

CITIES AS INTERNATIONAL ENVIRONMENTAL ACTORS: THE CASE OF MARINE PLASTICS

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As the impacts of marine plastic pollution become ever more apparent, a number of states have begun calling for the development of a new international agreement to address the problem. This Essay considers which jurisdictional entities should be engaged in the drafting of such an agreement if one should materialize. While nation states have traditionally been the main entities recognized as having the legal personality to make treaties, cities have the potential to substantially advance efforts to mitigate certain international environmental problems, including the plague of global marine plastic pollution. We argue, on functional grounds, that this potential should be acknowledged, indeed encouraged, by engaging cities in the development of international action to address these problems. In particular, we suggest a “city supplement” to international agreements dealing with environmental problems where there are functional reasons for involving cities.

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INTRODUCTION

At the annual meeting of the United Nations Environment Assembly (“UNEA”) in Nairobi, Kenya in spring of 2019, plastics were high on the agenda. In fact, with the impacts of marine plastic pollution growing more apparent by the day, a number of states¹ expressed hope that the UNEA meeting would lay the groundwork for a new international treaty to tackle the problem.² The results of the meeting ultimately fell short of these expectations, but the idea of an international agreement on plastics could be revived at a later date.³ The question this Essay asks is: Who should be engaged in the drafting of such an agreement if it is revived?

Traditionally, nation states have been the main entities recognized as having the legal personality to make treaties.⁴ Thus international environmental treaties, such as the Paris Agreement on climate change, are between nation states. However, effectively addressing international environmental problems often requires coordinated action by more than just national governments because no single authority has jurisdiction to control all of the elements that contribute to the problem. Climate change is a prominent contemporary example because reducing greenhouse gas emissions will require coordinated actions by nation states as well as individuals, corporations, and governments within those states if the problem is to be addressed expeditiously. Plastics present another example. Many of the plastics polluting the oceans result from land-based activities and improper disposal.⁵ And because cities have historically been heavily involved in managing waste, cities could materially help (or hinder) international efforts to reduce plastic pollution.

Our chief goal in this Essay is to suggest that the international community actively encourage cities’ participation in addressing international environmental problems where cities are well-positioned to do so.⁶ In particular, we suggest a “city

1. For the purposes of this paper, “states” and “nation states” are used interchangeably.

2. Laura Parker, *The World Agrees There’s a Plastic Waste Crisis—Can it Agree on the Solution?*, NAT’L GEO. (Mar. 25, 2019), <https://www.nationalgeographic.com/environment/2019/03/un-environment-plastic-pollution-negotiations/>.

3. *Id.*

4. JAMES R. CRAWFORD, *BROWNLIE’S PRINCIPLES OF PUBLIC INTERNATIONAL LAW* 115 (8th ed. 2012).

5. Jenna R. Jambeck et al., *Plastic Waste Inputs from Land into the Ocean*, 347 SCI. 768, 768 (2015).

6. We are not the first to propose including subnational actors in international efforts to address transboundary environmental problems; there has been considerable interest in involving subnational actors in efforts to limit climate change in particular. For example,

supplement” to international agreements dealing with environmental problems such as marine plastic pollution where there are functional reasons for involving cities; such a supplement could be negotiated by nation states, and open to cities to sign. Who should be included in international environmental governance is necessarily context-specific, because who is well-positioned to address a problem is contingent on the circumstances. But as a matter of general principle, nations should give serious consideration to the role that nonstate actors, including cities, can play in mitigating a given environmental problem before deciding the class of entities that are best engaged in devising a solution.

I. THE STATUS QUO: NATION STATES MAINLY MAKE TREATIES

As a formal matter, subnational actors, including local governments, have long been marginalized under international law. Scholars trace the primacy of states in international law to the dawn of the Westphalian system, which considered states to be the unitary sovereigns of the territories that they occupy and the “sole bearers of international rights and duties.”⁷ From the time of the signing of the Treaty of Westphalia in 1648 until the middle of the twentieth century, the notion of unitary state sovereignty dominated, and states were the only entities universally acknowledged to possess international legal personality.⁸ The primacy of states’ status under international law also resulted in part from the efforts of German and Italian jurists in the late nineteenth century who sought to bolster the supremacy of the national governments in their newly unified nations;⁹ granting special status to the central government necessarily reduced the standing of the provincial territories in the fledgling states and therefore helped aggrandize, or even legitimize, the central governments.¹⁰ Practically speaking, the fact that only states possessed full

building on the action taken by mayors and subnational leaders, Daniel Esty and Dena Adler have proposed that international climate change law expand to include nonstate actors, perhaps by crafting annexes that such actors could sign. Daniel C. Esty & Dena P. Adler, *Changing International Law for a Changing Climate*, 112 AJIL UNBOUND 279, 281–82 (2018); see also Sharmila Murthy, *States and Cities as ‘Norm Sustainers’: A Role for Subnational Actors in Paris Agreement on Climate Change*, 37 VA. ENVTL. L.J. 1, 33–34 (2019); GLOBAL CLIMATE ACTION, <https://climateaction.unfccc.int/> (last visited July 15, 2019). Our principal contributions lie in focusing on the benefits of including cities (as opposed to other subnational actors) in addressing international environmental problems, emphasizing the functional arguments for broadening participation beyond nation states to include cities, and identifying marine plastic pollution as a problem that would benefit specifically from the involvement of cities. Others, including Peter Spiro, have made similar functional arguments for expanding opportunities for subnational actors to participate in international law-making generally. See Peter Spiro, *New Players on the International Stage*, 2 HOFSTRA L. & POL’Y SYMP. 19, 19 (1997).

7. See, e.g., Yishai Blank, *Localism in the New Global Order*, 47 HARV. INT’L L. REV. 263, 265 n.4 (2006) (citing Kanishka Jarasuriya, *Globalization, Law, and the Transformation of Sovereignty: The Emergence of Global Regulatory Governance*, 6 IND. J. GLOBAL LEGAL STUD. 425, 425 (1999)).

8. See James E. Hickey, Jr., *The Source of International Legal Personality in the 21st Century*, 2 HOFSTRA L. & POL’Y SYMP. 1, 3 (1997).

9. See ROLAND PORTMANN, *LEGAL PERSONALITY IN INTERNATIONAL LAW* 42–52 (2010).

10. See *id.* at 52.

international legal personality meant that states were the only entities that were capable of creating international law through treaties.¹¹

In 1949, the International Court of Justice took a significant step towards expanding the class of entities eligible to possess legal personality when it held that the United Nations possessed legal personality to bring legal claims.¹² The Court's decision was still rooted in state consent; the Court based its finding on the fact that the UN would not be able to "carry out the intentions of its founders if it was devoid of international personality."¹³ Thus, the decision to grant the UN personality did not challenge the state-centric conception of international law.¹⁴ Moreover, the Court emphasized that the fact that the UN possessed some degree of international personality was "not the same thing as saying . . . that its legal personality and rights and duties are the same as those of a State."¹⁵ In other words, while the UN possessed enough legal personality to bring certain legal claims, its personality was not coterminous with the legal personality of states.

