comprised of legal relations between persons with respect to ‘things.’”); CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 1 (“Property as a legal concept consists of the rights that an owner has, in relation to others, with respect to assets.”).

⁴⁰ See generally Eduardo M. Peñalver, *Property as Entrance*, 91 VA. L. REV. 1889, 1890–92 (2005).

⁴¹ See generally Malagrino, *supra* note 18, at 46–47.

⁴² Peñalver, *supra* note 40, at 1929 (“[T]he freedom to act as one pleases, even within the private confines of one’s home, is frequently overstated, particularly by those who fail to recognize the communal nature of the household”). According to Peñalver, “theorists have generally overemphasized the degree to which private property enables owners to escape from communal coercion.” *Id.* at 1893. Instead, private property is “an institution that binds individuals together into normative communities,” *id.* at 1972, and “actually serves to facilitate ‘entrance’ into community by tying individuals into social groups,” *id.* at 1892.

⁴³ See Barak Atiram, *Between Racially Restrictive Covenants and Indian Beaver Hunting: The Metatheory of Property Rights*, 24 TEX. J. C.L. & C.R. 223, 246 (2019).

⁴⁴ See *id.* As Atiram notes, “[a] significant portion of the value individuals attribute to their land derives from collective characteristics which preservation accordingly demands a concentrated collective effort. Similarly, the market value of the private home . . . is influenced by the quality of the community in which it resides.” *Id.* “[T]he collective and

These communal aspects to the property belie the very concept that the “individual” is the baseline for private property ownership.⁴⁵

More broadly, it is actually more difficult to envision private property that is *not* owned or governed by groups. Many businesses, including real estate firms, family owned restaurants, retail corporations, and law firms—including the land they may own or lease—function under collective governance and ownership models despite their indisputably “private” nature.⁴⁶

Anglo-American property law typically addresses multi-owner ownership of land through the concept of concurrent estates.⁴⁷ And law students will become familiar with the concepts of tenants in common, tenancy by the entirety, life estates, estate of years, leasehold, remainders, fee simple determinable, fee simple subject to condition subsequent, executory interests, and so on—all to accommodate the myriad of interests in property that vary from the individual fee simple owner template.⁴⁸ Nevertheless, in the doctrine, concurrent estates (and all the rest) are still treated as exceptions to the baseline individual owner, which does not reflect reality but does reflect the conventional view of property.⁴⁹

The rights attendant to private property in all its forms—either individual or multi-owner ownership—are even further limited by coexisting public and community interests.⁵⁰

The two most exalted rights in the individual bundle of sticks—the rights to exclude and to use—are not absolute. The law recognizes many limits on the rights to exclude and to use, to the benefit of the community or the larger public,⁵¹ including the following:

private aspects of property usage are deeply intertwined, and so a richer and fuller economic account must address the advantages of both private and collective control over the community's vital assets.” *Id.*

⁴⁵ See generally *id.*

⁴⁶ See, e.g., Fennell, *supra* note 27, at 12–13; Malagrino, *supra* note 18, at 53.

⁴⁷ See, e.g., SINGER, *supra* note 9, at 352–53; STOEBUCK & WHITMAN, *supra* note 1, at 175–240; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 439, 491. See generally chapter 5 in STOEBUCK & WHITMAN, *supra* note 1.

⁴⁸ SINGER, *supra* note 9, at 304–17, 353–63. See generally chapters 2–4 in STOEBUCK & WHITMAN, *supra* note 1; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 439–518.

⁴⁹ See generally SINGER, *supra* note 9, at 304–17, 353–63.

⁵⁰ See Daniel B. Kelly, *The Right to Include*, 63 EMORY L.J. 857, 867 (2014).

⁵¹ See generally Rose, *Canons of Property Talk*, *supra* note 1, at 603 (explaining that the Blackstonian exclusive dominion over real property is a trope, not a reality); Malagrino, *supra* note 18, at 52–58 (explaining communal strategies exist within even predominantly privatized property regimes); CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 105–46 (discussing limitations on the right to exclude); SINGER, *supra* note 9, at 24–40 (similar);

- Custom, the public trust doctrine, or other background principles of state law may authorize right of access for public recreation, hunting, or access to waterways;⁵²
- Antidiscrimination laws prohibit housing policies that discriminate on the basis of race, sex, disability, religion, or family status, among others;⁵³
- The sovereign power of the state and the police power of counties and municipalities authorize government entities to enact rules restricting use or access to promote the public welfare;⁵⁴
- Zoning laws and environmental regulations restrict certain conduct or require other conduct;⁵⁵
- Courts have upheld non-owners' rights to trespass during emergencies or to exercise free speech rights on private commercial property;⁵⁶
- Owners may take land parcels subject to servitudes, or may establish servitudes themselves, granting non-possessory rights like easements to enter or use the land;⁵⁷
- Restrictive covenants or homeowners' association rules associated with subdivisions or condominiums

Carl J. Circo, *Does Sustainability Require a New Theory of Property Rights?*, 58 U. KAN. L. REV. 91, 106, 150–51 (2009) (examining sustainability theory in the context of property theory); Kelly, *supra* note 50, at 867–68 (commenting that property law tends to overemphasize the right to exclude).

⁵² See SINGER, *supra* note 9, at 86–91; FREYFOGLE & KARKKAINEN, *supra* note 14, at 369–96; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 113–40.

⁵³ See generally chapter 12 in SINGER, *supra* note 9; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 581–610.

⁵⁴ See CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 203–51; SINGER, *supra* note 9, at 638; STOEBUCK & WHITMAN, *supra* note 1, at 580–85.

⁵⁵ See generally CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 203–334; chapter 13 in SINGER, *supra* note 9; chapter 9.B in STOEBUCK & WHITMAN, *supra* note 1.

⁵⁶ See, e.g., *State v. Shack*, 277 A.2d 369, 371–72, 374 (N.J. 1971) (upholding an exception to trespass for the health and safety of migrant farmworkers, while observing that “[p]roperty rights serve human values. They are recognized to that end, and are limited by it.”); *Pruneyard Shopping Center v. Robins*, 447 U.S. 74, 83 (1980) (ruling that the “exercise [of] state-protected rights of free expression and petition on shopping center property” did not “unreasonably impair the value or use of the [] property as a shopping center”); SINGER, *supra* note 9, at 24–40, 76–85.

⁵⁷ See generally chapter 5 in SINGER, *supra* note 9; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 613–766; chapter 8.A in STOEBUCK & WHITMAN, *supra* note 1.

will limit individual use in order to protect neighbors' rights and property values;⁵⁸

- The doctrine of adverse possession awards valid title to non-owners following their open and adverse, actual, and continuous possession of another's land for a certain specified statutory period;⁵⁹
- Common law torts, particularly private and public nuisance, limit uses that cause injury to the public or to adjoining land owners;⁶⁰ and
- Another less-glorified right in the bundle of sticks—the right to lateral support—inherently recognizes that land is connected, and limits one landowner's right to use his or her land in a way that deprives an adjoining landowner of lateral support.⁶¹

Thus, “a landowner's right to use his land inconsistently with the public interest . . . is not part of his title to begin with.”⁶²

The rights to sell, transfer, or even destroy rights in property are also subject to limitation—either by rule of law or voluntary agreement.⁶³ The common law rule against perpetuities, for example, limits persons

⁵⁸ See generally chapter 6 in SINGER, *supra* note 9; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 613–766; chapter 8.B in STOEBUCK & WHITMAN, *supra* note 1, at 469–514.

⁵⁹ See generally chapter 4 in SINGER, *supra* note 9; CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 147–59; FREYFOGLE & KARKKAINEN, *supra* note 14, at 634–76; STOEBUCK & WHITMAN, *supra* note 1, at 853–60.

⁶⁰ RESTATEMENT (SECOND) OF TORTS § 821B (AM. L. INST. 1979) (“A public nuisance is an unreasonable interference with a right common to the general public.”); *id.* § 821D (“A private nuisance is a nontrespassory invasion of another's interest in the private use and enjoyment of land.”); *id.* § 821A (discussing nuisance generally); see generally chapter 3 in SINGER, *supra* note 9; W. PAGE KEETON ET AL., PROSSER & KEETON ON TORTS §§ 86–91, at 616–54 (5th ed. 1984) (discussing public and private nuisances as unreasonable interference with uses in land).

⁶¹ See RESTATEMENT (SECOND) OF TORTS § 817 (“One who withdraws the naturally necessary lateral support of land in another's possession or support that has been substituted for the naturally necessary support, is subject to liability for a subsidence of the land of the other that was naturally dependent upon the support withdrawn.”); SINGER, *supra* note 9, at 135–36; STOEBUCK & WHITMAN, *supra* note 1, at 419–21.

⁶² Duncan, *supra* note 3, at 796 (citing *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027 (1992)); ERIC T. FREYFOGLE, AGRARIANISM AND THE GOOD SOCIETY 98 (2007) [hereinafter FREYFOGLE, AGRARIANISM] (disputing “that private property includes the right to use the land any way an owner wants, without regard for public implications” and observing “[t]his is not an accurate statement of law or history, nor is it remotely good public policy”).

⁶³ See SINGER, *supra* note 9, at 333–34.

from transferring or otherwise exerting control over ownership of private property for a certain period beyond the lives of those living when a deed or will was executed.⁶⁴

Other arrangements to restrict future use or disposition of the property come in the form of restrictive covenants, easements, or other land trust agreements.⁶⁵ These mechanisms are used widely in the agricultural or environmental context, with states across the country managing waiting lists of landowners seeking to enter their property into restrictive easements.⁶⁶ Farmers and ranchers are increasingly pursuing multiparty agreements with neighboring landowners, land trusts, and the government to permanently restrict commercial sales of property—“cows over condo” agreements to preserve farm and ranchland from urban or retail development.⁶⁷

Even a landowner’s very ability to enforce his or her interests in property depends on recognition from the public (in the form of the government) and the surrounding community.⁶⁸ Property is a social institution,⁶⁹ and the entire concept of private property relies on a collective agreement to acknowledge and, if necessary, enforce those rights, either by the community or by the sovereign.⁷⁰ Through these various mechanisms, public and community interests encircle individual interests, providing boundaries to and the foundation for the exercise of individual rights.⁷¹

⁶⁴ See *Jones v. Habersham*, 107 U.S. 174, 176 (1883) (evaluating the terms of will against the rule against perpetuities, “by which every devise or bequest is void which may by possibility not take effect within a life or lives in being and 21 years afterwards”); CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 476–91; STOEBUCK & WHITMAN, *supra* note 1, at 118–38; SINGER, *supra* note 9, at 333–34.

⁶⁵ See, e.g., Jennifer Oldham, *Expanding Efforts to Keep “Cows over Condos” Are Protecting Land Across the West*, WASH. POST (Apr. 11, 2020), https://www.washingtonpost.com/national/expanding-efforts-to-keep-cows-over-condos-are-protecting-land-across-the-west/2020/04/10/96ec2f80-79c6-11ea-9bee-c5bf9d2e3288_story.html [<https://perma.cc/4FD3-LUYN>].

⁶⁶ *Id.* See generally Malagrino, *supra* note 18, at 52–58 (describing mechanisms for collective management and preservation).

⁶⁷ Oldham, *supra* note 65.

⁶⁸ See Carol M. Rose, “Enough, and As Good” of What?, 81 NW. U. L. REV. 417, 438–39 (1987).

⁶⁹ See *supra* Section I.A.

⁷⁰ See Rose, *supra* note 68, at 438 (“In a sense, a regime of property is a gigantic communal agreement not to succumb to the ‘prisoners’ dilemma—the dilemma of a ‘game’ in which we are collectively better off by cooperation, but individually better off by ‘defection.’”); FREYFOGLE, AGRARIANISM, *supra* note 62, at 89 (“Private property is primarily a form of power over people, not over land. . . . [T]his power is necessarily a public power because it ultimately rests upon a landowner’s ability to call upon police, courts, and even prisons to enforce his rights.”).

⁷¹ See Rose, *supra* note 68, at 438–39.

Finally, the successful use of private property is influenced in no small part by government acting through a variety of mechanisms. Government agencies act through grants, lending practices, and administrative programs; they issue regulations governing or influencing mortgage lending, fair housing policies, loan underwriting practices, foreclosure policies, and farm equipment loans.⁷² Any number of government programs impact the success or failure of endeavors on private land. These programs directly or indirectly influence what type of activities on land are favored or protected and who is empowered to own or profit from land.⁷³

This dynamic is particularly evident in the agricultural context. The U.S. Department of Agriculture (“USDA”) exemplifies the role state and federal agencies play in the use of “private” land. The USDA was—and is—directly involved in developing the agricultural system in the United States.⁷⁴ It quite literally enabled farmers to farm. Since its creation in the 1860s and through the early 1900s, the agency devoted a substantial portion of its budget to collecting and distributing seeds to farmers around the country.⁷⁵ These seeds were free and of good quality, resulting in healthy crops for new farmers and homesteaders, and served as the basis of seed breeding and experimentation.⁷⁶ By one report, in the year 1910, over 60,000,000 packets of vegetable and flower seeds were sent out across the country, including seeds for important cash and food crops like sorghum, rice, wheat, oat, and barley.⁷⁷

The USDA and other government agencies continue to play a core role in the nation’s agricultural system and farming policies. The USDA has initiated a “microloan program” to assist small and mid-sized farmers to access loans, with the goal of providing “new opportunities for American agriculture across the country.”⁷⁸ The Farm to School Program

⁷² See *Small and Mid-Sized Farmer Resources*, U.S. DEP’T AGRIC., <https://www.usda.gov/topics/farming/resources-small-and-mid-sized-farmers> [<https://perma.cc/MP5X-P6DX>] (last visited Nov. 24, 2020).

⁷³ See also *infra* Section I.B.2 (discussing private interests in public property).

⁷⁴ See generally U.S. DEP’T AGRIC., *supra* note 72.

⁷⁵ DEBBIE BARKER, *HISTORY OF SEED IN THE U.S.: THE UNTOLD AMERICAN REVOLUTION*, CTR. FOR FOOD SAFETY 2 (Aug. 2012), http://www.centerforfoodsafety.org/files/seed-report-for-print-final_25743.pdf [<https://perma.cc/456Y-8YDH>].

⁷⁶ Debbie Barker, *The Untold American Revolution: Seed in the United States*, in *SEED SOVEREIGNTY, FOOD SECURITY* 187 (Vandana Shiva ed., 2016); see also BARKER, *supra* note 75, at 2.

⁷⁷ A. J. Pieters, *Seed Distribution by the United States Department of Agriculture*, 13 *PLANT WORLD* 292, 292–96 (Dec. 1910).

⁷⁸ U.S. DEP’T AGRIC., *supra* note 72.

is geared toward linking small and mid-sized farmers with school districts to encourage crop diversity, community food systems, and financial stability for farmers.⁷⁹ These types of government actions, among others, directly and indirectly impact the nation's ability to feed itself by effective use of arable land.⁸⁰

Unfortunately, not all actions by the USDA were as universally well-regarded as the seed distribution or microloan programs. The USDA has been called the “last plantation” due to rampant discriminatory lending practices that resulted in the rapid decline of African-American farmers in the Reconstruction Era and beyond.⁸¹ Disparities persist today, with highly publicized audits and investigations revealing that the USDA granted women and minority farmers less credit than was granted white male farmers, resulting in disproportionate presence in the agricultural business.⁸² The USDA also historically did not, as a matter of policy, recognize “heirs’ property” owners as eligible for loans to purchase livestock or to cover the cost of planting; and given the disproportionate percentage of Black farmers who inherited their land as heirs’ property, this had a devastating impact on those farmers’ abilities to maintain farms over many generations.⁸³

⁷⁹ See *Community Food Systems*, U.S. DEPT OF AGRIC., FOOD & NUTRITION SERV., <https://www.fns.usda.gov/cfs> [<https://perma.cc/T5U9-ULVS>] (last visited Nov. 24, 2020).

⁸⁰ See *infra* Part III.

⁸¹ Seth L. Ellis, *Disestablishing “The Last Plantation”: The Need for Accountability in the United States Department of Agriculture*, 4 J. FOOD L. & POL’Y 93 (2008) (documenting discrimination by the USDA towards black farmers); John Francis Ficara & Juan Williams, *Black Farmers in America*, NPR (Feb. 22, 2005), <https://www.npr.org/2005/02/22/5228987/black-farmers-in-america> [<https://perma.cc/7LTF-D9NE>] (describing discrimination at the USDA, limited resources available to Black farmers, and resulting decline in number of Black-owned farms).

