

NEW DAY AT THE POOL: STATE PREEMPTION, COMMON POOL RESOURCES, AND NON-PLACE BASED MUNICIPAL COLLABORATIONS

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State preemption laws strictly limit local governments from regulating beyond their borders. Local governments, however, face a broad spectrum of challenges that cannot be confined to municipal borders. These challenges freely flow in and out of many local jurisdictions at the same time. The juxtaposition of limited local government authority and multi-jurisdictional local challenges has the potential to create inefficiencies and to discourage local governments from seeking innovative solutions to the challenges they face. In an attempt to help local governments avoid these inefficiencies, this Article investigates whether municipal collaborations can encourage local governments to address broad-based environmental, social, or economic challenges notwithstanding state preemption laws. This Article draws on the late 2009 Nobel Prize winner Elinor Ostrom's work and applies it to previously unexplored questions of municipal collaboration. Guided by Ostrom's research on geographically situated, individual private sector collaborations, this Article envisions public sector municipal collaborations as forming around common challenges, regardless of geographic location. This Article proposes that non-place based municipal collaborations, the theoretical framework of which is not explored in the literature, allow for a reconceptualization of existing local government authority. The collaborations seek to capitalize on the power local governments already have without departing from existing legal paradigms. This reconceptualization has crucial implications for overcoming many of the multi-jurisdictional challenges faced by local governments.

The objective of this Article is not to suggest one local government strategy over another or one level of government action over another, but rather to propose an additional forum for local governments to address pressing local problems. By changing how local governments confront multi-jurisdictional issues, this Article asserts that some issues are best addressed through collaboration among local governments.

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INTRODUCTION

*The axis of the earth sticks out visibly through the centre of each and every town or city.*¹ – Oliver Wendell Holmes, Sr.

Governments at all levels, including local governments, face a broad spectrum of environmental, social, and economic challenges, including degradation of air and water quality, food security, budget deficits, and foreclosures.² Yet local governments are on the frontline of this array of challenges, and are quite often the first level of government that must address them. Many of these challenges are amorphous and multi-jurisdictional — freely flowing in and out of municipal borders.³ They originate, sustain, move, and

¹ Oliver Wendell Holmes, *Epigraph* to RICHARD HOGGART, *TOWNSCAPE WITH FIGURES: FARNHAM: PORTRAIT OF AN ENGLISH TOWN* (1994). For purposes of this Article, “city,” “local government,” and “municipality” are used interchangeably and mean every general purpose incorporated subdivision that is self-governed, including towns and villages, but not counties (parishes), unincorporated areas, agencies, or special purpose or quasi-public entities (such as housing authorities).

² See, e.g., PETER NEWMAN & ISABELLA JENNINGS, *CITIES AS SUSTAINABLE ECOSYSTEMS: PRINCIPLES AND PRACTICES* 33 (2008) (listing local challenges as including “climate change, water supply declines, oil supply disruptions due to global peaking in production, regional environmental damage, [and] loss of biodiversity”); Cameron Holley, *Removing the Thorn from New Governance’s Side: Examining the Emergence of Collaboration in Practice and the Roles for Law, Nested Institutions, and Trust*, 40 ENVTL. L. REP. 10,656, 10,656 (2010); John Herzfeld, *New York City Summer Air Quality Survey Links Higher Pollution, Heavier Traffic*, Daily Env’t Rep. (BNA) No. 162, at A-7 (Aug. 24, 2010); *Local Zeroes: Cities and States are Facing Big Budget Deficits. It is Partly Their Own Fault*, THE ECONOMIST, NOV. 13, 2008, available at <http://www.economist.com/node/12608223>; Maike Sippel & Till Jenssen, *What About Local Climate Governance? A Review of Promise and Problems* 3 (Working Paper Nov. 2009), available at <http://ssrn.com/abstract=1514334>.

³ See, e.g., William E. Rees, *Ecological Footprints and Appropriated Carrying Capacity: What Urban Economics Leaves Out*, 4 ENV’T & URBANISATION 121, 128–29 (1992) (showing that many challenges local governments face originate outside local borders); Jonathan D.

conclude in many local jurisdictions at many different points in time. In contrast to the complex and cross-border nature of local government challenges is the definitive delineation of municipal borders. The predominant judicial interpretation of state preemption laws strictly limits local government regulatory authority to a local government's borders.⁴ Local governments may not, courts hold, cause a direct impact beyond their borders.

The juxtaposition of limited local government authority and multi-jurisdictional local challenges has the potential to create inefficiencies and discourage local governments from seeking innovative solutions to the challenges they face.⁵ To address the mismatch between state preemption laws and common pool resource challenges experienced at the local level, this Article investigates non-place based municipal collaborations, meaning collaborations formed around issues, challenges, and commonalities, as opposed to geographic location.⁶ This Article explores whether non-place based collaborations can encourage local governments to address multi-jurisdictional challenges notwithstanding state preemption laws.⁷

Weiss, *Local Governance and Sustainability: Major Progress, Significant Challenges*, in *AGENDA FOR A SUSTAINABLE AMERICA* 43, 49 (John C. Dernbach ed., 2009) (noting externalities stemming from local land use decisions).

⁴ See, e.g., *City of Commerce City v. State*, 40 P.3d 1273, 1285 (Colo. 2002) (en banc) (invalidating local use of automated photograph system recording traffic violations for having an extraterritorial impact); *People ex rel. Pub. Utils. Comm'n v. Mountain States Tel. & Tel. Co.*, 243 P.2d 397, 402 (Colo. 1952) (en banc) (same concerning telephone rates); *City of Des Plaines v. Chi. & N. W. Ry. Co.*, 357 N.E.2d 433, 435–36 (Ill. 1976) (same concerning local noise pollution controls); *Harris Bank of Roselle v. Vill. of Mettawa*, 611 N.E.2d 550, 558–61 (Ill. App. Ct. 1993) (same concerning private treatment of wastewater); *Holiday Universal, Inc. v. Montgomery County*, 833 A.2d 518, 524–27 (Md. 2003) (same concerning prohibition on unfair practices in service contracts).

⁵ Numerous scholars have clearly articulated the pros and cons of decentralization in the local government context. See Gerald E. Frug & David J. Barron, *International Local Government Law*, 38 *URB. LAW.* 1, 54 (2006) (setting forth the pros and cons of decentralization) (citing INTERNATIONAL COUNCIL ON HUMAN RIGHTS POLICY, *LOCAL RULE: DECENTRALISATION AND HUMAN RIGHTS* 8 (2002), available at http://www.ichrp.org/files/reports/13/116_report.pdf). While informative to this Article, particularly *infra* Part III.C, the ultimate debate concerning decentralization — namely reallocation of authority — is irrelevant to the municipal collaborations discussed herein. The proposed municipal collaborations do not seek to alter the authority various levels of government have. Rather, they operate within the confines of existing laws by establishing a theoretical framework for reconceptualizing the current status of local government.

⁶ For purposes of this Article, “municipal collaboration” is defined as a collective of individual municipalities working together to address common pool resource challenges. See Holley, *supra* note 2, at 10,660 (defining collaborative as “a process where a group of diverse stakeholders, including government and nongovernment actors, pool their knowledge and/or tangible resources to solve shared environmental or natural resource dilemmas”). For a definition of “common pool resources,” see *infra* Part I.A.

⁷ The broader theory that traditional concepts of jurisdiction may not coincide with the challenges we face today has been explored by other scholars outside the confines of state preemption laws and particularly as those challenges relate to environmental issues. See, e.g., Craig Anthony (Tony) Arnold, *Fourth-Generation Environmental Law: Integrationist and Multimodal*, 35 *WM. & MARY ENVTL. L. & POL'Y REV.* 771 (2011); Hari M. Osofsky, *Multidimensional Governance and the BP Deepwater Horizon Oil Spill*, 63 *FLA. L. REV.* 1077 (2011).

This Article draws on the late Elinor Ostrom's Nobel Prize-winning work on collaborations and applies it to a new context.⁸ "The central question" that Ostrom confronts, and that this Article applies to local governments, is "how a group of principals who are in an interdependent situation can organize and govern themselves to obtain continuing joint benefits when all face temptations to free-ride, shirk, or otherwise act opportunistically."⁹ Ostrom's collaborations shift the dynamic "from one in which appropriators act independently to one in which they adopt coordinated strategies to obtain higher joint benefits or reduce their joint harm."¹⁰

The idea of *place-based, individual private sector* collaboration has been investigated by Ostrom and other scholars. Extrapolating from Ostrom's work, this Article probes *non-place based, public sector* municipal collaborations, the theoretical framework of which is not explored in the literature, as a viable response to multi-jurisdictional challenges and state preemption hurdles. Ostrom's research is instructive both theoretically, as it provides a conceptual response to state preemption laws, and concretely, as it provides actual details for formulating successful collaborations. The objective is to learn from Ostrom's work and explore how it could be a powerful force for local governments to manage the challenges they face.

This Article investigates collaborations based on commonalities, including similar issues and challenges, as opposed to geographical convenience. It seeks to capitalize on the similarities many local governments share, even when separated by great distances. Based on these similarities, non-place based municipal collaborations are proposed to encourage local governments to implement efficient and productive strategies to manage multi-jurisdictional challenges. In doing so, local governments can assume a proactive approach to addressing and alleviating local challenges without relying on local sovereignty.

Unlike the existing literature exploring the detrimental impacts state preemption laws can have on local governments, this Article accepts those impacts — for better or worse. Where prior scholars detail the benefits of changing state preemption laws,¹¹ this Article proposes a workable alternative for local governments to succeed within the laws as currently articulated and enforced. It proposes municipal collaborations as a reconceptualization of existing local government authority, and not a reallocation of authority from higher levels to the local level or vice versa. Municipal collaborations seek to capitalize on the power local governments already have without departing from existing legal paradigms. By working within the existing structure, municipal collaborations empower local governments to achieve extraterritorial results without violating state preemption laws.

⁸ For a paradigmatic example of Ostrom's work, see ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (1990).

⁹ *Id.* at 29.

¹⁰ *Id.* at 38–39.

¹¹ See *infra* Part I.C.

Part I describes the types of local government challenges at issue in this Article: namely, far-reaching, diverse, and multi-jurisdictional challenges that occur in what are called “common pool resources.”¹² Part I continues by setting forth the typical judicial interpretation of state preemption laws that strictly limits local government regulation to those issues that remain in their jurisdiction. Part I concludes by exploring the juxtaposition of state preemption laws and broad-based challenges. It draws a parallel to Garret Hardin’s *The Tragedy of the Commons*,¹³ noting the inefficiencies that arise through state preemption laws and how they discourage individual local governments from addressing multi-jurisdictional challenges.

Part II examines the typical local government strategies used to address multi-jurisdictional challenges. These strategies comply with the state preemption framework established in Part I and can be categorized as regulation by a higher authority, privatization, or altruism. Part II notes that while each of these strategies has experienced successes, each also has experienced limitations in its capacity to address multi-jurisdictional challenges.

Part III sets forth non-place based municipal collaborations and argues that they can help motivate local governments to address multi-jurisdictional challenges. This Part seeks to understand the role of non-place based municipal collaboration in local governance and whether collaboration can be a viable response to state preemption laws. While this Article proposes an additional forum for local governments to address pressing local problems, it does not suggest one strategy over another or one level of government action over another.¹⁴ Nor does this Article assume that because the challenges may be broad-based and amorphous in nature, the solutions lie with international, federal, state, or regional authorities.¹⁵ Rather, by changing the motivating factors and the perspective on local sovereignty, this Article recognizes that some issues are best addressed through collaboration among municipalities.

¹² For an in-depth discussion of the term, see *infra* Part I.A.

¹³ Garrett Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243 (1968).

¹⁴ Cf. Daniel H. Cole & Elinor Ostrom, *The Variety of Property Systems and Rights in Natural Resources* 2 (Sch. of Pub. & Envtl. Aff., Ind. Univ., Research Paper No. 2010-08-01), available at <http://ssrn.com/abstract=1656418> (“[S]pecific property regimes that prove viable and sustainable in one set of social-ecological circumstances may prove nonviable or unsustainable in another.”).

¹⁵ As scholars have noted, regionalism (based on geography) can also be appropriate under certain circumstances. See, e.g., Neil Craik & Joseph F.C. Dimento, *Climate Law and Policy in North America: Prospects for Regionalism*, 1 *SAN DIEGO J. CLIMATE & ENERGY L.* 195 (2009); Laurie Reynolds, *Home Rule, Extraterritorial Impact, and the Region*, 86 *DENV. U. L. REV.* 1271, 1294–1302 (2009) [hereinafter Reynolds, *Home Rule*]; Laurie Reynolds, *Local Governments and Regional Governance*, 39 *URB. LAW.* 483 (2007).

I. THE POOL AND ITS SWIMMERS: COMMON POOL RESOURCES AND
LOCAL GOVERNMENTS LIMITED BY STATE PREEMPTION

A. *The Pool: Common Pool Resources*

Defining the term “common pool resource” (“CPR”) illuminates the relationship between local government challenges and state preemption laws.¹⁶ Elinor Ostrom defines a CPR as a “natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use.”¹⁷ She and Daniel H. Cole have also noted that CPRs are resources “large enough that it is costly to exclude potential beneficiaries”¹⁸ Although CPRs may arise in numerous contexts, including the private sector and international governance, this Article focuses only on those CPRs directly relevant to local governments. Applying the above definition to local governments, CPRs are therefore those resources that have a *large* enough economic, environmental, or social impact to make them too *expensive* for one municipality to *exclude* others from using. Examples include good air quality, clean water, food production, progressive wealth distribution, biodiversity, parking spaces, sidewalk vending, government budgets, and economic development.¹⁹ This short list of CPRs illustrates the far-reaching, multi-jurisdictional, and diverse economic, environmental, and social impacts of CPRs on local governments.

B. *The Swimmers: Local Governments Limited by State Preemption*

In contrast to the far-reaching, multi-jurisdictional impacts CPRs have on local governments is the limited authority local governments have to address those impacts. While local government authority to regulate is rooted in Home Rule provisions and other state delegations of power,²⁰ that author-

¹⁶ While it is difficult to determine where a CPR begins and ends, and when a particular local challenge involves a CPR, that is not a goal of this section. Instead, the aim of this section and of this Article is to assume an acceptable definition of CPR to provide context and to understand the potential local strategies that may be used to respond to CPR challenges once identified.

¹⁷ OSTROM, *supra* note 8, at 30; *see also* Robert O. Keohane & Elinor Ostrom, *Introduction*, in LOCAL COMMONS AND GLOBAL INTERDEPENDENCE 1, 13 (Robert O. Keohane & Elinor Ostrom eds., 1995) (defining CPR as “depletable natural or human-made resources from which potential beneficiaries are difficult to exclude”).

¹⁸ Cole & Ostrom, *supra* note 14, at 5 (citing Vincent Ostrom & Elinor Ostrom, *A Theory for Institutional Analysis of Common Pool Problems*, in MANAGING THE COMMONS 157–72 (Garrett Hardin & John Baden eds., 1977)).

¹⁹ *See, e.g.*, Michael Gochfeld, Joanna Burger, & Bernard D. Goldstein, *Medical Care as a Commons*, in PROTECTING THE COMMONS: A FRAMEWORK FOR RESOURCE MANAGEMENT IN THE AMERICAS 253 (2001).

²⁰ “Home rule” provisions are state constitutional or statutory provisions authorizing cities to establish local charters or take particular actions. *See* MICHAEL E. LIBONATI, LOCAL GOVERNMENT AUTONOMY: NEEDS FOR STATE CONSTITUTIONAL, STATUTORY, AND JUDICIAL CLARIFICATION 1 (1993) (stating that forty-eight states grant Home Rule authority to municipi-

ity is severely limited by state preemption laws. State preemption laws address regulatory conflicts between state and local governments. As discussed below, the predominant interpretation of state preemption laws weighs heavily in favor of state supremacy and restricting local governments from regulating beyond their borders. The issue for local governments is that many of the challenges they face involve CPRs that extend well beyond their borders.