The development of human rights protections regulating the behavior of nation states toward their citizens broadened the concerns of international law after World War II and put further pressure on the state-centrism of international law.¹⁶ These pressures intensified in the late twentieth century following the collapse of the Soviet Union, as states became increasingly integrated into a global economy and the global regulatory regime proliferated.¹⁷ The establishment of the World Trade Organization ("WTO") in 1994, which heralded new agreements on agriculture, services, and intellectual property, marked a particularly significant development in this respect.¹⁸ Not only did these agreements regulate new segments of the member states' economies, but the WTO's Dispute Settlement Body was, for the first time, given compulsory jurisdiction over all disputes arising out of the covered agreements.¹⁹ As more activities within states' borders became subject to regulation by outside institutions such as the WTO, the idea that states were the sole unitary sovereigns of their territories became increasingly suspect.²⁰

11. *Id.* at 8.

12. REPARATION FOR INJURIES SUFFERED IN THE SERVICES OF THE UNITED NATIONS, ADVISORY OPINION, 1947 INT'L CT. JUST. REP. OF JUDGMENTS, ADVISORY OPINIONS AND ORDERS 174, 179 (1949) [hereinafter REPARATION OPINION].

13. *Id.*

14. Hickey, *supra* note 8, at 6.

15. REPARATION OPINION, *supra* note 12, at 179.

16. S. JAMES ANAYA, INDIGENOUS PEOPLES IN INTERNATIONAL LAW 52 (2d ed. 2004). However, to the extent that human rights protections emerged from treaties and other instruments agreed to by nation states, they reflected the state-centrism of international law. Philip Alston, *Does the Past Matter On the Origins of Human Rights?*, 126 HARV. L. REV. 2043, 2072 (2013) (reviewing JENNY S. MARTINEZ, *THE SLAVE TRADE AND THE ORIGINS OF INTERNATIONAL HUMAN RIGHTS LAW* (2012)).

17. On the diminution of states' unitary sovereignty, see Kanishka Jayasuriya, *Globalization Law, and the Transformation of Sovereignty: The Emergence of Global Regulatory Governance*, 6 IND. J. GLOBAL LEGAL STUD. 425, 434 (1999).

18. JOHN H. JACKSON, *SOVEREIGNTY, THE WTO, AND CHANGING FUNDAMENTALS OF INTERNATIONAL LAW* 99, 269–270 (2006).

19. *Id.* at 6.

20. *See id.* at 6, 8.

The ascendance of nongovernmental organizations (“NGOs”), which began to play increasingly important roles in diplomatic efforts and international adjudicatory processes towards the end of the twentieth century,²¹ further blurred the line between state and nonstate activities, and posed new challenges to the idea of Westphalian sovereignty.²² The NGOs that rose to prominence during this era represented a multitude of interest groups and peoples, and their impact on the development of international law was so considerable that by 2004, the authors of a treatise on international environmental law surmised that “[t]oday, purely inter-state development of norms is probably non-existent in most fields of international law.”²³

Notably, subnational governments emerged as significant actors in the post-Cold War global regulatory regime as well. Writing over a decade ago, Yishai Blank observed that local governments were in the midst of transitioning from “mere subdivisions” of states to objects of regulation and “vehicles for disseminating and implementing global political programs, financial schemes and governance strategies.”²⁴ Local governments appear to have only increased their international activities in the time since.²⁵

Cities have taken a particularly active role in the development of international environmental climate policy and have participated in the development of the relevant instruments. For instance, a number of local government organizations have been granted Observer Status to the United Nations Framework Convention on Climate Change (“UNFCCC”) so that they can attend the Conferences of the Parties.²⁶ State and local governments from across the globe have also signed a memorandum of understanding pledging to limit emissions to 80–95% below 1990 levels²⁷ and formed a variety of international coalitions such as the C40 network to share technological knowledge regarding climate change mitigation and adaptation.²⁸ The diplomatic efforts of local and state governments that

21. Steve Charnovitz, *Nongovernmental Organizations and International Law*, 100 AM. J. INT’L L. 348, 352–53 (1996).

22. JACKSON, *supra* note 18, at 11–14.

23. ALEXANDRE KISS & DINAH SHELTON, *INTERNATIONAL ENVIRONMENTAL LAW* 167 (3d ed. 2004).

24. Blank, *supra* note 7, at 263–64.

25. See Christian Lequesne & Stéphanie Paquin, *Federalism, Paradiplomacy and Foreign Policy: A Case of Mutual Neglect*, 22 INT’L NEGOT. 183, 190 (2017).

26. By our count, there are 40 entities among the list of NGOs that have been granted observer status to the UNFCCC that are classified as “local governments” or “municipal authorities.”

27. *The Under2 MOU*, UNDER2 COALITION, <https://www.under2coalition.org/under2-mou> (last visited Apr. 3, 2019).

28. *Programmes*, C40 CITIES, <https://www.c40.org/programmes> (last visited Apr. 3, 2019); Lequesne & Paquin, *supra* note 25, at 198. Some observers are skeptical of the potential of nonstate actors to address climate change and sustainable development. See, e.g., Cinnamon P. Carlarne, *Symposium on Climate Change Localism*, 112 AJIL UNBOUND 285, 288 (2018); Sander Chan et al., *Promises and Risks of Nonstate Action in Climate and Sustainability Governance*, 10 WIRES CLIMATE CHANGE 1, 6 (2019); Ileana Porras, *The City and International Law: In Pursuit of Sustainable Development*, 36 FORDHAM URB. L.J. 537, 543 (2009).

complement—or in some cases obstruct—those of central governments have been labelled “paradiplomacy.”²⁹

However, while subnational actors have become key actors in the functioning of the global legal order, state consent is still the formal basis for international legal personality.³⁰ There have been calls to extend this privilege to other entities over the years.³¹ Perhaps most prominently, various commentators have called for granting legal personality to NGOs. These arguments take different forms, but a common theme is that international NGOs, which have members from across the globe, reflect a certain “global consciousness,” and can therefore transcend the narrow self-interest to which states abide and positively influence the development of international law.³² This influence should be encouraged and “legitimized” through formal recognition, the argument goes.³³ While such arguments may hold a certain cosmopolitan appeal, states have generally been wary of granting personality to NGOs because they fear that doing so would diminish government control over the NGOs.³⁴ Some scholars also worry that NGOs lack the democratic legitimacy to justify an expanded role in global governance.³⁵ Moreover, granting NGOs international legal personality might exacerbate the disadvantages of developing countries in international settings, as NGOs may be more likely to take positions that align with those of developed countries.³⁶ As a result of these objections, nation states remain the only entities that are universally acknowledged to possess international legal personality,³⁷ and states are the principal entities making international treaties.³⁸

29. See, e.g., Lequesne & Paquin, *supra* note 25, at 188; RODRIGO TAVARES, *PARADIPLOMACY: CITIES AND STATES AS GLOBAL PLAYERS* 1, 7–9 (2016).

