Rev Int Organ (2012) 7:399–424
DOI 10.1007/s11558-012-9142-0

Capacity, not constraints: A theory of North-South regulatory cooperation

Christopher Marcoux · Johannes Urpelainen

Published online: 25 March 2012

Abstract While neoliberal institutionalists argue that treaties facilitate collective action, many North-South regulatory treaties focus on largely national problems in developing countries. As such, these treaties present a puzzle: why a global treaty to address national regulatory problems? We argue that while activists in industrialized countries often promote regulatory treaties, these treaties garner political support among developing countries because they allow governments to enhance their national regulatory capacity. Developing countries are often not interested in banning practices such as trade in hazardous waste. Instead, developing countries want to increase their ability to control them. We test the argument against data on the global regime for hazardous waste trade. Contravening the conventional wisdom, we find that weak regulatory capacity is a powerful predictor of ratification of the Basel Convention, a treaty that does not ban hazardous waste trade but allows regulatory enhancement. By contrast, other treaties in the regime that do aim at banning hazardous waste trade receive little support among developing countries.

Electronic supplementary material The online version of this article (doi:10.1007/s11558-012-9142-0) contains supplementary material, which is available to authorized users.

We thank Christopher Kilby, Ulrike Lorenz, a seminar audience at the Free University of Berlin, the anonymous reviewers, and Axel Dreher for comments on a previous draft.

C. Marcoux
Department of Political Science, DePauw University, 101 Asbury Hall, Greencastle, IN 46135, USA

J. Urpelainen (✉)
Department of Political Science, Columbia University, 420 West 118th Street, 712 IAB, New York, NY 10027, USA
e-mail: ju2178@columbia.edu

Keywords International cooperation · Regulation · Capacity building · Environmental policy · Environment and development · Hazardous waste · Treaty ratification

1 Introduction

Many treaties regulate interactions between industrialized and developing countries. Often, such *North-South treaties* focus on national regulatory problems in the developing world. For example, the Basel Convention on Hazardous Waste governs illegal hazardous waste exports to developing countries.[1] As such, these treaties present a puzzle to international cooperation theory: why a global treaty to address national regulatory problems? International cooperation theorists have argued that the primary motivation for treaty formation is to facilitate the resolution of international cooperation problems (Abbott and Snidal 1998; Koremenos et al. 2001; Urpelainen 2010b). If the regulatory problem is largely national, why would states form a global treaty to address it?

We solve this puzzle by developing a general theory of North-South regulatory cooperation. Industrialized countries do not need external assistance for national regulation, but NGOs mobilize to demand action against practices in the developing world that they find normatively objectionable: child labor, rainforest destruction, gender discrimination, use of hazardous pesticides, and so on (Finnemore and Sikkink 1998). This pressure induces Northern governments to promote treaties that address such national problems in the developing world. However, governments of developing countries often hold different preferences. They do not necessarily want to stop the use of hazardous pesticides or child labor, as these practices could be economically profitable. But they do want to improve their ability to regulate it. Thus, we expect developing countries with weak regulatory capacity to ratify global regulatory treaties.

Empirically, we begin with a quantitative analysis of ratification of the Basel Convention, a global treaty that regulates but does not ban hazardous waste trade. This regime is ideal for our purposes because it does not address a global problem of transboundary negative externalities.[2] While hazardous waste trade harms people in developing countries that import the waste, people outside these countries are not hurt.[3] The conventional wisdom on the Basel Convention holds that developing countries were deeply disappointed with it because it did not ban hazardous waste (Clapp 2001; Selin 2010). We provide quantitative evidence in support of the opposite conclusion. Participation

[1] See http://www.basel.int. Accessed April 20, 2011.

[2] As one frustrated industry representative noted in 1996, "[t]he Basel Convention is arguably unique amongst Multilateral Environmental Agreements (MEAs) in that there is no element at all in it which could be presented as solving a problem of global commons" (Evans 1996, 19).

[3] To be sure, the outsiders could hold altruistic preferences against others suffering.

is almost universal. Countries with weak regulatory capacity are the most enthusiastic supporters of the Basel Convention in the global South.

Next, we analyze other treaties in the "regime complex" (Alter and Meunier 2009; Raustiala and Victor 2004). While the Basel Convention does not ban hazardous waste trade, several other treaties aim to do so. We show that they have largely failed to reduce hazardous waste trade. On the one hand, some treaties such as the Ban Amendment to the Basel Convention have not secured enough participants to enter into force.[4] This is not because developing countries want "shallow cooperation" (Downs et al. 1996). Rather, it is because enhanced regulatory capacity is more valuable than a blanket regulatory ban.

We also conduct eight country case studies. We show that the developing countries supporting the Basel Convention have obtained concrete benefits from regulatory capacity building, yet they have shown very little interest in actually limiting hazardous waste trade. For the developing countries that supported a trade ban, we find that their interest was often driven by specific geographic factors.

This article offers four distinct contributions to international cooperation theory. First, we explain why global regulatory treaties sometimes address purely national problems. As developing countries integrate to the world economy, they face unprecedented regulatory problems. While norm entrepreneurs in wealthy countries demand action for ideological reasons, developing countries exploit this opportunity to enhance their regulatory capacity. Second, we examine the diverging reasons why countries ratify treaties.[5] Simmons and Danner (2010) have recently argued that the ratification of the International Criminal Court (ICC) is driven by expressive interest in stable democracies and the need for credible commitment in unstable autocracies. We show that such multidimensional preferences are not an idiosyncratic or accidental feature of the ICC. Third, we contribute to the rational design literature (Koremenos et al. 2001). While scholars have argued that the Basel Convention and other "weak" treaties are flawed, we show that they are actually rational. They may not satisfy the Northern advocate who wants a global ban, but they do help developing countries improve their regulatory capacities. Finally, we contribute to the study of regime complexity (Raustiala and Victor 2004) and regime interaction (Gehring and Obertür 2009). By explicitly comparing the formation and function of treaties in the hazardous waste regime, we shed light on the emergence of regime complexity.