⁸² Vann R. Newkirk II, *The Great Land Robbery*, ATLANTIC (Sept. 29, 2019), <https://www.theatlantic.com/magazine/archive/2019/09/this-land-was-our-land/594742/> [<https://perma.cc/5STX-Z5EQ>].

⁸³ Lizzie Presser, *Their Family Bought Land One Generation After Slavery. The Reels Brothers Spent Eight Years in Jail for Refusing to Leave it*, PROPUBLICA (July 15, 2019), <https://features.propublica.org/black-land-loss/heirs-property-rights-why-black-families-lose-land-south/> [<https://perma.cc/TV9X-7F9T>]. It is estimated that between 1910 and 1997, African Americans lost about ninety percent of their farmland. *Id.*; see also Newkirk, *supra* note 82; see also Thomas W. Mitchell, *From Reconstruction to Deconstruction: Undermining Black Landownership, Political Independence, and Community Through Partition Sales of Tenancies in Common*, 95 NW. U. L. REV. 505 (2001) (discussing black land acquisition and black land loss, with “the number of black farmers and the number of rural acres under black ownership currently [] at the lowest point since 1900”); Thomas W. Mitchell, *Reforming Property Law to Address Devastating Land Loss*, 66 ALA. L. REV. 1, 1 (2014)

So, government policies directly enable—or obstruct—the cultivation of the purportedly “individual” interest in a piece of agricultural land.

These many exceptions to individual private property ownership engulf the mythical “individual” rule. The bundle of sticks concept depicts a misleadingly narrow view of the rights and obligations concomitant with property ownership. Private property is really a mix of individual, community, and public interests and obligations. A revised view should account for that mixed nature of property and allow for robust property regimes suited to twenty-first century concerns.

2. Public Property

As with the private property category, discussions about public property tend to be oversimplified. Public land is best described as belonging to all, held in trust and controlled by the government, with no one having any rights distinct from anyone else. Examples include national parks, state hiking trails, local parks, sidewalks, and the like.⁸⁴ But there are many examples demonstrating that community and individual interests are intertwined in public land.

One example of this mixed interest is the extent of private commercial conduct on public land. Private enterprise on public domain lands administered by federal or state agencies is widespread, with private entities obtaining rights in public land in the form of permits or leases.⁸⁵ The Mineral Leasing Act of 1920 as amended, for example, authorizes leasing of public lands such as those managed by the U.S.

(reviewing the Uniform Partition of Heirs Property Act); *Faison v. Faison*, 811 S.E.2d 431 (Ga. Ct. App. 2018) (discussing various states' adoption of the Uniform Partition of Heirs Property Act and remanding to the trial court for an initial determination whether the disputed property was heirs property).

This disparity in lending practices is representative of other societal disparities. Not everyone in society has enjoyed equal entry into the prevailing property regime, for instance, whether by explicit exclusion in the form of restrictive covenants or indirectly by socio-economic forces or other less obvious discriminatory market practices.

⁸⁴ See Ray Rasker, *Public Land Ownership in the United States*, HEADWATERS ECON. (June 17, 2019), <https://headwaterseconomics.org/public-lands/protected-lands/public-land-ownership-in-the-us/> [https://perma.cc/66T2-23KU].

⁸⁵ CHARLES S. JAMES, HAW. LEGIS. REFERENCE BUREAU, PUBLIC LAND POLICIES OF THE UNITED STATES AND THE MAINLAND STATES, REP'T NO. 5, at ii, 6–7, 34, 42–47 (1961) (describing, among other mechanisms, grazing licenses, permits for mineral extraction of public domain land, and land use leases short of fee simple ownership), <https://library.cardhawaii.org/cgi-bin/koha/opac-retrieve-file.pl?id=347bec01c81706ef6a8cd114f149d289> [https://perma.cc/3NBE-QU53].

Forest Service and the Bureau of Land Management (“BLM”), for developing deposits of coal, petroleum and natural gas.⁸⁶ Private corporations pay a royalty in the oil and gas extracted from public lands to the United States and may turn a profit on the remaining resources extracted from public land.⁸⁷ A number of states, including Texas,⁸⁸ New Mexico,⁸⁹ North Dakota,⁹⁰ Wyoming,⁹¹ Utah,⁹² Montana,⁹³ and Colorado,⁹⁴ among others, authorize similar arrangements with oil and gas corporations on public lands. North Dakota’s Oil and Gas Division mission statement provides an apt description of the endeavor:

Our mission is to encourage and promote the development, production, and utilization of oil and gas in the state in such a manner as will prevent waste, maximize economic recovery, and fully protect the correlative rights of all owners to the end that the *landowners*, the *royalty owners*, the *producers*, and the *general public* realize the greatest possible good from these vital natural resources.⁹⁵

Lands open to private enterprise represent a significant portion of many public lands. In Wyoming, for instance, approximately one-third of the 3.9 million acres of state trust lands are leased for oil and gas.⁹⁶ And although the public and surrounding community may have an interest in having access to these natural resources either to provide energy

⁸⁶ 30 U.S.C. §§ 181 *et seq.* Regulations are found at 43 C.F.R. pts. 3000, 3100.

⁸⁷ 30 U.S.C. § 192; 43 C.F.R. pts. 3103.1–4.

⁸⁸ *Announcements*, TEX. GEN. LAND OFF. ENERGY BUS., <https://www.glo.texas.gov/energy-business/index.html> [<https://perma.cc/94MA-XE78>] (last visited Nov. 24, 2020).

⁸⁹ *Lease Information*, N.M. STATE LAND OFF., <https://www.nmstatelands.org/divisions/oil-gas-and-minerals/lease-information/> [<https://perma.cc/GU3D-8DM5>] (last visited Nov. 24, 2020).

⁹⁰ *Homepage*, N.D. OIL & GAS DIV., <https://www.dmr.nd.gov/oilgas/> [<https://perma.cc/65JQ-TZQW>] (last visited Nov. 24, 2020).

⁹¹ *Oil & Gas Leases*, WYO. OFF. OF STATE LANDS & INVS., <https://lands.wyo.gov/trust-land-management/mineral-leasing/oil-gas-leases> [<https://perma.cc/3Z5C-LCKW>] (last visited Nov. 24, 2020).

⁹² *Oil & Gas*, UTAH TR. LANDS ADMIN., <https://trustlands.utah.gov/business-groups/oil-gas/> [<https://perma.cc/3LY6-ZD8P>] (last visited Nov. 24, 2020).

⁹³ *Oil & Gas Leasing Info.*, MONT. DEP’T OF NAT. RES. & CONSERVATION, <http://dnrc.mt.gov/divisions/trust/minerals-management/oil-and-gas-leasing-information> [<https://perma.cc/8CKU-FNLC>] (last visited Nov. 24, 2020).

⁹⁴ *Oil & Gas*, COLO. STATE LAND BD., <https://www.colorado.gov/pacific/statelandboard/oil-gas> [<https://perma.cc/5ZBZ-X54M>] (last visited Nov. 24, 2020).

⁹⁵ N.D. OIL & GAS DIV., *supra* note 90.

⁹⁶ WYO. OFF. OF STATE LANDS & INVS., *supra* note 91.

to consumers or funds (in the forms of royalties) to the government coffers, private interest in the activity is significant: According to the U.S. Energy Information Administration, the net income for 43 U.S. oil producers amounted to nearly \$30 *billion* in 2018 alone.⁹⁷

These private interests in public property may lead to conflict between other individuals or community groups. For instance, the U.S. Supreme Court recently adjudicated a dispute between non-profit organizations and two federal agencies, the U.S. Forest Service and the National Park Service over whether Atlantic Coast Pipeline, LLC, was entitled to a special use permit that would allow construction of a natural gas pipeline stretching over 600 miles from West Virginia to North Carolina.⁹⁸ In upholding the special use permit, the Court evaluated the competing authorities of the Park and Forest Services across the Appalachian Trail, right-of-way easements, and the non-profit organizations' argument that the permit violated the Mineral Leasing Act.⁹⁹ This lawsuit, and the many others like it, demonstrate that public land management does not happen in a vacuum isolated from private and community interests.

Grazing allotments also draw on these interests. The BLM administers grazing allotments through permit or lease, authorizing individuals or corporate entities to graze their livestock on public land.¹⁰⁰ The combined acreage of federal land regulated by the BLM open to grazing permits or leases exceeds 150 million acres.¹⁰¹ Ranchers hold nearly 18,000 renewable permits and leases to graze cattle and sheep and other livestock on these lands.¹⁰² In public lands within California alone, the BLM administers approximately 665 allotments utilized by over 500 grazing permits or leases, encompassing over 6 million acres of land.¹⁰³ Even

⁹⁷ Jeff Barron, *2018 was Likely the Most Profitable Year for U.S. Oil Producers Since 2013*, U.S. ENERGY INFO. ADMIN. (May 10, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=39413> [<https://perma.cc/RA3S-YSRU>] (last visited Nov. 24, 2020).

⁹⁸ *U.S. Forest Serv. v. Cowpasture River Preservation Ass'n*, 590 U.S. ___, 140 S. Ct. 1837 (2020).

⁹⁹ *Id.* at 1841–42 (upholding permit).

¹⁰⁰ *Rangelands and Grazing*, U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., <https://www.blm.gov/programs/natural-resources/rangelands-and-grazing/livestock-grazing> [<https://perma.cc/7VJM-C7RE>] (last visited Nov. 24, 2020).

¹⁰¹ *See id.*

¹⁰² *Id.*; *see also Rangeland Health*, U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., <https://www.blm.gov/programs/natural-resources/rangelands-and-grazing/rangeland-health> [<https://perma.cc/B3FD-YZPJ>] (last visited Nov. 24, 2020) (providing links to estimated acreage in each state).

¹⁰³ *See California Rangeland Management and Grazing*, U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., <https://www.blm.gov/programs/natural-resources/rangeland-and-grazing/california-rangeland-management-and-grazing>

more land under state jurisdiction is put to private use, melding livestock production, and land management and conservation.¹⁰⁴ Private individuals or corporations thereby benefit from the use of significantly more acreage than any one private entity would otherwise own in fee or access through private lease.¹⁰⁵ Communities may then indirectly benefit from these private-public arrangements by increased access to locally sourced food.

Yet another version of this public-private mix comes in the form of so-called privately owned public spaces.¹⁰⁶ In these spaces, government entities require private developers to provide for public spaces, open to either the nearby community or the general public, in exchange for zoning variances or other preferential development rulings.¹⁰⁷

Another type of mixed management system involves individuals and community groups in the maintenance and management of public lands through volunteer service programs. At federal and state levels, volunteers may participate in a wide range of projects such as community outreach, educational programs, or trail maintenance.¹⁰⁸ Volunteers may also assist with management by participating in research and education programs, including trail use surveys,¹⁰⁹ fire monitoring,¹¹⁰ and

-grazing/rangeland-health/california [https://perma.cc/7ZAQ-RQT6] (last visited Nov. 24, 2020); see generally 43 U.S.C. §§ 315 *et seq.* (from the Taylor Grazing Act of 1935); 43 C.F.R. pt. 4100 (BLM grazing regulations).

¹⁰⁴ See, e.g., *Conservation Grazing*, WIS. DEP'T NAT. RES., https://dnr.wi.gov/topic/lands/grazing.html [https://perma.cc/GFY2-GC9V] (last visited Nov. 24, 2020) (Wisconsin state land management areas); *Grazing & Agricultural Leases*, WYO. OFF. OF STATE LANDS & INVS., https://lands.wyo.gov/trust-land-management/surface-leasing/grazing-agricultural-leases [https://perma.cc/Y8VT-986C] (last visited Nov. 24, 2020) (grazing and agricultural leases for grazing livestock, raising crops, and other agricultural uses).

¹⁰⁵ Neil R. Rimbey et al., *Economic Considerations of Livestock Grazing on Public Lands in the United States of America*, 5 ANIMAL FRONTIERS 32, 32–35 (Oct. 2015), https://academic.oup.com/af/article/5/4/32/4638743 [https://perma.cc/9E3Z-G2TY].

¹⁰⁶ See, e.g., *New York City's Privately Owned Public Spaces: Overview*, NYC PLAN. (Sept. 30), https://www1.nyc.gov/site/planning/plans/pops/pops.page [https://perma.cc/J6RQ-N2D2].

¹⁰⁷ See Amnon Lehari, *Mixing Property*, 38 SETON HALL L. REV. 137, 178 (2008).

¹⁰⁸ See, e.g., *Volunteer with Us*, NAT'L PARK SERV., https://www.nps.gov/getinvolved/volunteer.htm [https://perma.cc/HD2A-6Y25] (last visited Nov. 24, 2020); *Volunteer Opportunities*, WIS. DEP'T NAT. RES., https://dnr.wi.gov/topic/parks/volunteer.html [https://perma.cc/3MFB-QL63] (last visited Nov. 24, 2020) (Wisconsin State Parks volunteers).

¹⁰⁹ See, e.g., *Outdoor Recreation*, STATE OF HAW., DIV. FORESTRY & WILDLIFE (Jan. 13, 2019), https://dnr.hawaii.gov/recreation/ [https://perma.cc/5ULM-FC2V] (use surveys in Hawai'i parks and trails).

¹¹⁰ See, e.g., *Fire Lookout Volunteers Needed*, USDA, FOREST SERV. (May 16, 2005), https://www.fs.usda.gov/detail/angeles/news-events/?cid=FSBDEV3_020375 [https://perma.cc/THF5-23VU] (fire lookout volunteers in California).

hunter awareness trainings.¹¹¹ These mixed arrangements also exist at the local level.¹¹²

In the urban setting, perhaps the most prominent example of mixed management regimes in public lands are the community gardens in New York City.¹¹³ In these community farm arrangements, land that is owned by a government entity (usually a city or county) will be leased to a local group of users, usually geographically close to the plot of land.¹¹⁴ The arrangement might be an informal agreement with a group of community residents who come together to improve a vacant or blighted lot, or it might be a more formal structure with a nonprofit organization, community land trust, or community development corporation.¹¹⁵ Community gardens, farms, and parks, have emerged in marginalized neighborhoods that otherwise lack access to fresh food,¹¹⁶ and they are increasingly prevalent across the country as concerns about food security and access to fresh produce in the face of supply chain limitations have caught public attention.¹¹⁷

The rural environment affords opportunities for mixed property regimes with larger agricultural acreage. In the State of Hawai'i,¹¹⁸ for example, the Hawai'i Community Development Authority ("HCDA") is a public entity whose goal is to "establish community development plans in community development districts; determine community development programs; and cooperate with private enterprise and the various components of federal, state, and county governments to bring community

¹¹¹ See, e.g., *Hunter Education Program, Volunteer*, STATE OF HAW., DEP'T LAND & NAT. RES., <https://dlnr.hawaii.gov/programs/huntered6/volunteer/> [<https://perma.cc/5JFB-7KXH>] (last visited Nov. 24, 2020) (hunter education programs in Hawai'i); *Teaching Hunter Education*, N.Y. DEP'T ENV'T CONSERVATION, <https://www.dec.ny.gov/outdoor/9189.html> [<https://perma.cc/F79N-9Z58>] (last visited Nov. 24, 2020).

¹¹² In New York City, for example, there are thousands of advocacy, business, and "friends of" groups that dedicate time, energy, and money to maintain public parks, open spaces, and playgrounds. Lehari, *supra* note 107, at 180–92.

¹¹³ See *id.* at 173–95.

¹¹⁴ *Id.* at 174.

¹¹⁵ *Id.* at 174; see also James J. Kelly, Jr., *Land Trusts That Conserve Communities*, 59 DEPAUL L. REV. 69, 83–84 (2009) (discussing community land trusts to establish gardens in previously vacant lots in New York, Maryland, and Massachusetts).

¹¹⁶ Amy Laura Cahn & Paula Z. Segal, *You Can't Common What You Can't See: Towards a Restorative Polycentrism in the Governance of Our Cities*, 43 FORDHAM URB. L.J. 195, 196–205 (2016).

¹¹⁷ See *infra* Part III.