30. Yishai Blank, *The City and the World*, 44 COLUM. J. TRANSNAT’L L. 868, 892 (2006); Duncan B. Hollis, *Why State Consent Still Matters – Non-state Actors, Treaties, and the Changing Sources of International Law*, 23 BERKELEY J. INT’L L. 137, 140 (2005). For an analysis of the concept of international legal personality that addresses more nuances than discussed here, see PORTMANN, *supra* note 9, at 5.

31. See, e.g., Peter Spiro, *The States and International Human Rights*, 66 FORDHAM L. REV. 567, 593–94 (1997) (proposing legal personality for subnational units).

32. Hans Holmén & Magnus Jirström, *Look Who’s Talking! Second Thoughts About NGOs as Representing Civil Society*, 44 J. ASIAN & AFR. STUD. 429, 430 (2009); see also James A. Paul, *NGOS and Global Policy-Making*, GLOBAL POL’Y FORUM (June 2000), <https://www.globalpolicy.org/empire/31611-ngos-and-global-policy-making.html> (quoting Kofi Anan as stating that NGOs are the “conscience of humanity”).

33. Rephael Ben-Ari, *The International Legal Status of International Non-Governmental Organizations: The Century-Long Normative Debate and its Future Prospects*, 23 CARDOZO J. INT’L & COMP. L. 1, 4 (2014).

34. Charnovitz, *supra* note 21, at 357.

35. See, e.g., Holmén & Jirström, *supra* note 32, at 436; Ben-Ari, *supra* note 33, at 3.

36. Helmut Philipp Aust, *Shining Cities on the Hill? The Global City, Climate Change, and International Law*, 26 EUROPEAN J. INT’L L. 255, 276–77 (2015).

37. PORTMANN, *supra* note 9, at 1 (“There is almost universal agreement that states are international persons.”); Charnovitz, *supra* note 21, at 355 (“In general, an NGO enjoys legal personality only in municipal law, not in international law.”).

38. CRAWFORD, *supra* note 4, at 369–70.

Even in federal systems such as Canada or the United States, where jurisdiction is divided between national and subnational entities, it is generally the federal government alone that makes treaties with other nation states; the fact that state or local governments may need to assist their federal governments in implementing the treaty obligations by adopting new laws or programs does not augment their status under international law.³⁹ For instance, while local governments have traditionally been responsible for the management of nonhazardous solid wastes in the United States⁴⁰—which means, in turn, that local governments would be likely to be called upon to assist with the implementation of any future international treaty concerning waste management—local governments would not, under the current law, be permitted to join such a treaty.⁴¹

Our central argument in this Essay is that there are some instances in which, from a functional perspective, it seems appropriate to permit local governments to join international environmental agreements. In the following Part, we review these functional arguments for granting cities greater participatory rights and suggest a framework for determining those classes of environmental problems in which cities' participation is most appropriate.

II. FUNCTIONAL ARGUMENTS

A. *Functional Arguments for State-Centrism*

Before identifying the functional arguments for including cities in addressing some international environmental problems, it is worth noting some of the functional benefits of the status quo, under which states have a virtual monopoly on making treaties. State-centrism has obvious attractions for nation states as it affirms that they are the sole voice of the country; other countries are not permitted to deal with subnational units within the boundaries of the nation state without its approval.⁴² Domestic law may reaffirm the nation state's dominance, as in the

39. Perhaps "40% of the world's population now lives in a country with a federal type of system." Lequesne & Paquin, *supra* note 25, at 184. Some federations, such as Germany or the United States, allow their *länder* or states to make treaties, with approval from the federal level. TAVARES, *supra* note 29, at 73; CRAWFORD, *supra* note 4, at 117; *see also* Spiro, *supra* note 31, at 591 ("[M]ost federal states . . . extend some treaty-making capacities to component units in areas of their competence."). Distinctively, Belgium's constitution allows its regions to make treaties in areas of their competence *without* national approval. Belgium is the only country whose regions "have treaty-making capacity under international law." TAVARES, *supra* note 29, at 64. There is no indication that local governments have been recognized as enjoying comparable authority to subnational states to make international treaties, although there are examples of cities from different countries making agreements to manage shared water resources. *See* Blank, *supra* note 30, at 904, 906.

40. *United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth.*, 550 U.S. 330, 355 (2007).

41. Yishai Blank has highlighted a similar tension. Blank, *supra* note 7, at 266.

42. Gerald E. Frug & David J. Barron, *International Local Government Law*, 38 URB. LAW. 1, 16 (2006). For example, the Trump administration recently filed suit against California regarding the linking of California and Quebec's GHG emissions trading regimes. Press Release, United States Files Lawsuit Against State of California for Unlawful Cap and Trade Agreement with the Canadian Province of Quebec (Oct. 23, 2019),

United States where subnational units are constrained from engaging in foreign affairs.⁴³

State-centrism has other benefits as well. For one, it limits the number of parties whose consent is required to conclude a treaty and may therefore ease the negotiation of such agreements.⁴⁴ The transaction costs of over 190 countries negotiating an agreement are lower than the costs that would be involved if other levels of government were entitled to negotiate an agreement. The state monopoly on international treaty-making assigns nation states the role of coordinating the subnational interests within their territory. This coordination benefits other states: each state aggregates the positions of interest groups—including local governments—within its territory and presents a unified position on the international stage to which the other nations can respond.⁴⁵ The nation state's monopoly at the international level not only reduces the number of parties whose consent is required, but also reduces the difficulty that each nation state faces defining its position internally. The fact that the national government speaks for the country as a whole avoids the paralysis that might result if multiple governments covering the same territory (such as cities, provinces, and the national government) had to bargain with each other before, or in conjunction with, negotiating with other countries.⁴⁶

The state monopoly also may facilitate enforcement of any international agreement that is negotiated. Under international law, the state is responsible for the actions of the subnational governments within it (unless they are acting *ultra vires*).⁴⁷ This makes it easier for other states to enforce agreements, as the state is held vicariously liable for the actions of its subunits.⁴⁸ From cities' perspectives, the state responsibility doctrine is both helpful and hurtful. On the one hand, it shields cities from having to defend themselves against charges that they have violated international law in costly forums such as international arbitration.⁴⁹ But on the

<https://www.justice.gov/opa/pr/united-states-files-lawsuit-against-state-california-unlawful-cap-and-trade-agreement>. *But see* Sharmila Murthy, *The Constitutionality of State and Local 'Norm Sustaining' Actions on Global Climate Change: The Foreign Affairs Federalism Grey Zone*, U. PENN. J. L. & PUB. AFF. (forthcoming 2020) (arguing in favor of the constitutionality of California and Quebec's agreement).

43. Frug & Barron, *supra* note 42, at 13 n.49; *see also* *Gingery v. City of Glendale*, 831 F.3d 1222, 1228 (9th Cir. 2016). On the other hand, Belgium allocates to its regions "exclusive responsibility for the international projection of internal constitutional provisions," which include the environment. Lequesne & Paquin, *supra* note 25, at 195; TAVARES, *supra* note 29, at 8, 14. While other countries grant subnational governments some foreign affairs powers, "Belgium goes further than any other country." Lequesne & Paquin, *supra* note 25, at 195.