The first step in determining whether a local government has exceeded its authority by attempting to regulate beyond its borders is to determine whether the local government has been given the power to regulate the particular subject matter.²¹ In most states, state constitutional or statutory home rule provisions establish the boundaries of permissible local action. Areas where local governments have been authorized to regulate under these laws include zoning, procurement of goods and services, and setting budgets; in contrast, international trade regulation, banking controls, and immigration restrictions have never been included.

If the local government is permitted to act in a particular area, the second question is whether state law has preempted the ordinance. State preemption may occur in three ways: (i) conflict preemption, where there is a direct conflict between the local ordinance and state law; (ii) express preemption, where the state specifically notes that it is preempting the subject matter; or (iii) implied preemption, where the state preempts the subject matter indirectly through prior actions, such as existing state legislation.²²

Incorporated into the preemption analysis — particularly as it relates to implied preemption — is an inquiry into whether the ordinance has an extraterritorial impact. State courts differ on the precise meaning and terminology used in describing local government extraterritorial impacts.²³

palities); David J. Barron, *Reclaiming Home Rule*, 116 HARV. L. REV. 2255, 2260 (2003) (same). There are four general types of state control over local autonomy: (i) legislative home rule, *see, e.g.*, Alaska Const. art. X, § 11; (ii) imperio home rule, *see, e.g.*, Cal. Const. art. XI, § 5(a); (iii) hybrid legislative/imperio, *see, e.g.*, Iowa Const. art. III, § 38A, and (iv) Dillon's Rule, *see, e.g.*, *Arlington Cnty. v. White*, 528 S.E.2d 706 (Va. 2000). While influential and important to the discussion of state preemption, the differing types of state control over local autonomy implicate nuances concerning local authority to act that are not directly on point to this Article.

²¹ *See* Reynolds, *Home Rule*, *supra* note 15, at 1276; *see also* *City of Pittsburgh v. Allegheny Valley Bank*, 412 A.2d 1366 (Pa. 1980) (superseded by statute as recognized in *City of Philadelphia v. Clement & Muller, Inc.*, 715 A.2d 397 (Pa. 1998)).

²² *See* *Talbot Cnty. v. Skipper*, 620 A.2d 880, 882–83 (Md. 1993); *see generally* RICHARD BRIFFAULT & LAURIE REYNOLDS, *STATE AND LOCAL GOVERNMENT* 406–449 (7th ed. 2009).

²³ Reynolds, *Home Rule*, *supra* note 15, at 1274–78 (citing *Seigles, Inc. v. City of St. Charles*, 849 N.E.2d 456, 458 (Ill. App. Ct. 2006) (stating that it is “axiomatic” that a local government may not act outside its borders) and comparing *City of Northglenn v. Ibarra*, 62 P.3d 151, 155 (Colo. 2003) (blending the two steps together) with *Goodell v. Humboldt County*, 575 N.W.2d 486, 492 (Iowa 1998) (treating the two legal questions separately)); *see also* 1 CHESTER JAMES ANTIEAU, *MUNICIPAL CORPORATION LAW* § 3.08 (1980); 2 EUGENE MCQUILLIN, *THE LAW OF MUNICIPAL CORPORATIONS* § 7:2 (3d ed. 2006). Imperio states consider whether there has been express or implied preemption, while legislative home rule states consider only whether there has been clear intent to preempt the local law. Reynolds, *Home Rule*, *supra* note 15, at 1276–77. Note that federal law may also preempt a local law. *See*

Nonetheless, “many [courts] use a finding of extraterritoriality as the basis for the conclusion that the home rule ordinance . . . has exceeded the [locality’s] . . . powers, or has been preempted by the state legislature.”²⁴

In identifying whether a local government law has an “extraterritorial impact,” courts have applied a variety of tests. Laurie Reynolds has categorized the multiple tests into three predominant types:²⁵

1. The local law encourages other local jurisdictions to adopt similar, but not identical, laws, resulting in “a significant variety of conflicting local legislation.”²⁶ A related concern in applying this analysis is that neighboring jurisdictions will adopt the same law, resulting in a de facto statewide law.²⁷
2. The local law results in “permeation, seepage, or cross border movement.”²⁸ Courts analyzing preemption under this definition examine the impact of the specific law and whether those impacts originate, remain, and terminate within the jurisdiction.²⁹ If they do not, the law could be struck down.

English v. Gen. Elec. Co., 496 U.S. 72, 78–79 (1990) (holding that federal preemption of state action (and therefore, local action) can occur in one of three ways: express preemption by statute, occupation of the field, or conflict between state and federal regulation); *see also* Norman A. Dupont, *Local Climate Change Initiatives Hit a Stone Wall of Federal Preemption Arguments*, CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT & ECOSYSTEMS COMMITTEE NEWSL. (Am. Bar Ass’n.), Dec. 2010, at 10 (setting forth recent cases of federal preemption of local ordinances).

²⁴ Reynolds, *Home Rule*, *supra* note 15, at 1275.

²⁵ *Id.* at 1278–84.

²⁶ *Id.* at 1279 (quoting *City of Commerce City v. State*, 40 P.3d 1273, 1281 (Colo. 2002) and citing *Denver & Rio Grande W.R.R. Co. v. City & County of Denver*, 673 P.2d 354, 358 (Colo. 1983) (holding that “the possible result is that the affected railroads may well decide to reduce service, or even, in some cases, to terminate service”) and *Commercial Nat’l Bank of Chi. v. City of Chicago*, 432 N.E.2d 227, 243 (Ill. 1982) (“[U]nrestrained extraterritorial exercise of [home rule] powers in zoning, taxation and other areas could create serious problems . . . [E]ach home rule unit in the State of Illinois could pass a similar ordinance.”)).

²⁷ *See, e.g.*, *City of Northglenn v. Ibarra*, 62 P.3d 151, 161–62 (Colo. 2003) (invalidating a local law prohibiting registered sex offenders from living together in single-family residences in part because the cumulative impact of neighboring cities adopting similar laws would preclude sex offenders from living in large parts of the state); Reynolds, *Home Rule*, *supra* note 15, at 1278–80. *But see* *City and Cnty. of Denver v. State*, 788 P.2d 764, 769 n.7 (Colo. 1990) (en banc) (upholding residency requirements because of the absence of “aggregate economic impact”).

²⁸ Reynolds, *Home Rule*, *supra* note 15, at 1280.

²⁹ *City of Des Plaines v. Chi. & N.W. Ry. Co.*, 357 N.E.2d 433, 435–36 (Ill. 1976) (invalidating local ordinance regulating noise levels from commuter train because they originated outside the jurisdiction and when originating inside the jurisdiction were felt outside the jurisdiction); *see* *Baggett v. Gates*, 649 P.2d 874, 880 (Cal. 1982) (finding impermissible extraterritorial impact because the law affected nonresidents and property within the city owned by nonresidents); *City of Commerce City*, 40 P.3d at 1282 (invalidating an automated photograph system because it was installed on a “commuter corridor”); Reynolds, *Home Rule*, *supra* note 15, at 1280–81 (citing *Holiday Universal, Inc. v. Montgomery Cnty.* 833 A.2d 518 (Md. 2003)). *But see* *Mulligan v. Dunne*, 338 N.E.2d 6, 9–10 (Ill. 1975) (holding that local taxes on nonresident sellers doing business in city do not violate the prohibition on extraterritorial impacts); *Hector v. City of Fargo*, 788 N.W.2d 354, 357–58 (N.D. 2010) (holding that an improvement district could make an assessment beyond local borders pursuant to North Dakota statute).

3. The local law impacts other municipalities, individuals in those municipalities, or “the marketplace generally.”³⁰

Judicial application of these three tests to identify extraterritorial impacts casts a wide net over the type of local actions that are preempted by state law.³¹ For example, the prohibition on extraterritorial impacts has invalidated local ordinances that would spur other jurisdictions to adopt conflicting ordinances as well as local ordinances that would spur other jurisdictions to adopt similar ordinances.³² It has been used to strike down local ordinances addressing noise pollution, wastewater, service contracts, telephone line installation, automated automobile photograph systems, sex offender controls, and other subjects.³³ In short, it is not difficult to craft a creative argument to depict almost any local ordinance as violating the prohibition on extraterritorial impacts.³⁴

C. *Juxtaposition of Common Pool Resources and Local Governments Limited by State Preemption*

The ease of challenging a local ordinance based on extraterritorial impacts increases when that local ordinance addresses a problem arising in a CPR. Because the relevant CPRs have multi-jurisdictional impacts, any local attempt to address an issue arising in a CPR is ripe for an extraterritorial impact challenge.

³⁰ Cf. Reynolds, *Home Rule*, *supra* note 15, at 1282 (citing *Town of Telluride v. Lot Thirty-Four Venture, L.L.C.*, 3 P.3d 30, 32–33, 38 (Colo. 2000) (considering the “potential ripple effect from a local ordinance”); *People ex rel. Bernardi v. City of Highland Park*, 520 N.E.2d 316, 321–22 (Ill. 1988); *Metro. Sanitary Dist. of Greater Chi. v. City of Des Plaines*, 347 N.E.2d 716, 718–19 (Ill. 1976); *Am. Fed’n of State, Cnty. & Mun. Employees Local # 74 v. City of Warren*, 895 N.E.2d 238, 249 (Ohio Ct. App. 2008)).

³¹ See Reynolds, *Home Rule*, *supra* note 15, at 1278 (finding that the prohibition on extraterritorial impacts “has extended in all encompassing ways and can be used to catch virtually any home rule initiative within its reach.”); see also Matthew J. Parlow, *Progressive Policy-Making on the Local Level: Rethinking Traditional Notions of Federalism*, 17 TEMP. POL. & CIV. RTS. L. REV. 371, 383–84 (2008) (“Moreover, state courts rely heavily on the implied preemption doctrine to strike down innovative local policy-making. . . . [S]tate courts will invalidate local laws, even when they do not conflict with state law.”).

³² See Reynolds, *Home Rule*, *supra* note 15, at 1278 (stating that when invalidating local ordinances “courts have considered arguments about where and upon whom the impact has been felt, about how the impact is to be measured, and about the directness of the connection between home rule initiative and the extraterritorial impact”).

³³ See *supra* note 4.

³⁴ Although not involving a municipality, the U.S. Supreme Court’s decision in *Wickard v. Filburn*, 317 U.S. 111 (1942), is instructive. In that case, the Supreme Court ruled that a farmer “affect[s]” commerce by consuming his own crops and not selling them. *Id.* at 124–28. If an individual farmer growing and consuming crops on his own land can have an external impact on commerce, it is not difficult to imagine an argument that almost any local government regulation will have an extraterritorial impact. See *Holt Civic Club v. City of Tuscaloosa*, 439 U.S. 60, 69 (1978) (noting that “indirect extraterritorial effects of many purely internal municipal actions could conceivably have a heavier impact on surrounding environs than the direct regulation” at issue in the case).

Conceptually, one can argue that due to the potentially far-reaching impacts of CPRs, precluding local governments from regulating CPRs is consistent with what scholars have termed the “matching principle.” The matching principle is a descriptive term used to designate which level of government (local, regional, state, federal, international) is the proper level to address a given issue. Pursuant to the matching principle, the correct level of government depends on “the size of the geographic area affected” by a specific issue.³⁵ The larger the jurisdictional impact, the higher the level of government that should regulate the impact. Impacts relevant for determining the proper level of government include spillover effects or the externalization of costs and benefits.³⁶ “The idea is that decisions with only local impacts should be made at the local level, while most or all decisions with externalities — spillover effects — ought to be made at a higher level.”³⁷

Ironically, local governments have been blamed for failing to address the issues arising in CPRs, even though state law restricts them from doing so.³⁸ While local governments have been criticized for being excessively parochial and failing to consider negative externalities, state preemption laws have escaped relatively unscathed.³⁹ Notwithstanding this, at least two important articles have considered the impact of state preemption laws on

³⁵ See Henry N. Butler & Jonathan R. Macey, *Externalities and the Matching Principle: The Case for Reallocating Environmental Regulatory Authority*, 14 YALE L. & POL'Y REV. 23, 25 (1996) (“[I]n general, the size of the geographic area affected by a specific pollution source should determine the appropriate governmental level for responding to the pollution.”); Jeffrey L. Dunhoff, *Levels of Environmental Governance*, in THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 85, 86 (Daniel Bodansky et al. eds., 2007).

³⁶ See Richard B. Stewart, *Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 YALE L.J. 1196, 1215 (1977) (finding that the federal government should regulate when local governments would not internalize the costs and benefits of regulatory action); see also Robert L. Glicksman, *Climate Change Adaptation: A Collective Action Perspective on Federalism Considerations*, 40 ENVTL. L. 1159, 1177 (2010) (“Only the federal government has both the incentives and authority to regulate consistent with the interests of the states as a collective by restricting spillover effects to the point at which they are lower than the economic and social gains produced by the polluting activity.”).

³⁷ Robert G. Natelson, *The Enumerated Powers of States*, 3 NEV. L.J. 469, 489 (2003) (citing Michael W. McConnell, *Federalism: Evaluating the Founders' Design*, 54 U. CHI. L. REV. 1484, 1495 (1987) (“Externalities present the principal countervailing consideration in favor of centralized government . . .”).

³⁸ See Barron, *supra* note 20, at 2331–34 (reviewing the criticism of local government parochialism and citing, among other examples, Roderick M. Hills, Jr., *Romancing the Town: Why We (Still) Need a Democratic Defense of City Power*, 113 HARV. L. REV. 2009 (2000) (reviewing GERALD E. FRUG, *CITY MAKING: BUILDING COMMUNITIES WITHOUT BUILDING WALLS* (1999)) (“[L]overs of local government . . . are going to have to make a tough choice between direct political participation that local governments facilitate and the social inequality and parochialism that local governments also seem to promote.”)); Richard Briffault, *Our Localism: Part I — The Structure of Local Government Law*, 90 COLUM. L. REV. 1 (1990)); see also Blake Hudson, *Federal Constitutions: The Keystone of Nested Commons Governance*, 63 ALA. L. REV. (forthcoming 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1801648 (proposing federal level changes based on the failures of “subnational” governments to address CPRs).

³⁹ See Barron, *supra* note 20, at 2323–34.

local governments. The first, authored by David Barron, critically noted that local government failure to address many issues with broad-based impacts was not a conscious decision to be “parochial,” but rather was compelled by state preemption laws that prohibited local governments from regulating beyond their borders.⁴⁰ Although Barron was not directly discussing CPRs, he was concerned with geographic regional challenges, such as affordable housing, that could be characterized as issues involving CPRs. To facilitate local control over some of these issues, Barron argued for legal and institutional changes that required *legislative* reconsideration of local government authority under home rule powers.⁴¹

Laurie Reynolds authored the second important article addressing state preemption. Building off of Barron’s work, Reynolds argued for *judicial* reconsideration through how courts weigh extraterritorial impacts in the context of state preemption.⁴² Reynolds argued that the prohibition on extraterritorial impacts “should not form a part of the judicial analysis,”⁴³ and that removing the extraterritorial impacts analysis would enhance regional planning and development.⁴⁴ Both Barron and Reynolds challenged the legal and institutional formation of state preemption laws, arguing that the “home rule units are currently operating within a legal framework that prevents them from doing much with respect to these region-wide problems.”⁴⁵

This Article differs from and expands upon Barron’s and Reynolds’s works. It differs from their works in that it accepts the state preemption framework. It proposes an alternative local government strategy to address challenges arising in CPRs without changing or violating state preemption laws. It does not require state legislators or judges to reconsider preemption laws. Rather, it puts the onus and power squarely in the hands of local governments.

This Article expands on Barron’s and Reynolds’s works by exploring why local governments regularly take actions that have negative impacts on CPRs. Explaining why local governments may not take actions to *address* challenges arising in CPRs, as Barron and Reynolds formidably do, does not explain why local governments *exacerbate* CPR conditions. In other words, what is the connection between local government actions that result in negative externalities — worsening CPR conditions — and state preemption laws?⁴⁶

⁴⁰ See *id.* at 2345–62.