¹¹⁸ This Article uses appropriate diacritical marks for Hawaiian words except in certain titles or quotations where Hawaiian words appear as originally written.

development plans to fruition.”¹¹⁹ HCDA leases hundreds of acres of arable land to non-profit organizations to enhance and encourage community-based agricultural activities.¹²⁰ There is increasing interest around the country for similar collaborative programs involving farmers, municipalities, and land trust organizations to offset regional farmland loss by leasing land to farmers or placing easements on properties to preserve them in perpetuity.¹²¹

The arrangements identified above are essentially voluntary, and their prevalence reflects the broader societal structure in which property rights in land exist and the extent to which individual or community interests coexist in what is considered public land. Of a less voluntary nature, the government is also directly involved in the conversion of private lands through eminent domain.¹²² Short of outright expropriation, the government might limit an owner’s use or possession of real property through physical impediment or regulation for public purposes.¹²³

Finally, any evaluation of rights in property must consider the role the government plays in converting certain public lands to private

¹¹⁹ *Aloha from HCDA!*, HAW. DEP’T OF BUS., ECON. DEV. & TOURISM, HAW. CMTY. DEV. AUTH., <https://dbedt.hawaii.gov/hcda/> [<https://perma.cc/ZUM3-RF4B>] (last visited Nov. 24, 2020).

¹²⁰ *Discover HEEIA*, HAW. DEP’T OF BUS., ECON. DEV. & TOURISM, HAW. CMTY. DEV. AUTH., <http://dbedt.hawaii.gov/hcda/discover-heeia/> [<https://perma.cc/RZ2N-QKLL>] (last visited Nov. 24, 2020).

¹²¹ *See, e.g., Working Farms*, TR. PUB. LANDS, <https://www.tpl.org/our-work/working-farms> [<https://perma.cc/XT8L-L535>] (last visited Nov. 24, 2020) (“The Trust for Public Land helps municipalities and other local partners conserve farmland under pressure or directly threatened with development.”); *LAND FOR GOOD, LEASING LAND TO FARMERS: A HANDBOOK FOR NEW ENGLAND LAND TRUSTS, MUNICIPALITIES AND INSTITUTIONS* (2012), <https://landforgood.org/wp-content/uploads/LFG-Leasing-Land-To-Farmers-For-Land-Trusts-Municipalities-Handbook.pdf> [<https://perma.cc/N5LZ-JCPA>]; CAL. FARMLAND TR., <https://www.ca-farmtrust.org/> [<https://perma.cc/96UQ-LU7L>] (last visited Nov. 24, 2020) (assisting California farmers preserve farmland); *Where We Work*, AM. FARMLAND TR., <https://farmland.org/where-we-work/> [<https://perma.cc/4N55-TT7G>] (same, in the Mid-Atlantic Region, the Midwest, New England, New York, California, the Pacific Northwest); WIS. LANDMARK CONSERVANCY, <https://www.landmarkwi.org/> [<https://perma.cc/9P3K-5NHY>] (last visited Nov. 24, 2020) (same, Wisconsin); *About*, TEX. AGRIC. LAND TR., <https://www.txaglandtrust.org/about/> [<https://perma.cc/VH6N-5UMH>] (last visited Nov. 24, 2020) (same, Texas); *see also* FARMLAND INFO. CTR., <http://farmlandinfo.org/> [<https://perma.cc/6RQE-MJ65>] (last visited Nov. 24, 2020) (reporting on conversion of farmland to uses that compromise agriculture).

¹²² *See Kelo v. City of New London*, 545 U.S. 469 (2005) (holding that municipality’s exercise of eminent domain power in furtherance of economic development plan satisfied constitutional “public use” requirement).

¹²³ *See, e.g., Loretto*, 458 U.S. 419 (permanent physical presence constitutes a taking); *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104 (1978) (expounding a regulatory takings analysis).

ownership. Historically, the United States transferred public domain lands into private hands in astonishing amounts by today's terms, often with little to no cost to the individual owner.¹²⁴ From the mid-1800s to the early 1900s, by one estimate, the federal government transferred over one *billion* acres of land in the form of: land grants to individuals, cash sales, awards for military service, grants to educational institutions, and grants to railroad corporations.¹²⁵ Through the Homestead Act alone, the federal government distributed 270,000,000 acres of land to individuals—ten percent of the land in the country.¹²⁶ In this way the legislative and executive branches, with the support of the judicial branch to uphold these actions, are directly involved in creating private property rights through land sale, homestead acts, leases, and grants.¹²⁷ Homesteading, in particular, was a key factor in creating the agricultural population in the United States.¹²⁸ In this way, government action forms the foundation of individual interests in property.

The history of private property ownership in the United States is thus heavily influenced by government decisions about who is deserving of or entitled to private ownership over land previously held by the government. These actions reflect the policy priorities of the government concerning the preferable uses or allocations of land. Scholarship on the nature of private property ownership is remiss if it does not acknowledge this dynamic.¹²⁹ Any theory that seeks to define property through purely

¹²⁴ PUBLIC LANDS FOUNDATION, AMERICA'S PUBLIC LANDS: ORIGIN, HISTORY, FUTURE 4, 6 (2014), https://publicland.org/wp-content/uploads/2016/08/150359_Public_Lands_Document_web.pdf [<https://perma.cc/B94F-XMDM>].

¹²⁵ JAMES, *supra* note 85, at 11, 18–19 (Table 2), 28, 30–31; see *About the Homestead Act*, NAT'L PARK SERV., <https://www.nps.gov/home/learn/historyculture/abouthomesteadactlaw.htm> [<https://perma.cc/USE8-USUV>] (last visited Nov. 24, 2020) (homestead and individual land grants); *Railroads in the Late 19th Century*, LIBR. OF CONG., <https://www.loc.gov/classroom-materials/united-states-history-primary-source-timeline/rise-of-industrial-america-1876-1900/railroads-in-late-19th-century/> [<https://perma.cc/EG2N-VJX9>] (last visited Nov. 24, 2020) (land grants to railroads).

Several more millions of acres of federal land were also donated to the states. See CONG. RSCH. SERV., FED. GRANTS TO STATE & LOCAL GOVS.: A HISTORICAL PERSPECTIVE ON CONTEMPORARY ISSUES 14–15 (2019), <https://fas.org/sgp/crs/misc/R40638.pdf> [<https://perma.cc/Q3ZU-Y6QR>]; see also CONG. RSCH. SERV., FED. LAND OWNERSHIP: OVERVIEW & DATA 2 (2020), <https://fas.org/sgp/crs/misc/R42346.pdf> [<https://perma.cc/2GAN-MC7T>] (“Approximately 1.29 billion acres of public domain land was transferred out of federal ownership between 1781 and 2018.”).

¹²⁶ *Homesteading by the Numbers*, NAT'L PARK SERV., <https://www.nps.gov/home/learn/historyculture/bynumbers.htm> [<https://perma.cc/M7KJ-PMMC>] (last visited Nov. 24, 2020).

¹²⁷ See JAMES, *supra* note 85, at 5–6.

¹²⁸ See *id.* at 3.

¹²⁹ See, e.g., Joseph William Singer, *Sovereignty and Property*, 86 NW. U. L. REV. 1 (1991)

natural rights or market theories ignores the role that governmental land grants—and all the accompanying socio-political considerations—played in creating property interests in the United States.

In all of these examples, the land itself has not changed; what has changed is the proportional interest the public has in the land when compared to the individual or community interest. The same shift is true in common property.

3. Common Property

Common property, also referred to as common resource property or as “the commons,” generally refers to land that is shared collectively. Livestock grazing lands and agricultural lands are prototypes of lands that may be held in common.

Academic literature on the efficacy of common property regimes has until recently emphasized the phenomena of the “tragedy of the commons,” made (in)famous by Garrett Hardin to describe scenarios in which anyone may have access to resources unfettered by regulation.¹³⁰ The hypothetical scenario of cattle and sheep grazing unmonitored in a pasture is the classic example.¹³¹ Much has been written on this topic, but under this theory “the commons” is usually described disparagingly, criticized as land that is entirely unregulated and not put to its best use, with the users doomed to overuse the resources.¹³² The unifying theme of this

(asserting that “most of the real property in the United States was forcibly seized from American Indians by the United States government, and transferred to non-Indians by various means and for various purposes”); Seth Davis, *Presidential Government and the Law of Property*, 2014 WIS. L. REV. 471, 511–12 (2014) (discussing *Johnson v. M’Intosh* and President Andrew Johnson’s forced relocation of Indian Tribes); *Chapter Four Aloha ‘Āina: Native Hawaiian Land Restitution*, 133 HARV. L. REV. 2148, 2154 (2020) (describing the change in land possession in Hawai‘i pre- and post-overthrow of the Hawaiian Kingdom, including the Hawaiian Homes Commission Act, which dedicated certain lands to Native Hawaiians for settlement and agriculture but limited recipients based on a blood quantum of 50 percent Hawaiian ancestry); see also *supra* Section I.B.1 at nn.56–58 & accompanying text (discussing Black land loss). For example, in a 2020 holding that may have significant and lasting implications, the U.S. Supreme Court ruled that for purposes of federal criminal law, land throughout much of eastern Oklahoma reserved for the Creek Nation since the 19th century remains a Native American territory, notwithstanding the State of Oklahoma’s efforts to effectively reduce the federal reservation. *McGirt v. Oklahoma*, 591 U.S. ___, 140 S. Ct. 2452 (2020).

¹³⁰ See generally Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 711–13 & n.7 (1986) [hereinafter Rose, *Comedy of the Commons*] (attributing the modern statement on this theory to Hardin).

¹³¹ Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1244 (1968).

¹³² See Elinor Ostrom, *Design Principles of Robust Property Rights Institutions*, in PROPERTY

literature holds that common resource property should be privatized to impose order and make efficient use of the land.¹³³

This free-for-all scenario rarely exists in the world. In fact the “tragedy of the commons” hypothetical actually referred only to one particular—and limited—scenario: a shared but *unregulated* and *unmanaged* resource.¹³⁴ As Hardin himself later recognized, “[t]he title of [his] 1968 paper should have been ‘The Tragedy of the Unmanaged Commons.’”¹³⁵

For purposes of this Article, and to understand Hardin’s theory, it is important to distinguish between the *regulated* commons and the *unregulated* commons, the latter also referred to as “open-access” property.¹³⁶ Open-access refers to a resource that is open to all, to enter and to use without restriction.¹³⁷ One might identify unregulated logging in a tropical rainforest, or fishing on the high seas¹³⁸ as contemporary

RIGHTS AND LAND POLICIES 29 (Gregory K. Ingram & Yu-Hung Hong eds., 2009) [hereinafter Ostrom, *Design Principles*], https://www.lincolnst.edu/sites/default/files/pubfiles/2076_1399_LP2008-ch02-Design-Principles-of-Robust-Property-Rights-Institutions_0.pdf [<https://perma.cc/VVF4-T2QU>]; see also Atiram, *supra* note 43, at 241–47 (responding to Harold Demsetz’s analysis of the “collective-action problem”); Malagrino, *supra* note 18, at 43–44 (noting the complex nature of mixed property regimes and criticizing the assumption that private property regimes are the best or only mechanism); Michel Morin, *Indigenous Peoples, Political Economists and the Tragedy of the Commons*, 19 THEORETICAL INQUIRIES L. 559 (2018) (criticizing the assumptions inherent in the tragedy of the commons concept); Harold Demsetz, *Toward A Theory of Property Rights II: The Competition Between Private and Collective Ownership*, 31 J. LEGAL STUD. 653 (2002) (analyzing private versus common systems of dealing with resource allocation); Rose, *Comedy of the Commons*, *supra* note 130, at 739–49 (discussing custom and customary practices as distinct from unorganized public use).

¹³³ See, e.g., Ostrom, *Design Principles*, *supra* note 132, at 25–26 (summarizing legal and economic approaches).

¹³⁴ See Morin, *supra* note 132, at 569 & n.55; Sheila R. Foster & Christian Iaione, *The City as a Commons*, 34 YALE L. & POL’Y REV. 281, 291–92 & n.43 (2016).

¹³⁵ Garrett Hardin, *The Tragedy of the Unmanaged Commons: Population and the Disguises of Providence*, in COMMONS WITHOUT TRAGEDY: PROTECTING THE ENVIRONMENT FROM OVERPOPULATION—A NEW APPROACH 162, 178 (Robert V. Andelson ed., 1991) [hereinafter Hardin, *The Tragedy of the Unmanaged Commons*].

¹³⁶ See Hanoch Dagan & Michael A. Heller, *The Liberal Commons*, 110 YALE L.J. 549, 552, 557 (2001); Morin, *supra* note 132, at 567.

¹³⁷ See Lehavi, *supra* note 107, at 139 n.1.

¹³⁸ See Hardin, *The Tragedy of the Unmanaged Commons*, *supra* note 135, at 178. But even on the high seas there are international agreements aimed at limiting overfishing and bycatch. Public management and control over what was previously considered an open-access free-for-all now extends 200 nautical miles out in the United States’ Exclusive Economic Zone, with international agreements and a federal and state-regulated permitting system for the billion dollar pelagic fishing industry. See generally Kamaile A.N. Turćan, *Fisheries Management in American Samoa and the Expanding Application of*

examples. The regulated commons, on the other hand, entails management by a group with a right to exclude non-members, typically according to historical custom and tradition.¹³⁹ The theory behind the “tragedy of the commons” was therefore limited by its own terms to a hypothetical, open-access scenario with zero regulation; the outcome of Hardin’s analysis was practically presupposed.¹⁴⁰

Unfortunately, and in part based on a misconception of Hardin’s original work, there is a tendency for academic literature to conflate the “the commons” with “open-access” property, when a truly open-access commons is the exception rather than the rule.¹⁴¹ Academia’s preoccupation with the tragedy of the commons concept distorts the correct view of property law and serves as an example of the doctrinal misconceptions born out of oversimplification and assumption. The idea that resource misuse or collapse was the inevitable result of any common property regime took hold of generations of lawyers and resource managers, and the critical distinction between unregulated and regulated commons was obscured. This, in turn, fed the myth that only individual, private land ownership can lead to success.¹⁴²

The absence of regulation or management by either individual, the community, or an external authority is by no means the norm for common resource property regimes. Throughout the world, tradition and social custom, if not explicit government regulation, impose rules on resource usage in the commons.¹⁴³ And there is rising interest in the study of common resource property regimes to address perplexing resource issues.¹⁴⁴ Carol Rose, Elinor Ostrom, and Eric Freyfogle, among many others, have pushed back against the superficial generalizations of the commons trope to engage with the more sophisticated reality.¹⁴⁵

Parens Patriae *Standing to Challenge Federal Administrative Action*, 33 NOTRE DAME J.L. ETHICS & PUB. POL’Y 1, 16–25 (2019) (describing domestic and international regulation of tuna fisheries).

¹³⁹ Turčan, *supra* note 138, at 13–14.

¹⁴⁰ See Morin, *supra* note 132, at 561 (arguing that “the success of Hardin’s paper is due in great measure to his neglect of economic, scientific, legal and anthropological literature.”).

¹⁴¹ ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 2–3, 48 & n.23, 182–85 (1990) [hereinafter OSTROM, GOVERNING THE COMMONS]; Peter Larmour, *Introduction*, in THE GOVERNANCE OF COMMON PROPERTY IN THE PACIFIC REGION 1–3 (Peter Larmour ed., 2013).

¹⁴² See OSTROM, GOVERNING THE COMMONS, *supra* note 141, at 182–84.

¹⁴³ See Fred Bosselman et al., *The Linkage Between Sustainable Development and Customary Law*, in THE ROLE OF CUSTOMARY LAW IN SUSTAINABLE DEVELOPMENT 12, 16 (2005).

¹⁴⁴ Kroncke, *supra* note 32, at 461.

¹⁴⁵ See, e.g., OSTROM, GOVERNING THE COMMONS, *supra* note 141; Rose, *Comedy of the*

Recent studies focus on the numerous examples of collective efforts around the world to manage and use shared resources according to a society's distinct rules.¹⁴⁶

Approximately half the world's land is held communally.¹⁴⁷ Thus, to the extent the "tragedy of the commons" was coined as a concept with universal applicability, that phrase took no account of the successful common property regimes established around the world by communities able to self-regulate and manage resource usage.¹⁴⁸

Groundbreaking work by Elinor Ostrom evaluated common resource management regimes in the forests and alpine meadows of Switzerland, rural mountain villages of Japan, farming communities of the Philippines, shared water irrigation canals of Spain, and elsewhere, to identify unifying factors across diverse communities that lead to successful shared management systems that are economically and ecologically sustainable.¹⁴⁹ She concluded that (as with most things) whether a particular resource management system fails or succeeds comes down to the details; no system is categorically successful.¹⁵⁰ This is as true for public or private property regimes as it may be for common property regimes.¹⁵¹ But there are many examples of successful common property regimes that have functioned for hundreds if not thousands of years without overexploitation or breakdown in governance.¹⁵²

Commons, *supra* note 130; Eric T. Freyfogle, *Ethics, Community, and Private Land*, 23 *ECOLOGICAL Q.* 631, 635–36; (1996); Malagrino, *supra* note 18; *see also* Bosselman et al., *supra* note 143, at 14, 23–29 (2005) ("Throughout the world, the exploration of systems of customary law for managing natural resources has become a major research interest for political scientists, anthropologists, economists and geographers.").