We begin with a literature review and a summary of our theoretical argument. The quantitative ratification analysis, an examination of the regime complex, and a summary of the country case studies follow. The concluding

[4] A legal controversy surrounds the actual criterion for entry into force. In practice, though, the fact remains that state parties have not recognized the entry into force of the amendment.

[5] For treaty ratification, see Congleton (1992), Roberts et al. (2004), Perrin and Bernauer (2010) and Von Stein (2008).

section summarizes and discusses the findings. A Supplementary Appendix contains the country case studies and quantitative robustness checks.[6]

2 Treaties: Design and Participation

According to standard theories, states form treaties to reduce the transaction cost of international collective action (Abbott and Snidal 1998; Keohane 1984; Koremenos et al. 2001). If states can select their policies unilaterally, they do so in view of their self-interest, without considering the consequences for other states. Thus, they underprovide policies that carry positive externalities and overimplement measures that produce negative externalities.

In many cases, states have formed treaties that do *not* address a common negative externality. Indeed, the Basel Convention exemplifies this logic. The negative externality is purely localized, so the exporters of hazardous waste have little material interest in regulating the trade. In such an upstream-downstream relationship, a common material interest in regulation should not exist (Mitchell and Keilbach 2001). If a developing country prefers to reduce hazardous waste imports, why cannot it simply regulate or even ban them? What do industrialized countries gain from a global treaty?[7]

Another line of theorizing focuses on power politics. If powerful states dominate world politics, others could join treaties under external pressure (Barnett and Duvall 2005; Gruber 2000; Krasner 1991). According to this theory, treaty formation and ratification occur when powerful states face an international cooperation problem. Less important states can be coaxed or coerced to join. While this theory can explain why some treaties have starkly asymmetric distributional consequences, it cannot explain why powerful states would promote treaties that address largely national problems. If a powerful state faces a purely national problem, it can solve it unilaterally.

More recently, scholars of international agreements have promoted domestic political explanations for treaty formation and ratification. In the human rights literature, for example, Thomas (2001) and Simmons (2009) have argued that treaties can be effective because they mobilize domestic constituencies. Similarly, Dai (2006) has argued that the "democratic advantage" in treaty compliance is conditional on the presence of domestic constituencies who benefit from the treaty in focus.

[6]The Appendix is available at this journal's webpage.

[7]These questions have an analogy in domestic environmental policy. In the presence of negative externalities, a clear rationale for centralization exists, but without negative externalities it is not clear why policy centralization is needed (Oates 1999). Some scholars have proposed that centralization may result from upward convergence of environmental standards (Vogel 1995). Others have argued that even in the presence of clear negative externalities, decentralization may allow local policymakers to capitalize more effectively on their private information (Ostrom 2010; Urpelainen 2009).

These domestic political explanations are closely related to our argument, yet they do not explain cases such as the Basel Convention. In these cases, for most countries there is no obvious domestic constituency that would benefit from treaty formation. While activists in wealthy countries may prefer measures to prevent hazardous waste trade, these activists have little leverage on the governments in developing countries. In the global South, NGOs have fewer resources and less political clout (Bob 2005).

3 Theory and Hypotheses

To develop our argument, we initially assume that no international cooperation problem exists, so that the basic premise of cooperation theory does not apply. By national regulatory problems, we refer to the existence of socioeconomic activities that the government of a country would prefer to regulate. Applicable problems include hazardous waste imports, child labor, natural resource extraction, water management, occupational safety issues, and agricultural health standards.

The Basel Convention is not the only example of a treaty that addresses such issues; many similar treaties exist. The 2000 Cartagena Protocol on Biosafety is designed to improve national regulatory sovereignty by (1) requiring that exporters of genetically modified organisms obtain prior informed consent (PIC) from importer governments and (2) building bureaucratic capacity for biosafety.[8] The 1998 Rotterdam Convention applies a similar requirement to pesticides and industrial chemicals.[9] The 2006 Promotional Framework for Occupational Safety and Health Convention of the International Labor Organization focuses on the establishment of national regulations to address occupational safety and health issues.[10] All these treaties have a strong national regulatory component, whereas the international externalities are limited.

An international treaty can solve a national regulatory problem in several ways. First, the treaty could contain provisions for capacity building (Abbott and Snidal 2010; Chayes and Chayes 1995; Tallberg 2002; Urpelainen 2010a; VanDeveer and Geoffrey 2001). International treaties could coordinate training programs, fund demonstration projects, collect and administer information, orchestrate activities in the private sector, and create scientific research programs. Second, the treaty could contain provisions that indirectly mitigate the national regulatory problem. For example, consider a national regulatory problem related to the environmental impact of foreign direct investment. If a global treaty induces international investors to change their environmental practices, it may reduce the need for national regulation in different states.

[8] See http://bch.cbd.int/protocol. Accessed April 26, 2011.
[9] See http://www.pic.int. Accessed April 26, 2011.
[10] See http://www.ilo.org/ilolex/cgi-lex/convde.pl?C187. Accessed April 26, 2011.

Although we focus on developing countries, industrialized countries should also be considered. Industrialized countries generally possess adequate regulatory capacities to address national problems. While they may not have an *incentive* to regulate hazardous waste trade, they do have the *ability* to do so. At the same time, private actors from these countries often create national regulatory problems in developing countries. Thus, it is important to secure the participation of industrialized countries.

While industrialized countries have no need to improve their national regulatory capacities, they might nonetheless be interested. First, domestic civil society may lobby for a global treaty. Second, industrialized countries may choose to negotiate and ratify treaties that address national regulatory problems in developing countries for "expressive" reasons: despite limited material benefits for them, the reputational payoff ultimately exceeds the low material cost (Guzman 2008; Simmons and Danner 2010).

Our model of ratification is based on a cost-benefit calculus, whereby a state ratifies a treaty if the benefits B can be expected to exceed the costs C. The cost parameter C captures the transaction cost of ratification and implementation, whereas the benefit side B captures the possible national benefits. Since we focus on treaties that address national regulatory problems, such benefits need not derive from the control of international externalities. As long as the treaty improves a state's ability to regulate at the national level, B will be positive.