⁴¹ See *id.* at 2337–45.

⁴² Reynolds, *Home Rule*, *supra* note 15.

⁴³ *Id.* at 1273.

⁴⁴ *Id.* at 1297–1302.

⁴⁵ *Id.* at 1301 (describing Barron’s approach).

⁴⁶ To date courts have not extended the prohibition on extraterritorial impacts to those indirect impacts negatively affecting the environment. I am conducting further research on this issue. Local governments are finding little, if any, assistance from the courts on other avenues to stop the negative externalities. See *Am. Elec. Power Co. v. Conn.*, 131 S. Ct. 2527 (2011) (refusing to recognize New York City’s, and state and non-profit plaintiffs’, right to sue power companies under federal common law for contributing to climate change); *Native Vill. of Kivalina v. ExxonMobil Corp.*, 663 F. Supp. 2d 863 (N.D. Cal. 2009) (dismissing village’s

The particular situation described above arises when a local ordinance complies with state preemption laws but has a negative impact on a CPR, even though there are less harmful alternatives. For example, local governments often adopt Euclidean or use-separation zoning, which has been tied to loss of CPRs such as clean air, biodiversity, progressive wealth distribution, and public health.⁴⁷ Local governments adopt these ordinances notwithstanding the availability of similar ordinances with fewer negative externalities, such as the model sustainable zoning code developed by Rocky Mountain Land Use Institute.⁴⁸

One explanation as to why local governments take actions that have negative externalities, even though there are viable alternatives, is directly related to the prohibition on extraterritorial impacts. Working within the extraterritorial impacts framework requires local ordinances to be purely local. When an ordinance implicates a CPR that cannot be confined to a local jurisdiction, such as the economy, access to energy, natural resources, or the environment, a local government's efforts to regulate the CPR solely within its jurisdiction become prohibitively inefficient.⁴⁹ The inefficiency lies with attempting to fashion a local response to a challenge that cannot be confined to the local jurisdiction.

This critique of state preemption parallels Garret Hardin's *The Tragedy of the Commons*.⁵⁰ In *The Tragedy of the Commons*, Hardin theorized that a rational actor confronted with a non-regulated CPR would seek to maximize his economic gain by taking as much of the resource as quickly as possible, often to the detriment of the resource and the actor.⁵¹ Important to Hardin's analysis is that the CPR be unregulated, also called an "open access" re-

and city's complaint alleging federal common law nuisance claims brought against twenty-four oil, energy, and utility companies for emitting greenhouse gas emissions and causing global warming).

⁴⁷ See Francesca Ortiz, *Biodiversity, the City, and Sprawl*, 82 B.U. L. REV. 145, 172–81 (2002) (discussing a variety of public sector tools to protect biodiversity); Vanessa Russell-Evans & Carl S. Hacker, *Expanding Waistlines and Expanding Cities: Urban Sprawl and Its Impact on Obesity, How the Adoption of Smart Growth Statutes Can Build Healthier and More Active Communities*, 29 VA. ENVTL. L.J. 63, 74–91 (2011) (connecting current zoning patterns to public health, physical activity, and obesity levels); see also ANDRES DUANY, ELIZABETH PLATER-ZYBERK, & JEFF SPECK, *SUBURBAN NATION: THE RISE OF SPRAWL AND THE DECLINE OF THE AMERICAN DREAM*, at xi (2000); ANDRES DUANY & EMILY TALEN, *Making the Good Easy: The Smart Code Alternative*, 29 FORDHAM URB. L.J. 1445, 1445 (2002); SIERRA CLUB, *SMART CHOICES OR SPRAWLING GROWTH* 5 (2000), available at <http://www.sierraclub.org/sprawl/50statesurvey/SmartChoices.pdf>.

⁴⁸ ROCKY MOUNTAIN LAND USE INST., *SUSTAINABLE COMMUNITY DEVELOPMENT CODE: A CODE FOR THE 21ST CENTURY* 6 (ver. 1.1), available at <http://www.ourplanningworks.com/docs/greentech/Sustainable%20Community%20Development%20Code%20Beta%20Version%201.1.pdf>.

⁴⁹ See Richard Briffault, *Smart Growth and American Land Use Law*, 21 ST. LOUIS U. PUB. L. REV. 253, 265 (2002) ("Land use decisions affect concerns that by their very nature transcend local borders — air and water pollution, water supply, open space and habitat conservation, [and] transportation systems . . .").

⁵⁰ Hardin, *supra* note 13, at 1244–45. The "tragedy" Hardin refers to "resides in the solemnity of the remorseless working of things." *Id.* at 1244 (quoting A.N. WHITEHEAD, *SCIENCE AND THE MODERN WORLD* 17 (1948)).

⁵¹ See Hardin *supra* note 13, at 1244–45.

source.⁵² An open access resource is one where each relevant actor (in our case, a local government) has the right or ability to use or pollute the CPR as much as possible and no ability to exclude other actors from using or polluting the CPR. The rational actor will exploit the resource, Hardin stated, because he will gain the full benefit of utilizing the CPR, but will externalize, or transfer, almost all of the detriment from using the CPR.⁵³ Upon making a “short-term cost-benefit analysis,” he will perceive himself in competition with the other actors and will take as much of the resource as quickly as possible or risk suffering from the other actors’ overuse of the CPR.⁵⁴ The result, Hardin concluded, is “[r]uin” of the CPR, as all actors will seek to optimize their position and will over consume the CPR.⁵⁵

⁵² See, e.g., Cole & Ostrom, *supra* note 14, at 1. “Open access” differs in significant ways from “communal” property. See Margaret A. McKean, *Success on the Commons: A Comparative Examination of Institutions for Common Property Resource Management*, 4 J. THEORETICAL POL. 247, 250–53 (1992) (defining “common property”); see also JAMES M. ACHESON, *THE LOBSTER GANGS OF MAINE* 143 (1988) (“[T]here are really three different kinds of property: private property, communal or jointly owned property, and “open access.”) (citation omitted); Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1315, 1322 (1993) (drawing a distinction between open access and communal ownership); Shi-Ling Hsu, *A Two-Dimensional Framework For Analyzing Property Rights Regimes*, 36 U.C. DAVIS L. REV. 813, 816–17 (2003) (same).

⁵³ Hardin asked “‘What is the utility to me of adding one more animal to my herd?’” and explained:

This utility has one negative and one positive component. 1) The positive component is a function of the increment of one animal . . . the positive utility is nearly +1. 2) The negative component is a function of the additional overgrazing created by one more animal. Since . . . the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of -1.

Hardin, *supra* note 13, at 1244.

⁵⁴ *Id.* at 1244; see also MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* 1–2 (1965); H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. POL. ECON. 124, 135 (1954) (“Wealth that is free for all [to use] is valued by none because he who is foolhardy enough to wait for its proper time of use will only find that it has been taken by another.”).

⁵⁵ Hardin, *supra* note 13, at 1244. Hardin explained:

[T]he rational herdsman concludes that the only sensible course . . . is to add another animal to his herd. And another; and another. . . . But this is the conclusion reached by each and every rational herdsman sharing the commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit — in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons.

Id.; see also OSTROM, *supra* note 8, at 6. Mancur Olson offered a similar perspective particularly relevant to cities in 1965 in *The Logic of Collective Action*. See generally OLSON, *supra* note 54. Olson differs in one significant aspect from Hardin. Olson noted that the costs of collaborating, monitoring, and enforcing agreements among the participants may be reduced enough in small groups to make collaboration more efficient. *Id.* at 2, 43–45. But see Edella Schlager, *Common-Pool Resource Theory*, in ENVIRONMENTAL GOVERNANCE RECONSIDERED: CHALLENGES, CHOICES, AND OPPORTUNITIES 145, 162–63 (Robert F. Durant et al. eds., 2004) (stating that research on CPRs has not found a significant relationship between the likelihood of collaborative action and group numbers or area size).

Hardin also depicted another type of commons tragedy that occurs not with the development of or extraction from CPRs, but with the addition of anthropogenic vectors into CPRs:

Here it is not a question of taking something out of the commons, but of putting something in — sewage, or chemical, radioactive, and heat wastes into water; noxious and dangerous fumes into the air The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked into a system of ‘fouling our own nest,’ so long as we behave only as independent, rational, free-enterprisers.⁵⁶

Although there are differences between Hardin’s theoretical actors and local governments (discussed in more detail below), the situation of a single locality operating within the confines of state preemption laws and attempting to address CPR challenges, such as global warming or income disparity, consists of the core elements described in *The Tragedy of the Commons*. The situation also begins to help one understand why local governments take unsustainable actions.⁵⁷ In an unregulated, open access CPR, each individual municipality has a right to use the CPR as much as possible and no ability to exclude other local governments from using or polluting the CPR.⁵⁸ Each locality is limited in that it may only protect the CPR to the extent the CPR is within its jurisdiction. Because a CPR cannot be confined to a local government’s borders, any benefit that may stem from one local government’s protective action may be quickly lost.

The reversing of the Chicago River is a classic example of a city causing direct unsustainable externalities while internalizing benefits under an open access regime. Through construction of the Sanitary and Ship Canal in 1900, the Chicago River was redirected to flow into the Illinois River and south to St. Louis. Missouri challenged this action in *Missouri v. Illinois*,⁵⁹ charging that Chicago’s sewage was fouling publicly used water in St. Louis.⁶⁰ The Supreme Court found that Missouri had failed to prove the sewage caused increases in illness or death, and refused to grant an injunction against the sewage discharge.⁶¹ The logic of local governments’ actions

⁵⁶ Hardin, *supra* note 13, at 1245.

⁵⁷ For an outstanding discussion of the U.S. government’s role in creating and fostering a tragedy of the commons at the local level, see generally Hudson, *supra* note 38. Hudson writes that “federal systems of government resemble Hardin’s pasture of rational herders more than perhaps any other form of governance . . . [F]ederal systems are divided among perhaps thousands of subnational governments who make rational, individualized choices regarding the appropriation of natural capital.” *Id.* (manuscript at 17).

⁵⁸ See Cole & Ostrom, *supra* note 14, at 1; Hanoch Dagan & Michael A. Heller, *The Liberal Commons*, 110 *YALE L.J.* 549, 552 (2001). The ability to use and exclude are of course subject to federal and state regulation, discussed *infra* Part II.A.

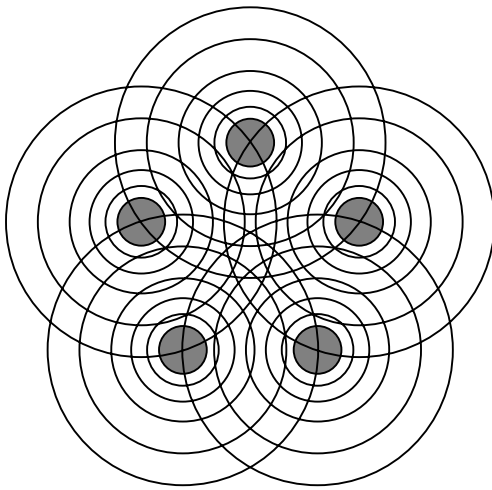
⁵⁹ 200 U.S. 496 (1906).

⁶⁰ *Id.* at 497.

⁶¹ *Id.* at 525–26.

when confronting an open access regime can also be illustrated another way. Assume, for example, great distances separate the localities in Figure 1. Each locality seeks its self-interested optimal strategy by adopting a classic Euclidean zoning code. For purposes of illustration, by adopting this strategy, each locality experiences a cost of 0 utils.⁶² However, each locality also externalizes costs — environmental and social — of 30 utils to other localities. This represents the external impact each locality has on the CPR (for example, biodiversity or air quality). Thus, the CPR is impacted by 30 utils per locality, for a total impact of 150 utils. Because it is a CPR, each locality experiences an impact of one-fifth of 150, or 30 utils, by the cumulative external impacts of all the localities.

FIGURE 1

**Each Locality:**

Individual internalized

cost: 0 utils

Externalized cost: 30 utils

Totals:

Each locality internalizes:

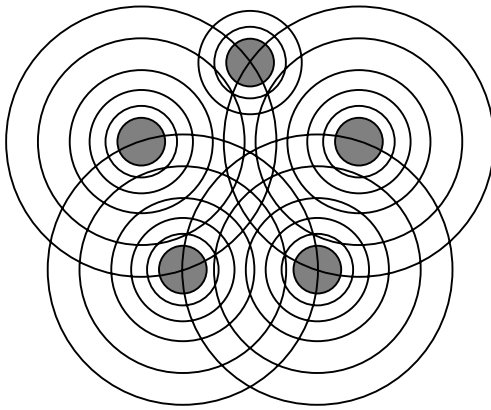
30 utils (1/5 of 150)

If City A seeks to reduce its impact on the CPR by implementing a sustainable procurement policy that accounts for social and environmental impacts,⁶³ it arguably worsens its position. As set forth in Figure 2, City A will absorb most, if not all, of the economic, political, and transactional costs of implementing the policy, indicated by 20 utils. It will also reduce its

⁶² The numbers are solely illustrative, assigned at random, and could represent any quantifiable metric.

⁶³ For examples of cities that have adopted such policies, see *Buying Green: Sustainable Procurement at the City of Portland*, MGMT. & FIN., CITY OF PORTLAND, <http://www.portlandonline.com/omf/index.cfm?c=37732> (last visited June 11, 2012) (on file with the Harvard Law School Library); *What is Environmentally Preferable Purchasing (EPP)?*, ENVTL. SERVICES, CITY OF SAN JOSE, <http://www.sanjoseca.gov/esd/natural-energy-resources/epp.htm> (last visited June 11, 2012) (on file with the Harvard Law School Library); *Green Purchasing Program*, FIN. & ADMIN. SERVS., CITY OF SEATTLE, <http://seattle.gov/purchasing/grnpurchhome.htm> (last visited June 11, 2012) (on file with the Harvard Law School Library).

FIGURE 2

**City A:**

Individual internalized cost:
20 utils

Externalized cost: 5 utils

Other Four Localities:

Individual internalized cost:
0 utils

Externalized cost: 30 utils

Totals:

City A internalizes: 45 utils
(1/5 of 125, plus 20 in
internalized costs)

Other Four Localities: 25 utils
(1/5 of 125)

external impact from 30 to 5 utils. This represents a decrease in environmental or social externalities to the CPR. Instead of the five localities negatively impacting the CPR at 150 utils, the five localities now have a combined impact of 125 because City A has reduced its negative externalities by 25:

$$5 \text{ localities} \times 30 \text{ utils} = \mathbf{150 \text{ utils}}$$

vs.

$$(4 \text{ localities} \times 30 \text{ utils}) + (1 \text{ locality} \times 5 \text{ utils}) = \mathbf{125 \text{ utils}}$$

The result is that all localities internalize one-fifth of 125, or 25, instead of 30, utils. City A, however, also internalized a cost of 20 utils in reducing its externalities, amounting to 45 utils. By unilaterally taking an action to control its impact on the CPR, City A has increased its costs from 30 to 45 utils, while the other four localities experienced a decrease in their costs from 30 to 25 utils.

This model suggests that each locality must adopt a dominant strategy to benefit its inhabitants — internalizing those benefits just like Hardin's actors — while externalizing the costs to the other common pool actors. Otherwise, the municipality risks being worse off.⁶⁴ Each locality is reduced to competing with every other locality. As each attempts to optimize its own

⁶⁴ This is not to suggest that local governments do not act because they are isolated. Despite the inefficiencies of doing so, local governments have been a leading force in solving many CPR challenges. See *infra* Part III.C. Further discouraging local governments from taking action are damage awards stemming from a finding of an impermissible extraterritorial impact. Cf. *Owen v. City of Independence*, 445 U.S. 622, 651–52 (1980) (“The knowledge that a municipality will be liable for all of its injurious conduct, whether committed in good faith or not, should create an incentive for officials who may harbor doubts about the lawfulness of their intended actions to err on the side of protecting citizens’ constitutional rights.”).

position, they compete for anything from economic development, tax revenues, and jobs to environmental issues concerning air pollution and water run-off.