44. *See also* Frug & Barron, *supra* note 42, at 20 (citing Peter Spiro, *Globalization and the (Foreign Affairs) Constitution*, 63 OHIO ST. L.J. 649, 668 (2002)).

45. Lequesne & Paquin, *supra* note 25, at 196 (referring to consultations undertaken by the national government with subnational governments in "India, Argentina, South Africa, Canada, Spain, Belgium and Germany").

46. *Id.* at 195.

47. Frug & Barron, *supra* note 42, at 19; *see also id.* at 38.

48. *Id.* at 19.

49. Spiro, *supra* note 31, at 580–90 (recommending subnational responsibility, in addition to continuing state responsibility, to promote protection of human rights).

other, state responsibility may induce national governments to take greater interest in local affairs in order to reduce the national government's exposure to liability.⁵⁰

B. Functional Arguments for Including Cities

Underlying the idea that nation states speak for subnational governments in international law is an assumption that nation states control these subnational units. But as Professor Peter Spiro has argued, national governments may not be able to "easily cow" subnational governments.⁵¹ There may be constitutional constraints on national governments' authority to require subnational governments to implement international agreements agreed to by the national governments.⁵² Moreover, even if the national government can legally compel the subnational governments to follow the agreements, the national government may be reluctant to do so for political reasons.⁵³ It also may lack the capacity to ensure that a multitude of subnational governments are faithfully executing the terms of the international agreement because of the costs of monitoring multiple subnational governments. In short, the potential for slippage provides an initial argument for involving subnational governments, including cities, in negotiating international agreements, especially in areas where the cooperation of subnational governments will be helpful in implementing the agreements.

Indeed, a second, related argument for involving cities in negotiating some international agreements is that local governments may be well placed to assist in implementing the agreement. For example, they may have built up physical or regulatory infrastructure that, with adjustments, could be used to achieve the desired environmental improvement.⁵⁴ It is in this circumstance that cowing subnational governments will be most problematic. Functions often performed by local governments include providing drinking water to their populations, regulating the siting and design of buildings, operating mass transit systems and roads, and waste management.⁵⁵ When an agreement touches on traditional areas of local government responsibility it may be particularly valuable to include local governments in negotiating it. If local governments are involved upfront, they may be more likely to help implement the agreement, which may lower the cost of achieving the objective. Local governments also might help shape the agreement to facilitate implementation given their knowledge of local implementation capacity.

50. Frug & Barron, *supra* note 42, at 38 ("Some states have suggested that international agreements enable national governments to justify greater supervision of local policymaking than domestic politics alone would permit. At the very least, many nation states, such as Canada, seem to be taking local compliance quite seriously.").

51. Spiro, *supra* note 6, at 35–36.

52. Frug & Barron, *supra* note 42, at 19; *see also* Aust, *supra* note 36, at 267.

53. Spiro, *supra* note 6, at 35–36.

54. The local contribution to environmental problems and local authorities' role in addressing them is well recognized. *See for example* Agenda 21, adopted at the United Nations Conference on Environment and Development in 1992. United Nations Conference on Environment and Development, *Agenda 21*, § 28.1, U.N. Doc. A/CONF.151/26 (Vol. III) (June 3, 1992 – June 14, 1992), *excerpted in* Frug & Barron, *supra* note 42, at 27.

55. For a review of cities' historical role in providing drinking water and managing waste, *see* IAN DOUGLAS, *AN ENVIRONMENTAL HISTORY*, ch. 5 & 6 (2013).

A third reason for including cities in international negotiations is that such negotiations can help construct norms to address the environmental problem. The constructivist school of international relations characterizes international legal practices, including treaty negotiations, as a means of socializing actors to advance ideas and alter conceptions of self-interest.⁵⁶ By participating in international negotiations, city officials may be exposed to ideas and approaches that they take back to their jurisdictions. Thus, involving cities along with nation states in international negotiations may help to construct the political momentum necessary to encourage local action. Conversely, because they are the level of government “closest to the people,” bringing on board local governments may also help to diffuse emerging norms upward to the national and international levels.⁵⁷ The history of U.S. environmental law suggests that local governments are often first to identify and try to address environmental problems.⁵⁸ For example, local governments imposed fees on single-use bags in New York state before the momentum developed to ban plastic bags at the state level.⁵⁹

In sum, we offer three functional arguments for including cities in negotiations to address international environmental problems: the slippage argument that nation states cannot always force local governments to implement international agreements; the infrastructure argument that cities control physical installations and regulatory apparatuses that will be useful to address certain problems; and the constructivist argument that socializing cities through negotiations may create momentum for addressing problems. These three arguments suggest that there are certain kinds of international environmental problems in which it would be helpful to engage cities in resolving. These are problems where cities control the systems that need to be adapted, where national governments cannot easily mandate that local governments alter these systems, and where local actions might be helpful in constructing norms supportive of addressing the problems.

C. Some Practicalities

Even a reader convinced that there is a functional case for including cities in international negotiations might wonder about the practicalities of doing so given the large number of local governments around the world. In other words, might the costs of including cities overwhelm the benefits? We suggest that such concerns might be mitigated through the design of processes that allow cities to participate.

56. Janne E. Nijman applies constructivism to explain how cities can be socialized through participation in international institutions. Janne E. Nijman, *Renaissance of the City as a Global Actor: The Role of Foreign Policy and International Law Practices in the Construction of Cities as Global Actors*, in *THE TRANSFORMATION OF FOREIGN POLICY: DRAWING AND MANAGING BOUNDARIES FROM ANTIQUITY TO THE PRESENT* 209 (Gunther Hellmann et al. eds., 2016). Nijman’s work influences our thinking.

57. See *Agenda 21*, *supra* note 54; see also Murthy, *supra* note 6, at 17–19 (cities and states help to sustain norms when they promise to implement an international agreement, such as the Paris Agreement, from which the national government is backing away).

58. See Katrina M. Wyman & Danielle Spiegel-Feld, *The Urban Environmental Renaissance*, CAL. L. REV. (forthcoming 2020).

59. Jesse McKinley, *Plastic Bags to Be Banned in New York; Second Statewide Ban, After California*, N.Y. TIMES (Mar. 28, 2019), <https://www.nytimes.com/2019/03/28/ny-region/plastic-bag-ban-.html>.

In particular, we favor enabling cities to participate in international efforts by allowing them to sign a “city supplement” to an agreement between nation states. This approach would preserve the benefits of having nation states negotiate on behalf of diverse interests within their territories while also providing an opportunity to socialize cities into environmental awareness and encourage them to assist with implementation.

The most formal way of including cities in international processes would be to grant them international legal personality and allow them to sign treaties. This is unlikely to occur as a political matter given the virtual monopoly of nation states on international legal personality. In any event, the benefits of extending international legal personality are likely outweighed by the negative consequences of enlarging the number of players beyond any that could feasibly reach an agreement under a rule of consensus.