When can we expect net benefits to a state from a treaty, $B - C > 0$? States with competent national regulatory authorities should have little interest in a global treaty to address a national problem. They are fully capable of addressing the national regulatory problem in a unilateral fashion. States with limited regulatory capacity face the opposite incentive. Even though the treaty has very little effect on the behavior of foreign states with adequate regulatory capabilities, so that the conventional wisdom on controlling international externalities fails, it reduces the burden on the national regulatory system.[11]

Based on these considerations, we can formulate our primary hypothesis:

Hypothesis *Weak regulatory capacity induces developing countries to ratify global treaties that address national regulatory problems.*

While relatively intuitive, the hypothesis deviates from three influential conventional wisdoms on regulatory cooperation. First, it differs from the

[11]To understand this logic, consider the counterfactual: what if a country with little regulatory capacity remains an outsider? On the one hand, the regulatory problem may worsen. As regulations in treaty signatories improve, private actors who are unwilling or unable to comply with them may shift their activity to the outsider countries. On the other hand, outsiders may be excluded from participation in the regulated activity. If the treaty proscribes transactions, such as trade or investment, between members and non-members, the outsiders' participation is limited to illegal transactions.

shallow cooperation hypothesis (Downs et al. 1996). If states ratified shallow treaties, good regulatory capacity should facilitate ratification of regulatory treaties. Our hypothesis is the opposite: countries that expect difficulties in national implementation have incentives to participate. Second, our hypothesis does not follow from the managerialist approach (Chayes and Chayes 1995; Tallberg 2002). According to the managerialist logic, inadequate capacity impedes cooperation. While the managerialists emphasize capacity building, their argument does not imply that states are enthusiastic to cooperate if they expect implementation difficulties. Finally, this hypothesis also deviates from the received wisdom on the global hazardous waste regime, our empirical application. According to previous research, the Basel Convention is ultimately a failed treaty from most developing countries' perspective because it does not ban hazardous waste trade (Clapp 1994, 2001; Selin 2010). Instead, we argue that the Basel Convention is perfectly rational for developing countries.

4 The Global Hazardous Waste Regime

International trade in hazardous waste became an issue in the 1970s. At the time, industrialized countries began to enact increasingly stringent regulations on waste management, thus raising the cost of domestic disposal. International trade in hazardous waste increased rapidly, and much of it was industrialized countries exporting hazardous substances to developing countries for disposal. In the late 1980s, several highly salient disasters associated with exports of hazardous waste to developing countries increased the prominence of the issue (Clapp 2001, 33). Environmental NGOs and several developing countries called for a global ban on hazardous waste trade, and in March 1989 the Conference of Plenipotentiaries on a Global Convention on the Control of Transboundary Movements of Hazardous Waste accepted the final treaty text in Basel, Switzerland.

We use the hazardous waste regime to test our argument for several reasons. First, it focuses on national regulatory problems in developing countries. Given that the international externality is weak, we can plausibly rule out the possibility that states ratify it to address transboundary externalities (Keohane 1984; Koremenos et al. 2001). Second, the Basel Convention is supplemented by numerous additional treaties that we can use to further scrutinize the empirical validity of our theory within the same setting. In addition to the quantitative ratification analysis, we present structured comparisons of other hazardous waste treaties and a series of country vignettes that allow us to trace causal mechanisms. Finally, the Basel Convention is a hard test of our argument because the conventional wisdom is diametrically opposed to our argument. According to previous studies, the Basel Convention is a relatively dysfunctional treaty that does not serve the interests of developing countries (Clapp 2001; Selin 2010). Thus, the prior expectation from the literature is that our theory should not hold.

4.1 Basel Convention

The cornerstone of the Basel Convention is the Prior Informed Consent (PIC) principle which requires that exporters of waste inform the officials of the importing nation and obtain a permission for the transaction (Article 6). The PIC principle does nothing to prevent developing countries from importing hazardous waste, but it obligates the exporters to obtain a prior approval for shipments. Additionally, the Basel Convention emphasizes that each country has the right to prohibit or permit imports of hazardous waste (Article 4), and allows each nation to use their own definition of hazardous waste (Article 3). It calls for international cooperation for capacity building on waste management (Article 11), increased information transmission between parties (Article 13), and calls for the formation of a liability protocol for damages from hazardous waste trade (Article 12). The only element of the Basel Convention that actually bans hazardous waste trade is Article 7 on transaction between parties and non-parties, but even this rule can be circumscribed if a party and non-party form a separate agreement that does not contradict the provisions of the Basel Convention (Article 11).

4.2 Ban Amendment

In 1995, at the third Conference of Parties, a pro-ban coalition was successful in promoting the adoption of an Amendment to the Basel Convention that would immediately and completely ban waste trade between Annex VII members (primarily composed of OECD and EU member states) and other, non-Annex states. Per the terms of the Basel Convention, formal amendments enter into force only after ratification by three-fourths of the parties to the Basel Convention. As of June 2011, the Ban Amendment has yet to enter into legal force. Indeed, the Ban Amendment has proven immensely controversial. As Selin (2010, 76) observes the "desire by many industrialized countries and developing countries to maintain the economically valuable trade in hazardous wastes for recycling and disposal, ratification of the Ban Amendment has been slow."

4.3 Regional Conventions

Countries have negotiated a number of additional treaties regulating transboundary movement of hazardous waste. Table 1 summarizes the other main agreements that comprise the broader regime complex on transboundary movement of hazardous wastes.[12] We comment on the ratification of each of these agreements below.

[12]See the Supplementary Appendix on this journal's website for a discussion.