¹⁴⁶ *See infra* Section I.B.3 (including Wily, Ostrom, and others).

¹⁴⁷ Kroncke, *supra* note 32, at 483; Liz Alden Wily, *Collective Land Ownership in the 21st Century: Overview of Global Trends*, *LAND* 1, 6 (2018) [hereinafter Wily, *Collective Land Ownership*] (presenting a global survey of common land ownership).

¹⁴⁸ OSTROM, *GOVERNING THE COMMONS*, *supra* note 141, at 58.

¹⁴⁹ *Id.* at 61–88; *see* Carol Rose, *Ostrom and the Lawyers: The Impact of Governing the Commons on the American Legal Academy*, 5 *INT'L J. OF THE COMMONS* 28–49 (2011) (discussing the impact *GOVERNING THE COMMONS* had on legal scholarship).

Ostrom went on to win the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in 2009 for her work "demonstrating how local property can be successfully managed by local commons without any regulation by central authorities or privatization." *See* THE NOBEL PRIZE, ELINOR OSTROM, <https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/facts> [<https://perma.cc/HZN4-99HC>] (last visited Nov. 24, 2020).

¹⁵⁰ OSTROM, *GOVERNING THE COMMONS*, *supra* note 141, at 89.

¹⁵¹ *Id.* at 1, 7–16.

¹⁵² *Id.* at 58; *see also infra* notes 197–206 and accompanying text (describing traditional Hawaiian watershed resource management).

Ostrom identified eight design principles that successful common property regimes exhibited.¹⁵³ These are: (1) clearly defined boundaries, identifying the rights of users as well as the geographic boundaries of the common resource itself; (2) self-imposed rules restricting access and usage that are tailored to the specific shared resource; (3) collective choice and participation in modifying operational rules to tailor to local circumstances; (4) monitors (internal to the group) who hold others accountable; (5) graduated sanctions imposed by the group for violating operational rules; (6) conflict-resolution mechanisms that are low-cost and local in nature; (7) recognition by external government authorities; and (8) for larger systems, “nested” enterprises or governance organized in multiple layers, including local, regional, or national.¹⁵⁴ Common property regimes that failed lacked all or most of these features.¹⁵⁵ This work demonstrates that deliberate choices—or lack thereof—lead to failure or success. Failure is not unavoidable. Stated simply, “many solutions exist to cope with many different problems.”¹⁵⁶ Those who would disregard community efforts to resolve commons problems exclusively in favor of either government oversight or privatization ignore “how these diverse institutional arrangements operate in practice.”¹⁵⁷

One recent analysis of common property regimes revealed that of 100 countries investigated throughout Africa, Europe, Asia, the Americas, and Oceania, seventy-three officially recognize community landholding in agricultural lands.¹⁵⁸ Collective tenure by communities, villages, clans, or other localized groups is legally recognized in countries as diverse as Kenya, Spain, Norway, Canada, the United States, Australia, Fiji, Nicaragua, and Peru.¹⁵⁹ Over half of these community landholding countries also expressly allow for community owners to sell all or parts of shared property with the approval of community members.¹⁶⁰

¹⁵³ OSTROM, *GOVERNING THE COMMONS*, *supra* note 141, at 90.

¹⁵⁴ *Id.*; see also Ostrom, *Design Principles*, *supra* note 132, at 31–36 (describing methodology).

¹⁵⁵ See OSTROM, *GOVERNING THE COMMONS*, *supra* note 141, at 89, 179–80 & Table 5.2 (identifying certain property regimes that failed or succeeded based on their adoption of these design principles).

¹⁵⁶ *Id.* at 14.

¹⁵⁷ *Id.* at 21–22.

¹⁵⁸ Wily, *Collective Land Ownership*, *supra* note 147, at 1, 6. Most of the remaining twenty-seven countries do still have community landholdings, but they lack official recognition under the law. *Id.* at 6.

¹⁵⁹ *Id.* at 6.

¹⁶⁰ *Id.* at 19.

The fact that some countries do or did not officially recognize common property regimes does not mean such regimes do not or did not exist; often the existence of community management systems are simply ignored by government institutions or prevailing legal theories.

For example, the history of Kenya's property law system juxtaposes property law myth and reality.¹⁶¹ Like the United States, Kenya adopted the English common law when it attained its independence from colonial rule.¹⁶² Whereas the English common law espoused protection of property rights at the individual level, the majority of land in Kenya was actually managed at the community level.¹⁶³ But for decades community-level management went unrecognized in the lawbooks. The Kenyan government has recently taken steps to bring the law in alignment with reality: The Community Land Act of 2016 recognizes that communities may secure collective title over community lands and lawfully govern this property with the same legal protections afforded to individuals.¹⁶⁴ This community land may be held in any land tenure system otherwise recognized under Kenyan law, including leasehold or freehold.¹⁶⁵ Under this property regime, membership and governance is decided at the community level, and the distribution of rights and occupancy may be decided in accordance with traditional community rules and custom (within the bounds of other statutory or constitutional limitations).¹⁶⁶

¹⁶¹ See Liz Alden Wily, *The Community Land Act in Kenya Opportunities and Challenges for Communities*, LAND 1 (2018) [hereinafter Wily, *The Community Land Act in Kenya*], <https://www.mdpi.com/2073-445X/7/1/12> [<https://perma.cc/NEY4-GQJT>].

¹⁶² See Sandra F. Joireman, *The Evolution of the Common Law: Legal Development in Kenya and India*, 44 COMMONWEALTH AND COMP. POL. 190, 190–91 (2006), <https://scholarship.richmond.edu/cgi/viewcontent.cgi?article=1076&context=polisci-faculty-publications> [<https://perma.cc/JZ53-9W3C>] (discussing the transplantation of the common law through the British Empire through the 18th and 19th centuries); see also CONSTITUTION art. 166 (2010) (Kenya), <http://www.kenyalaw.org.8181/exist/kenyalex/actview.xql?actid=Const2010> [<https://perma.cc/MG3L-2L8A>] (directing appointment of judges with degrees of common-law jurisdiction).

¹⁶³ Joireman, *supra* note 162, at 194.

¹⁶⁴ See Jaron Vogelsang, *Opinion: A Historic Step Towards Securing Community Land Rights in Kenya*, THOMAS REUTERS FOUND. NEWS (July 30, 2019), <https://news.trust.org/item/20190730151357-yl708> [<https://perma.cc/A6V7-BL9F>]; Wily, *The Community Land Act in Kenya*, *supra* note 161, at 1; see The Community Land Act, No. 27 (2016) Kenya Gazette Supplement No. 148 § 27, http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/CommunityLandAct_27of2016.pdf [<https://perma.cc/H4R4-623P>].

¹⁶⁵ Wily, *The Community Land Act in Kenya*, *supra* note 161, at 1.

¹⁶⁶ *Id.* at 6–7.

Another example is the common resource management system of the Indigenous peoples of Australia.¹⁶⁷ Not until well into the twentieth century were the Indigenous peoples there recognized in academic literature as resource owners and managers.¹⁶⁸ Up until the mid-1900s, publications described them as “aimless wanderers”¹⁶⁹ and “parasites on nature”¹⁷⁰ who did not affirmatively manage the land. In reality Indigenous Australians farmed or managed their ecosystems to ensure long-term productivity of resources for literally thousands of years.¹⁷¹ Now, scientists and resource managers have turned to traditional Indigenous methods of ecological fire management—using purposeful low-intensity fires precisely timed according to air temperature, wind conditions, humidity, and plant life cycle—to prevent a recurrence of catastrophic fires like the ones that devastated the Australian continent in 2019 and 2020.¹⁷²

A similar pattern of historical land management erasure is evidenced by the legal treatment of Native American tribes in the United States. These communities are not a monolith, but broadly speaking, many Native American tribes cultivated and permanently occupied their lands with complex agricultural systems that went largely unacknowledged in Anglo-American literature due to the absence of a private property system familiar to settlers.¹⁷³

¹⁶⁷ Deborah Bird Rose, *Common Property Regimes in Aboriginal Australia: Totemism Revisited*, in *THE GOVERNANCE OF COMMON PROPERTY IN THE PACIFIC REGION* 127–31 (Peter Larmour ed., 2013), <https://press.anu.edu.au/publications/governance-common-property-pacific-region> [<https://perma.cc/9XAC-QKXS>].

¹⁶⁸ *Id.* at 128.

¹⁶⁹ Kilyali Kalit & Elspeth Young, *Common Property Conflict and Resolution: Aboriginal Australia and Papua New Guinea*, in *THE GOVERNANCE OF COMMON PROPERTY IN THE PACIFIC REGION* 183, 187 (Peter Larmour ed., 2013), <https://press.anu.edu.au/publications/governance-common-property-pacific-region> [<https://perma.cc/HMU4-PX8V>].

¹⁷⁰ Bird Rose, *Common Property Regimes in Aboriginal Australia: Totemism Revisited*, *supra* note 167, at 128 (citation omitted).

¹⁷¹ *Id.* at 128–29; Kalit & Young, *supra* note 169, at 187; *Culture*, NAT’L INDIGENOUS AUSTL. AGENCY, <https://www.niaa.gov.au/indigenous-affairs/culture-and-capability> [<https://perma.cc/4Z2J-Q52V>] (last visited Nov. 24, 2020).

¹⁷² Thomas Fuller, *Reducing Fire, and Cutting Carbon Emissions, the Aboriginal Way*, *N.Y. TIMES* (Jan. 16, 2020), <https://www.nytimes.com/2020/01/16/world/australia/aboriginal-fire-management.html> [<https://perma.cc/KMT5-FBE2>].

¹⁷³ *See, e.g.*, Jedediah Purdy, *American Natures: The Shape of Conflict in Environmental Law*, 36 *HARV. ENV’T L. REV.* 169, 180–81 (2012) (describing competing claims to land ownership based on agricultural claims); Nancy J. Knauer, *Legal Fictions and Juristic Truth*, 23 *ST. THOMAS L. REV.* 1, 30 (2010) (discussing the court system’s promotion of the legal fiction that Native Americans simply “wandered” around land and therefore had less claim to it); Matthew L.M. Fletcher, *The Iron Cold of the Marshall Trilogy*, 82 *N.D. L. REV.* 627, 675 (2006) (comparing representations of agricultural practices in newspapers and court cases in the 1800s).

These examples reveal one of the misconceptions accompanying the myth of individual land ownership—that successful common property regimes do not exist.

Further, common property regimes are found throughout the Pacific region, with collective land management predominantly taking place at the family or village level. There are well-documented examples that belie any generalization that common property regimes are not sustainable.¹⁷⁴ In addition to Australia, the Solomon Islands, Papua New Guinea, New Zealand, Vanuatu, and Fiji are examples of countries with strong histories of communal land management that, in the post-colonization period, have undergone a series of land reforms to harmonize the traditional management methods with Anglo- or European-based property laws.¹⁷⁵ Approximately ninety-five percent of land in Papua New Guinea, for example, remains communal land under customary title and subject to management by kinship groups.¹⁷⁶

Comparative research on the property systems in New Zealand (Aotearoa) overlaid by the Maori and English settlers reveals interesting contrasts and parallels.¹⁷⁷ Speaking in broad terms, once the English arrived in New Zealand, they followed their own tradition and “tended to allocate property rights in land on a geographic basis. Land was divided into pieces, each piece was assigned to an owner, and the owner was ordinarily understood to command all the resources within that geographic

Early settlers recognized and reported on the complex agricultural systems they encountered upon arrival in North America; it later became politically and economically expedient (for some) to “recast” the continental United States as an empty land with no land tenure. See Purdy, *supra* note 173.

¹⁷⁴ Larmour, *supra* note 141, at 1; see also Kirsten E. Andersen, *Communal Tenure and the Governance of Common Property Resources in Asia: Lessons from Experiences in Selected Countries* 1 (Food & Agric. Org. of the United Nations, Working Paper No. 20, 2011).

¹⁷⁵ See JIM FINGLETON, *PACIFIC LAND TENURES: NEW IDEAS FOR REFORM* 3, 31 (2008), <http://www.fao.org/3/a-bb106e.pdf> [<https://perma.cc/2HQB-HUWD>]; Larmour, *supra* note 141, at 11; R. Gerard Ward, *Changing Forms of Communal Tenure*, in *THE GOVERNANCE OF COMMON PROPERTY IN THE PACIFIC REGION* 19, 19–20 (Peter Larmour ed., 2013), <https://press.anu.edu.au/publications/governance-common-property-pacific-region> [<https://perma.cc/X635-BMZ8>].

¹⁷⁶ Kathrine Dixon, *Working with Mixed Commons/Anticommons Property: Mobilizing Customary Land in Papua New Guinea the Melanesian Way*, 31 *HARV. ENV'T L. REV.* 219, 220–21 (2007); Andrew A.L. Lakau, *Customary Land Tenure and Common/Public Rights to Minerals in Papua New Guinea*, in *THE GOVERNANCE OF COMMON PROPERTY IN THE PACIFIC REGION* 67, 67–68 (Peter Larmour ed., 2013), <https://press.anu.edu.au/publications/governance-common-property-pacific-region> [<https://perma.cc/ZR88-CP9P>]; Kalit & Young, *supra* note 169, at 186, 200.

¹⁷⁷ Stuart Banner, *Two Properties, One Land: Law and Space in Nineteenth-Century New Zealand*, 24 *LAW & SOC. INQUIRY* 807, 810 (1999) [hereinafter Banner, *Two Properties*].

space.”¹⁷⁸ The Maori, on the other hand, “tended to allocate property rights among individuals and families on a functional rather than a geographic basis.”¹⁷⁹ Under the Maori system, in the same geographic space one might have the right to trap birds from a certain tree or the right to fish from a stream, while another had the right to cultivate a certain plot of ground.¹⁸⁰ Multiple families might have the right to use the same tree for different purposes, and, moreover, the same family might have the right to use certain resources in a range of disparate geographic locations.¹⁸¹ These functional rights were passed on through family lines.¹⁸² The English and Maori systems would appear to be at odds.

However, there is more overlap in the Maori and English property systems than may be initially apparent—the “reality of English landholding was often more complex” than the single-owner ideal.¹⁸³ Several people, not just one person, might own property notwithstanding its “private” nature,¹⁸⁴ a characteristic of collective ownership rather than individual ownership. And others may possess rights that limit an owner’s use in the land, such as those who possess future interests in the land or the government that retains power to limit an owner’s discretion.¹⁸⁵ If an English owner wished to enter into an arrangement with another person to grant access to that geographic space, mechanisms for this arrangement would be in the form of easements, licenses, and profits familiar to property law students.¹⁸⁶ And “custom had traditionally supported a community’s claims to use a variety of lands in common: for example,

¹⁷⁸ *Id.*

¹⁷⁹ *Id.* at 811; Sir Hugh Kawharu, *Common Property, Maori Identity and the Treaty of Waitangi*, in *THE GOVERNANCE OF COMMON PROPERTY IN THE PACIFIC REGION* 89–102 (Peter Larmour ed., 2013), <https://press.anu.edu.au/publications/governance-common-property-pacific-region> [<https://perma.cc/KVE4-WKCQ>].

¹⁸⁰ Banner, *Two Properties*, *supra* note 177, at 811.

¹⁸¹ *Id.*

¹⁸² *Id.*

¹⁸³ *Id.* at 810. My intention in pulling the similarities between English and Maori property systems is not to discount the critical distinctions between the two, or to ignore the incredible change that took place in Indigenous property systems upon colonization by British or other colonizing countries. For purposes of this Article, the point is that the focus on enclosures and individual property ownership within Anglo-American property regimes is a choice, not an inevitability.

¹⁸⁴ *Id.*; *see also supra* discussion at I.B.1.

¹⁸⁵ Banner, *Two Properties*, *supra* note 177, at 811; *see* Antonio Gambaro, *Property Rights in Comparative Perspective: Why Property is so Ancient and Durable*, 26 *TUL. EUR. & CIV. L.F.* 205, 208–09 (2011) (discussing that even Blackstone conceded the distinction between theory and reality); *supra* discussion at I.B.1 (discussing exceptions to the individual private property owner default).