Thus, instead of extending international legal personality to cities to enable them to formally make treaties, cities, or organizations of cities, should be granted observer status in international negotiations, included in national delegations, or both.⁶⁰ In addition, where there are functional reasons for including cities, the treaties that nation states develop should include a supplemental agreement that cities could sign.⁶¹ Nation states might elaborate the terms of this supplemental agreement in consultation with representatives of cities or organizations of cities. Cities would have the option of signing the supplement, which could include commitments by cities to address the environmental problem and requirements to report progress to a public clearinghouse to promote accountability. To our knowledge, no international agreement among nation states has ever included such a supplemental agreement. This “city supplement” likely would not count as a treaty under international law because local governments do not have legal personality to make such treaties in the absence of national consent,⁶² the supplement could even clarify that it is not a treaty to give nation states comfort.⁶³ Many of the functional benefits of involving cities likely would still be realized by involving them in a high profile treaty-making process that includes a supplement they could sign without creating a treaty under international law. In addition, the national role in designing the supplement might encourage nation states to allocate resources toward promoting compliance with the supplement by cities that seek to join. Having participated in negotiating the supplement, nation states might seek to ensure that

60. Although provincial officials participate in national delegations in some countries such as Canada, “many countries are reluctant to include regional and municipal representatives in their national delegations” for international processes. Lequesne & Paquin, *supra* note 25, at 191, 198.

61. See also Esty & Adler, *supra* note 6, at 281 (recommending that the Conference of Parties to the Paris Agreement create an annex or amendment that nonstate actors such as mayors could sign to indicate they will use their “authority” to achieve the Paris Agreement goals).

62. Blank, *supra* note 30, at 892.

63. See Esty & Adler, *supra* note 6, at 283 (recommending clarification of the limited implications of subnational endorsement of Paris Agreement). For the argument that subnational units could potentially create treaties that would be recognized as international law with national consent, see *id.* at 282; TAVARES, *supra* note 29, at 64.

cities that sign onto it abide by their obligations. Furthermore, nation states seeking to promote local action to address the environmental problem might provide cities with funding to address the environmental problem if they accede to the supplement.⁶⁴

To be sure, cities can be involved in addressing international environmental problems without participating in international negotiations between nation states and, as noted in Part I, cities have begun to pursue such options.⁶⁵ For example, cities themselves have formed organizations and networks to share information, and make political declarations to address climate change.⁶⁶ Subject to domestic constitutional rules limiting the authority of cities to engage in foreign affairs, cities also might seek to formally contract among themselves to address environmental problems, and agree to international arbitration in the event of disputes between the contracting cities about compliance.⁶⁷ However, the further removed that cities are from international negotiations involving nation states, the less benefit there may be in involving cities, as some of the benefits of engaging cities in the development of responses to international environmental problems likely stem from cities' involvement in high-profile international negotiations between nation states. For example, if international negotiations are a means of constructing norms, then socialization might be most likely to occur when the most powerful actors—nation states—are discussing the norms. Moreover, cities might be more likely to abide by agreements that they make under national auspices, as nation states might have the incentives and resources to promote compliance. Thus, there are distinctive benefits to directly engaging cities in inter-state efforts to resolve environmental problems and providing cities with the opportunity to sign a city supplement to an inter-state agreement.

D. Why Cities in Particular?

The reader might be wondering why we focus on including cities in international environmental negotiations, given that functional arguments also might be made for including other subnational governments, such as states or provinces in federations, corporations, or NGOs.

We focus on giving cities a greater role mainly because many cities have a stronger claim to “democratic legitimacy” than other nonstate actors.⁶⁸ It is difficult

64. Even if a national government participated in drafting a city supplement, there is the potential for an intermediate level of government (such as a state or province in a federal system) to seek to preempt city participation in a supplement as a matter of state or provincial law. However, nation states, seeking to implement their environmental obligations under the international agreement, might create incentives for states to allow their cities to sign onto a supplement, as well as to incentivize cities to sign onto the supplement.

65. See *supra* notes 26–28 and accompanying text.

66. For discussion of international networks of cities, see, e.g., Esty & Adler, *supra* note 6, at 280, 282 (discussing “arrangements” between nonstate actors, including cities, to address climate change).

67. This kind of initiative might be legally vulnerable under domestic constitutional rules such as the Compact Clause or the Commerce Clause in the United States. See Esty & Adler, *supra* note 6, at 283 (suggesting that a “political commitment” is more likely legally viable in the United States).

68. See Porras, *supra* note 28, at 597.

to generalize about local government because it takes many forms around the world. However, residents of cities often have an opportunity to vote for leading city officials, as “the vast majority of cities around the world . . . are governed by officials elected through a democratic process.”⁶⁹ Moreover, cities often provide opportunities for the public to directly engage in governance because of their relatively small size (compared to nation states and intermediate forms of government such as states).⁷⁰ Residents may be able to attend and participate in city meetings held in their communities, and not merely participate in decision-making indirectly through elected representatives. In contrast, NGOs and corporations are usually private entities controlled by a discreet group of individuals that is unlikely to be representative of the public at large; unlike cities, NGOs and corporations typically have no obligation to involve the public at large in their internal decision-making.⁷¹ It is important not to gloss over democratic deficiencies at the local level: voter turnout may be low in municipal elections, municipal policymaking may be dominated by wealthy special interests, and local decision-making might have undesirable consequences for locally disfavored groups.⁷² Yet there is little doubt that cities nevertheless represent a broader amalgam of interests than NGOs or corporations.

In a federation, states, provinces, or *länder* also may provide opportunities to participate in governance. Participation may be less direct than at the local level—the larger scale of these jurisdictions means that participation is more likely to be through elected representatives, not direct participation in meetings or the like—but there are still opportunities for people to vote for officials at this intermediate level of government and to provide input in decision-making.⁷³ Thus, sometimes intermediate levels of government in federations may have an equal democratic claim to cities to participation in international environmental agreements, and a “subnational government supplement” might sometimes be preferable to a “city supplement” to an international environmental agreement.⁷⁴ We focus on arguments for including cities in international efforts to address environmental problems because the potential for intermediate levels of government, such as states and provinces, to play an innovative role in environmental protection has been widely discussed in the United States, while the potential for cities to innovate in the environmental realm has been less commented upon.⁷⁵ Also, cities may be more

69. *Id.* at 558, 558 n.82 (citing Blank, *supra* note 30, at 936).

70. Gerald E. Frug, *The City as a Legal Concept*, 93 HARV. L. REV. 1059, 1069, 1072, 1096, 1106 (1980). Frug describes states as “intermediate” levels of government between local and national governments in the United States. *Id.* at 1105 n.188.

71. *See also* Porras, *supra* note 28, at 539.

72. *Id.* at 550, 566, 583–85, 590–91, 597–99.

73. *See also* Frug, *supra* note 70, at 1069, 1069 n.41.

74. *See* Esty & Adler, *supra* note 6, at 280–81 (proposing to allow various subnational actors, including states, to signal commitment to the Paris Agreement); *see also* Murthy, *supra* note 6, at 6 (contrasting states and local governments with other “non-state actors”).