Table 1 Hazardous waste regime complex

Year	Agreement	Region	Notes
1989	Lomé IV convention	EU-ACP	Article 39 prohibits transfer of hazardous waste between European members and African, Caribbean, and Pacific (ACP) members. Wastes generated in ACP states can be returned if sent to European state for processing. Article 39 has been largely a dead letter: little implementation and no enforcement.
1991	Bamako convention	Africa	Advances a broad definition of "hazardous wastes" and effectively bans transfers from outside Africa. An extremely weak agreement. Only 24 members of the Organization of African Unity (OAU) have ratified. Non-ratifiers include the main regional power, South Africa. The Bamako regime has not convened a single Conference of Parties, has no independent secretariat, and has little-to-no funding.
1992	Panama City agreement	Latin America	Acuerdo Regional sobre Movimiento Transfronterizio de Desochos Peligrosos. Similar to Bamako in prohibiting transfers from outside treaty membership. Also bans transport of outside shipments through members' territory.
1995	Waigani convention	South Pacific	Advances a broad definition of hazardous wastes, like Bamako. Similar to Panama City in prohibiting transfers and transport from outside parties.
1996	Izmir protocol	Mediterranean	Protocol to the Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution. Does not ban transfers. The Izmir Protocol regulates transport by requiring waste-exporting parties to provide advance notice to "transit parties." Also proscribes exports to non-EU parties or developing countries.
1998	Kuwait protocol	Persian Gulf/Oman	Waste imports are only permitted if the exporting party lacks technological capacity to process the waste, and the importing party does have such capacity.

5 Explaining Membership in the Basel Convention

The first empirical test of our argument focuses on ratification behavior. We begin by outlining the broad contours of the negotiation and ratification history of the Basel Convention, and then test our hypothesis through a standard ratification analysis. We find that controlling for other influences, weak regulatory capacity is a powerful predictor of early ratification of the Basel Convention.

5.1 Negotiation and Ratification History

Negotiations on the Basel Convention began in 1987 when the Governing Council of the United Nations Environment Program (UNEP) authorized the Executive Director of the organization to convene a working group to form a global convention on hazardous wastes. Five negotiation sessions were held between February 1988 and March 1989. The Basel Convention was adopted in March 1989, and was signed by 51 states. It entered into force quickly, in 1992, because the Convention only required 20 ratifications. Since then, the Basel Convention has evolved into a truly universal regulatory treaty, with 175 parties. The United States is the only OECD country that has not ratified the Basel Convention.

In the negotiations, environmental NGOs led by Greenpeace aggressively lobbied for a ban on hazardous waste (Clapp 2001, 39). Many developing countries, especially African nations, also expressed their support for a global ban (Selin 2010, 70). By contrast, most OECD countries, led by the United States, advocated for the PIC procedure. In the final treaty text, the PIC approach prevailed and no ban was agreed on. This was obviously a disappointment for environmental NGOs, and they have continued their advocacy of a global ban ever since. Many developing countries also renounced the negotiation outcome, and some scholars have also indicated that African countries delayed their ratification of the Basel Convention as a protest (Clapp 2001, 47). Nonetheless, as soon as the Basel Convention entered into force in 1992 it began to rapidly cumulate ratifications. This is in clear contrast to Africa's own Bamako Convention and the Ban Amendment, neither of which enjoys nearly universal support among states.

Previous research argues that developing countries were disappointed with the Basel Convention because they preferred a global ban (Clapp 2001; Selin 2010; Sánchez 1994).[13] This is certainly the impression that an observer of

[13]This is also the practitioner's view of the developing country position. Consider Wordsworth Filo Jones (1993, 335), a member of the Legal and Technical Experts Group for the Organization of African Unity, who participated in the preparation of the Bamako Convention: "The majority of [Organization of African Unity]'s member states favor banning the entrance of hazardous and toxic wastes into the African continent altogether".

the negotiations in 1989 would have been left with,[14] but does it reflect the real interests and preferences of developing countries? Through qualitative case studies, a systematic analysis of ratification, and a comparison with the fate of treaties calling for an actual ban, we show that developing countries reap regulatory benefits from the Basel Convention yet they have shown little interest to ban hazardous waste trade.

If the Basel Convention was a disappointment for the NGOs, why did many industrialized countries nonetheless ratify it? First, the Basel Convention was seen as a "stepping stone" towards more stringent rules that would be enshrined in future amendments and protocols. Thus, it provided the NGOs with an opportunity to promote more stringent rules in the future. Second, had the Basel Convention not entered into force, the negotiations would have begun from scratch, and this would have caused years of delay in the formulation of global rules for hazardous waste. For NGOs, therefore, the Basel Convention was the lesser evil.

5.2 Quantitative Analysis: Research Design

To evaluate our hypotheses concerning the effect of national regulatory capacity on participation in international regulatory regimes, we constructed a cross-national dataset for survival analysis of Basel Convention ratification. The full dataset spans 184 countries, from 1989 to 2009. Of these, 174 countries ratify the Basel Convention during this time. Given data limitations, however, in our empirical analysis we are restricted to the 140 states included in the *International Country Risk Guide* (ICRG). As with other similar datasets, such as Polity IV, ICRG excludes a number of microstates. Source information and descriptive statistics for these and all of our control variables are presented in Table 2. The Supplementary Appendix contains the details of additional robustness checks (outliers, control variables, alternative statistical specifications) not discussed in this section.

We estimate a Cox proportional hazard model to analyze the duration of time before ratification of the Basel Convention. This survival models tells us the "hazard" of a country ratifying the Basel convention at a given time. The empirical analysis of the ratification hazard is commonly used as a proxy for national treaty support (Neumayer 2002; Simmons 2009; Von Stein 2008), and can be justified as follows. As national legislatures contemplate the ratification of a multilateral treaty, their decisions are influenced by multiple factors, some of which are unobservable. Therefore, it would be impossible to accurately predict the exact timing of ratification. Similarly, one cannot

[14]Willy Kempel (1999, 429), who participated in the Austrian delegation, notes: "The idea of a comprehensive ban on all exports of waste from developed to developing countries was a goal that NGOs and developing countries had asked for all along."

Table 2 Summary statistics for the Basel convention

	Count	Mean	SD	Min	Max
Bureaucratic quality	657	1.61	1.05	0.00	4.00
Corruption	657	−2.73	1.11	−6.00	0.00
Democracy	656	−0.15	6.36	−10.00	10.00
GDP PC (log)	657	6.69	1.23	4.13	10.12
Population (log)	657	16.00	1.37	13.04	20.85
Pop. density (log)	657	3.49	1.37	0.31	8.54
Industry, pct GDP	657	31.58	14.72	1.88	84.38

simply distinguish between ratifiers and non-ratifiers, because a non-ratifying country could always ratify in the future. Instead, empirical analysis of time to ratification must be based on estimated ratification probabilities. The Cox model allows us to estimate the effect of our main explanatory variables on this hazard. Our primary hypothesis is that countries that lack bureaucratic quality will ratify the Basel Convention more quickly than countries with relatively greater bureaucratic capacity. Thus, we expect bureaucratic quality to have a statistically significant and negative effect on ratification probability (i.e., we expect it will yield a hazard ratio below 1.0).