¹⁸⁶ Banner, *Two Properties*, *supra* note 177, at 810–11.

manorial tenants' rights to graze animals, gather wood, or cut turf on the manor commons."¹⁸⁷ Thus, "the community claiming customary rights was really not an 'unorganized' public at all."¹⁸⁸

Similar property regimes based on a functional rather than geographic system were also found throughout much of Europe before enclosures pulled the focus of land management and tenure systems away from mixed property regimes.¹⁸⁹ Land users might have had the right to cultivate certain parcels of land dispersed across several fields, for example, while others had the right to use areas in those same pastures for grazing livestock, while still others had the right to gather resources like nuts or firewood from those areas.¹⁹⁰ Other documented examples include historical usage of fields in northern Europe, where in the same geographic area individuals would own strips of land for growing crops while the community collectively used the fields for grazing livestock.¹⁹¹ And under the common law custom doctrine, residents of a community "could claim collective rights to use otherwise private lands in which group activities had customarily existed without dispute for generations."¹⁹² Even today, land users "'slice and dice' entitlements into special-purpose 'tenure niches'" reminiscent of these historical systems.¹⁹³

Literally and figuratively closer to home, common property regimes exist today throughout United States lands in the Pacific. In the unincorporated territory of American Samoa, for example, land and other resources are shared communally within each village, with the extended family considered to be the fundamental unit of the society.¹⁹⁴ Communal land is owned by the family and generally not open to alienation.¹⁹⁵ In fact, the desire to protect American Samoa's unique political structure and system

¹⁸⁷ Rose, *Comedy of the Commons*, *supra* note 130, at 740.

¹⁸⁸ *Id.* at 741–42.

¹⁸⁹ Stuart Banner, *Transitions Between Property Regimes*, 31 J. LEGAL STUD. 359, 365–66 (2002).

¹⁹⁰ *Id.* at 366; *see also* Fennell, *supra* note 27, at 17 (medieval common fields).

¹⁹¹ Lehari, *supra* note 107, at 150–51.

¹⁹² *Id.* at 151.

¹⁹³ *See* Fennell, *supra* note 27, at 14–16 (summarizing literature on resource sharing).

¹⁹⁴ Turčan, *supra* note 138, at 12–15; *see also* U.S. GEN. ACCT. OFF., GAO/OGC-98-5, REPORT TO THE CHAIRMAN, COMMITTEE ON RES., H.R., U.S. INSULAR AREAS 8–9 & n.10, 23 (1997), <https://www.gao.gov/archive/1998/og98005.pdf> [<https://perma.cc/Y77X-WERN>] (describing the limited application of the U.S. Constitution to the insular territories).

¹⁹⁵ Merrily Stover, *Individual Land Tenure in American Samoa*, 11 THE CONTEMP. PAC. 69, 69–86 (1999), <https://scholarspace.manoa.hawaii.edu/handle/10125/13258> [<https://perma.cc/8GCS-SUMC>].

of land ownership is one reason the government of American Samoa has in the past opposed imposition of United States birthright citizenship.¹⁹⁶

The State of Hawai'i (and the territorial government before it) adopted the Anglo-American property system in the years since incorporation into the United States, but the property system retains components of the communal access land management system that existed in the pre-colonial era.¹⁹⁷ For purposes of natural resource management and sustaining the activities of everyday life on each island, a land parcel known as the ahupua'a was historically the most significant parcel of land, with each island having multiple such management parcels.¹⁹⁸ An ideal ahupua'a would be a wedge-shaped section of land running from the mountain to the sea, following natural geographic boundaries, and would contain all the resources required to sustain the lives of the people living within its borders.¹⁹⁹ For instance, an ahupua'a would contain materials for home building, upland crops, freshwater streams, and nearshore fish ponds.²⁰⁰ The ahupua'a would be self-sufficient, and could range in size from hundreds to thousands of acres.²⁰¹ Generally speaking, only the residents of the ahupua'a were permitted to make use of the ahupua'a resources.²⁰² All worked to cultivate crops and engage in other resource maintenance, while a land agent, known as the konohiki, was responsible for coordinating the day to day activities of cultivating crops, nearshore fish, and the construction of irrigation ditches for freshwater.²⁰³ This system flourished for over 1,000 years (estimated).²⁰⁴

Today there is a resurgence in interest in this community approach, particularly in the agrarian or fishing realms. The State has approved community-based subsistence fishing areas in nearshore waters, noting

¹⁹⁶ Turčan, *supra* note 138, at 14; *see* Tuaua v. United States, 788 F.3d 300, 309–10 (D.C. Cir. 2015).

¹⁹⁷ *See generally* Melody Kapilialoha MacKenzie, *Ke Ala Loa—the Long Road: Native Hawaiian Sovereignty and the State of Hawai'i*, 47 TULSA L. REV. 621 (2012) (describing the relationship between the State of Hawai'i and the Native Hawaiian population).

¹⁹⁸ NATIVE HAWAIIAN RIGHTS HANDBOOK 3 (Melody Kapilialoha MacKenzie ed., 1991) [hereinafter HANDBOOK].

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ *Id.*

²⁰² *Id.*; *see* MacKenzie, *supra* note 197, at 647.

²⁰³ *See* HANDBOOK, *supra* note 198, at 3.

²⁰⁴ Kahikino Noa Dettweiler, *Racial Classification or Cultural Identification?: The Gathering Rights Jurisprudence of Two Twentieth Century Hawaiian Supreme Court Justices*, 6 ASIAN-PAC. L. & POL'YJ. 174, 179 (2005) ("Archaeologists have posited that the first Polynesian voyagers arrived in Hawaii around A.D. 300.").

“overwhelming support from the local community” that is “critical to sustaining natural resources,” and with a “strong recognition that government cannot do it alone.”²⁰⁵ Community-based organizations (through public and private funding) are reclaiming private or state lands to cultivate agricultural systems blending both Anglo-American and Hawaiian land management regimes, resulting in enhanced access to locally sourced food.²⁰⁶

These specific examples are just a few of the many variations on collective management of common property throughout the United States. Other examples include land trusts, neighborhood-managed parks, agricultural cooperatives, housing cooperatives, homeowners associations, and condominium regimes, increasingly common even in private property, as discussed above.²⁰⁷ Citizen shareholder or common interest communities have emerged in the last few decades to manage commonly owned assets, including land or housing units.²⁰⁸

A holistic view of all these practices in private, public, and common property reveals that there is and always has been flexibility to adapt property regimes to fit time, place, and societal interest.²⁰⁹ Within the Anglo-American property system the prevailing view has been a focus on individual private ownership, but there is renewed interest in property regimes reflecting the mixed nature of interests in property.²¹⁰ This revised view should form the basis of property law theory moving forward.

²⁰⁵ *Hā'ena Community-Based Subsistence Fishing Area Rule Signed by Governor*, STATE HAW. DIV. AQUATIC RES., <https://dlnr.hawaii.gov/dar/announcements/haena-community-based-subsistence-fishing-area-rule-signed-by-governor/> [<https://perma.cc/J88D-78AR>] (last visited Nov. 24, 2020); see HAW. ADMIN. R. §§ 13–60.8-1 *et seq.*

²⁰⁶ One such organization, Kāko'o 'Ōiwi, obtained a land lease from the state for a “405-acre parcel to implement activities related to and supportive of cultural practices, agriculture, education, and natural-resource restoration and management,” with an emphasis on locally grown food in coordination with community groups to enhance food sustainability in Hawai'i. *History of He'eia, KAKO'O 'ŌIWI*, <https://kakooiwi.org/historyofheeia/> [<https://perma.cc/8H2F-VZBY>] (last visited Nov. 24, 2020).

²⁰⁷ See *supra* Section I.B.1; Malagrino, *supra* note 18, at 57–59; Kroncke, *supra* note 32, at 486–500.

²⁰⁸ See Lehari, *supra* note 107, at 160–61; Susan F. French, *Making Common Interest Communities Work: The Next Step*, 37 URB. L. 359, 359 (2005) (“A large and growing portion of the housing stock of America is located in common interest communities governed by owner associations.”); Michael A. Heller, *The Boundaries of Private Property*, 108 YALE L.J. 1163, 1183 (1999) (“Common-interest communities (CICs), including residential subdivisions, condominiums, and cooperatives are perhaps the most significant form of social reorganization of late twentieth-century America.”).

²⁰⁹ See Banner, *Two Properties*, *supra* note 177, at 812; see also David Callies, *How Custom Becomes Law in England*, in *THE ROLE OF CUSTOMARY LAW IN SUSTAINABLE DEVELOPMENT* 158–223 (2005) (discussing how customary law is interpreted, or misinterpreted, by U.S. courts over time and in different regions of the country).

²¹⁰ Lehari, *supra* note 107, at 107.

II. THE REVISED VIEW

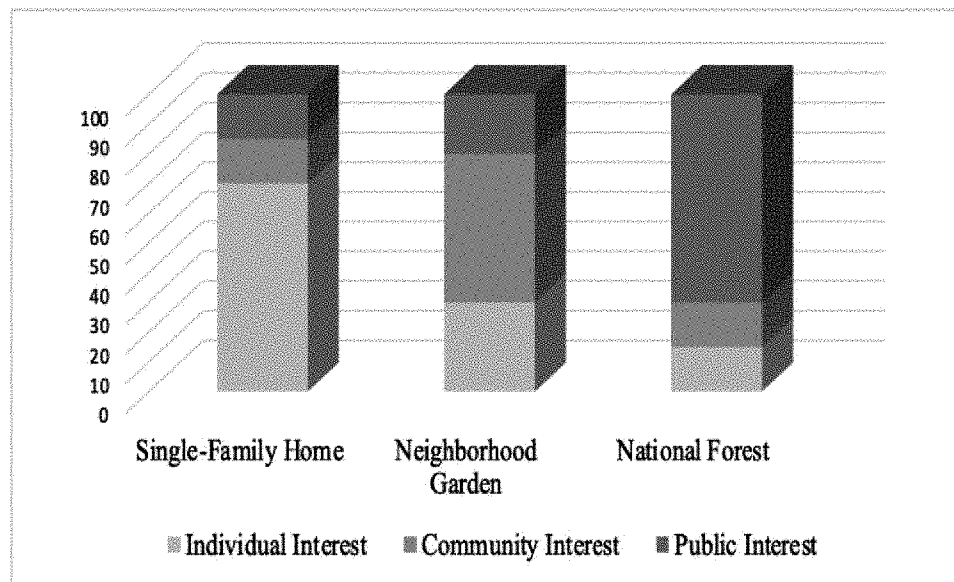
It is time, as Ostrom encouraged, to “move our understanding ahead of earlier theories.”²¹¹ To continue to focus on individual rights—with the correlative focus on the supposed absence of individual rights in public or common property regimes—advances an oversimplified theory of property. Instead, the meaningful characteristic of “owning property” is the *varying proportion* of individual, community, and public interests in land, depending on the characteristics of the land and activities conducted there.

A. *The Revised View: Proportionality of Interests*

The revised view recognizes that individual, community, and public interests coexist. To avoid a myopic focus on one to the exclusion of others, this view analyzes the relative proportion of those interests.

For example, Chart 1 depicts three land parcels reflecting the proportion of individual-community-public interests.

CHART 1: PROPORTIONAL INTERESTS



²¹¹ Ostrom, *Design Principles*, *supra* note 132, at 27.

The Single-Family Home:

- *Individual Interest:* The individual interest is proportionally highest. The homeowner may come and go from the property at will, exclude others, sell the property if desired, and use it at his or her discretion (in accordance with the law).
- *Community Interest:* Restrictive covenants and homeowners' association rules may limit certain uses of the property. Neighbors or utility companies may have easements or other access agreements to the property. Neighbors have a right to protect their own property against private nuisances, and in turn the ambiance of the neighborhood will impact the market value of the single-family home.
- *Public Interest:* The public's interest is reflected in zoning laws, ordinances, frontage setbacks, or other rules imposed on the property. The government may sue to enjoin public nuisances, and may impose regulatory takings or condemn the property with just compensation. The homeowner will also turn to the government for assistance with enforcing his or her rights in the property.

The Neighborhood Garden:

- *Individual Interest:* Individuals may enter and obtain resources for personal use according to the rules set by the community or government entity. Depending on the tenure status of the garden, the property itself may be susceptible to enclosure, conversion, or sale, resulting in termination of individual interests.
- *Community Interest:* The community interest is proportionally highest. By informal agreement, written charter, or municipal rule, the designated community group determines use and access to the resources. All within the designated community have rights to the resource, but the land may be restricted from the larger population.
- *Public Interest:* The public's interest is reflected in zoning laws, ordinances, or other rules imposed on

the property, and may also exist in the form of agreements—either informal or formal—with the community group to support or enforce community governance.

The National Forest:

- *Individual Interest*: Individuals may enter the property for recreation and enjoyment in accordance with the law. Individuals may also extract or make use of resources pursuant to a license or permit issued by the government.
- *Community Interest*: The surrounding community has an interest in the preservation of natural resources in their regions, with the benefit of clean air, water, and natural landscapes. The managing agency may enter into agreements with community groups for trail maintenance or other volunteer projects.
- *Public Interest*: The public's interest—represented by the government—is proportionally highest. The government regulates the land and ultimately decides which individuals or corporations (if any) have access to or use of the property. The government may also hold the property in trust for the general public, whereby the public benefits from conservation of natural resources, clean air, and clean water.

The new view reconceives what it means to own property. “Ownership” should no longer refer to only a bundle of rights for an individual owner.²¹² Property ownership needs to be seen anew for what it really is: a proportional collection of individual, community, and public interests. Property law needs a new metaphor.

B. From Bundles of Sticks to Apple Pie: A Revised Metaphor for a Revised View

To this end, there have been a number of efforts through the years to advance beyond the bundle of sticks concept to more accurately describe

²¹² See *supra* Section II.B.

the complexities of property ownership. One such adjustment envisions a cord securing the bundle of sticks, with the cord representing the larger public interest in land.²¹³ An idea from the environmental realm would add a stick of green (live) wood to the bundle, to represent the environmental considerations accompanying rights in property.²¹⁴ Another suggestion would envision rights in property as a tree, to emphasize the interconnectedness of various interests in property and the social and ecological context to real property.²¹⁵ Yet another alternative would represent the property regime as a triangle, representing private property, common property, and public property types, with many properties falling at interim points along the sides of the triangle and within it.²¹⁶

These proposals, however, are ultimately only partially right. The public cord encircling the bundle, despite having a certain appeal, has several limitations. First, it does not acknowledge the community interest as distinct from the public interest.²¹⁷ More fundamentally, it does not address the individualistic aspect of each component stick in the traditional bundle; the visual imagery seems to accept the premise that the rights themselves are individual in the first instance, but with an overlay of governmental regulations.²¹⁸ Thus, there is no way to metaphorically transfer the public's (or the community's) continued interest in any particular stick when the stick (the right) is transferred to another owner. The green wood metaphor accomplishes part of what the cord does not, in that the imagery demonstrates that environmental obligations should be considered alongside the other rights in property.²¹⁹ But it begs the question whose interest is reflected in environmental considerations. The tree metaphor is helpful insofar as it situates property within a broader social and environmental context, but the visual is imprecise and offers no obvious way to metaphorically transfer rights (besides taking a metaphorical chainsaw to the tree, which would seem to send the wrong message).

The triangle metaphor is closest to what is ultimately proposed in this Article, in that it expressly accounts for the mixed nature of property according to the type of land resource at issue.²²⁰ And because triangles

²¹³ Duncan, *supra* note 3, at 803–07 (commenting on the usefulness of the bundle metaphor as an instructive tool and critiquing it from an environmentalist perspective).

²¹⁴ Goldstein, *supra* note 19, at 407–29.

²¹⁵ di Robilant, *supra* note 19, at 931.

²¹⁶ Lehavi, *supra* note 107, at 138.

²¹⁷ See generally Duncan, *supra* note 3, at 803–07.

²¹⁸ *Id.*

²¹⁹ Goldstein, *supra* note 19, at 407–29.

²²⁰ Lehavi, *supra* note 107, at 138.

are capable of changing shape according to the varying lengths, the triangle can represent the shifting proportions of individual, community, and public interests in land according to its type and use (once equilateral, now scalene, etc.). But while acknowledging this mixture of interests in the land as a whole, the triangle metaphor does not offer an obvious way to conceive of the mixture of interests in each type of right in land or of how to transfer a portion of the rights in land while maintaining the remaining collection of rights.