However, there are at least two important differences between local governments as actors confronting CPR challenges and Hardin's individual actors. First, Hardin's actors are motivated by economic self-interest, which encourages them to isolate or act independently. While cities are also encouraged to isolate or act independently, the source of their encouragement is primarily the prohibition on extraterritorial impacts. Because of this prohibition, the legal system is compelling local governments to isolate themselves. This isolation creates a system in which "appropriators act independently."⁶⁵ Because localities are compelled to act independently by the current legal framework, local governments are pushed, more than they would be by self-interest alone, toward a system in which self-preservation is the model mode of behavior.

The second difference between Hardin's actors and local governments is how "self-interest" is defined. For Hardin, the actors' self-interest lies in their desire for more "proceeds" or profit.⁶⁶ A locality's self-interest is limited to serving the "health, safety, and welfare" of its citizens.⁶⁷ This characterization resembles Charles Tiebout's concept of the city.⁶⁸ Tiebout theorized that a well-informed individual who can seamlessly move from one jurisdiction to the next would choose the locality that maximizes the individual's interests in services and taxes.⁶⁹ Tiebout believed local governments would offer individuals a choice of varying government services at a variety of costs.⁷⁰ Local governments create a marketplace for public goods in which they compete against each other.⁷¹ In this vision of the city, local governments are motivated not by "proceeds" (like Hardin's actors), but rather by a desire to provide the best of certain public services to attract like-minded inhabitants.

⁶⁵ OSTROM, *supra* note 8, at 38.

⁶⁶ *See* Hardin, *supra* note 13, at 1244.

⁶⁷ *See* United Haulers Ass'n. Inc. v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 342 (2007); N.Y. MUN. HOME. RULE LAW § 10 (McKinney 2011) (noting that police powers are extended to local governments to act for the "health, safety and welfare"); *see also* City and Cnty. of Denver v. Qwest Corp., 18 P.3d 748, 755 (Colo. 2001) ("If there is a rational basis for legislating to protect the health, safety, or welfare of the citizens of a municipality, a home rule city may constitutionally do so").

⁶⁸ *See generally* Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416 (1956). For a concise overview of the literature analyzing Tiebout's article, see Vicki Been, "Exit" as a Constraint on Land Use Exactions: Rethinking the Unconstitutional Conditions Doctrine, 91 COLUM. L. REV. 473, 515–16 (1991); Richard Briffault, *Our Localism: Part II — Localism and Legal Theory*, 90 COLUM. L. REV. 346, 420–21 (1990) (criticizing Tiebout's assumptions, stating that citizens' mobility "is constrained by a variety of economic and social factors that tend to affect poorer people more than affluent ones" and that "investors of capital and owners of businesses, rather than residents, are the prime beneficiaries of the system of multiple jurisdictions and ease of movement").

⁶⁹ *See* Tiebout, *supra* note 68, at 419–20.

⁷⁰ *Id.* at 420, 424.

⁷¹ *See id.* *But see* FRUG, *supra* note 38, at 167–73.

II. SWIMMING SOLO: PREDOMINANT LOCAL GOVERNMENT STRATEGIES ADDRESSING COMMON POOL RESOURCE CHALLENGES

Local government management of CPRs generally has four typologies.⁷² The first type, discussed in Part I.A, is when the CPR is unregulated or under-regulated, often motivating local governments to overuse the CPR. The remaining three types are discussed in more detail below. They can be categorized as (1) regulation or coercion by a higher level of government, where a higher government compels municipalities to limit or control their externalities impacting the CPR;⁷³ (2) privatization of the CPR, where selected actors are recognized as having protected property rights to use and exclude others from using the CPR;⁷⁴ and (3) self-regulation or altruism, where a local government controls its externalities despite the inefficiencies of doing so.⁷⁵

As discussed below, none of these strategies provide a blanket panacea that facilitates sustainable local responses to CPR challenges. While in some circumstances they have experienced success, in others they have exacerbated the unsustainable conditions facing local governments. After discussing the latter three formats, this Article concludes in Part III by offering municipal collaborations as a fifth typology to supplement the existing strategies.

A. Regulation

Also called “command and control regulation,” “prescriptive regulation,” or “interventionist state,” this form of CPR management occurs when higher levels of government compel local governments to act or not act in a way that prohibits, limits, or controls their unsustainable externalities.⁷⁶

⁷² Most local CPR management is a hybrid of the four forms. See Cole & Ostrom, *supra* note 14, at 10.

⁷³ See *infra* Part II.A.

⁷⁴ See *infra* Part II.B.

⁷⁵ See *infra* Part II.C.

⁷⁶ See Mark Lubell et al., *Watershed Partnerships and the Emergence of Collective Action Institutions*, 46 AM. J. POL. SCI. 148, 149 (2002) (“Since the 1960s, the growing collective-action problems associated with environmental issues have stimulated the development of federal and state ‘command-and-control’ institutions.”); see also Jody Freeman & Daniel A. Farber, *Modular Environmental Regulation*, 54 DUKE L.J. 795, 814 (2005) (“prescriptive regulation”); Holley, *supra* note 2, at 10,656 (“interventionist state”). For a general discussion of regulatory actions in the environmental context, see NEIL GUNNINGHAM ET AL., SMART REGULATION: DESIGNING ENVIRONMENTAL POLICY 5–7, 343–348 (1998); NEIL GUNNINGHAM & DARREN SINCLAIR, LEADERS AND LAGGARDS: NEXT-GENERATION ENVIRONMENTAL REGULATION (2002). Although not identical, “state property” operates similarly to higher-level regulation. State property is that property held by the state, such as a state park. While state property has many parallels to privatization, as discussed below, from the perspective of local governments state property operates like a regulatory regime, directing how a local government must act. For a discussion of state property, see Dylan Oliver Malagrínó, *Applying Communal Theories to Urban Property: An Anthropological Look at Using the Elaboration of*

Regulation affecting local government use of a CPR can occur at the international level,⁷⁷ federal level,⁷⁸ or state level.⁷⁹ These higher levels of government are authorized to establish policies that bind local governments situated in their geographic jurisdiction.

Ideally, managing CPRs through higher levels of government reduces and discourages unsustainable local actions by compelling local governments to assume the costs of their externalities or by prohibiting externalities altogether.⁸⁰ The Clean Water Act (“CWA”), for example, prohibits local governments from discharging pollutants and untreated sewage from water treatment facilities into waters of the United States without a permit.⁸¹ By doing so, the federal government compels local governments to internalize the cost of pollutant disposal, as opposed to allowing them to discharge pollutants and externalize that cost to other local governments.⁸² CPR management in this format is consistent with the matching principle, discussed in Part I.C, and has been lauded for, among other things, unifying regulation and controlling both externalities and outlying local government policies.⁸³

Common Property Regimes to Reduce Social Exclusion from Housing Markets, 10 U.C. DAVIS BUS. L.J. 33, 43 (2009).

⁷⁷ See Frug & Barron, *supra* note 5, at 13–14, 36, 39–47 (discussing local impact stemming from various international sources); see also *United States v. Pink*, 315 U.S. 203, 230–33 (1942) (holding that state laws, and presumably local laws, are invalid when in conflict with an international treaty).

⁷⁸ See, e.g., Federal Water Pollution and Control Act (“Clean Water Act” or “CWA”), 33 U.S.C. §§ 1251–1387 (2006).

⁷⁹ See, e.g., Sustainable Communities and Climate Protection Act, ch. 728, 2008 CAL. STAT. 85 (codified as amended in scattered sections of CAL. GOV’T CODE and CAL. PUB. RES. CODE) (adopted to reduce greenhouse gas emissions by coordinating local land-use plans, transportation, and development).

⁸⁰ For a discussion of when regulation may be efficient, particularly when matched with collaborations, see Daniel H. Cole & Peter Z. Grossman, *When Is Command-and-Control Efficient? Institutions, Technology, and the Comparative Efficiency of Alternative Regulatory Regimes for Environmental Protection*, 5 WIS. L. REV. 887, 888, 893 (1999); Robert F. Durant et al., *Toward a New Governance Paradigm for Environmental and Natural Resource Management in the 21st Century?*, 35 ADMIN. & SOC’Y 643, 644–45 (2004).

⁸¹ CWA § 301, 33 U.S.C. § 1311.

⁸² This is not to suggest that local governments complying with the CWA are required to properly dispose of pollutants only originating in their jurisdiction. The unfortunate reality of the CWA is that in securing potable water many local governments extract pollutants that originate in other jurisdictions. For example, Des Moines Water Works extracts an enormous amount of nitrates and phosphates that originate on agricultural land far beyond its borders and that reach its primary drinking water source, the Raccoon River (the second most polluted river in the country). For an in-depth analysis of agricultural run-off in Iowa, see CRAIG COX ET AL., ENVTL. WORKING GROUP, LOSING GROUND (2011), available at http://static.ewg.org/reports/2010/losingground/pdf/losingground_report.pdf.

⁸³ See generally William W. Bratton & Joseph A. McCahery, *The New Economics of Jurisdictional Competition: Devolutionary Federalism in a Second-Best World*, 86 GEO. L.J. 201, 212 (1997) (stating that federal regulation is appropriate to “police externalities [to ensure] . . . that the scope of regulation match[es] the domain of its costs and benefits.”); Ronald McKinnon & Thomas Nechyba, *Competition in Federal Systems: The Role of Political and Financial Constraints*, in THE NEW FEDERALISM 3, 9 (John A. Ferejohn & Barry R. Weingast eds., 1997) (stating that externalities create “a distortion . . . away from what is optimal” and that “[s]uch distortions could be avoided by a central government”); H. Geoffrey Moulton, Jr., *Federalism and Choice of Law in the Regulation of Legal Ethics*, 82 MINN. L. REV. 73, 136–38 (1997) (advocating for centralization to internalize local externalities).

While higher-level CPR management has the potential to be efficient and successful in CPR preservation,⁸⁴ it has been criticized on a variety of fronts. Most relevant to the discussion here is that higher-level management (a) requires uniformity among local governments that are not uniform,⁸⁵ (b) discourages local innovation and creativity,⁸⁶ and (c) shifts power away from those most knowledgeable about and affected by the CPR.⁸⁷

B. Privatization⁸⁸

Management of a CPR through privatization involves the recognition of rights of select actors in the CPR.⁸⁹ The typical actors with access to a CPR are individual, non-public actors, such as Hardin's herdsman (and, as discussed below, those studied by Ostrom). However, this Article addresses the *usage and management* of CPRs by local governments. Thus, *individual municipalities* are the actors appropriating the resource in this context. Accordingly, "privatization" in this context means the recognition that select municipalities have the right to use, and exclude other municipalities from using, a CPR.⁹⁰ Privatization of CPR usage is rare in the municipal context

⁸⁴ One example of successful higher-level CPR management is the U.S. acid rain program. See E. Donald Elliott, *Roundtable U.S. Environmental Law in Global Perspective: Five Do's and Five Don'ts from Our Experience*, 5 NAT'L TAIWAN U. L. REV. 143, 150 (2010) (stating "the acid-rain trading program . . . has certainly been one of our most successful pollution control programs, and many think the single most successful."); see also Acid Deposition Control, Title IV of Clean Air Act, Pub. L. No. 101-549, 104 Stat. 2399 (1990) (codified at 42 U.S.C. §§ 7401-7671(q)); *Acid Rain Program SO2 Allowances Fact Sheet*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/airmarkets/trading/factsheet.html> (last visited June 11, 2012) (on file with the Harvard Law School Library).

⁸⁵ Freeman & Farber, *supra* note 76, at 814 (stating management through higher levels of government "fails to account for the marginal cost of compliance among differently situated [actors]" and higher levels of government are "too 'centralized' and coarse grained to respond adequately to differences in local conditions, let alone to the diversity of local preferences"); see also Richard Stewart, *A New Generation of Environmental Regulation?*, 29 CAP. U. L. REV. 21, 30-31 (2001).

⁸⁶ Freeman & Farber, *supra* note 76, at 815 ("[T]op-down regulation is thought to inhibit the kind of policy and institutional innovations that come only from local knowledge and experience."). This criticism has been bolstered by those advocating for enhanced competition among municipalities. See Michael W. McConnell, *Federalism: Evaluating the Founders' Design*, 54 U. CHI. L. REV. 1484, 1498-1500 (1987).

⁸⁷ Hudson, *supra* note 38 (manuscript at 11) ("[C]entral authorities do not maintain sufficient information to estimate the carrying capacity of [CPRs] or to design the appropriate penalties to induce behavioral change."); see also Holley, *supra* note 2, at 10,659 (citing David Farrier, *Fragmented Law in Fragmented Landscapes: The Slow Evolution of Integrated Natural Resource Management Legislation in NSW*, 19 ENVTL. & PLAN. L.J. 89, 90 (2002)); Annecoos Wiersema, *A Train Without Tracks: Rethinking the Place of Law and Goals in Environmental and Natural Resources Law*, 38 ENVTL. L. 1239, 1241 (2008).

⁸⁸ See also Holley, *supra* note 2, at 10,656 (calling privatization the "market alternative" to the "interventionist state").

⁸⁹ See Neil Cunningham, Peter Grabowsky, & Darren Sinclair, *Instruments for Environmental Protection*, in SMART REGULATION: DESIGNING ENVIRONMENTAL POLICY 37, 69-83 (Neil Cunningham, Peter Grabowsky, & Darren Sinclair eds., 1998) (discussing examples of market-based approaches and their strengths and weaknesses).

⁹⁰ Examples of "privatization" in this context include wetland banking, global emissions trading, forest carbon trading, and "pay-as-you-throw" garbage disposal programs. See, e.g.,

but could include one municipality compelling another to dispose of its own waste within its own borders, to zone in a manner that controls run-off within its own borders, to offer a proportional amount of affordable housing, or to grant equal economic development incentives.⁹¹ In each of these examples, one municipality has a legally recognizable right to compel another municipality to control its externalities regarding a CPR.

The privatization of municipal rights to use and exclude others from using a CPR finds support in the theory that individual actors need some control over resources in the external environment to motivate those actors to protect the CPR.⁹² Privatization, it is claimed, provides encouragement to be more efficient and to avoid “chronic apathy, the sociopolitical equivalent of pernicious anemia.”⁹³ Each actor will take proactive steps to protect the resource if he has a protected interest in the resource.⁹⁴

Economist Harold Demsetz is often credited with popularizing the recognition of private property rights in *Toward a Theory of Property Rights*.⁹⁵ In his article, Demsetz championed private property regimes, stating that they will rise to the surface whenever resources are in short supply.⁹⁶ Judge Richard A. Posner describes it in this way:

The proper incentives are created by parceling out mutually exclusive rights to the use of particular resources among the members of society. If every piece of land is owned by someone . . . then individuals will endeavor by cultivation or other improvements to maximize the value of land. Of course, land is just an example. The principle applies to all valuable resources.⁹⁷

Keith H. Hirokawa, *Property as Capture and Care*, 74 ALB. L. REV. 175, 197–202 (2010–2011) (discussing public’s ability to protect itself under public nuisance laws). *But see* Am. Elec. Power Co. v. Conn., 131 S. Ct. 2527, 2535–40 (2011) (refusing to recognize a city’s, as well as other plaintiffs’, right to limit greenhouse gas emissions under a federal common law of nuisance); Native Vill. of Kivalina v. ExxonMobil Corp., 663 F. Supp. 2d 863 (N.D. Cal. 2009), *appeal argued*, No. 09-17490 (9th Cir. Nov. 28, 2011).

⁹¹ A public nuisance claim was a particularly potent way to achieve this type of privatization until it was struck down by the U.S. Supreme Court. *See* Am. Elec. Power Co., 131 S. Ct. at 2535–40.

⁹² Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957, 957 (1982); *see* Hardin, *supra* note 13, at 1245; Malagrino, *supra* note 76, at 44.