To verify that the proportionality assumption holds, we use the Schoenfeld residuals test (Box-Steffensmeier and Jones 2004).[15] Our basic model for each convention is:

$$HAZARD_i(t) = h_0(t)e^{[\beta BQUAL_{i,t} + \gamma CONTROLS_{i,t}]}. \quad (1)$$

In this equation, HAZARD represents the "risk" of a country i ratifying the convention at time t, given bureaucratic quality (BQUAL) and relevant control variables (CONTROLS). Thus, β is the coefficient for bureaucratic quality and γ is a vector of coefficients for the control variables. The baseline hazard rate, $h_0(t)$, is left unspecified.[16] This model is based on the assumption that the influence of one covariate relative to others remains proportional over time. This facilitates interpretation greatly, as exponentiating the coefficient for a given variable yields the hazard ratio for that variable, with a similar interpretation to an odds ratio in logistic regression.

While we do estimate a model including EU and OECD members, we generally restrict our sample to non-EU and non-OECD members. Our primary

[15]The Schoenfeld residuals tests were implemented in Stata 11 using a linear time trend. We found that none of our independent variables violate the proportionality assumption for either treaty in any of the models that we will present in the results section.

[16]As Box-Steffensmeier and Jones (2004) point out, this is a major advantage of Cox models over parametric models for political science analysis. If one has *ex ante* information regarding the precise "shape" of the influence of duration on hazard, parametric models may provide more accurate estimates. If the shape of this influence is unknown, and the primary concern is to assess the relationship of specific covariates on an outcome of interest, semi-parametric models such as the Cox proportional hazards model are preferable.

concern is to explain why countries cooperate on what are ultimately national regulatory issues. Many EU and OECD members had already adopted national regulation consistent with the provisions of the Basel Convention. As we argued in the theory section, their ratification decisions are driven by different considerations, such as domestic NGO lobbying (Clapp 2001). As Desombre (1995) and others have shown, there are also other reasons why countries try to "internationalize" regulation that they have already adopted domestically, and these are fundamentally unrelated to regulatory capabilities. Including these countries would possibly bias our results, because the processes driving ratification are substantially different.

5.2.1 Dependent Variable

Our dependent variable is the hazard rate of Basel ratification. For ratification, we coded whether a country has ratified the convention in focus during a given episode of time. We define episodes annually, since that is how our covariates of interest are measured.[17] The beginning and end of each episode are coded in terms of time elapsed since adoption of the treaty text. This information allows us to calculate the baseline hazard of treaty ratification: the effect of the passage of time on the probability of ratification, absent all other variables. We can then express the effect of our independent and control variables in terms of hazard ratios: changes to the underlying hazard rate per one-unit increase of a covariate.

This is a meaningful measure because, as we have argued above, the timing of ratification decisions is significant for international cooperation. Since nearly all multilateral environmental treaties (including the Basel Convention) specify a minimum participation threshold for entry into legal force, countries that ratify early are expressing stronger support for that treaty. By increasing the likelihood of entry into force, early ratifiers increase the probability of ratification by countries whose interest in participation is strongly conditional. Early ratifiers also forgo the opportunity to extract side payments from countries that are strongly committed to entry into force, should the initial round of ratifications not meet the minimum participation threshold stipulated in the treaty.[18] Figure 1 shows the annual number of Basel Convention ratifications, from 1989 to 2010.

[17]Therefore, most episodes are twelve months in duration. The exceptions are the year that the treaty text is adopted, which starts at the month of treaty adoption, and the year that each country ratifies the treaty, which ends at the month of ratification.

[18]A prime example of the strategic implications of the promise of side payments is Russia's delay of the ratification of the Kyoto Protocol. As the pivotal state for entry into force, Russia was able to secure European Union's support for Russia's membership in the World Trade Organization in exchange for ratifying the Kyoto Protocol (Henry and Sundstrom 2007).

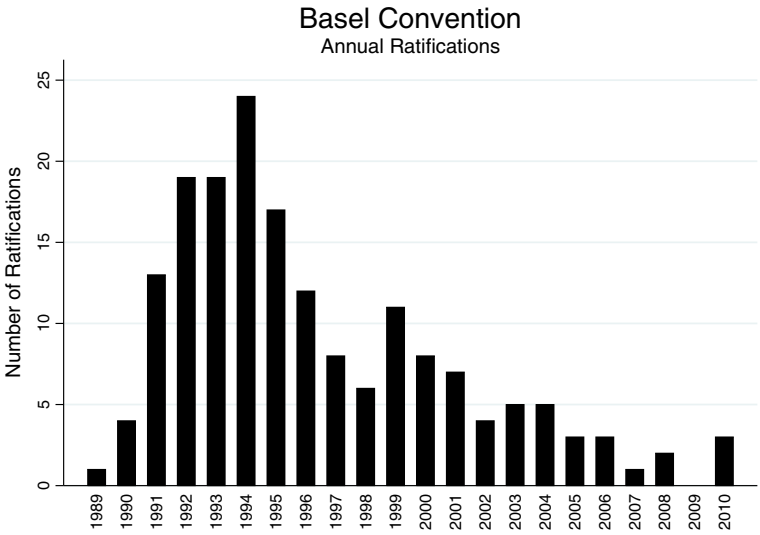

Fig. 1 Basel Convention ratifications, 1989–2010

5.2.2 Explanatory Variables

Our primary independent variable is regulatory quality, lagged by one year to avoid possible simultaneity bias.[19] We expect that countries with lower domestic regulatory quality will ratify the Basel Convention more quickly because these countries stand to gain the most from the Convention's entry into force. This is the case because, first, the Basel Convention's primary regulatory mechanism—the prior informed consent procedure—provides greater benefits to countries with relatively low regulatory capacity. The procedure, which shifts the burden of identifying hazardous substances from importing countries to exporters, provides the greatest benefit to those countries that lack the capacity to identify hazardous substances. Moreover, the Basel Convention, like many other multilateral environmental agreements, includes promises of financial and technological assistance to developing countries, to promote effective implementation of the treaty.