So, the doctrinal metaphor used to represent real property jurisprudence must account for, among the various rights and entitlements, the obligations accompanying those rights and the community and public's concurrent interests in those rights.²²¹ This would be a more meaningful and accurate metaphor for scholars, the courts, and law students alike. And the new metaphor, in turn, will guide real property regimes to implement the new view.

Rights in property resemble an apple pie. The pie as a whole represents the land parcel and the entirety of rights and obligations that attend that parcel. The proportion of individual-community-public property interests is represented by the three layers of the pie:

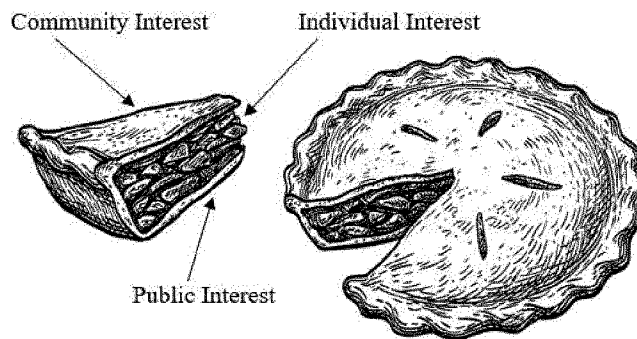
- The *public interests* in land are represented by the bottom layer of crust forming the foundation of the pie; property rights are often a creation of government and society as a whole, and owners rely on mechanisms of government (law enforcement, the courts, legal rules) to enforce those rights.
- The *community interests* in land are represented by the upper layer of crust; the neighboring community is distinct from the general public at large, and the community may claim interests, through easements or restrictive covenants, for example, that may either restrict or support the exercise of individual rights.
- The *individual interests* in land are represented by the filling of the pie; they include the rights to use, to exclude, to profit, and other individual interests recognized by law or custom.

²²¹ See Duncan, *supra* note 3, at 775 (“One individual’s interest in land cannot be defined without taking into account the interests of neighbors and the larger human and natural communities.”).

In the event any particular individual interest is transferred, that interest (the pie filling) would carry with it the community and public interests and associated obligations (the top and bottom crust) in that right. Once transferred, the original holder of the interests has a missing slice—one fewer right to exercise.

Figure 1 Apple Pie: Proportional Interests in Property

Transferring an individual interest in property transfers the corresponding public and community interests along with it.



The next step in the evolution of property law is to affirmatively recognize that this mix of interests is not an exception to the rule but instead is the rule itself. Property rights are like slices of pie, not sticks in a bundle. And an individual's decisions impact—and are impacted by—the community and public interests that form the structure of the pie.

C. *Property Regimes Under the Revised View*

The revised view reflects the proportionality of interests in property; the view itself (as depicted by the apple pie) does not change anything, but rather more accurately captures these interests. The view then supports a range of property regimes that society may overlay to govern the use, stewardship, and ownership of land. These property regimes define the rules, rights, obligations, and societal relationships with respect to the parcel of land.

Because the size and needs of the population and the character of land varies from one locality to the next, there will be no one solution, no one property regime to implement the revised view. On the contrary, there may be as many solutions as communities in this country—urban,

suburban, and rural. But the consistent theme must be that the mixed nature of property meaningfully influences the property regime, with the relative proportion of individual, community, and public interests in a particular piece of land guiding the choice of property regime.

How, then, to design these property regimes? Individuals, communities, and governments do not need to start from scratch. As described in Section I.B, there are myriad examples in countries around the world (including the U.S.) from which to learn.²²² Researchers have evaluated current and historical mixed property regimes and gleaned principles consistent across successful strategies.²²³ Ostrom described eight components of these successful regimes, including clearly defined boundaries, self-imposed rules, collective choice and participation, internal monitors, sanctions, conflict-resolution mechanisms, external recognition, and multi-layered governance for larger systems.²²⁴ Each component would require a deliberate choice on the part of all stakeholders to establish a regime accounting for the mix of interests.²²⁵ One of the threshold questions is whether establishment and enforcement of the property regime will be driven internally at the local community level or externally at the county, state, or even national level.²²⁶ The optimal strategy will vary according to locality and type of land parcels at issue, whether residential condominium units, single-family homes, livestock grazing lands, community gardens, or large-scale agriculture.²²⁷

For agricultural land in particular, the community's interest in access to the scarce resource—land capable of producing food to sustain the community—is relatively high. The property regime would therefore need to reflect this proportionality. The regime could take any number of forms, and depending on the size of the land, Ostrom's nested system of governance and regulation²²⁸ may be advantageous, with the local community (be it village, township, or city) managing the food production while the county or state government maintains a certain oversight role to evaluate externalities or other regional land concerns. For example:

²²² See *supra* Section I.B; see also, e.g., OSTROM, GOVERNING THE COMMONS, *supra* note 141, at 182.

²²³ See generally OSTROM, GOVERNING THE COMMONS, *supra* note 141; Wily, *The Community Land Act in Kenya*, *supra* note 161.

²²⁴ OSTROM, GOVERNING THE COMMONS, *supra* note 141, at 90; see *supra* Section I.B.3.

²²⁵ OSTROM, GOVERNING THE COMMONS, *supra* note 141, at 90.

²²⁶ See *id.* at 101–02.

²²⁷ *Id.*

²²⁸ *Id.* at 90.

- *Collective Title*: Perhaps the most direct way to incorporate the inherently collective aspects of agriculture is to develop a collective title regime geared specifically to agricultural land, wherein land is held by an identifiable collective group based on locality. There are models of this strategy throughout the world, discussed above,²²⁹ which can be tailored to locality- and community-specific needs. Within the conventional Anglo-American property system, this would be a form of concurrent estate, minus the preoccupation with individual interests. Under this regime, agricultural land is capable of being held in fee by the community under a collective title. Benefits to this approach include: encouraging investment in land; creations of markets for food; the right to exclude others; and the rights to use, sell, or profit. And larger plots held in collective title rather than under individual titles will afford the scale of resources necessary to spread the responsibility and risks across the larger community. This shared risk will potentially remedy, or offset, the challenges faced today by individual farmers struggling to hold on to land or to surmount barriers to entering the farming business. The revised view is reflected in this regime in the form of shared title, and co-management by the other title owners. Enforcement may take place internally through restrictive covenants or other association-type restrictions, with the internal management structure decided on a case-by-case basis. Recognition of this regime under state law with the corresponding ability to enforce these rules, as is the case with the recent Community Land Act in Kenya, is a necessity.²³⁰

²²⁹ See *supra* Section I.B.3.

²³⁰ Lack of legal recognition for communal efforts in urban gardens and their resulting inability to compete with market forces, for instance, is one of the major reasons urban gardens may not survive long-term. Cahn & Segal, *supra* note 116, at 199–212, 230. But times are changing. Legal recognition of communities as owners of their lands is “an increasingly accepted element of property relations. The conventional meaning of property

- *Citizen Shareholder Corporation*: A citizen shareholder corporation shares similarities with a collective title regime, but whereas collective title may conceivably be shared by residents of an entire town by virtue of residency, a shareholder corporation would require individuals to either form or buy into a corporation that then manages agricultural land or production on a regional level. Germany's Regionalwert is one such example of these corporations. Individuals purchase shares in the corporation to provide capital to acquire agricultural land or enterprises throughout the region to promote organized and sustainable development of agricultural lands.²³¹ Reflecting the proportional interests of the revised view, shares cannot be sold without the consent of other shareholders, and the restricted transferability provides some stability in the program.²³² This regime thus maintains familiar aspects of individual rights in title but also accounts for broader societal interests in the land.
- *Community Land Trusts*: The community land trust also requires the creation of a separate entity that represents the community, and the land trust may acquire land either through donation or purchase. The type of possessory interest that land trusts have tends to be leasehold, rather than fee, which means decreased security and long-term predictability.²³³ This may be a desirable option for cities or townships with political appetite for granting long-term leases of public lands for agricultural use. The prevalence of community garden efforts or

in land itself is changing, allowing for a greater diversity of attributes without impairing legal protection." Wily, *Collective Land Ownership*, *supra* note 147, at 1.

²³¹ See Christian Hiss, *Regional Value-added Citizen Shareholder Corporation*, U.N. CONF. ON TRADE & DEV., TRADE & ENV'T REV. 301, 301–04 (2013), https://unctad.org/en/PublicationsLibrary/ditcted2012d3_en.pdf [<https://perma.cc/3J8A-R6M3>] (describing the Regional Value-added Citizen Shareholder Corporation in Southern Germany); *Access to Land*, REGIONALWERTAG, <https://www.accesstoland.eu/Regionalwert-AG/> [<https://perma.cc/28LU-797E>] (last visited Nov. 24, 2020).

²³² Hiss, *supra* note 231, at 303–04.

²³³ See, e.g., Kroncke, *supra* note 32, at 486–501.

formalized nonprofit organizations demonstrate that this type of system can be successful, and the lack in stability of ownership could be at least partially offset by long-term leases, such as renewable ninety-nine-year terms. Organizers may look to successful examples of communal land trusts in the housing context, such as the Caño Martín Peña Community Land Trust in San Juan in Puerto Rico, which won the 2015–2016 UN World Habitat Award for innovations in housing strategies.²³⁴

- *Zoning and Regulatory Incentives:* In addition to or in lieu of the above community-focused strategies, government entities may pass zoning restrictions requiring, or regulatory incentives encouraging, landowners to dedicate a portion of crop land to growing food for surrounding areas. These “food security set-asides” would be akin to residential development standards that require building setbacks in neighborhoods, or to inclusionary zoning programs that require a certain number of newly constructed residential units be set aside for affordable housing.²³⁵ Another option would be to focus on output rather than the land itself, and require a certain percentage of crops grown on agricultural land be sold first to local grocers, farmers markets, schools, and hospitals before export. Yet another option would be for each locality (for instance, a municipality) to have its own “foodshed” that supplies its food, much like a city may have a watershed.²³⁶ In any case, food security becomes part of

²³⁴ Wily, *Collective Land Ownership*, *supra* note 147, at 12; *Urban Waters Partnership: Achievements & Accomplishments in Caño Martín Peña*, EPA, <https://www.epa.gov/urban-waterspartners/achievements-and-accomplishments-cano-martin-pena> [<https://perma.cc/7W6W-ABHY>] (last visited Nov. 24, 2020); *see generally* Malagrino, *supra* note 18 (discussing community land trusts in the context of housing).

²³⁵ *See* *Gorieb v. Fox*, 274 U.S. 603, 604 (1927) (upholding the constitutionality of setbacks or building lines); 3 Loc. Gov't L. § 16:74 (inclusionary zoning); Annotation, *Power to Establish Building Line Along Street*, 53 A.L.R. 1222 (discussing setbacks and minimum lot size ordinances); CALLIES, CONCISE INTRODUCTION, *supra* note 19, at 251–334 (discussing zoning ordinances and land use controls); SINGER, *supra* note 9, at 635–71 (similar).

²³⁶ *See* VANDANA SHIVA, WHO REALLY FEEDS THE WORLD 130–31 (2016).

land use planning. This approach to effectuating the revised view emphasizes a top-down, external mechanism for establishing and enforcing the property regime. It presents the potential benefits of consistent enforcement and funding, but requires broad political support and, depending on levels of generality inherent in the regulations, may reduce flexibility to create locality-specific regimes.

- *Easements or Other Servitudes*: Conservation easements—such as the “cows over condos” agreements discussed above—are already commonplace mechanisms to preserve certain lands from urban or commercial development. And the USDA Natural Resources Conservation Service already invests millions of dollars into its Agricultural Conservation Easement Program to help individuals, land trusts, and others protect agricultural lands.²³⁷ Community groups and local governments can similarly pursue arrangements with agricultural land owners to ensure a certain amount of food production goes toward foodstuffs for the local market rather than export or the commodities trade. The revised view is reflected in this regime by restricting certain individual uses to the benefit of community agricultural needs. In order to fully reflect the proportionality of interests, these servitudes would need to be large scale and involve all stakeholders, not just a few parties, with commensurate enforcement handled either internally or externally.

Any of these five options—or another option altogether—may be the optimal choice depending on locality and community. These property regimes should be part of the broader discussion about the future of agricultural land as it pertains to local and national food security, discussed below.²³⁸

²³⁷ News Release, USDA Nat. Res. Conserv. Serv., USDA Offers Conservation Assistance to Landowners to Protect Wetlands, Agricultural Lands & Grasslands (Mar. 27, 2019), <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/releases/?cid=NR-CSEPRD1450419> [<https://perma.cc/5BVW-NFL3>].

²³⁸ See *infra* discussion at Part III.

III. ACHIEVING FOOD SECURITY UNDER THE REVISED VIEW

Agricultural land²³⁹ occupies a unique status in property regimes. Under Anglo-American property law, an individual may hold agricultural land in fee simple with all the various rights in the conventional bundle of sticks; and yet arable land capable of sustaining agriculture is not interchangeable with non-arable land. The public and community interest in agricultural land (and the products derived from it) is proportionally high, notwithstanding an individuals' right to use or profit from that land. When scholars discuss property regimes in the context of agricultural land, what they are talking about is nothing less than a society's ability to feed itself.

The conventional view accepted that a landowner—whether an individual or, increasingly, a corporation—may make whatever use of arable land that the owner may choose without regard to whether there is other arable land to feed the region. In other words, without regard to what the surrounding population requires to be food secure. Taken to its logical extreme, the individual's rights to use and to exclude and to profit and to sell can result in a small number of owners dedicating all arable land to export or trade on the commodities market, leaving little to no agricultural products available to provide food for entire regions of people.

The result: the Nation's food system is vulnerable. This vulnerability was made all too clear during the COVID-19 pandemic, which revealed that many cities and towns are mere days away from having no food once interstate delivery systems break down.²⁴⁰ As the pandemic forced delivery systems to slow or shut down, daily news stories depicted a startling contrast: farmers in California left their vegetable crops to die in the fields and farmers in the Midwest euthanized livestock and dumped thousands of gallons of milk, while unprecedented numbers of people in other parts of the country went hungry—turned away from food banks suffering food shortages.²⁴¹ Long lines to the food pantry²⁴² and shriveled

²³⁹ By the term "agricultural" land, I refer both to land that has been put to agricultural production as well as arable land that is capable of sustaining agriculture.

²⁴⁰ Chloe Hadavas, "We're in a Save-Our-Farm-From-Collapsing Mode," SLATE (Apr. 12, 2020), <https://slate.com/human-interest/2020/04/csa-farmers-markets-coronavirus-demand-rise.html> [<https://perma.cc/6N93-WLJT>].

²⁴¹ Laura Reiley, *Full Fields, Empty Fridges*, WASH. POST (Apr. 23, 2020), <https://www.washingtonpost.com/business/2020/04/23/fixing-food-dumping-food-banks/?arc404=true> [<https://perma.cc/4NSE-GP7A>]; Sydney Page, *Extra Food is Rotting on Farms while Americans Go Hungry*, WASH. POST (June 10, 2020), <https://www.washingtonpost.com/lifestyle/2020/06/10/extra-food-is-rotting-farms-while-americans-go-hungry-this-group-is-trying>

crops dead in the dirt evoked our collective memories of the Dust Bowl and the Great Depression. How did this happen?

Property regimes are just a component of the food supply challenges during national and global shocks like the pandemic, of course.²⁴³ But property laws, and all of the assumptions about who has rights in land, are a foundational aspect to land use and the agricultural system in the United States. Thus, the bundle of sticks emphasis on individual property rights has played a major role in enabling the current food supply model.²⁴⁴

The unusual confluence of events triggered by the pandemic exposed the inherent risk in the current food production and delivery system in America as it developed under the fragmented and individualistic view of property law. The food supply chain is longer and more complex than it ever has been. Over the last several decades, the distance that food travels from farm to table has grown.²⁴⁵ Many localities do not grow enough to support their community even at a basic level, and the food stocking grocery store shelves often comes not just from another state but from another country.

One reason for this long supply chain is that farmers in the United States increasingly sell to restaurants who will pay higher prices, which

-fix-that/ [https://perma.cc/4FGD-ATKY] (describing that “[f]arms have a surplus of food from canceled restaurant contracts and a shattered supply chain, while food banks are experiencing a staggering surge in demand”); *see also Coronavirus and USDA Assistance for Farmers*, U.S. DEPT OF AGRIC., https://www.farmers.gov/coronavirus [https://perma.cc/74SS-43DV] (last visited Nov. 24, 2020) (describing USDA aid to farmers during the coronavirus pandemic).