⁹³ Richard Pipes, *Human Nature and the Fall of Communism*, AM. ACAD. ARTS & SCI. BULL., Jan. 1996 at 38, 39.

⁹⁴ Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 351–52, 355 (1967).

⁹⁵ *Id.*; *see also* James E. Krier, *Evolutionary Theory and the Origin of Property Rights*, 95 CORNELL L. REV. 139, 139–47 (2009) (providing a readable description of Demsetz’s theory).

⁹⁶ Demsetz, *supra* note 94, at 348–56. *But see* Cole & Ostrom, *supra* note 14, at 2 (citing THRAINN EGGERTSSON, ECONOMIC BEHAVIOR AND INSTITUTIONS 254 (1990) (calling Demsetz’s theory “naïve” because it ignores failures of certain private property regimes, ignores alternatives, and presents private ownership as “an institutional panacea”)).

⁹⁷ RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW § 3.1, at 32 (5th ed. 1998). Judge Posner rejected the privatization of property rights because it would be inefficient. He suggested regulation by a higher authority, discussed above in Part II.A, or a full monopolization by one individual who holds all the protected property rights. *Id.* § 3.2.

Relevant criticisms of privatizing property rights include (a) the difficulty in valuing and trading property rights when CPRs are at issue,⁹⁸ (b) the potential for confrontation among the actors (municipalities) when determining initial allocations,⁹⁹ and (c) the promotion of inequality among the actors.¹⁰⁰ A related criticism particularly relevant here is that a privatized strategy assumes that local governments will take a passive role in preserving the CPR or they will actively deteriorate it. As Ostrom stated when describing private sector actors:

An assertion that the imposition of private property rights is necessary tells us nothing about how that bundle of rights is to be defined, how the various attributes of the goods involved will be measured, who will pay for the costs of excluding nonowners from access, how conflicts over rights will be adjudicated, or how the residual interests of the right-holders in the resource system itself will be organized.¹⁰¹

Further, privatization does not solve the commons problem. As Ostrom notes, each player “will be playing a *game against nature* in a smaller terrain, rather than a game against another player in a larger terrain.”¹⁰² “In addition, various market failures, such as imperfect information, ‘free-riders,’ transaction costs, collective action problems, and other failures to internalize externalities lead to continued environmental destruction even in the presence of a private property rights system.”¹⁰³

C. Altruism

A third, and less frequently utilized, strategy for managing CPRs at the local level is altruism. In this strategy, individual local governments exercise self-control in managing CPRs. Despite the inefficiencies exacerbated by state preemption laws described in Part I.B and illustrated by Figure 2,¹⁰⁴ some local governments independently have decided to limit their negative

⁹⁸ See Freeman & Farber, *supra* note 76, at 818 (“It may be especially challenging to devise market approaches to natural resource management rather than pollution, because natural resources, like ecosystems, perform functions that may be enormously difficult to value and to trade.”).

⁹⁹ *Id.* at 817.

¹⁰⁰ See *id.* at 818. Although privatization was one of Hardin’s two alternatives to the tragedy of the commons, even he recognized the injustice and loss of liberty involved with privatizing the commons because some will undeservedly receive more than others. See Hardin, *supra* note 13, at 1247–48.

¹⁰¹ Ostrom, *supra* note 8, at 22.

¹⁰² *Id.* at 12; see also Hudson, *supra* note 38 (manuscript at 12) (“[I]ndividuals pit themselves against natural capital on private properties, appropriating it and replacing it with human-made capital, even if they are now able to exclude other appropriators from the property. In other words, the private property may still operate as a commons with regard to the natural capital present upon it.”).

¹⁰³ Hudson, *supra* note 38 (manuscript at 12).

¹⁰⁴ Because of this inefficiency Hardin believed that managing a CPR could not be done through “an appeal to conscience.” Hardin, *supra* note 13, at 1246–47.

externalities. These local governments assume an active role in controlling their environments and their impacts on CPRs.

In acting alone, local governments have achieved significant gains, but at great individual costs. For example, New York City has adopted an aggressive campaign to reduce its greenhouse gas (“GHG”) emissions under PlaNYC.¹⁰⁵ The City indicated that it had decreased its GHG emissions by 12.9% between 2005 and 2009,¹⁰⁶ reducing its impact on climate change. However, in a classic example of the “free rider” problem, New York City’s actions have benefited municipalities across the world, because the positive effects of New York City’s GHG reductions cannot be contained within New York City’s borders.

While several local government collaborations built on altruism exist, more research is necessary to understand what, if any, benefit is being realized by these structures.¹⁰⁷ For example, over one thousand mayors have signed the U.S. Conference of Mayors Climate Protection Agreement to reduce GHG emissions.¹⁰⁸ At the outset this appears to be the beginning of a municipal collaboration.¹⁰⁹ In reality, however, local governments are acting independently in seeking to accomplish their goals of reducing GHG emis-

¹⁰⁵ For the most recent PlaNYC update see CITY OF NEW YORK, PLAN NYC UPDATE APRIL 2011 (2011), available at http://nytelecom.vo.llnwd.net/o15/agencies/planyc2030/pdf/planyc_2011_planyc_full_report.pdf. New York City is not alone. See, e.g., CITY OF PHILADELPHIA, GREENWORKS PHILADELPHIA (2009), available at http://www.phila.gov/green/greenworks/pdf/Greenworks_OnlinePDF_FINAL.pdf; *Sustainability Plan*, SUSTAINABLE CITY, <http://www.sustainable-city.org/Plan/Intro/intro.htm> (last visited June 11, 2012) (on file with the Harvard Law School Library) (presenting the five-year sustainability plan for San Francisco). Interestingly, some local governments have attempted to shift the cost of adopting an altruistic strategy to the private sector, often through regulations such as environmental impact fees. See, e.g., *United Haulers Ass’n. v. Oneida-Herkimer Solid Waste Mgmt. Auth.*, 550 U.S. 330, 346–48 (2007) (municipalities’ waste flow control ordinance giving preference to in-state waste facilities as part of a project that made environmental protection of the community possible did not violate the Commerce Clause).

¹⁰⁶ See CITY OF NEW YORK, PLAN NYC: INVENTORY OF NEW YORK CITY GREENHOUSE GAS EMISSIONS SEPTEMBER 2010, at 24 (2010), available at http://www.nyc.gov/html/om/pdf/2010/pr412-10_report.pdf.

¹⁰⁷ I have begun an in-depth analysis of three local government collaboratives to detail their collective action, behavior, and impacts. The research explores the creation, management, and enforcement mechanisms utilized by the Union of the Baltic Cities, see UNION OF BALTIC CITIES, <http://www.ubc.net/> (last visited June 11, 2012) (on file with the Harvard Law School Library), Central Ohio Green Pact, see *Central Ohio Green Pact*, MID-OHIO REG’L PLANNING COMM’N, <http://www.morpc.org/energy/communities/GreenPact.asp> (last visited June 11, 2012) (on file with the Harvard Law School Library), and Great Lakes and St. Lawrence Cities Initiative, see GREAT LAKES & ST. LAWRENCE CITIES INITIATIVE, <http://www.glsclcities.org/> (last visited June 11, 2012) (on file with the Harvard Law School Library).

¹⁰⁸ *List of Participating Mayors*, MAYORS CLIMATE PROT. CTR., U.S. CONFERENCE OF MAYORS, <http://usmayors.org/climateprotection/list.asp> (last visited June 11, 2012) (on file with the Harvard Law School Library).

¹⁰⁹ This is so particularly because the U.S. Conference of Mayors has a best practices portion on achieving their goals. *Best Practices*, MAYORS CLIMATE PROT. CTR., U.S. CONFERENCE OF MAYORS, <http://usmayors.org/climateprotection/bestpractices.htm> (last visited June 11, 2012) (on file with the Harvard Law School Library).

sions to seven percent below 1990 levels by 2012.¹¹⁰ Participating mayors adopt local ordinances targeting water, energy, waste, building codes, zoning codes, and dozens of other mechanisms with the organization contributing only minimal amounts of shared information, baselines, metrics, drafts, and research.

The reasons local governments take action to manage CPRs despite the free rider-induced inefficiencies of doing so vary and include a strong local government and citizen commitment to CPR management, local voter preference, and a desire for economic development.¹¹¹ Important for purposes of this Article, local governments *are* taking these actions, notwithstanding the inefficiencies of doing so, showing that there is at least some desire at the local level to properly manage CPRs. The challenge is to encourage those desires and avoid duplicative efforts. The next and final Part explores how municipal collaborations may address this inefficiency, as well as the criticisms levied against regulation and privatization.

III. SYNCHRONIZED SWIMMING: NON-PLACE BASED MUNICIPAL COLLABORATIONS AS A RESPONSE TO STATE PREEMPTION

This Part presents municipal collaborations as an alternative strategy in which local governments assume a proactive approach in managing CPRs to overcome the mismatch between local challenges and the legal authority to deal with them. The strategy is founded on Elinor Ostrom's work on private sector place-based collaborations. Ostrom's research is instructive both theoretically, as it provides a conceptual response to the tragedy of the commons, and concretely, as it provides actual details for formulating successful collaborations. The objective is to learn from Ostrom's work and understand how it could be a powerful force for local government management of CPRs to the benefit of all.

A. "Governing the Commons"

In *Governing the Commons*, Elinor Ostrom presents the leading research on addressing issues that arise in CPRs with collective bodies to avoid a tragedy of the commons.¹¹² Ostrom conducted field studies to ex-

¹¹⁰ *About the Mayors Climate Protection Center*, MAYORS CLIMATE PROT. CTR., U.S. CONFERENCE OF MAYORS, <http://www.usmayors.org/climateprotection/about.htm> (last visited June 11, 2012) (on file with the Harvard Law School Library).

¹¹¹ See Katrina Fischer Kuh, *Capturing Individual Harms*, 35 HARV. ENVTL. L. REV. 155, 163–65 (2011).

¹¹² OSTROM, *supra* note 8. Others have also attempted to detail the characteristics necessary for successful collaborations. See, e.g., Tanya Heikkila & Andrea K. Gerlak, *The Formation of Large-scale Collaborative Resource Management Institutions: Clarifying the Roles of Stakeholders, Science, and Institutions*, 33 POL'Y STUD. J. 583, 585–86 (2005) (summarizing literature on successful collaborations); Bradley C. Karkkainen, *Getting to "Let's Talk": Legal and Natural Destabilizations and the Future of Regional Collaboration*, 8 NEV. L.J. 811, 819–22 (2008) (finding "natural" and "anthropo-natural" disasters give rise to alternative

amine whether individual private sector actors can voluntarily provide a collective benefit that would motivate them to sustainably manage a CPR.¹¹³ She studied small-scale CPR situations to observe “combinations of situational variables that are most likely to affect individuals’ choices of strategy and how those situational variables occur.”¹¹⁴

Ostrom concluded that under certain circumstances a group of individual actors can “organize and govern themselves to obtain continuing joint benefits” from a CPR.¹¹⁵ She challenged the predictions of *The Tragedy of the Commons* that “those using [CPRs] will not cooperate so as to achieve collective benefits.”¹¹⁶ She found that appropriators of a CPR are not predestined to devolve into a tragedy of the commons. Rather, the individual, self-motivated actors described by Hardin can be replaced by individuals united around common challenges raised in the appropriation of said CPR.¹¹⁷ She described this situational transformation as going from “one in which appropriators act independently to one in which they adopt coordinated strategies to obtain higher joint benefits or reduce their joint harm.”¹¹⁸

Ostrom observed that a CPR may be preserved by collective action, so long as the mechanism to manage it allows for proper use of the CPR.¹¹⁹ She then detailed examples of successful collaborations and identified eight “design principles” prevalent in those collaborations:¹²⁰

forms of community collaboration and problem-solving); Mark Lubell, *Collaborative Institutions, Belief-Systems, and Perceived Policy Effectiveness*, 56 POL. RES. Q. 309, 311 (2003) (noting that collaborative institutions are well-suited to address environmental problems); Elinor Ostrom et al., *Revisiting the Commons: Local Lessons, Global Challenges*, 284 SCIENCE 278, 281 (1999).

¹¹³ See generally OSTROM, *supra* note 8, at 58–181; see also Elinor Ostrom, *The Danger of Self-Evident Truths*, 33 POL. SCI. & POL. 33, 39–40 (2000).

¹¹⁴ OSTROM, *supra* note 8, at 38.

¹¹⁵ *Id.* at 29.

¹¹⁶ *Id.* at 182.

¹¹⁷ *Id.* at 39.

¹¹⁸ *Id.* at 38–39.

¹¹⁹ Compare Hardin, *supra* note 13, at 1243 (finding problems with the commons can be classified as “no technical solution problems,” requiring a value and moral change), with OSTROM, *supra* note 8, at 33, 37.

¹²⁰ See OSTROM, *supra* note 8, at 90–91 (stating that a design principle is “an essential element or condition that helps to account for the success of these institutions in sustaining the CPRs and gaining the compliance of generation after generation of appropriators to the rules in use”). Ostrom cautioned that the design principles are “quite speculative.” *Id.* at 90. She was “not yet willing to argue that these design principles are necessary conditions for achieving institutional robustness in CPR settings,” but thought that after the necessary research, any proven set would “contain the core of what has been identified here.” *Id.* at 89–90. In 2010, Michael Cox, Gwen Arnold, and Sergio Villamayor Tomás published an article reviewing ninety-one empirical studies applying Ostrom’s design principles. Michael Cox, Gwen Arnold, and Sergio Villamayor Tomás, *A Review of Design Principles for Community-based Natural Resource Management*, ECOLOGY AND SOC’Y, Dec. 2010, at 38. They found:

[T]he principles are well supported. The most trenchant critiques were abstract, rather than empirical. This does not mean that the principles are complete; their incompleteness is the most important empirical critique we found in the literature. Other factors such as the size of user groups, differing types of heterogeneity within or between user groups, and the type of government regime within which users operate are clearly important in many cases.

1. “Clearly defined boundaries” of the CPR and clearly identified members able to utilize the CPR¹²¹
2. Rules concerning appropriation (for example, time and quantity) are aligned with the local conditions¹²²
3. Those utilizing the CPR are able to participate in modifying the rules concerning appropriation¹²³
4. Monitoring of the CPR exists and “monitors are accountable to the appropriators”¹²⁴
5. Violations of rules may result in graduated sanctions¹²⁵
6. Efficient conflict-resolution mechanisms exist¹²⁶
7. Rights to organize or collaborate are not challenged by higher levels of government¹²⁷
8. Appropriation, monitoring, sanctioning, and conflict resolution are organized in multiple levels of nested enterprises¹²⁸

B. Non-Place Based Municipal Collaborations¹²⁹

In *Governing the Commons*, Ostrom focused largely on place-based collaborations comprised of private sector indigenous populations seeking economic gain by appropriating from a CPR.¹³⁰ Ostrom observed, for example, small and large fishing operations in Turkey, Sri Lanka, and Nova Scotia¹³¹ and farmers in Switzerland and Japan.¹³² Relying on Ostrom’s design principles as a guide, the next two subsections attempt to bridge the gap between the private sector collaborations Ostrom observed and public sector, non-place based municipal collaborations.¹³³

Id. at 38.

¹²¹ See OSTROM, *supra* note 8, at 91.

¹²² See *id.* at 92.

¹²³ See *id.* at 93.

¹²⁴ See *id.* at 94.

¹²⁵ See *id.* at 94–95 (Ostrom terms it “quasi-voluntary compliance”).

¹²⁶ See *id.* at 100–01 (“Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts.”).

¹²⁷ See *id.* at 101.

¹²⁸ See *id.* at 101–02.

¹²⁹ The focus of this Article is to propose municipal collaborations as a viable local government strategy to manage CPRs and set forth some general guideposts. The detailed structure and format of municipal collaborations as an independent subject is a fascinating and necessary discussion that is beyond the purview of this Article.

¹³⁰ Ostrom studied one example in which local governments were included as actors. She provides a wonderful discussion about the battles over the water basins near Los Angeles in which there are several public sector actors along with private actors. See OSTROM, *supra* note 8, at 104–25.