To capture variation in regulatory quality, we use the measure of bureaucratic quality in the ICRG. This measure comprises several elements, including "autonomy from political pressure," the extent of "established procedure for recruitment and training," and the ability to leverage organizational power and expertise to implement policy without "interruptions in government

[19]In general, endogeneity is of limited importance here. Even if the Basel Convention itself did increase regulatory quality, it would do so slowly over time, and thus any reverse causality would disappear from the survival dataset.

services."[20] While this is admittedly a proxy for regulatory quality, it serves our purpose well.[21] National bureaucracies that lack (1) strong standards for recruitment and training, (2) substantive policy expertise, and (3) sufficient organizational resources to implement policy without interruption will very likely lack the capacity to administer national controls concerning the import of hazardous waste.[22]

5.2.3 Control Variables

We control for several additional variables that might influence the ratification of the Basel Convention. All control variables are lagged one year to avoid possible simultaneity bias. While there are a large number of factors that might influence (the timing of) treaty ratification, we have striven to specify a model that is parsimonious, yet reasonably complete.

To begin with, we control for government corruption. To the extent that the government regulating imports is plagued by corruption, one may expect ratification to be less likely. Participation in international regulatory treaties usually entails increased transparency. Corrupt governments have little to gain from increased regulation, and therefore have little incentive to pay such transparency costs. The opposite argument could also be made: corruption could increase ratification because regulations create opportunities for rent seeking (Djankov et al. 2002). To control for this potential influence on ratification, we use the ICRG measure of governmental corruption.[23]

The need to account for corruption is further bolstered by the fact that unsurprisingly, the negative correlation between the corruption measure and bureaucratic quality in the ICRG dataset is relatively high, approximately −0.67. If we did not account for corruption, then our analysis of bureaucratic quality might accidentally capture the effects of corruption instead of bureaucratic quality itself.[24]

[20]The measure is based on data collected by the ICRG staff and their own subjective analysis of these data. The full ICRG codebook is available at https://www.prsgroup.com/ICRG_Methodology.aspx.

[21]A potential criticism of our use of this measure is that countries with low bureaucratic quality may ratify the treaty because potential opponents are less concerned about implementation. Ultimately, however, this criticism is not convincing. One of the immediate objects of the Basel Convention is to build regulatory capacity, which would not benefit firms engaged in international waste trade. Moreover, ratification of the treaty increases transparency, which would also not benefit these firms. We thank a conference participant for raising this issue.

[22]In the Supplementary Appendix on this journal's webpage, we provide ratification dates and bureaucratic quality scores for these dates for each country in our sample.

[23]To facilitate interpretation, we invert the ICRG scale such that larger values indicate greater—not less—governmental corruption.

[24]According to recent empirical research, the high correlation among various governance indicators means that they could be measuring some underlying latent variable, such as overall quality of institutions (Bjørnskov 2011; Langbein and Knack 2010). Our empirical results should be interpreted with this caveat in mind.

Preferences for international environmental regulation may be influenced by regime type. Previous research suggests, for example, that more democratic countries will be more likely to participate in international environmental treaties (Bernauer et al. 2010; Neumayer 2002). Therefore, we control for national variation in levels of democracy, as measured in the Polity IV database.

National preferences for environmental regulation may also be influenced by income. For example, the extant literature notes that the costs of dealing with hazardous waste imports are more difficult to justify when a country is desperate for revenue (Clapp 1994). Other things equal, we would expect that as income increases, preferences for environmental regulation will increase, and willingness to deal with hazardous waste imports will decrease (Dasgupta et al. 2002). To control for this possibility, we add the logarithmized GDP per capita. The data are from the *World Development Indicators* (WDI) and measured in constant 2000 USD.

National preferences for ratification may also be influenced by population and, especially, population density. The proximity of hazardous waste sites to population centers may have a strong influence on willingness to import waste and, consequently, on preferences for international regulation of hazardous waste imports. To control for this, we add the logarithmized values of national population and population per square kilometer, as reported by the WDI.

A government's willingness or aversion to import hazardous waste may also be influenced by corporate interests (Bernhagen 2008; Sprinz and Vaahtoranta 1994). If the Basel Convention increases the cost of hazardous waste trade, then industries producing such waste may be opposed to ratification because they worry that their ability to export waste is decreased. Given that manufacturing is the largest source of hazardous waste, we control for this possibility by adding the value of domestic industrial activity, as a share of GDP. These data are also from the WDI.[25]

Beyond this baseline model, we present an extended model with the following extra features. First, given that landlocked countries are generally less attractive as targets for hazardous waste imports due to higher transaction costs, we include a binary variable for being landlocked (we also examine a model excluding all landlocked countries).[26] Second, treaty ratification may be influenced by the composition of a government. Other things equal, the more divided a government, the greater the difficulty of obtaining support for treaty ratification. To control for this possibility, we use a measure from the Database of Political Institutions: fractionalization (the probability that two members of a legislature will be of differing parties). Third, we control for total waste imports—a measure of the potential for hazardous waste—as

[25] Of course, the interests of the waste processing industry are also important. Unfortunately, time series data with global coverage at this level of precision do not exist.

[26] The data are from the United Nations geoscheme, see http://millenniumindicators.un.org/unsd/methods/m49/m49regin.htm. Accessed June 22, 2011.

reported in the United Nations COMTRADE database.[27] The data contain many zeros, however, and thus probably underestimate the extent of waste trade for many countries, so we only include this variable in the extended model. The distribution is not normal, so this variable is logarithmized. Fourth, we control for trade openness because previous research suggests it may influence ratification (Bernauer et al. 2010; Neumayer 2002). Finally, we add total EU and US foreign aid to developing countries to account for external pressure, respectively for and against ratification.