²⁴² Michelle Conlin et al., *U.S. Food Banks Run Short on Staples as Hunger Soars*, THOMSON REUTERS NEWS (Apr. 24, 2020), https://www.reuters.com/article/us-health-coronavirus-foodbanks-insight/u-s-food-banks-run-short-on-staples-as-hunger-soars-idUSKCN2261AY [https://perma.cc/Z7X7-D825]; Eoin Higgins, *‘Unforgettable’ Footage of Endless Line of Cars at Food Banks a Stark Illustration of Coronavirus Crisis in US*, COMMON DREAMS (Apr. 10, 2020), https://www.commondreams.org/news/2020/04/10/unforgettable-footage-endless-line-cars-food-banks-stark-illustration-coronavirus [https://perma.cc/E8JH-2ECB].

²⁴³ Food packing and processing facilities, for instance, are not functioning at full capacity due to decreasing staffing in the face of a communicable disease.

²⁴⁴ Others have advocated for greater acceptance of mixed property regimes, although not directly addressing the question of food security. *See, e.g.*, Duncan, *supra* note 3, at 804 (advancing a theory of property rights that accounts for the interconnectedness of society and environmental issues); Lehavi, *supra* note 107, at 140 (advocating for “normative support for explicit mixed types of property regimes, whenever these may prove optimal to obtain society’s goals”).

²⁴⁵ *See* Xiaowen Lin et al., *Food Flows Between Counties in the United States*, ENV’T RSCH. LETTERS 14 (2019), https://iopscience.iop.org/article/10.1088/1748-9326/ab29ae/pdf [https://perma.cc/E7PB-USAF].

means that farmers ship their food across the country and tailor what they grow according to what will sell at a restaurant, not a local market.²⁴⁶ Grocery stores, on the other hand, tend to import produce from countries that will charge lower prices.²⁴⁷ And because the processing, packaging, and labeling of grocery or restaurant products are not interchangeable, nor are the products themselves the same, a farm set up for long-distance deliveries cannot easily pivot from shipping goods nationally to delivering locally to grocery stores.²⁴⁸

Another reason communities rely on food that has crossed hundreds or thousands of miles before arriving at the local grocer is because farms in the United States are increasingly growing food for export and for sale on the commodities market rather than for regional consumption.²⁴⁹ Thus, even if a locality has enough land to feed the surrounding community, it may not actually do so.²⁵⁰ Instead, wheat, corn, soy, and other cash crops are grown in large quantities for export, not for local consumption.²⁵¹ The revised view would balance the individual's interest

²⁴⁶ Reiley, *supra* note 241.

²⁴⁷ *Id.*

²⁴⁸ See Greg DeCroix, Professor, Grainger Ctr. for Supply Chain Mgmt., Wis. Sch. of Bus., *Presentation on Food Supply in the Age of COVID-19*, YOUTUBE (May 19, 2020), <https://www.youtube.com/watch?v=a10Df-qO1UE&feature=youtu.be> [<https://perma.cc/5JUS-9GUE>]; Heather White, Assistant Professor, U. Wis. Dep't of Dairy Sci., *Presentation on Food Supply in the Age of COVID-19*, YOUTUBE (May 19, 2020), <https://www.youtube.com/watch?v=a10Df-qO1UE&feature=youtu.be> [<https://perma.cc/TW97-VTPX>].

²⁴⁹ Ed Maixner, *Farm Exports: A Starring Role in U.S. Agriculture's Profitability*, AGRIPULSE (Mar. 16, 2018), <https://www.agri-pulse.com/articles/10851-farm-exports-a-starring-role-in-us-agricultures-profitability> [<https://perma.cc/H7WN-C78Y>].

²⁵⁰ In Hawai'i, although there is enough arable land to substantially feed the community, a majority of that land is put towards "seed, coffee and other nutritionally unimportant crops." David Thompson, *Could Hawaii Feed Itself if it Had to?*, HONOLULU MAG. (Oct. 2013), <http://www.honolulumagazine.com/Honolulu-Magazine/October-2013/Honolulu-Are-you-prepared-for-hurricanes-nukes-earthquakes-and-tsunamis/Could-Hawaii-feed-itself-if-it-had-to/>.

²⁵¹ According to the USDA, corn is the primary feed grain, and while corn acreage in the United States is approximately ninety million acres, much of this corn (approximately forty percent) goes to ethanol production, not food. The next ten to twenty percent of corn is exported, and significant portion of the remainder is put towards livestock feed. See USDA ECON. RES. SERV., *FEEDGRAINS SECTOR AT A GLANCE* (Feb. 26, 2020), <https://www.ers.usda.gov/topics/crops/corn-and-other-feedgrains/feedgrains-sector-at-a-glance/> [<https://perma.cc/3YBS-98FH>]; Tom Capehart & Susan Proper, *Corn is America's Largest Crop in 2019*, USDA ECON. RES. SERV. (Aug. 1, 2019), <https://www.usda.gov/media/blog/2019/07/29/corn-americas-largest-crop-2019> [<https://perma.cc/75YL-HW2J>].

Wheat is the primary food grain, and wheat ranks third among U.S. field crops in planted acreage, production, and gross farm receipts, behind corn and soybeans. See USDA

in profits with the surrounding community's and public's interests in reliable access to regionally sourced food.

This focus on agricultural land as a mechanism to create products for sale rather than nourishment has coincided not only with long, insecure supply chains but also with the decline of farming as a livelihood. U.S. farmers are experiencing near record levels of debt, reminiscent of the farming crisis in the 1980s, which itself had been the worst crisis since the Great Depression.²⁵² Bankruptcies are up nearly thirty-two percent since 2014,²⁵³ and America's farmers and ranchers have experienced a nearly fifty percent drop in net farm income over the last seven years due to a crash in commodities prices.²⁵⁴

When farm owners and leaseholders (whether individual or corporations) tailor their agricultural land to growing cash crops, the viability of those crops become vulnerable to price speculation, changes in the energy market, and international trade tensions. Soybean exports to China, for instance, dropped seventy-five percent from 2017 to 2018, and key commodity prices in corn, soybean, and wheat have dropped by nearly half since 2012.²⁵⁵

ECON. RES. SERV., WHEAT SECTOR AT A GLANCE (June 26, 2020), <https://www.ers.usda.gov/topics/crops/wheat/wheat-sector-at-a-glance/> [<https://perma.cc/SF6J-8TTN>]; see also USDA ECON. RES. SERV., AGRICULTURAL TRADE (Aug. 20, 2019), <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/agricultural-trade/> [<https://perma.cc/AQ4V-LGNK>].

Moreover, the rise in the commodities market correlates with the market concentration of corporations involved in providing the inputs (seeds, pesticides, equipment) and corporations that process, package, and purchase the outputs (crops), with less flexibility available to the farmer to control what happens to the food grown on the farm. ZOE WILLINGHAM & ANDY GREEN, A FAIR DEAL FOR FARMERS RAISING EARNINGS AND REBALANCING POWER IN RURAL AMERICA 1, 4–7 (2019), <https://cdn.americanprogress.org/content/uploads/2019/05/02131411/Fair-Deal-for-Farmers.pdf> [<https://perma.cc/8HWZ-RZF6>].

The result is that direct farmer-to-consumer sales make up a negligible portion of most farmers' sales. Instead, farmers' real customers are processors, grain traders, and marketers and packagers. *Id.* at 6.

²⁵² Katie Wedell et al., *Midwest Farmers Face a Crisis*, USA TODAY NETWORK (Mar. 9, 2020), <https://www.usatoday.com/in-depth/news/investigations/2020/03/09/climate-tariffs-debt-and-isolation-drive-some-farmers-suicide/4955865002/> [<https://perma.cc/WY4D-HJ6C>]; FARM AID, UNDERSTANDING THE ECONOMIC CRISIS FAMILY FARMS ARE FACING (Oct. 8, 2019), <https://www.farmaid.org/blog/fact-sheet/understanding-economic-crisis-family-farms-are-facing/#stext> [<https://perma.cc/28GY-RHEV>]; Debbie Weingarten, *Why Are America's Farmers Killing Themselves?*, THE GUARDIAN (Dec. 11, 2018), <https://www.theguardian.com/us-news/2017/dec/06/why-are-americas-farmers-killing-themselves-in-record-numbers> [<https://perma.cc/GSQ4-27MK>].

²⁵³ FARM AID, *supra* note 252.

²⁵⁴ *Id.*; Weingarten, *supra* note 252.

²⁵⁵ Wedell et al., *supra* note 252.

Focusing on crops as commodities rather than food has, in turn, contributed to the decline in small and midsize family farms. These farms are often too small to compete in the global market.²⁵⁶ According to the USDA, over the last thirty years, the percentage of cropland acres operated by midsize farms has decreased from fifty-seven percent to thirty-three percent, while the percentage of cropland acres operated by large farms has grown from fifteen percent to forty-one percent.²⁵⁷ Between 2007 and 2012, nearly 56,000 midsize farms were lost nationally.²⁵⁸ This has serious ramifications for rural communities, where midsize farms tend to employ more people per acre than larger industrial farms.²⁵⁹ This, in turn, has set off a cascade effect resulting in farm collapse and depopulation in rural areas.²⁶⁰

High costs for land and equipment, access to insurance, and opportunity costs are significant barriers to new farmers entering the business and to existing farmers who wish to transition from monoculture cash crops to diversified crops of nutritionally higher value.²⁶¹ The high buy-in costs and financial risk associated with farming has resulted in declining interest in farming by the younger generation. The USDA 2016 report on the status of land tenure and farming found that approximately one-third of the U.S. farming population is at least age sixty-five, compared with only twelve percent of other self-employed workers in nonagricultural business, with little to no farmland anticipated to be sold on the competitive market.²⁶² The USDA determined that “[l]and tenure and ownership, therefore, has significant bearing on both the current and future state of the U.S. agricultural economy.”²⁶³

²⁵⁶ U.N. CONF. ON TRADE & DEV., *supra* note 231, at 277 (attributing the decline in small farms in the U.S. to inability to compete in the commodities market).

²⁵⁷ JAMES M. MACDONALD, USDA ECON. RES. SERV., CONSOLIDATION IN U.S. AGRICULTURE CONTINUES (Feb. 3, 2020), <https://www.ers.usda.gov/amber-waves/2020/february/consolidation-in-us-agriculture-continues/> [<https://perma.cc/X6QQ-RCW9>].

²⁵⁸ UNION OF CONCERNED SCIENTISTS, GROWING ECON. 1 (2016), <https://www.ucsusa.org/sites/default/files/attach/2016/01/ucs-growing-economies-2016.pdf> [<https://perma.cc/MG75-H7G3>] (applying USDA data).

²⁵⁹ *Id.*

²⁶⁰ Wedell et al., *supra* note 252.

²⁶¹ See UNION OF CONCERNED SCIENTISTS, *supra* note 258, at 5.

²⁶² USDA ECON. RES. SERV., U.S. FARMLAND OWNERSHIP, TENURE & TRANSFER 1, 33 (2016), <https://www.ers.usda.gov/webdocs/publications/74672/eib-161.pdf?v=0> [<https://perma.cc/6SX6-K82B>]; see also *id.* at 35 (noting that the distribution of agricultural land across entire communities, to what uses they are put, and the tenure system in place, is critical to food security).

²⁶³ *Id.* at 1.

All of these factors compound to put farmers under significant financial and emotional stress. According to a January 2020 study from the Centers for Disease Control and Prevention, farmers are among the most likely to die by suicide when compared with other occupations.²⁶⁴ A 2017 University of Iowa study found that farmers and ranchers had a suicide rate on average 3.5 times that of the general population.²⁶⁵ And Farm Aid, a nonprofit whose mission is to help farmers keep their land and manage stressors, reported that in 2018 it experienced a thirty percent increase in calls to their crisis hotline.²⁶⁶

There is no one explanation for these crises, of course, but the numbers are emblematic of the fact that, on a deeply personal level, the agricultural system in the United States is not working for the individuals who farm the land.

The food supply system does not work for many communities, either. Communities become reliant on a national and global food supply chain. The result is that in the event of a supply chain failure, cities and towns in states across the country have only a few days or weeks before the food runs out. The State of Hawai'i, for instance, is over 2,000 miles from the continental United States but nevertheless imports nearly ninety percent of its food.²⁶⁷ According to estimates, Hawai'i has at most three

²⁶⁴ Cora Peterson et al., *Suicide Rates by Indus. & Occupation*, 69 MORBIDITY & MORTALITY WEEKLY REP., CTR. FOR DISEASE CONTROL & PREVENTION, 57, 57, 60 (2020), <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6903a1-H.pdf> [<https://perma.cc/WZH4-HNU8>]; Wedell et al., *supra* note 252.

²⁶⁵ Wedell et al., *supra* note 252; see Tom Snee, *Long After '80s Farm Crisis, Farm Workers Still Take Own Lives at High Rate*, IOWA NOW (June 12, 2017), <https://now.uiowa.edu/2017/06/long-after-80s-farm-crisis-farm-workers-still-take-own-lives-high-rate> [<https://perma.cc/9R8N-6RT4>].

²⁶⁶ Chuck Jones, *Amid Trump Tariffs, Farm Bankruptcies and Suicides Rise*, FORBES (Aug. 30, 2019), <https://www.forbes.com/sites/chuckjones/2019/08/30/amid-trump-tariffs-farm-bankruptcies-and-suicides-rise/#6c634af72bc8> [<https://perma.cc/9SPZ-TLG9>]. Over one thousand individuals called the crisis hotline in 2018 alone. Wedell et al., *supra* note 252.

²⁶⁷ OFF. OF PLAN., DEP'T OF BUS. ECON. DEV. & TOURISM, INCREASED FOOD SECURITY & FOOD SELF-SUFFICIENCY STRATEGY ii (2012) [hereinafter INCREASED FOOD SECURITY], http://files.hawaii.gov/dbedt/op/spb/INCREASED_FOOD_SECURITY_AND_FOOD_SELF_SUFFICIENCY_STRATEGY.pdf [<https://perma.cc/ZS67-GFS2>]; see also Todd Woody, *Food Independence Could Be a Matter of Survival for the U.S.' Most Isolated State*, TAKEPART (June 29, 2015), <http://www.takepart.com/article/2015/06/29/hawaii-local-food> [<https://perma.cc/AN98-QDBD>]; George Kent, *Food Security in Hawai'i*, in FOOD AND POWER IN HAWAII: VISIONS OF FOOD DEMOCRACY 28–45 (Aya Hirata Kimura & Krisnawati Suryanata eds., 2016), <http://www2.hawaii.edu/~kent/FOODSECURITYINHAWAII.pdf> [<https://perma.cc/HB77-J9UE>] (discussing food security in Hawai'i with a historical perspective).

to four days of food on-island if the ships and airplanes stop coming.²⁶⁸ This precarious situation is repeated again and again across the country.²⁶⁹

Municipalities are not doing enough to prepare for food supply chain disruptions. One recent study of Los Angeles, Madison, New Orleans, New York City, and Portland reported that although many U.S. cities are prioritizing “resilience planning” in response to natural disasters, those plans often overlook food systems.²⁷⁰ Another report focusing on Baltimore City concluded that “local food production and processing [were] not sufficient to supply adequate food” and observed that “few U.S. cities have considered food systems in disaster preparedness or resilience planning.”²⁷¹ The City of Boston’s Food System Resilience Study following Hurricane Sandy concluded that “metro food systems that are disrupted by disasters may not return to normal operations for an inordinate amount of time if they are not resilient, which could cause significant food availability and food access issues.”²⁷² Urban agriculture in Boston represents a small share of local food supply, and the report notes “significant interest in Boston to expand local food production and processing in the city and New England,” with community groups advocating for “50 percent

The State of Hawai‘i did not always import such a significant percentage of its food. There was a marked decline in food sufficiency on the islands beginning in the 1970s. *See* INCREASED FOOD SECURITY, *supra* note 267, at ii. One significant contributing factor was interstate competition, aided by court rulings striking down as unconstitutional protective laws passed by the Hawai‘i legislature. *See* Woody, *supra* note 267. Hawai‘i’s dairy industry, for instance, at one point supplied nearly all of Hawai‘i’s milk, but by 2010, most dairy farms were out of business following a federal court order striking down protective legislation. *See id.*; *see* Safeway Stores, Inc. v. Bd. of Agric., 590 F. Supp. 778, 786 (D. Haw. 1984) (ruling the Hawai‘i Milk Control Act, Haw. Rev. Stat. § 157-24(a) (1976), which restricted sale of milk traveling interstate, violated the Commerce Clause).