75. Wyman & Spiegel-Feld, *supra* note 58 (referring to the lack of scholarly attention to the municipal role in domestic environmental law in the United States); Blank, *supra* note 30, at 889–90 (cities have been overlooked in the literature on the decline of

inclined to address international environmental problems than the larger jurisdictions in which they reside, as urbanites often are more supportive of robust environmental action than inhabitants of rural areas.⁷⁶

III. CASE STUDY: THE ROLE OF CITIES IN CONTROLLING MARINE PLASTIC POLLUTION

Marine plastic pollution is an illustrative example of an international environmental problem that might best be addressed if cities, and not just nation states, are engaged in developing a solution. It is difficult to overstate the magnitude of plastic pollution in the oceans or its effects on marine life. In 2010 alone, as much as 13 million metric tons of plastics entered the ocean, and this annual amount is expected to double by 2025.⁷⁷ Due to the deluge, plastics are now ubiquitous in the world's oceans and seas; they are found even in waters far from human populations.⁷⁸ Approximately 95% of plastics going into the oceans come from ten rivers in Asia and Africa.⁷⁹ And almost half of plastics in the oceans likely come from four countries: China, Indonesia, the Philippines, and Vietnam.⁸⁰ Yet even places with robust waste management systems, such as the United States, contribute to marine plastic pollution through “accidentally lost, or intentional littered plastics”—like the plastic bags and wrappers blown by the wind—and through tiny microplastics that enter the oceans through runoff and stormwater.⁸¹ Moreover, there is reason to believe that a portion of the plastic in rivers in Asia originates in Western countries, which ship some of their plastic waste overseas.⁸² As China recently

classical state sovereignty). *But see* Judith Resnik et al., *Ratifying Kyoto at the Local Level: Sovereignism, Federalism, and Translocal Organizations of Government Actors (TOGAS)*, 50 ARIZ. L. REV. 709 (2008) (discussing the role of networks of cities and states in international climate change law); Jonathan Rosenbloom, *Local Governments and Global Commons*, 204 BYU L. REV. 1489 (2014) (discussing the actions of local governments when facing a global commons collective action problem).

76. Rahsaan Maxwell, *Why Are Urban and Rural Areas So Politically Divided?*, WASH. POST (Mar. 5, 2019), <https://www.washingtonpost.com/politics/2019/03/05/why-are-urban-rural-areas-so-politically-divided/>.

77. Jambeck et al., *supra* note 5, at 770.

78. Marcus Haward, *Plastic Pollution of the World's Seas and Oceans as a Contemporary Challenge in Ocean Governance*, 9 NATURE COMM. 667, at 2 (2018).

79. Christian Schmidt et al., *Export of Plastic Debris by Rivers Into the Sea*, 51 ENVTL. SCI. TECH. 12246, 12250 (2017).

80. *Cleaning Up the Oceans: How to Reduce the Impact of Man-Made Trash on the Environment, Wildlife, and Human Health? Before the U.S. S. Comm. on Env't and Pub. Works*, 115th Cong. (2018) (written testimony of Karen Lavender Law, Ph.D., Research Professor of Oceanography, Sea Education Association, Woods Hole, Massachusetts), https://www.epw.senate.gov/public/_cache/files/9/8/98ff9257-c40b-4444-a890-22bfff0d0a180/4088869BF694A5C3F1411C40B2E6111F.law-testimony-09.26.2018.pdf (citing Jambeck et al., *supra* note 5).

81. *Id.*

82. The United States, for example, is the top exporter of scrap plastic. *Scrap Plastic*, OBSERVATORY OF ECON. COMPLEXITY, <https://oec.world/en/profile/hs92/3915/> (last visited Jan. 8, 2019). In addition, in 2018, it was found that “the equivalent of 68,000 shipping containers of American plastic recycling were exported from the US to developing countries

imposed a ban on most imported plastics, plastics are now being shipped to other nearby countries, often overloading their capacity to manage the waste.⁸³ Thus, better waste management in the West could slow the flow of plastics into the oceans from Asian rivers.

Plastic pollution imposes diverse costs. For instance, tourism, aquaculture, and navigation have all been negatively impacted.⁸⁴ But it is marine animals that have suffered the most serious harms. Plastics do not biodegrade in the oceans; they simply break down into smaller pieces, which fish, shellfish, and marine mammals often mistake for food.⁸⁵ And because plastics cannot break down in the animals' guts either, their bellies start to fill with waste, creating a false sense of fullness as the animals slowly starve to death.⁸⁶ This horrible chain of events was thrown in sharp relief in spring 2019 when a whale washed onto the beaches of the Philippines with "88 pounds of plastic trash inside its body."⁸⁷ Plastics may ultimately affect human health too, because when we eat species that have ingested plastics, the plastic ends up in our bodies.⁸⁸ In fact, a recent study that examined stool from

that mismanage more than 70% of their own plastic waste." Erin McCormick et al., *Where Does Your Plastic Go? Global Investigation Reveals America's Dirty Secret*, GUARDIAN (June 17, 2019), <https://www.theguardian.com/us-news/2019/jun/17/recycled-plastic-america-global-crisis>.

83. Following the ban on plastic imports in China, the United States and other countries have shifted to exporting their plastic scrap to other Southeast Asian countries, which are "struggling to process and manage the tide of plastic waste." Karen McVeigh, *Huge Rise in US Plastic Waste Shipments to Poor Countries Following China Ban*, GUARDIAN (Oct. 5, 2018), <https://www.theguardian.com/global-development/2018/oct/05/huge-rise-us-plastic-waste-shipments-to-poor-countries-china-ban-thailand-malaysia-vietnam>. Many of those countries, however, have become overwhelmed and responded by restricting imports or imposing their own bans. Hillary Leung, *Southeast Asia Doesn't Want to Be the World's Dumping Ground. Here's How Some Countries are Pushing Back*, TIME (June 3, 2019), <https://time.com/5598032/southeast-asia-plastic-waste-malaysia-philippines/>; *Plastic Waste Trade: After China's Ban, More Countries Restrict Imports*, GLOBAL ALLIANCE FOR INCINERATOR ALTERNATIVES (2018), https://www.no-burn.org/wp-content/uploads/Plastic-waste-trade_-Southeast-Asian-countries-restrict-imports-.pdf.

84. Patricia Vallarrubia-Gomez, *Marine Plastic Pollution as a Planetary Boundary Threat—The Drifting Piece in the Sustainability Puzzle*, 96 MARINE POL'Y 213, 213 (2018).

85. Elizabeth Royte, *We Know Plastic is Harming Marine Life. What About Us?*, NAT'L GEOGRAPHIC (June 2018), <https://www.nationalgeographic.com/magazine/2018/06/plastic-planet-health-pollution-waste-microplastics/>.

86. Daniel Victor, *Dead Whale Found with 88 Pounds of Plastic Inside Body in the Philippines*, N.Y. TIMES (Mar. 18, 2019), <https://www.nytimes.com/2019/03/18/world/asia/whale-plastics-philippines.html>.