5.3 Quantitative Analysis: Findings

Our analysis provides strong support for our theory that bureaucratic capacity influences ratification decisions in global regulatory treaties. We find that bureaucratic quality is an important determinant of Basel Convention ratifications, controlling for other covariates of treaty ratification: as bureaucratic quality increases, the probability of ratification in a given year decreases substantially. This relationship holds whether we include or exclude high-leverage cases. Moreover, this relationship holds when we exclude the lowest-income economies from our sample, indicating that the observed relationship is a general one. Finally, this relationship holds when we exclude autocratic and anocratic countries from our sample, or when we exclude landlocked countries. Additional robustness tests, such as an outlier analysis, can be found in the Online Appendix.

Table 3 presents results for our analysis of Basel Convention ratification. The first model presents our full sample, while the second model presents results when we exclude lowest-income countries from our sample. The third model presents results when we restrict our sample to democratic countries. The fourth model excludes landlocked countries. The fifth model uses an expanded sample, including OECD and EU members. Finally, the sixth model used a complete sample but adds new control variables. All results are presented with robust standard errors.

There is a substantively strong and statistically significant negative relationship between bureaucratic quality and Basel Convention ratification. In the main model, a one standard deviation increase in bureaucratic quality reduces the "hazard" of ratification by 25%. When we restrict our sample to exclude lowest-income countries, the ratification hazard is cut by nearly 50%. Similarly, a one standard deviation increase in bureaucratic quality reduces ratification hazard by more than 40% when autocratic and anocratic countries are excluded from the sample. This effect is also robust to the exclusion of

[27]See http://comtrade.un.org. Accessed June 18, 2011. The following HS-6 classes were used: 251720, 252530, 261900, 550510, 262110, 550520, 271091, 711291, 271099, 711299, 300680, 720410, 382510, 720421, 382530, 720429, 382541, 720430, 382549, 720441, 382550, 720449, 382561, 740400, 382569, 750300, 382590, 760200, 391510, 780200, 391520, 790200, 391530, 800200, 391590, 810197, 400400, 810297, 810330, 810420, 810530, 810600, 810730, 810830, 810930, 811020, 811213, 811222, 854810.

Table 3 Ratification of the Basel convention: (1) Full sample; (2) Excluding poor countries; (3) Democracies only; (4) Excluding landlocked countries; (5) Including OECD Countries; (6) Extended model for full sample

	(1)	(2)	(3)	(4)	(5)	(6)
Bureaucratic quality	0.76**	0.56**	0.60**	0.72**	0.79*	0.75*
	(0.10)	(0.15)	(0.15)	(0.10)	(0.10)	(0.12)
Corruption	0.69***	0.70	0.65**	0.65***	0.69***	0.68***
	(0.09)	(0.16)	(0.12)	(0.09)	(0.08)	(0.10)
Democracy	1.00	0.99	0.82	1.00	1.01	0.99
	(0.02)	(0.04)	(0.12)	(0.03)	(0.02)	(0.02)
GDP PC (log)	2.12***	3.62***	2.72**	2.19***	1.54**	2.50***
	(0.33)	(1.58)	(1.07)	(0.36)	(0.26)	(0.45)
Population (log)	1.51***	1.54***	1.51***	1.53***	1.16	1.49***
	(0.15)	(0.24)	(0.20)	(0.16)	(0.11)	(0.17)
Pop. density (log)	0.94	0.73*	0.90	0.95	1.02	1.10
	(0.10)	(0.12)	(0.13)	(0.11)	(0.10)	(0.12)
Industry, pct GDP	0.96***	0.94**	0.95*	0.96***	0.99	0.96***
	(0.01)	(0.02)	(0.03)	(0.01)	(0.01)	(0.01)
OECD member					0.23***	
					(0.11)	
Landlocked						1.42
						(0.48)
Fractionalization						1.00
						(0.00)
Haz. waste imports/GDP (log)						1.06
						(0.05)
Trade, pct GDP						1.01
						(0.00)
US aid, pct GDP						1.05
						(0.11)
EU aid, pct GDP						1.02
						(0.04)
Observations	656	158	196	535	763	620

All models estimated with robust standard errors
Exponentiated coefficients; standard errors in parentheses
*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$

landlocked countries and to the inclusion of new covariates. In both cases, the decrease remains at roughly 25%.

A standard deviation change in bureaucratic quality is not an extreme occurrence. Forty-two countries in our sample experience at least a single one-unit change in bureaucratic quality, and many of these experienced more than one. We also note that our measure of bureaucratic quality is continuous: an equal number of additional countries experienced at least a half-unit change.[28]

On the whole, contracting parties were fairly slow to ratify the Basel Convention. Nevertheless, as Fig. 2 makes clear, there was significant variation in the speed with which countries ratified the Convention. Holding all

[28]For example, Botswana experienced a change in bureaucratic quality from 3.0 in 1992 to 2.25 in 1993. The Dominican Republic experienced a drop from 1.58 in 1998 to 1.0 in 1999.

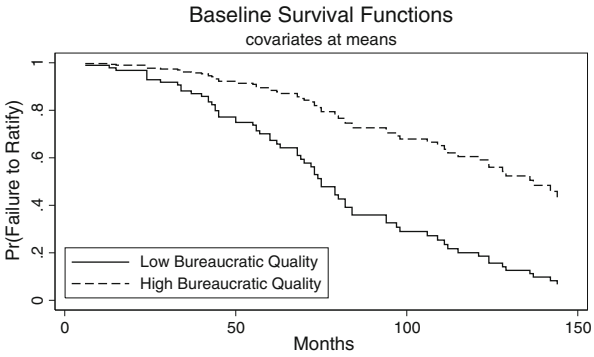

Fig. 2 Survival functions for Basel convention ratification, by bureaucratic quality

other covariates at their mean observed values, countries with the highest observed level of bureaucratic quality were demonstrably slower to ratify the Basel Convention than were countries with the lowest level of bureaucratic quality. Eleven years after the adoption of the treaty, the probability of ratification among high-bureaucratic quality countries was 0.5. In contrast, low-bureaucratic quality countries reached this threshold five years earlier. Two decades after the adoption of the Basel Convention, the probability of non-ratification among low-bureaucratic quality countries was nearly nil; the probability of ratification failure among high-bureaucratic quality countries remains at 0.3. Since there is a modest, positive correlation between democracy and bureaucratic quality, we might be suspicious that this observed relationship is driven simply by the fact that treaty ratification is more difficult in democratic countries. However, as the third model in Table 3 makes clear, the influence of bureaucratic quality on ratification is even stronger among democracies. Similarly, the effect of bureaucratic quality in Fig. 2 is not sensitive to our decision to hold democracy at the mean observed value.