¹³¹ See *id.* at 144–46, 149–57, 173–78.

¹³² See *id.* at 61–69.

¹³³ This is not to suggest that municipal collaborations do not exist. See, e.g., Hannah Bentley & Steve Zikman, *Local Governments Key to Cancun Climate Talks*, NAT. RESOURCES & ENV’T., Fall 2010, at 57–58 (discussing the Network of Regional Governments for Sustainable Development and its pledge to collaborate); *About Us*, C40CITIES CLIMATE LEADERSHIP GROUP, <http://www.c40cities.org/> (last visited June 11, 2012) (on file with the Harvard Law

i. *General Description of Municipal Collaborations*

Based on Ostrom's findings, municipalities could collaborate around a shared set of *local norms* that seek to address *similar challenges* arising in CPRs.¹³⁴ Municipal collaboration is initiated only upon the identification of a common challenge by willing municipalities, struggling to address and manage that challenge in a common fashion. As Ostrom states:

Individuals who do not have similar images of the problems they face, *who do not work out mechanisms to disaggregate complex problems into subparts*, and who do not recognize the legitimacy of diverse interest are unlikely to solve their problems even when the institutional means to do so are available to them.¹³⁵

Basing the collaborative effort on municipal norms and challenges affords local governments more flexibility. Currently, there are many regional bodies that help facilitate local government collaboration. The local governments subject to these regional bodies are generally pre-determined. The regional structure is static and permanent and does not change even though the challenges and conditions may change. While this type of collaborative body may function well in some instances, the focus here is on allowing the

School Library) ("The [C40] is a network of large and engaged cities from around the world committed to implementing meaningful and sustainable climate-related actions locally that will help address climate change globally."); GREAT LAKES & ST. LAWRENCE CITIES INITIATIVE, *supra* note 107 (protecting and restoring the vitality of the Great Lakes and St. Lawrence River); *About ICLEI*, ICLEI LOCAL GOVERNMENTS FOR SUSTAINABILITY, <http://www.iclei.org/index.php?id=about> (last visited June 11, 2012) (on file with the Harvard Law School Library) ("ICLEI – Local Governments for Sustainability is an association of over 1220 local governments who are committed to sustainable development."); MID-OHIO REG'L PLANNING COMM'N, *supra* note 107 (describing a group of local governments committed to encouraging sustainable cities, preserving natural resources, increasing green space, reducing consumption, and increasing recycling); NAT'L LEAGUE OF CITIES, <http://www.nlc.org/> (last visited June 11, 2012) (on file with the Harvard Law School Library) ("helping city leaders build better communities"); *Charter*, R20 REGIONS OF CLIMATE CHANGE, <http://www.regions20.org/about-r20/charter> (last visited June 11, 2012) (on file with the Harvard Law School Library) (striving "to develop and implement low-carbon and climate resilient projects through cooperation among . . . subnational governments . . . non-governmental organizations, corporations and educational institutions"); UNION OF THE BALTIC CITIES, *supra* note 107 ("Union of the Baltic Cities is a voluntary, proactive network mobilizing the shared potential of over 100 member cities for democratic, economic, social, cultural and environmentally sustainable development of the Baltic Sea Region."); *About Us*, UNITED CITIES AND LOCAL GOV'TS, <http://www.cities-localgovernments.org/sections.asp> (last visited June 11, 2012) (on file with the Harvard Law School Library) ("represent[ing] and defend[ing] the interests of local governments on the world stage, regardless of the size of the communities they serve"); *About*, WORLD MAYORS COUNCIL ON CLIMATE CHANGE, <http://www.worldmayorscouncil.org/> (last visited June 11, 2012) (on file with the Harvard Law School Library) ("The [Council] is an alliance of committed local government leaders advocating an enhanced recognition and involvement of Mayors in multi-lateral efforts addressing climate change and related issues of global sustainability.").

¹³⁴ Issue-based collaborations assume that (1) CPRs and impacts are able to be reliably measured, and (2) local governments enter into the collaborative in good faith and with a legitimate concern to address the CPR challenge.

¹³⁵ OSTROM, *supra* note 8, at 149 (emphasis added).

issues to dictate the structure of the collaboration rather than forcing the issues into a pre-existing structure.

Municipal collaborations are designed to maintain local autonomy and to facilitate sustainable local actions by providing municipalities with the authority to “exercise[] considerable control over institutional arrangements and property rights.”¹³⁶ As discussed in more detail below, they are non-place based, meaning they are not confined to a single geographic location. The purpose here is not to replace the scholarship on place-based or regional collaborations. Rather, this Article is meant to complement it and to push the boundaries of collaborations to include non-place based collaboration that focus on *norms* and *challenges* instead of *geography*. While some cities may find it easier to form collaborations based on regional location, it is not a necessary requirement for the collaborations discussed in this Article. The collaborations are also not envisioned as an extension to levels of government other than local government. For example, they do not entail formalization of regional governments to which local governments would cede authority. In fact, they need not be located in the same region at all.

ii. *Municipal Collaborations in Light of Ostrom’s Design Principles*

Ostrom’s first three design principles are particularly instructive in informing the structure and format of municipal collaborations. The first design principle — clearly defined boundaries of the CPR and those able to utilize it — suggests that participating municipalities and their rights to use the CPR must be clearly established.¹³⁷ One method to clearly identify participating municipalities is to encourage membership based on (a) which specific CPR challenge is being addressed, (b) local governments’ willingness to address the challenge, and (c) local governments’ characteristics.¹³⁸ When similar local governments (c) are willing (b) to address common CPR challenges (a), relevant members can be identified. Different CPRs will dictate the corresponding membership because they will impact localities differently.

Shared local characteristics that go beyond geographic location yield many opportunities to collaborate on CPR challenges.¹³⁹ Multi-jurisdictional challenges involving CPRs include water quality,¹⁴⁰ waste water disposal,¹⁴¹

¹³⁶ *Id.* at 61.

¹³⁷ *See id.* at 91.

¹³⁸ *See id.* at 88–89, 146 (identifying common characteristics among CPR actors as being necessary to form a successful collaboration). Importantly, Ostrom noted that variation in sizes and “severe heterogeneity of interests” can be detrimental to establishing a successful collaboration. *Id.* at 146.

¹³⁹ For an insightful discussion of local government participation in the international arena see generally Frug & Barron, *supra* note 5.

¹⁴⁰ *See* Todd H. Votteler, *Raiders of the Lost Aquifer? Or, The Beginning of the End to Fifty Years of Conflict over the Texas Edwards Aquifer*, 15 TUL. ENVTL. L.J. 257 (2002).

¹⁴¹ *See* RICHARD F. ANDERSON, U.S. CONFERENCE OF MAYORS, THE STATUS OF ASSET MANAGEMENT PROGRAMS IN PUBLIC WATER AND SEWER INFRASTRUCTURE IN AMERICA’S MA-

food supply,¹⁴² food security,¹⁴³ climate change,¹⁴⁴ energy,¹⁴⁵ air quality,¹⁴⁶ deforestation,¹⁴⁷ wildlife habitat,¹⁴⁸ shrinking tax base,¹⁴⁹ early childhood education,¹⁵⁰ traffic congestion,¹⁵¹ vacant real estate,¹⁵² and beach access.¹⁵³ Although separated by miles and jurisdictional boundaries, cities experience these challenges in similar ways, often based on common demographic, geographic, economic, and environmental characteristics that influence their experience with CPRs, such as population size (for example, Tucson, Boston, Las Vegas, Oklahoma City, Portland, El Paso, Seattle, and Milwaukee),¹⁵⁴ proximity to large bodies of water (for example, Boston and Los Angeles), mean temperature (for example, Denver and Hartford),¹⁵⁵ relative humidity (for example, Portland, Or., and Detroit),¹⁵⁶ average precipitation (for exam-

JOR CITIES 7–8 (2007), available at http://usmayors.org/pressreleases/documents/watersurvey_report_0907.pdf.

¹⁴² See Hope M. Babcock, *Grotius, Ocean Fish Ranching, and the Public Trust Doctrine: Ride ‘Em Charlie Tuna*, 26 STAN. ENVTL. L.J. 3, 40–41 (2007).

¹⁴³ See U.S. CONFERENCE OF MAYORS, CHILDHOOD ANTI-HUNGER PROGRAMS IN 24 CITIES 3 (2009), available at <http://www.usmayors.org/pressreleases/uploads/20091116-report-childhoodantihunger.pdf>.

¹⁴⁴ See U.S. CONFERENCE OF MAYORS, METROPOLITAN INFRASTRUCTURE SUSTAINABILITY STUDY 10–12 (2009), available at <http://www.usmayors.org/pressreleases/uploads/report-200906-siemens.pdf>.

¹⁴⁵ See U.S. CONFERENCE OF MAYORS, ENERGY & ENVIRONMENT BEST PRACTICES GUIDE 1 (2007), available at <http://usmayors.org/bestpractices/EandEBP07.pdf>.

¹⁴⁶ See Herzfeld, *supra* note 2.

¹⁴⁷ See generally U.S. CONFERENCE OF MAYORS, PROTECTING AND DEVELOPING THE URBAN TREE CANOPY (2008), available at <http://usmayors.org/trees/treefinalreport2008.pdf>; Brian C. Steed & Burnell C. Fischer, *Street Trees — Are They a Misunderstood Common Pool Resource?* (2007) (unpublished manuscript), available at http://www.indiana.edu/~workshop/colloquia/materials/papers/fischer&steed_paper.pdf.

¹⁴⁸ See Federico Cheever, *Property Rights and the Maintenance of Wildlife Habitat: The Case for Conservation Land Transactions*, 38 IDAHO L. REV. 431, 438–39 (2002); Jamison E. Colburn, *Localism’s Ecology: Protecting and Restoring Habitat in the Suburban Nation*, 33 ECOLOGY L.Q. 945, 967–68 (2006).

¹⁴⁹ See Christopher R. Bertly & Jacob E. Gersen, *Fiscal Consequences of Electoral Institutions*, 52 J. L. & ECON. 469, 473 (2009).

¹⁵⁰ See Donald C. Wood, *Children as a Common-Pool Resource: Change and the Shrinking Kindergarten Market in a Japanese City*, in ECONOMIC DEVELOPMENT, INTEGRATION, AND MORALITY IN ASIA AND THE AMERICAS 341 (Donald C. Wood ed., 2009).

¹⁵¹ See Jack Estill et al., *Taxing Development: The Law and Economics of Traffic Impact Fees*, 16 B.U. PUB. INT. L.J. 1, 1 (2006).

¹⁵² See Gregg W. Kettles, *Formal Versus Informal Allocation of Land in Commons: The Case of the Macarthur Park Sidewalk Vendors*, 16 S. CAL. INTERDISC. L.J. 49, 52–53 (2005).

¹⁵³ See Meg Caldwell & Craig Holt Segall, *No Day at the Beach: Sea Level Rise, Ecosystem Loss, and Public Access Along the California Coast*, 34 ECOLOGY L.Q. 533, 574–75 (2007).

¹⁵⁴ See U.S. CENSUS BUREAU, COUNTY AND CITY DATA BOOK 834–39 (2007), available at <http://www.census.gov/prod/2008pubs/07ccdb/ccdb-07.pdf> (demonstrating that population, for example, is one factor impacting a city’s energy usage and educational needs).

¹⁵⁵ See U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES 237 (2011), available at <http://www.census.gov/compendia/statab/2011/2011edition.html> (demonstrating that proximity to water, for example, is one factor impacting local flooding issues).

¹⁵⁶ See *id.* at 242 (demonstrating that relative humidity, for example, is a factor impacting the health of a city’s residents).

ple, Spokane and Bismarck),¹⁵⁷ average drinking water quality (for example, Mesa and Columbus),¹⁵⁸ unemployment rates (for example, Fresno and Flint),¹⁵⁹ homelessness and poverty rates (for example, Buffalo, and Louisville),¹⁶⁰ public expenditures (for example, Austin and Denver),¹⁶¹ education (for example, Tallahassee and Scottsdale),¹⁶² bond ratings (for example, Seattle and Charlotte),¹⁶³ and access to health care (for example, Albuquerque and Syracuse).¹⁶⁴

Basing municipal collaborations on ad hoc commonalities and CPR challenges provides flexibility to more accurately address issues with the proper parties.¹⁶⁵ The current structure found in higher levels of government, such as state government, predetermines which local governments will address a challenge before the challenge arises.¹⁶⁶ This inevitably results in a mismatch between the affected parties and the authority to craft the resolutions. Unaffected parties, for example, may influence a solution through debate and vote, as the CPR challenge impacts only some, but all are represented and all may have an equal right to vote. The representatives were brought together based on jurisdictional boundaries and not the pertinent issue.

Ostrom's second design principle — rules concerning appropriation (for example, time and quantity) match with the local conditions — suggests a direct relationship between the rules established by the members and local conditions.¹⁶⁷ Consistent with this design principle, municipal collaborations are designed around willing, common municipalities facing similar CPR challenges. Assuming each municipality has entered the collaborative strug-

¹⁵⁷ See *id.* at 240 (demonstrating that average precipitation, for example, is another factor impacting a city's potential flood issues). Other pairings include Burlington, VT and Peoria, IL; Pittsburgh, PA and Kansas City, MS; Providence, RI and Houston, TX; Juneau, AK and Miami, FL. *Id.*

¹⁵⁸ See *Big City Water Rankings*, ENVTL. WORKING GROUP, <http://www.ewg.org/tap-water/rating-big-city-water> (last visited June 11, 2012) (on file with the Harvard Law School Library).

¹⁵⁹ See U.S. CENSUS BUREAU, STATE AND METROPOLITAN AREA DATA BOOK 259 (2010), available at <http://www.census.gov/prod/2010pubs/10smadb/2010smadb.pdf> (demonstrating that unemployment rates, for example, help define a city's economic development challenges).

¹⁶⁰ See *id.* at 143–48 (demonstrating that homelessness and poverty rates, for example, also help define a city's economic development challenges).

¹⁶¹ See U.S. CENSUS BUREAU, *supra* note 155, at 297 (demonstrating that public expenditures, for example, are factors impacting a city's procurement).

¹⁶² See, e.g., U.S. CENSUS BUREAU, *supra* note 154, at 852–57 (stating that about one in five adults over twenty-five have a graduate or professional degree).

¹⁶³ See U.S. CENSUS BUREAU, *supra* note 155, at 283.

¹⁶⁴ See *id.* at 149–54.

¹⁶⁵ See also Lubell et al., *supra* note 76, at 149 (finding that collaborations on watershed issues are most likely to occur when benefits are high and transaction costs in developing, negotiating, monitoring, and enforcing those partnerships are low).

¹⁶⁶ Nor does regional location guarantee similarities sufficient to collaborate. See, e.g., *Midwest Climate Accord Languishes, Leaving States to Take Actions Alone*, World Climate Change Rep. (BNA) (Sept. 17, 2010).

¹⁶⁷ OSTROM, *supra* note 8, at 92.

gling with the same common challenge, the solutions should logically derive from the local conditions.¹⁶⁸

The idea that similar municipalities facing common CPR challenges would devise similar solutions can be seen in practice today in a much less efficient manner. Local governments working independently of each other often adopt similar proactive and reactive responses to CPR challenges. Local governments spend significant amounts of time and money reinventing existing solutions to CPR challenges.¹⁶⁹ Municipal collaborations may avoid this inefficiency by joining forces and leveraging shared experiences.