87. *Id.*

88. Royte, *supra* note 85. Scientists do not fully understand the impact that consuming plastics has on human health. *Id.* There is also uncertainty about the extent of human consumption of microplastics, although there are estimates. Kieran D. Cox et al., *Human Consumption of Microplastics*, 53 ENVTL. SCI. & TECH. 7068 (2019).

individuals from Finland, Italy, Japan, the Netherlands, Russia, the United Kingdom, and Austria found microplastics in every sample.⁸⁹

Recognizing their collective responsibility, jurisdictions around the globe, including cities, states, and even the European Union,⁹⁰ have passed legislation to control plastic waste. In the United States, local governments have dominated this movement. For instance, as of September 2018, well over 150 local governments, including major cities like Chicago and Los Angeles, had passed measures that ban or tax plastic bags.⁹¹ Yet, as our colleagues Bryce Rudyk and Sara Savarani have observed, the problem of marine plastic pollution is a collective action problem and solving it effectively will require coordinated global action.⁹² At present, there is no international legal framework in place that comprehensively addresses plastic pollution.⁹³ There are, however, a growing number of states that are calling for a new international agreement to do just that.⁹⁴ What such an agreement should look like, if it materializes, and who should be engaged in its drafting, remains very much an open question.

The marine plastic problem presents many of the hallmarks that we identified in Part II as militating in favor of municipal participation. To begin with, waste management has traditionally been a local government function⁹⁵ and cities

89. Douglas Quenqua, *Microplastics Find Their Way into Your Gut, a Pilot Study Finds*, N.Y. TIMES (Oct. 22, 2018), <https://www.nytimes.com/2018/10/22/health/microplastics-human-stool.html>.

90. In one of the most far reaching efforts, the European Parliament voted to ban single-use plastics in the fall of 2018. See Ceylan Yeginsu, *European Parliament Approves Ban on Single-Use Plastics*, N.Y. TIMES (Oct. 25, 2018), <https://www.nytimes.com/2018/10/25/world/europe/european-parliament-plastic-ban.html>. For a list of plastic waste reduction policies, see Brian Clark Howard et al., *A Running List of Action on Plastic Pollution*, NAT'L GEOGRAPHIC (June 10, 2019), <https://www.nationalgeographic.com/environment/2018/07/ocean-plastic-pollution-solutions/>.

91. Trevor Nace, *Here's a List of Every City in the US to Ban Plastic Bags, Will Your City Be Next?*, FORBES (Sept. 20, 2018), <https://www.forbes.com/sites/trevornace/2018/09/20/heres-a-list-of-every-city-in-the-us-to-ban-plastic-bags-will-your-city-be-next/>. For a review of some municipal policies banning single-use plastic bags, see Sarah Fox, *Home Rule in an Era of Local Environmental Innovation*, 44 ECOLOGY L.Q. 575, 600–01 (2017). Private actors involved in manufacturing plastics have begun responding to the growing concern about plastic pollution. Nathaniel Gronewold, *Oil Giants Launch \$1.5 Billion Campaign to End Plastic Crisis*, E&E NEWS (Jan. 24, 2019), <https://www.eenews.net/energywire/stories/1060118215>.

92. SARA SAVARANI & BRYCE RUDYK, OCEAN PLASTIC POLLUTION I (2018).

93. *Id.*

94. See, e.g., Parker, *supra* note 2 (noting that Norway, Japan, and Sri Lanka support the development of a legally binding international agreement to address plastic pollution); Catherine Benson Wahlén, *Nordic Ministers Call for Global Agreement on Marine Plastic*, IISD (Apr. 16, 2019), <https://sdg.iisd.org/news/nordic-ministers-call-for-global-agreement-on-marine-plastic/> (noting that ministers of the five Nordic countries issued a joint call for a global agreement on plastics).

95. *United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth.*, 550 U.S. 330, 344 (2007) (quoting *United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth.*, 261 F.3d 245, 264 (2d Cir. 2001) (Calabresi, J., concurring)); see also IAN DOUGLAS,

control much of the infrastructure and programs involved in waste management. For instance, cities typically arrange for the collection of refuse, site and manage landfill facilities, and develop and administer recycling programs. The way in which cities perform these services can profoundly impact the release of plastics into waterways; for instance, if cities delay in collecting waste from collection points, do not enforce management procedures at landfills, or cut back recycling programs,⁹⁶ more plastic is likely to enter the waters. Yet, at least in the United States, the federal government has only limited control over the manner in which these waste management services are performed. In fact, in a case concerning a federal law that required states to dispose of low-level radioactive waste generated within their borders, the U.S. Supreme Court held that the federal government could not force states to “regulat[e] pursuant to Congress’ direction”⁹⁷ without intruding upon the sovereignty that the Tenth Amendment reserves for the states.⁹⁸ This restriction against commandeering the states’ regulatory machinery, which appears to apply with equal force to subdivisions of the states as it does to the states themselves,⁹⁹ likely prohibits the federal government from controlling municipal waste management programs. Thus, if the federal government were to join an international agreement to reduce plastic waste and subsequently determine that local waste management regulations were inadequate to meet the international commitments, it could develop its own regulatory framework, or incentivize local governments to regulate in a manner that accords with the federal commitments,¹⁰⁰ but it could not compel the locality to regulate in accordance with its wishes. Given this restriction, there may be substantial efficiencies to engaging local leaders in negotiations and, hopefully, securing their commitment to advance the agreed-to objectives.

A second reason that cities should be engaged in the development of an international agreement to reduce plastic waste is because they have some distinctive operational and political advantages that should be marshalled for the benefit of the cause. The problem of marine plastic pollution is unlikely to be solved through the

CITIES: AN ENVIRONMENTAL HISTORY 179 (2013) (“[W]aste collection in most cities in developing countries consumes a considerable part of the municipal budget.”).

96. Early in his tenure as mayor, Michael Bloomberg famously suspended plastic and glass recycling. Amy Eddings, *Bloomberg and Garbage: A Pile of Unfinished Business*, WNYC NEWS (Dec. 18, 2013), <https://www.wnyc.org/story/bloomberg-and-garbage-pile-unfinished-business/>.

97. *New York v. United States*, 505 U.S. 144, 174–75 (1992).

98. *Id.* at 155, 176; see also Lawrence Tribe, *Taking Text and Structure Seriously: Reflections on Free-Form Method in Constitutional Interpretation*, 108 HARV. L. REV. 1221 (1995).

99. See *Galarza v. Szalczyk*, 745 F.3d 634, 644 (3d Cir. 2014) (under the Tenth Amendment’s anti-commandeering doctrine, “immigration officials may not compel state and local agencies to expend funds and resources to effectuate a federal regulatory scheme”) (emphasis added).