²⁶⁸ *See* Woody, *supra* note 267; *see also* MANA SOUTHICKACK, HAW. DEPT’ OF AGRIC., IN-SHIPMENT TREND AND ITS IMPLICATIONS ON HAWAII’S FOOD SECURITY 24 (2007), https://ko.halacenter.org/pdf/HDOA_hawaii_food_security.pdf [<https://perma.cc/A5VU-576K>].

²⁶⁹ Researchers out of the University of Illinois analyzed the “food flows” between counties in the United States, noting a high reliance on out-of-state food. *See* Lin et al., *supra* note 245, at 14.

²⁷⁰ KIMBERLY ZEULI & AUSTIN NIJHUIS, ICIC, THE RESILIENCE OF AMERICA’S URBAN FOOD SYSTEMS: EVIDENCE FROM FIVE CITIES 4 (2017), https://icic.org/wp-content/uploads/2017/01/ROCK_Resilient_Food_f2.pdf [<https://perma.cc/F5QE-9EX3>].

²⁷¹ Erin Biehl et al., *Planning for a Resilient Urban Food System: A Case Study from Baltimore City, Maryland*, 8 (Suppl. 2) J. AGRIC., FOOD SYS. & CMTY. DEV. 39, 39, 50 (2018), <https://www.foodsystemsjournal.org/index.php/fsj/article/view/628> [<https://perma.cc/F4DF-Y4G9>].

²⁷² ICIC, RESILIENT FOOD SYSTEMS, RESILIENT CITIES: RECOMMENDATIONS FOR THE CITY OF BOSTON 3 (2015), https://icic.org/wp-content/uploads/2016/04/ICIC_Food_Systems_final_revised_post.pdf [<https://perma.cc/8SKW-9WT6>].

of the food consumed in New England [to] be produced in New England by 2060.”²⁷³

Resiliency studies report vulnerabilities:

[F]ood from the point of production to the point of consumer purchase is a vast and complex system that relies on numerous agents, a range of distribution methods, and various distribution points. As food travels from numerous farms to a limited number of processing and packaging points and then back out to a vast number of retail outlets, it is at risk of being caught in many potential “choke points.”²⁷⁴

Resiliency planning is hampered by a lack of information, and a comparative study of San Francisco, New York City, and Boston was frustrated by “insufficient data on the origination of food products,” with the lack of information on the amount and origin of food for the cities itself “creat[ing] vulnerability.”²⁷⁵ Recognizing the need for comprehensive planning to address inadequate food resources in communities, the USDA provides research support for community food security assessments.²⁷⁶

Risks associated with long supply chains are not limited to large-scale environmental or socio-economic disasters. Even without a pandemic or economic recession, approximately eleven percent of households in the United States are what is described as “food insecure,”²⁷⁷ which the USDA defines as “a household-level economic and social condition of limited or uncertain access to adequate food.”²⁷⁸ For the year 2018, that

²⁷³ *Id.* at 11.

²⁷⁴ *Id.* at 5 (internal reference omitted).

²⁷⁵ *Id.* at 4–5.

²⁷⁶ See BARBARA COHEN, USDA ECON. RSCH. SERV., COMMUNITY FOOD SECURITY ASSESSMENT TOOLKIT (2002), https://www.ers.usda.gov/webdocs/publications/43164/15824_efan02013_1_.pdf?v=3612.7 [<https://perma.cc/4C4T-PXXK>].

²⁷⁷ ALISHA COLEMAN-JENSEN ET AL., USDA ECON. RSCH. SERV., HOUSEHOLD FOOD SECURITY IN THE UNITED STATES IN 2018 v (2019), <https://www.ers.usda.gov/webdocs/publications/94849/err-270.pdf?v=963.1> [<https://perma.cc/P52Z-9QHA>]. The prevalence of food security was higher than the national average in Alabama, Arkansas, Indiana, Kentucky, Louisiana, Mississippi, North Carolina, New Mexico, Ohio, Oklahoma, Texas, and West Virginia. *Id.* at 19. The states with food insecurity rates lower than the national average were California, Colorado, Hawai'i, Iowa, Idaho, Massachusetts, Minnesota, Montana, North Dakota, New Hampshire, New Jersey, New York, Virginia, Vermont, Washington, and Wisconsin. *Id.*

²⁷⁸ USDA ECON. RSCH. SERV., DEFINITIONS OF FOOD SECURITY 2 (2019), <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security>

meant over 37 million people were food insecure at one point during the year.²⁷⁹ And an estimated 13.5 million people in the United States live in what is described as a “food desert,” where at least thirty-three percent of the population lives more than one mile away from a supermarket in the case of an urban area or ten miles away in the case of rural areas.²⁸⁰

With increasing concentration of delivery to large supermarket chains, and the rise of packaging and distribution centers that are hundreds of miles away from both the farms and the end consumer, it may be economically infeasible for a supermarket to set up in a small town or impoverished area.²⁸¹ The result is no fresh food to be found, unless there are community gardens. Atlanta, Detroit, the Bronx in New York, Chicago, San Francisco, Camden, New Orleans, Minneapolis and St. Paul, Memphis, and Seattle are reported to be the largest food deserts in the United States as of 2019.²⁸² These cities show that the risks associated with long food supply chains are real, not theoretical.

Unsurprisingly, given the increasingly connected global food supply chain, these concerns are not limited to farmers in the United States. The 2013 United Nations Conference on Trade and Development report concluded that “[t]he fundamental transformation of agriculture may well turn out to be one of the biggest challenges, including for international security, of the 21st century.”²⁸³ Farmers around the world now find

.aspx [https://perma.cc/4T8D-BN36]; see also CHRISTIAN A. GREGORY & ALISHA COLEMAN-JENSEN, USDA ECON. RSCH. SERV., FOOD INSECURITY, CHRONIC DISEASE, AND HEALTH AMONG WORKING-AGE ADULTS (2017), https://www.ers.usda.gov/webdocs/publications/84467/err-235.pdf?v=42942 [https://perma.cc/B3ZW-RB96] (documenting “the strong correlation between food security status and chronic health conditions among working-age adults).

²⁷⁹ COLEMAN-JENSEN ET AL., *supra* note 277, at 9; see Reiley, *supra* note 241.

²⁸⁰ MICHELE VER PLOEG ET AL., USDA ECON. RSCH. SERV., MAPPING FOOD DESERTS IN THE UNITED STATES I (2011), https://www.ers.usda.gov/amber-waves/2011/december/data-feature-mapping-food-deserts-in-the-us/ [https://perma.cc/Y4C3-DYQG].

²⁸¹ See USDA ECON. RSCH. SERV., ACCESS TO AFFORDABLE AND NUTRITIOUS FOOD: MEASURING AND UNDERSTANDING FOOD DESERTS AND THEIR CONSEQUENCES (2009), https://www.ers.usda.gov/webdocs/publications/42711/12716_ap036_1_.pdf [https://perma.cc/VT5G-8G42].

²⁸² Ann Casano, *Here are All of the US's Largest Food Deserts*, RANKER (July 19, 2020), https://www.ranker.com/list/largest-food-deserts-in-united-states/anncasano [https://perma.cc/2LRL-M7RL].

²⁸³ U.N. CONF. ON TRADE & DEV., *supra* note 231, at i; see also H.E. Tijjani Muhammad Bande, President of the 74th Session of the United Nations Gen. Assembly, *The Impact of Covid-19 on Global Food Security and Nutrition: Preventing a Health Crisis from Becoming a Food Crisis* (Apr. 17, 2020), https://www.un.org/pga/74/2020/04/17/the-impact-of-covid-19-on-global-food-security-and-nutrition-preventing-a-health-crisis-from-becoming-a-food-crisis/ [https://perma.cc/BXW2-J39M] (regarding the impact of COVID-19 on global food security).

themselves in the perverse position of selling food for export and then in turn going hungry because they do not make enough money to purchase food or end up purchasing lower quality food than what they grow.²⁸⁴ Countries are increasingly recognizing that the current agricultural systems result in food insecurity and all the risks that come along with it—violent conflict, poverty, hunger, and displacement.²⁸⁵

In sum, the food system is not working for many farmers, places at risk those communities that lack reliable access to fresh, nutritious food, and impedes the public interest in food security. This is a complex issue, one critical aspect of which is the fragmented approach to agricultural land that treats it as a commodity to be used and sold by individuals or private corporations without recognition of the broader public and community interest in that land.²⁸⁶ The old view represented by the bundle of sticks metaphor reinforces this detrimental approach by encouraging a narrow focus on individual rights to the exclusion of broader land use and food security concerns.

Yet history teaches us that local food sourcing is (and always has been) an essential part to overall food—and national—security. The renewed interest today in home gardens to supplement decreased access to grocery stores during the COVID-19 pandemic is reminiscent of the “victory gardens” planted by communities during World Wars I and II, when the country’s larger infrastructure was put to uses other than food delivery.²⁸⁷ Those localized efforts were widely successful at the time.²⁸⁸

²⁸⁴ U.N. CONF. ON TRADE & DEV., *supra* note 231, at 10, 288.

²⁸⁵ See generally FAO, THE STATE OF FOOD SECURITY AND NUTRITION IN THE WORLDS (2019), <http://www.fao.org/state-of-food-security-nutrition> [<https://perma.cc/C9FC-QK6N>] (last visited Nov. 24, 2020) (describing interaction between food security, conflict, economic slowdowns, and social marginalization); Charles Martin-Shields & Wolfgang Stojetz, *Food Security and Conflict* (FAO Agric. Dev. Econ. Working Paper No. 18s-04, 2018), <http://www.fao.org/3/CA1587EN/ca1587en.pdf> [<https://perma.cc/3K4K-PVDS>] (describing “increased focus on the role of food security in conflict processes, both in the academic and policy and communities”).

²⁸⁶ See *supra* discussion at Section I.B.

²⁸⁷ See Tejal Rao, *Food Supply Anxiety Brings Back Victory Gardens*, N.Y. TIMES (Mar. 25, 2020), <https://www.nytimes.com/2020/03/25/dining/victory-gardens-coronavirus.html> [<https://perma.cc/K4PT-PLNB>].

During WW II, women in particular were encouraged to assist the national food production effort—those involved in the effort were referred to as the Women’s Land Army. See Judy Barrett Litoff & David C. Smith, “*To the Rescue of the Crops*”: *The Women’s Land Army During World War II*, 25 PROLOGUE (Winter 1993), <https://www.archives.gov/publications/prologue/1993/winter/landarmy.html> [<https://perma.cc/3648-RHWS>].

²⁸⁸ Rao, *supra* note 287.

Why not now advance “resiliency gardens” or, better yet, “resilient agriculture” as part of a concerted effort toward a secure agricultural system?

In the United Kingdom—where, lest we forget, much of the property law system here in the United States originated—there is growing understanding of the need for change in its agricultural and food supply system.²⁸⁹ Agricultural bills introduced to Parliament recognize that food self-sufficiency in the United Kingdom has been on the decline for the past thirty years and propose new requirements on the government to report on food security to Parliament.²⁹⁰ The government called for a year-long study, to develop an “integrated National Food Strategy.”²⁹¹ Meanwhile, urban garden projects such as the “Incredible Edible” have sprung up organically by the hundreds across the United Kingdom, with a focus on resiliency and self-sufficiency at the community level.²⁹² The situation in the United States warrants a similar concerted and purposeful effort.

The revised view of property law described here is broad enough to address the issues discussed above, including local and regional food sourcing, vulnerable supply chains, resiliency planning, and the financial struggles of small- and mid-size farms.²⁹³ It does not focus narrowly on the individual right in arable land to the exclusion of those other considerations. Any one of the property regimes reflecting the revised view can help account for the proportion of individual-community-public interests in agricultural land: whether by collective title, citizen shareholder corporation, land trust, zoning, or easements, these property regimes can achieve food security by expressly dedicating a certain amount of food to feeding the region rather than to export.²⁹⁴ Real property regimes that dedicate a certain amount of food to feeding the region rather than sale on the commodities market, for instance, will ensure some arable land

²⁸⁹ Sam Knight, *Can Farming Make Space for Nature?*, THE NEW YORKER (Feb. 10, 2020), <https://www.newyorker.com/magazine/2020/02/17/can-farming-make-space-for-nature> [<https://perma.cc/L22U-9SJJ>] (discussing the need for functioning ecosystems to feed a growing population).

²⁹⁰ Jonathan Finlay & Matthew Ward, House of Commons Library, *Food Security: What Is It and How Is It Measured?* (Feb. 7, 2020), <https://commonslibrary.parliament.uk/science/environment/food-security-what-is-it-and-how-is-it-measured/> [<https://perma.cc/8AN5-6B2U>].

²⁹¹ *Id.*; NAT'L FOOD STRATEGY, <https://www.nationalfoodstrategy.org/> [<https://perma.cc/E3KK-EVTD>] (last visited Nov. 24, 2020); *see also* UK DEPT FOR ENV'T, FOOD & RURAL AFFS., DEVELOPING A NATIONAL FOOD STRATEGY (2019), <https://www.gov.uk/government/publications/developing-a-national-food-strategy-independent-review-2019> [<https://perma.cc/CL5N-XZHV>].

²⁹² INCREDIBLE EDIBLE NETWORK, <https://www.incredibleedible.org.uk/> [<https://perma.cc/LJP8-7BTE>] (last visited Nov. 24, 2020).

²⁹³ *See supra* Part II.

²⁹⁴ *See supra* Section II.C.

is dedicated to providing a stable source of food for the community rather than to growing exclusively cash crops. In times of crisis and supply chain disruptions, those farms which already dedicated a portion of their crops to local distribution would more easily pivot to expand local supply to meet the needs of the community. The revised view benefits the farmers too. Farmers would not be solely reliant on the capricious commodities market or long supply chains for their livelihood, and property regimes that spread risk, such as collective title, may offset some of the financial and emotional stressors experienced by farmers under the current system that has led to declining participation in the farming profession.²⁹⁵

Questions to be pursued in future work relate to the level of governmental authority or approval necessary to sustain these property regimes. Food security implicates intriguing questions about federalism, interstate commerce, and the power municipal or county governments have to set agricultural land laws and policies. While local governing entities have a direct interest in ensuring adequate food supply for their residents, there are larger concerns about statewide resources, regional watersheds, and other externalities at a national scale.

Food security is important locally and nationally, so individual interests in land must be considered alongside, not to the exclusion of, the public and community interests in relation to the food supply, population distribution, and the needs of the surrounding community. Conceptualizing individual rights as just one interconnected component of the individual-community-public interests in land, represented by slices of pie rather than the bundle of sticks,²⁹⁶ is a vital step toward counteracting the fragmented conception of rights in agricultural land to achieve food security. Without the bottom and top layers, after all, there is no pie at all.

CONCLUSION

The outmoded bundle of sticks—and the narrow focus on individual property interests it fosters—limits the evolution of property law, hurts communities, and endangers the nation’s food security. Instead of the hypothetical tragedy of the commons, the true risk is the “tragedy of fragmentation,’ whereby the hyper-individualization of land stewardship leads to an inability to achieve any social planning in land use.”²⁹⁷

²⁹⁵ *See id.*

²⁹⁶ *See supra* Section II.B.

²⁹⁷ Kroncke, *supra* note 32, at 459 (quoting ERIC T. FREYFOGLE, *THE LAND WE SHARE: PRIVATE PROPERTY & THE COMMON GOOD* 177–78 (2003)); *see also* Lehavi, *supra* note 107,

Food system vulnerabilities are emblematic of the conventional view's failure to account for the proportional interests in land. The Dust Bowl and Great Depression prompted an overhaul in the national agricultural system.²⁹⁸ With the vulnerability in America's food supply exposed once again by catastrophe, now is the time to rethink our food system and, as a fundamental part of that, the property law that enables it.

This revised view of property law reflects the proportionality of individual, community, and public interests coexisting in property and gives rise to property regimes that encompass these complex relationships. Property law must move finally and definitively away from the simplistic individualism of Blackstonian property theory. In this way, property law will continue to evolve to meet the challenges of the twenty-first century. The bundle of sticks is destined for the woodchipper.

at 145 (“[P]rivate property may often lead to a scenario of over-fragmentation of rights, in which every one of the multiple owners has a right to exclude others from a resource such that no one has an effective privilege of use.”).

²⁹⁸ See, e.g., Paul M. Sparrow, *FDR and the Dust Bowl*, FRANKLIN D. ROOSEVELT PRESIDENTIAL LIBR. & MUSEUM, <https://fdr.blogs.archives.gov/2018/06/20/fdr-and-the-dust-bowl/> [<https://perma.cc/9W57-JCTN>] (last visited Nov. 24, 2020).