For the third design principle, Ostrom found participating actors are able to modify the rules defined in the second design principle as they work towards a solution.¹⁷⁰ This design principle incorporates participation and flexibility so that the rules “fit . . . the specific characteristics of their setting.”¹⁷¹ The actual participatory structure could take a variety of forms that would ensure proper debate, distribution of information, and authority to alter the rules if the identified solutions required modifications.¹⁷²

New Governance literature provides a mechanism to help define the third design principle, including the physical system on which the appropriators rely, the actors’ use patterns, norms of behavior, incentives that will change use, and how time will change use of or impact the CPR. New Governance scholars discuss the potential benefits of forming collaborations to produce joint solutions through participation.¹⁷³ They advocate for a more active role by those who are being regulated¹⁷⁴ and “utilize local and informal networks of private and public stakeholders who are involved in complex, but collaborative, institutional relationships.”¹⁷⁵ Each participant in the

¹⁶⁸ Solutions could range from informal information sharing to best practices to strict formulation of rules to manage the resource.

¹⁶⁹ See, e.g., J. David McSwane, *Specialist to Head Sarasota Police Oversight Boards*, SARASOTA HERALD-TRIBUNE, Feb. 11, 2011, at BN1, available at <http://www.heraldtribune.com/article/20110211/ARTICLE/102111038/2055/NEWS?Title=Specialist-to-head-Sarasota-police-oversight-boards> (describing Sarasota’s hiring of “an anti-corruption specialist to oversee two new police oversight boards”); Virginia Terhune, *Bowie to Hire Consultant to Review Performance of Parks Department: City Officials Say They are Trying to Improve Efficiency*, GAZZETTE.NET, Feb. 10, 2011, http://www.gazette.net/stories/02102011/bowinew124029_32538.php (detailing a Maryland city’s \$25,000 budget for a specialist to review its Parks and Grounds department’s efficiency).

¹⁷⁰ OSTROM, *supra* note 8, at 93.

¹⁷¹ *Id.* at 93.

¹⁷² See, e.g., Gerald E. Frug, *Beyond Regional Government*, 115 HARV. L. REV. 1763, 1790–92 (2002) (proposing a regional government and citizenship that consists of democratically elected municipal representatives); see generally Michael C. Dorf and Charles F. Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267 (1998) (discussing democratic experimentalism in the context of schools).

¹⁷³ See generally, e.g., Lisa Blomgren Bingham, Tina Nabatchi, & Rosemary O’Leary, *The New Governance: Practices and Processes for Stakeholder and Citizen Participation in the Work of Government*, 65 PUB. ADMIN. REV. 547 (2005).

¹⁷⁴ See *id.* at 9.

¹⁷⁵ See Lisa T. Alexander, *Stakeholder Participation in New Governance: Lessons from Chicago’s Public Housing Reform Experiment*, 16 GEO. J. ON POVERTY L. & POL’Y 117, 127 (2009).

collaborative “brings a different type of local information and feedback to the process of creating interim regulatory goals and to the assessment of the feasibility of the goals.”¹⁷⁶ Increasing local participation, they argue, will add flexibility in that those closer to the challenges will be better equipped to participate in and respond to changes.¹⁷⁷

The fourth and fifth design principles Ostrom found prevalent in successful collaborations are monitoring CPR conditions and using graduated sanctions.¹⁷⁸ These two are undertaken by the participating members, who actively audit CPR conditions and are accountable to the other participating members.¹⁷⁹ In the context of local government collaborations, the participating cities would develop a system in which they can actively monitor appropriation of the CPR. Participating cities would also have the agreed-upon authority to assess sanctions or penalties against other cities. Those sanctions would increase in a manner consistent with the objectives of the collaboration and depend upon the seriousness and context of the offense.¹⁸⁰ Additional details concerning monitoring and enforcement include pairing those who have the most to lose by overusing the CPR in monitoring the CPR and providing personal rewards for successful monitoring of the CPR.¹⁸¹

New Governance literature is also instructive in applying these two design principles. Collaboration, New Governance advocates contend, “promote[s] mutual accountability, defined as ‘accountability among autonomous actors committed to shared values and visions and to relationships of mutual trust and influence that enable renegotiating expectations and capacities to respond to uncertainty and change.’”¹⁸² When members have the authority to make rules, to monitor CPR usage, and to gradually sanction for misuse, they are empowered to truly manage the CPR and not just impact (or abuse) it.

The sixth design principle Ostrom found in successful collaborations is the existence of efficient conflict-resolution mechanisms.¹⁸³ Consistent with this design principle, local governments participating in the collaboration should have “rapid access to low-cost local arenas to resolve conflicts among appropriators.”¹⁸⁴ The mechanisms may be informal or formal, but should be established to ensure that rules are fair and followed.¹⁸⁵ Although further scholarship is needed to develop concrete proposals, these mecha-

¹⁷⁶ *Id.* at 128.

¹⁷⁷ *See id.* at 125.

¹⁷⁸ OSTROM, *supra* note 8, at 94.

¹⁷⁹ *Id.* at 99 (stating that monitoring and graduated sanctions “take their place as part of the configuration of design principles that can work together to enable appropriators to constitute and reconstitute robust CPR institutions”).

¹⁸⁰ *Id.* at 94.

¹⁸¹ *See id.* at 95.

¹⁸² Alexander, *supra* note 175, at 128.

¹⁸³ *Id.* at 100–01.

¹⁸⁴ *Id.* at 100.

¹⁸⁵ *Id.* at 101 (citing Spanish *huerta* irrigation institutions as an example of a more formal conflict resolution setting).

nisms might take the form of a council comprised of local mayors that adopts alternative dispute resolution principles.

The seventh design principle — rights to organize or collaborate are not challenged by higher levels of government — presents a unique issue for municipal collaborations. Ostrom described this principle as the members' right to "devise their own institutions . . . [un]challenged by external governmental authorities."¹⁸⁶ Local governments face several challenges on this front, including state preemptions in relation to the specific substantive local action and in relation to local authority to collaborate. Pursuant to state preemption laws, for municipal collaborations to succeed under this design principle, they must identify purely local actions that impact CPR challenges.¹⁸⁷ For example, the regulation of zoning, municipal procurement, building codes, and property taxes is historically done at the local level, and is often insulated from state preemption challenges.¹⁸⁸ Those regulations have a significant impact on CPRs. So long as the actions local governments adopt in conjunction with municipal collaborations are within a local government's authority they should not violate the prohibition on extraterritorial impacts, and thus, the municipal collaborations should have some, albeit fragile, independence from higher levels of government interference. This, of course, is subject to any state law regulating local governments' ability to enter into collaborations.¹⁸⁹

The final design principle Ostrom observed in successful collaborations was that appropriating, monitoring, sanctioning, and resolving conflicts are organized within multiple levels of nested enterprises. Ostrom stated:

[A]n important design principle is getting the boundaries of any one system roughly to fit the ecological boundaries of the problem it is designed to address. Since most ecological problems are

¹⁸⁶ *Id.* at 101. Particularly relevant to local governments is a survey indicating that one of "[l]ocal governments' major complaint[s] about their participation [in international environmental issues] . . . was their lack of adequate authority under domestic law to implement environmental policy." Frug & Barron, *supra* note 5, at 27 (citing COMMISSION ON SUSTAINABLE DEVELOPMENT, SECOND LOCAL AGENDA SURVEY (2002)).

¹⁸⁷ Ostrom provides several examples where higher levels of government interfere with collaborations, frustrating their attempts to succeed. *See, e.g.*, OSTROM, *supra* note 8, at 149–73. An added problem in this context is raised by the U.S. Supreme Court's holding in *Crosby v. National Foreign Trade Council*, 530 U.S. 363 (2000). In *Crosby*, the Court struck down a Massachusetts law that would have prohibited state entities from purchasing goods from Burma, holding that it was preempted by federal law. *Id.* at 388. This rationale and holding would logically extend to local governments which go beyond the purview of typical local actions.

¹⁸⁸ *See, e.g.*, *Goreham v. Des Moines Metro. Area Solid Waste Agency*, 179 N.W.2d 449, 455 (Iowa 1970) (stating that under Iowa law "governmental units may cooperate together to do anything jointly that they could do individually. . . . [Cooperation among local government units] would not be unconstitutional so long as the new body politic is doing only what its cooperating members already have the power to do.").

¹⁸⁹ *See, e.g.*, IOWA CODE ANN. § 28E (2011) (setting forth Iowa state regulations on local government "co-operation"); *Goreham*, 179 N.W.2d at 456–60 (upholding I.C.A. § 28E and holding that Iowa has power to authorize local governments to choose to collaborate upon their own initiative).

nested from very small local ecologies to those of global proportions, following this principle requires a substantial investment in governance systems at multiple levels — each with some autonomy but each exposed to information, sanctioning, and actions from below and above.¹⁹⁰

A system that could foster municipal collaborations would include federal agencies or national non-profits, such as the Environmental Protection Agency or the Sierra Club, respectively, acting as intervenors or collaborators.¹⁹¹ These entities could provide organizational assistance, such as providing information to help local governments identify other local governments with shared norms and similar challenges. Intervenors could serve the essential service of matching similarly situated and like-minded local governments with each other to begin a dialogue on collaboration.

Ostrom's research offers a method for motivating local government action that operates within the confines of state preemption laws and avoids a tragedy of the commons. In putting Ostrom's design principles forward as a viable guide for local government action, I do not mean to suggest that municipal collaborations should be the sole local government strategy when confronting CPRs. As discussed in the next and final section, municipal collaborations are an underexplored tool that complements typical local government responses.¹⁹²

¹⁹⁰ ELINOR OSTROM, UNDERSTANDING INSTITUTIONAL DIVERSITY 258 (2005). Relatedly, in the homeland security context, two scholars have noted:

Being nested within state government structures as well as national government means localities vary significantly in their autonomy and capacity. Not taking the nested institutional structure into account implies that all coalition-formation processes are the same. For instance, although local governments are rather exclusively nested in the larger decentralized federal system, some local governments are more loosely coupled or nested than others and thus have more autonomy in making policy choices.

Erica Chenoweth & Susan E. Clarke, *All Terrorism Is Local: Resources, Nested Institutions, and Governance for Urban Homeland Security in the American Federal System*, 63 POL. RES. Q. 495, 497 (2010).

¹⁹¹ See, e.g., Press Release, Richard Yost, U.S. Env'tl. Prot. Agency, EPA Selects 32 Locations for Assistance with Sustainable Planning (Apr. 4, 2011), available at <http://yosemite.epa.gov/opa/admpress.nsf/0/C796688E8426F95F852578680052C4B5>. Another example is the United Cities and Local Governments ("UCLG"), a "unified world organisation of local governments." *The Constitution of the World Organisation of United Cities and Local Governments*, UNITED CITIES AND LOCAL GOV'TS (Apr. 26, 2010), http://www.cities-localgovernments.org/upload/docs/docs_en_telechargements/Constitution.pdf. One concern with UCLG and other existing institutions is that they determine membership before the issue arises. See *infra* note 166 and accompanying text (discussing the predetermination of members prior to issues).

¹⁹² Cf. Cole & Ostrom, *supra* note 14, at 1 ("Without denying the significance and continuing relevance of theories . . . the time has come to move beyond simple models of property panaceas to develop a more descriptively accurate and analytically useful theory of property systems and rights in natural resources.").

C. *Municipal Collaborations as a Complement to Regulation, Privatization, and Altruism*

This section examines whether municipal collaborations can complement the existing local government strategies to manage CPRs and respond to criticisms of those strategies.¹⁹³ This examination relies heavily on the decentralization debate.¹⁹⁴ Importantly, while the justifications for decentralization are instructive, the ultimate result of the debate concerning decentralization, namely reallocation of authority, is *not* relevant to municipal collaborations.¹⁹⁵ Municipal collaborations do not require a *reallocation* of authority from higher levels of government to the local level, rather they establish a theoretical framework for *reconceptualizing the current status of* local government authority in light of state preemption laws.

While the decentralization debate is far from settled, four common themes often arise.¹⁹⁶ First, decentralization is believed to provide a better

¹⁹³ This is not to suggest municipal collaboration should be a secondary consideration when other options fail. Alternative management structures can help identify when other forms of management are not effectively managing CPRs. At a minimum, in these circumstances, local governments should keep these collaborations in mind as complements rather than just secondary alternatives.

¹⁹⁴ The justifications for decentralization in the United States have changed over time and vary among disciplines. See GERALD E. FRUG, RICHARD T. FORD, & DAVID J. BARRON, *LOCAL GOVERNMENT LAW* 2 (5th ed. 2010); Jacob Nussim, *A Policymaker's Guide to Welfareism*, 155 U. PA. L. REV. PENUMBRA 227, 234 (2007); see also JEAN-PAUL FAGUET, FOOD AND AGRIC. ORG., UNITED NATIONS, *DECENTRALIZATION AND LOCAL GOVERNMENT PERFORMANCE* 5 (1997), available at <http://www1.worldbank.org/publicsector/decentralization/cd/JPFaguet.pdf> (noting "three types of decentralization: political decentralization, administrative decentralization, and economic decentralization"); Roderick M. Hills, Jr., *Is Federalism Good for Localism? The Localist Case for Federal Regimes*, 21 J.L. & POL. 187, 189–95 (2005); Todd Ryan Hambidge, Note, *Containing Online Copyright Infringement: Use of the Digital Millennium Copyright Act's Foreign Site Provision to Block U.S. Access to Infringing Foreign Websites*, 60 VAND. L. REV. 905, 905–07 (2007) (discussing the popularity of decentralized file-sharing services to illegally distribute copyrighted material); William E. Kovacic, Chairman, Fed. Trade Comm'n, *Competition Policy in the European Union and the United States: Convergence or Divergence?*, Remarks at the Bates White Fifth Annual Antitrust Conference (June 2, 2008), available at <http://www.ftc.gov/speeches/kevacic/080602bateswhite.pdf> (discussing decentralization in international trade competition policy). For a concise chart setting forth the typical pros and cons of the decentralization debate see Frug & Barron, *supra* note 5, at 54.

¹⁹⁵ See also FAGUET, *supra* note 194, at 4 ("Decentralization will be understood as the devolution by central (i.e. national) government of specific functions, with all of the administrative, political and economic attributes that these entail, to local (i.e. municipal) governments which are independent of the center and sovereign within a legally delimited geographic and functional domain.").

¹⁹⁶ This is not to suggest that these are the only four justifications for decentralization or that they do not have their critics. See, e.g., THE FEDERALIST No. 10 (James Madison); ALAN S. GUTTERMAN, *ORGANIZATIONAL MANAGEMENT AND ADMINISTRATION* § 3:20 (2010). Jerry Frug summarized part of the modern opposition to decentralization as:

The world is too complex, local resources too inadequate, local power too threatening to minorities, the country's problems too interconnected to rely on local decision-making. If most government decisionmaking were decentralized today, cities would selfishly seek to evade responsibility for problems They would attempt to enhance the prosperity of their own residents even if their actions threatened the national economy. They would invade the rights of their most powerless citizens.

mechanism for “democratic government and the effective representation of citizens’ interests.”¹⁹⁷ A second theme is a philosophical argument premised on public virtue, in which smaller units of government are thought to motivate people to participate in governance.¹⁹⁸ A third theme in the decentralization debate emphasizes improved management, accountability, and creativity, as local units are more likely to have a direct experience with the challenges they face.¹⁹⁹ Finally, decentralization is believed to enhance social capital, improving the health and prosperity of citizens.²⁰⁰

And they would be unable even to address problems that cut across local boundaries — such as the environment and transportation — let alone pay for the necessary programs.

Jerry Frug, *Decentering Decentralization*, 60 U. CHI. L. REV. 253, 253–54 (1993).

¹⁹⁷ FAGUET, *supra* note 194, at 5; *see also* ANNELIEN DE DIJN, FRENCH POLITICAL THOUGHT FROM MONTESQUIEU TO TOCQUEVILLE 116–17 (2008) (citing LOUIS DE GUIZARD, *DE L’ADMINISTRATION COMMUNALE ET DÉPARTEMENTALE* (1829)); Keith Aoki, *Cities in (White) Flight: Space, Difference and Complexity in Latcrit Theory*, 52 CLEV. ST. L. REV. 211, 214 (2005); Hills, *supra* note 194, at 190. For a powerful criticism of analogizing the autonomous individual to local governments, see Frug, *supra* note 196, at 257 (“Proponents of decentralization, however, need not attribute to cities the subjectivity of the centered self. In my view, the values of decentralization . . . are better defended by basing decentralization on alternative theories of the subject.”).