100. Notably, the federal environmental statutes have generally side-stepped the anti-commandeering doctrine by inducing state cooperation via “promises of funding and threats of preemption” as opposed to mandates. See Jonathan H. Adler, *Judicial Federalism and the Future of Federal Environmental Regulation*, 90 IOWA L. REV. 377, 424 (2005).

most cost-effective means by improving the disposal of plastics alone;¹⁰¹ reducing consumer demand for plastics will almost certainly have to be part of the solution. Cities, as the jurisdictional entity closest to consumers, are particularly well-positioned to educate consumers about the need to reduce plastic waste. Cities also have some important regulatory and economic tools at their disposal to reduce consumer demand for plastics, including fees, taxes, and bans.¹⁰²

Cities in the United States have begun implementing policies along these lines. For instance, in addition to all the measures targeting plastic bags mentioned above, a number of cities (and the State of California) have banned plastic straws or discourage their distribution.¹⁰³ In January 2019, Berkeley adopted a particularly innovative policy aimed at reducing plasticware which combines a \$0.25 fee on disposable cups with a mandate that establishments that offer customers the possibility of eating on the premises utilize reusable cutlery and dishes.¹⁰⁴ Cities in the United States are not alone in taking such actions; Glasgow, Delhi, Vancouver, and others have passed laws limiting plastic consumption that go beyond what their national governments require.¹⁰⁵ And while national or federal governments may have the legal authority to implement similar such policies, the fact that cities are often more progressive than the nation as a whole may facilitate the adoption of more robust policies at the local level.¹⁰⁶ Cities may also have stronger incentives than higher levels of government to pursue waste reduction programs because many

101. See Livia Albeck-Ripka, *Your Recycling Gets Recycled, Right? Maybe Not*, N.Y. TIMES (May 29, 2018), <https://www.nytimes.com/2018/05/29/climate/recycling-landfills-plastic-papers.html> (noting that much of the waste that Americans designate for recycling ends up being landfilled).

102. On the scope of municipal fiscal authority to address environmental problems in the United States, see Wyman & Spiegel-Feld, *supra* note 58.

103. Hilary Brueck, *The Real Reason Why So Many Cities and Businesses Are Banning Plastic Straws Has Nothing to Do with Straws at All*, BUS. INSIDER (Oct. 22, 2018), <https://www.businessinsider.com/plastic-straw-ban-why-are-there-so-many-2018-7>.

104. *Berkeley, CA Passes Groundbreaking Policy to Reduce Single-Use Foodware*, PLASTIC POLLUTION COALITION, <https://www.plasticpollutioncoalition.org/pft/2019/1/24/berkeley-ca-passes-groundbreaking-policy-to-reduce-single-use-foodware> (last visited Jan. 24, 2019).

105. See, e.g., Drew Sandelands, *Glasgow Sets 2022 Target for Crackdown on Single-Use Plastics*, GLASGOW TIMES (Nov. 21, 2019), <https://www.glasgowtimes.co.uk/news/18050921.glasgow-sets-2020-target-crackdown-single-use-plastics/>; Joydeep Thakur, *Single-Use Plastic Likely to Be Banned in New Delhi*, HINDUSTAN TIMES (Sept. 17, 2019), <https://www.hindustantimes.com/delhi-news/single-use-plastic-likely-to-be-banned-in-new-delhi/story-5ABQPOLnxHqbTclYuNAy9O.html>; Moira Warburton, *Vancouver Approves Ban on Plastic Straws, Bags from Next Year*, REUTERS (Nov. 28, 2019), <https://www.reuters.com/article/us-canada-plastic/vancouver-approves-ban-on-plastic-straws-bags-from-next-year-idUSKBN1Y2293>.

106. See, e.g., David A. Graham, *Red State, Blue City*, ATLANTIC (Mar. 2017), <https://www.theatlantic.com/magazine/archive/2017/03/red-state-blue-city/513857/>; see also John Elledge, *Are Cities More Liberal? Of Course: All Your Liberal Mates Moved to One*, NEW STATESMAN (Jan. 9, 2017) (noting that the phenomenon of progressive cities and conservative rural regions is not confined to the United States).

cities pay for sanitation programs.¹⁰⁷ Local governments may also be motivated to reduce plastics pollution in order to reduce pollution of local waterways.¹⁰⁸

A third reason that cities should be engaged in developing an inter-state agreement to reduce plastic waste harkens back to the constructivist arguments for international law. As noted above, solving the problem of marine plastic pollution will require mobilizing the public at large; it is not a problem that can be solved by centrally regulating a small class of industrial polluters. Given this, the constructivist view of international law—that it serves to create and socialize new norms¹⁰⁹—seems particularly germane. And the more opportunities that cities are granted to engage in the development of antiplastic norms, the more we can expect cities to believe in the importance of such norms and invest in their diffusion. Thus, engaging cities directly in inter-state negotiations regarding the reduction of marine plastics may strengthen cities' resolve to assist in the global fight.

CONCLUSION

Environmental treaties are effectively contracts between nation states to address cross-boundary problems. While nation states have a monopoly on creating international law through treaties, analysis rooted in functional arguments suggests that nonstate actors, including cities, should sometimes be included in negotiating agreements to address cross-boundary environmental problems if these agreements are to be maximally effective. Marine plastic pollution is a problem in which local engagement at the international level would be helpful because of the historical responsibility of cities in managing waste, the difficulties that nation states may have corraling cities to change their waste management practices, and the potential for cities to help change societal norms to reduce the use of plastics. More generally, functional implications should be considered in designing international processes to

107. See MARTIN V. MELOSI, *THE SANITARY CITY: ENVIRONMENTAL SERVICES IN URBAN AMERICA FROM COLONIAL TIMES TO THE PRESENT* 1, 193, 212 (2000) (stating that “delivering services is the primary function of municipal government” and discussing cities’ financing and control of services, including sewer systems); BEN EDWARDS ET AL., *MUNICIPAL FINANCE FOR SANITATION IN THREE AFRICAN CITIES* 3 (2015), <https://www.wsup.com/content/uploads/2017/08/DP007-Municipal-finance-for-sanitation-in-three-African-cities-PRINT-VERSION1.pdf> (“At the city level, public finance for sanitation may be derived from local taxes or tariffs, or from transfers from central government.”); KÁROLY JÓKAY, JUDIT KÁLMÁN, & MIHÁLY KOPÁNYI, *MUNICIPAL INFRASTRUCTURE FINANCING IN HUNGARY: FOUR CASES* 3 (1998), <http://documents.worldbank.org/curated/en/247081468751561268/pdf/hold1265950WP01ng0reply0from0author.pdf> (“The key actor in initiating, planning, funding, constructing and operating a sewage treatment plant and collection system is the municipality.”).

108. For example, the District of Columbia's \$0.05 bag fee has been described as “locally motivated” by a desire to clean up the Anacostia River. Caitlin McCarthy et. al, *Dialogue: Should We Ban Single-Use Plastics?*, 50 ENVTL. L. REP. 10003, 10003–04 (2020). *But see id.* at 10008 (stating that Environmental Protection Agency data indicates that plastic bags and sacks make up a small percentage of the municipal waste stream).

109. See *supra* note 56 with accompanying text.

address cross-boundary environmental problems. Improvements in the institutional design of treaties could lead to better environmental outcomes.¹¹⁰

110. See generally TAVARES, *supra* note 29, at 28 (calling for improvements in paradiplomacy, not more paradiplomacy).