¹⁹⁸ Montesquieu partially described the import of public virtue as:

When virtue is banished, ambition invades the minds of those who are disposed to receive it, and avarice possesses the whole community. The objects of their desires are changed; what they were fond of before has become indifferent; they were free while under the restraint of laws, but they would fain now to be free to act against law; . . . that which was a maxim of equity he calls rigour; that which was a rule of action he styles constraint; . . . The members of the commonwealth riot on the public spoils, and its strength is only the power of a few, and the licence of many.

M. DE SECONDAT, *BARON DE MONTESQUIEU, THE SPIRIT OF LAWS VOL. I*, at 22 (J.V. Pritchard ed., Thomas Nugent trans., Frob. B. Rotham & Co. 1991) (1748); *see* David W. Carrithers, *Montesquieu and Tocqueville as Philosophical Historians*, in *MONTESQUIEU AND HIS LEGACY* 149, 149–51 (Rebecca E. Kingston ed., 2009) (comparing Montesquieu and Tocqueville’s understandings of “democracy” and “equality”); *see also* ALEXIS DE TOCQUEVILLE, *DEMOCRACY IN AMERICA* 62–63, 92–95 (J.P. Mayer ed., George Lawrence trans., HarperPerennial 1960) (1835). *But see* THE FEDERALIST NO. 10 (James Madison) (arguing that excessive decentralization furthers injustice).

¹⁹⁹ *See* Edward L. Rubin & Malcolm Feeley, *Federalism: Some Notes on a National Neurosis*, 41 UCLA L. REV. 903, 910 (1994) (“[T]he main reason to decentralize is to achieve effective management.”); *see also* FAGUET, *supra* note 194, at 6–10 (discussing the “political economy of decentralization”); TOCQUEVILLE, *supra* note 198, at 90–91; Alessandra Arcuri & Giuseppe Dari-Mattiacci, *Centralization Versus Decentralization as a Risk-Return Trade-Off*, 53 J.L. & ECON. 359 (2010); Francis N. Botchway, *Good Governance: The Old, the New, the Principle, and the Elements*, 13 FLA. J. INT’L L. 159, 208 (2001); Frank B. Cross, *The Folly of Federalism*, 24 CARDOZO L. REV. 1, 30–32 (2002). *But see* GUTTERMAN, *supra* note 196, at § 3:20.

²⁰⁰ The argument is analogous to that set forth in by Robert Putnam in *Bowling Alone*. ROBERT PUTNAM, *BOWLING ALONE: THE COLLAPSE AND REVIVAL OF AMERICAN COMMUNITY* (2000). Putnam defines “social capital” as “refer[ring] to connections among individuals — social networks and the norms of reciprocity and trustworthiness that arise from them.” *Id.* at 19. Putnam finds that association with others positively affects the health of individuals engaged in local affairs. *Id.* at 18–20, 26–28; *see also* L. J. Hanifan, *The Rural School Community Center*, ANNALS AM. ACAD. POL. & SOC. SCI., Sept. 1916, at 130, 130–31 (discussing “community social capital” and “wellbeing”).

These four decentralization themes help analyze the use of municipal collaborations in lieu of or in conjunction with higher-level regulation, privatization, and altruism. In terms of the first theme — representation — municipal collaborations allow individuals most affected by a particular CPR challenge to address the challenge. In this regard, local government representation in addressing CPR challenges that impact them is consistent with Tiebout's conception of the city.²⁰¹ If, as Tiebout argues, the city provides a marketplace for competitive public goods, regulation, privatization, or altruism will not achieve Tiebout's vision of the city, as a city's ability to provide a desired "good" is beyond its control when it involves a multi-jurisdictional issue. Regulation, privatization, and altruism do not provide cities with the ability or authority to offer individuals a choice of varying government services at a variety of costs when they are faced with multi-jurisdictional issues and state preemption laws. A single city's ability to provide a service connected with a multi-jurisdictional challenge is limited as the city cannot exercise full authority over the CPR. For example, a U.S. Conference of Mayors 2007 survey indicated that sixty-four percent of the responding local governments used some renewable energy and another twenty-percent planned to start using renewables in the next year. To the extent that a local preference, such as the use of renewable energies, impacts a CPR challenge, such as reduction of greenhouse gas emissions, collaborations encourage a local government to accomplish these preferences as they are far-reaching and cannot be efficiently achieved in isolation.

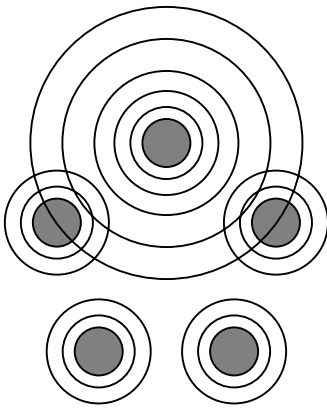
Pursuant to the public virtue argument, if the collaboration provides an opportunity to "participate in the basic societal decisions that affect one's life," then public participation and involvement should increase. Municipal collaborations provide local governments with the opportunity to participate in the management of CPRs in a manner in which they currently do not. Addressing many CPR challenges, such as climate change, will require involved participation from citizens and local governments. Municipal collaborations could motivate local governments and their inhabitants to address the perils they face without making additional sacrifices.

Municipal collaborations may also improve decision-making efficiency.²⁰² By collaborating with like-minded local governments, the internal cost absorbed by a local government addressing a CPR challenge could be reduced. Figure 1 above sets forth an example of five municipalities not controlling their externalities and incurring an impact of 30 utils. Figure 3, below, illustrates how participating members of a municipal collaboration could maintain the same level of utils (30), while drastically improving the CPR conditions by lowering the total utils from 150 to 50. In this scenario four of the five local governments form a municipal collaboration, internalizing a cost of 20 utils to reduce their externalities from 30 to 5 utils.

²⁰¹ See *supra* Part I.C.

²⁰² See also Frug & Barron, *supra* note 5, at 30–33.

FIGURE 3

**City A:**

Individual internalized cost: 0 utils

Externalized cost: 30 utils

Other Four Localities:

Individual internalize cost: 20 utils

Externalized cost: 5 utils

Totals:

City A internalizes: 10 utils (1/5 of 50, plus 0 in internalized costs)

Other Four Localities: 30 utils (1/5 of 50, plus 20 in internalized costs)

Figure 3 illustrates a tipping point. If enough municipalities join a collaboration, they can overcome the internalization of repetitive individual costs.²⁰³ Of course, the non-participating City A receives an equal share of the benefit from the other local governments at no cost. The question here is whether the collaboration should persist in the face of such circumstances (which, as set forth in Part II.C, individual municipalities are often doing altruistically), or whether the cities should throw up their hands and assume a passive role on behalf of their citizens. Counteracting the motivation to “free-ride” is the idea that if enough local governments join the collective they will all be better off. This provides local governments with motivation to comply with the collaboration. It also helps the collaborative achieve many of the positive impacts stemming from higher-level regulation (namely, unifying policies), a privatization scheme (namely, encouragement), and altruistic actions (namely, control over one’s destiny).

Municipal collaborations also provide a forum for developing and sharing information — often absent in schemes based on higher levels of government, privatization, and altruism. Management of CPRs requires establishing baselines and performing continuing assessments in order to measure performance. As suggested by decentralization arguments, local

²⁰³ Although beyond the purview of this Article, collaborations have been criticized for exacting high transaction costs, even though some scholars dispute this. *See, e.g.*, Holley, *supra* note 2, at 10,660–61. While some transaction costs may increase, as the number of local governments and political grandstanding increases, it would not be so significant, as the local governments are *willing* participants, addressing similar CPR challenges. As discussed above, willing local governments are taking actions that often duplicate other local governments’ actions, while incurring 100% of the costs. If those municipalities combined efforts (for example, researching and drafting) and leveraged resources, they could effectuate a change in a more efficient manner by reducing redundancies. *See* Lubell et al., *supra* note 76, at 148–49 (suggesting that collaboration around watershed issues is more likely to occur when “potential benefits outweigh the transaction costs of developing and maintaining institutions”).

governments are well-suited to performing these activities and could do so through the collaborative process. Municipal collaborations would simultaneously enhance social capital through cross-pollination, discourse, and debate. By sharing experiences, local governments would be able to adopt innovative solutions to CPR management challenges more quickly.²⁰⁴

Importantly, regulation and privatization assume that higher levels of government will address CPR management.²⁰⁵ As the recent discourse on environmental challenges like climate change indicates, they are not always prepared to do so.²⁰⁶ In the past two decades, dozens of summits, protocols, and conventions have tried to reach consensus on climate change, but been unsuccessful.²⁰⁷

The failure to reach consensus is not necessarily indicative of a failure of motivation to reach consensus, but rather it is a testimony to the hurdles facing higher levels of government when seeking to regulate CPRs. Several of those hurdles relevant to municipal collaborations include (a) diversity

²⁰⁴ See Marcus B. Lane, *Decentralization or Privatization of Environmental Governance? Forest Conflict and Bioregional Assessment in Australia*, 19 J. RURAL STUD. 283, 284–85 (2003) (“Put simply, consultation and collaboration with social movements and voluntary associations provides an effective means of harnessing local knowledge and agency in both plan making and implementation.” (citation omitted)). The benefits of collaborative efforts have been discussed in several fields, including legal education. See MADELEINE SCHACHTER, *THE LAW PROFESSOR’S HANDBOOK: A PRACTICAL GUIDE TO TEACHING LAW* 163 (2004) (“Collaboration also potentially builds confidence; a forged consensus may inspire a member of the team to articulate the conclusion, secure in the belief that others have vetted its soundness.”); MICHAEL HUNTER SCHWARTZ, SOPHIE SPARROW, & GERALD HESS, *TEACHING LAW BY DESIGN* 19–20, 30–31, 142 (2009) (“A large body of research in higher education and legal education documents the effectiveness of cooperative learning.”); ROY STUCKEY ET AL., *BEST PRACTICES FOR LEGAL EDUCATION* 119–20 (2007) (“Over the past 100 years, more than 600 studies have demonstrated that cooperative learning produces higher achievement, more positive relationships among students, and psychologically healthier students than competitive or individualistic learning.”).

²⁰⁵ OSTROM, *supra* note 8, at 14 (“Both centralization advocates and privatization advocates accept as a central tenet that institutional change must come from the outside and be imposed on the individuals affected.”).

²⁰⁶ See, e.g., Nigel Lawson, *Time for a Climate Change Plan B*, WALL ST. J., Dec. 22, 2009, at A23 (“The world’s political leaders, not least President Barack Obama and Prime Minister Gordon Brown, are in a state of severe, almost clinical, denial.”); Neil MacFarquhar & John M. Broder, *U.N. Climate Chief Quits, Deepening Sense of Disarray*, N.Y. TIMES, Feb. 19, 2010, at A12 (describing the international meetings in Copenhagen in December 2009 as “unsuccessful”, a “failure[]”, “chaos”, a “lack of success”, and a “meltdown”); see also Hannah Bentley & Steve Zikman, *Local Governments Key to Cancun Climate Talks*, NAT. RESOURCES & ENV’T, Fall 2010, at 57 (noting state and local advances at Copenhagen, despite international failures); Ryan Lizza, *As the World Burns*, NEW YORKER, Oct. 11, 2010, available at http://www.newyorker.com/reporting/2010/10/11/101011fa_fact_lizza (setting forth the “death” of the Kerry-Graham-Lieberman climate bill); Eric J. Lyman, *U.N. Talks in Tianjin Make Gains on Forestry, Post-Kyoto Plan, But U.S.-China Rift Remains*, Env’t Rep. (BNA) No. 41, at 2305 (Oct. 15, 2010).

²⁰⁷ See, e.g., SIMON DRESNER, *THE PRINCIPLES OF SUSTAINABILITY* 41–66 (2d ed. 2008); *Linkages – Climate & Atmosphere*, INT’L INST. FOR SUSTAINABLE DEV., http://www.iisd.ca/process/climate_atm.htm#climate (last visited June 11, 2012) (on file with the Harvard Law School Library) (providing daily coverage of climate and atmosphere meetings since 1997).

and the number of parties negotiating,²⁰⁸ (b) diversity of threat from CPR depletion,²⁰⁹ and (c) desire to maintain sovereignty and not relinquish authority.²¹⁰

While any form of collaboration will confront negotiation issues, a local government collaboration would not experience the difficulties that higher levels of government face when confronting CPR challenges. Diversity among local governments is less of a concern in an issue- and non-place based voluntary collaborative. When negotiating at the international level and national level, the parties participating are, for the most part, predetermined. They include the United Nations countries, the fifty States, or the numerous pre-determined representatives in a state government.²¹¹ With a non-place and issue-based collaborative, only those local governments that want to contribute participate. Further, these local governments come together based on commonalities, which are not compelled by geography or predetermined membership in an organization or nation. While there will continue to be diversity among local governments, these governments are participating voluntarily and presumably have identified overlapping CPR challenges and ideals before they reach the negotiating table. Similarly, local governments' choice of entrance for a municipal collaboration reduces the likelihood that their experience with the CPR will be as diverse as those actors in the international or nation context.

Finally, local governments would not face the same concern that they will lose sovereignty. Local governments' sovereign right to govern these issues is already limited by state preemption laws. By entering into a non-place and issue-based collaboration, local governments assume authority that was previously inaccessible. They take a proactive approach to manage CPRs and help direct their own destiny.

²⁰⁸ See LAWRENCE E. SUSSKIND, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS 18 (1994); Lisa Schenck, *Climate Change "Crisis" — Struggling for Worldwide Collective Action*, 19 COLO. J. INT'L ENVTL. L. & POL'Y 319, 354–59 (2008) (noting the complicating group elements of the "sheer number of participants," Prisoner's Dilemma situations, and "[p]re-existing issues and party conflicts beyond the subject matter of the negotiations").

²⁰⁹ See David Michel, *Foxes, Hedgehogs, and Greenhouse Governance: Knowledge, Uncertainty, and International Policy-Making in a Warming World*, 86 APPLIED ENERGY 258, 259 (2009) (stating the participants are bound "in an unequal geometry of asymmetric relations to one another and to the . . . threat."); Schenck, *supra* note 208, at 346–47 (noting intergenerational threat).

²¹⁰ See SUSSKIND, *supra* note 208, at 21–23 (noting that that some CPR environmental agreements break apart at higher levels of government because the participants "fight desperately to maintain their individual rights and privileges"). This is not to exclude other hurdles, such as identifying long term solutions to CPR challenges, see Michel, *supra* note 209, at 259, complexity and uncertainty of measuring or assessing the CPR, see DRESNER, *supra* note 207, at 42, 56; Schenck, *supra* note 208, at 337–40, and cost, see DRESNER, *supra* note 207, at 45; Schenck, *supra* note 208, at 343–44.

²¹¹ This also differentiates the collaborations from several existing local government organizations, such as the UCLG or ICLEI – Local Governments for Sustainability, which both establish membership prior to issues coming to light. In addition, as noted by others, many of these organizations do not account for differences among local governments or provide proper representation. See Frug & Barron, *supra* note 5, at 24–26.

CONCLUSION

The juxtaposition between free-flowing, multi-jurisdictional CPRs and limited local government authority to address those challenges creates an opportunity to explore non-place based municipal collaborations. The collaborations set forth above are designed to challenge the idea that local governments should passively accept the tragedy of the commons that they are locked into under state preemption laws. Further, the collaborations offer local governments an additional strategy to improve local conditions and efficiently address CPR challenges. If local governments identify common characteristics, challenges, and solutions, they may benefit from internalizing a more equitable portion of the sustainable benefits than if they acted alone.

There is no doubt that working out collaborative solutions is difficult, but it is a necessary option for solving the difficult challenges confronting municipalities. As Ostrom noted, collaborations may not necessarily be the optimal solution, but they could be a successful one.²¹²

²¹² See Ostrom, *supra* note 8, at 59–60.