With respect to the main control variables, we observe a negative relationship between government corruption and Basel Convention ratification in five of our six models. Participation in international regulatory regimes carries transparency costs, and we would expect corrupt regimes to be less willing to pay such costs. Interestingly, we do not find that democracy influences ratification of the Basel Convention.

Population and per capita income have a significant, positive influence on treaty ratification. This is consistent with the argument that, as populations become more prosperous, there is greater domestic demand for environmental regulation and provision of (at least local) environmental benefits (Dasgupta et al. 2002). However, we do not find a significant relationship between population density and treaty ratification. Our initial supposition was that demand for Basel Convention ratification would be greater in more densely-populated countries, because a relatively greater proportion of the population would be vulnerable to poorly managed hazardous wastes. It appears that income dominates density regarding domestic demand for environmental regulation.

Given that the Basel Convention increases the cost of hazardous waste trade through the PIC procedure, and manufacturing is the largest source of hazardous waste, one would expect industrial activity to reduce a country's incentive to participate in the Basel Convention. In five of our six models, industrial share of GDP has significant, negative influence on ratification.

Finally, in our expanded model (column 6), we find that none of the additional controls—landlocked geographic location, fractionalization, hazardous waste imports, trade openness, and foreign aid receipts—have a significant effect on ratification.

In summary, bureaucratic quality exerts a powerful influence on developing countries' decision whether to ratify the Basel Convention. Countries that enjoyed greater bureaucratic quality were significantly less likely to ratify the Convention in a given year than were countries with lower bureaucratic quality. Our theory offers the following interpretation: international treaties that improve regulatory capacity in developing countries also improve the ability of developing countries to capture rents from those activities.

Unlike the Basel Convention, we do not expect to find a significant relationship between bureaucratic capacity and ratification of the Basel Ban Amendment, since the latter offers countries little in the way of capacity-building. We repeat our analysis of Basel Convention ratification (above) for the Ban Amendment. In fact, we find that there was no relationship between bureaucratic quality and ratification of the Ban Amendment. Full results of the Ban Amendment analysis are presented in the Online Appendix.

6 Other Treaties

Our theory implies that countries with low regulatory capacity will not support treaties that ban the activity in question. When we look beyond the Basel Convention, we are thus confronted with a puzzle: the broader regime complex includes a number of additional treaties, many of which incorporate import bans. Does the logic behind our theory continue to apply even in cases where developing countries have supported regional bans? We find that it does. Closer inspection of the additional treaties in the hazardous waste regime reveals that countries have supported other hazardous waste treaties under two conditions: when the cost of doing so is particularly low, and when particular, geographic factors make the expected benefits unusually great. In other words, regional agreements represented an opportunity to assuage both domestic and international constituencies that were upset by the failure of the Basel Convention to incorporate an outright ban on hazardous waste trade.

The details of this analysis can be found in the Supplementary Appendix. Table 4 provides a summary of the findings. It classifies the other conventions under two categories: shallow treaties and treaties producing unusually large idiosyncratic benefits. As the table shows, when developing countries have ratified treaties that ban hazardous waste, these treaties have often not been

Table 4 Hazardous waste regime complex

Ratification type	Agreements	Notes
Shallow treaties	Bamako convention, Panama City convention, Lomé IV convention	Ratifiers gain expressive benefits but weak design and/or implementation minimizes ratification cost. Most countries that ratified these agreements did *not* ratify the Ban Amendment. For example, only 5/24 Bamako ratifiers also ratified the Ban Amendment. This suggests that these governments did not prefer a ban on hazardous waste trade.
Unusual benefits	Izmir protocol, Kuwait protocol, Waigani convention	Parties to the Izmir and Kuwait agreements are particularly vulnerable to hazardous waste accidents during transportation. By lowering the accident risk, these agreements offer unusually large regional benefits. Similarly, the only parties to Waigani that could export hazardous waste (Australia and New Zealand) are also the only parties that could respond to a hazardous waste accident. These countries gain little from exporting waste to their own backyard, and Waigani does not preclude exporting to other regions. Waigani also addresses the important regional problem of nuclear waste.

implemented. In other cases, an actual ban is imposed because a regional group of states obtains unusually large benefits from banning hazardous waste.

In sum, the waste regime was enlarged during the 1990s by regional agreements banning hazardous waste imports. Such bans seem to contradict our theory. However, ratification of a ban agreement does not by itself contradict our theory. If a ban is not enforced, then countries may ratify to gain symbolic or expressive benefits at little material cost. Similarly, if a developing country does not engage in a particular behavior, it has little to gain from increased regulatory capacity in that area. In these cases, there is no cost (in foregone rents) to participation in a regional ban. Finally, some countries support regional bans because they expect to receive unusually significant benefits from reduced exposure to risk.

7 Country Case Studies

So far, we have demonstrated that regulatory capacity exerts substantial influence on the ratification of the Basel Convention, and countries' interest in the ratification of other hazardous waste treaties reflects specific regional interests. To gain additional empirical leverage, we also selected eight country case studies for presentation. These case studies allow us to examine the causal mechanisms of interest. First, we provide qualitative evidence for the importance of regulatory quality and capacity building in the choices of four developing countries: Côte d'Ivoire, South Africa, the Philippines, and India. These country cases show how developing countries benefit from the Basel Convention in practice, yet they had very little interest in actually banning

hazardous waste trade. Second, we examine countries that have ratified the Ban Amendment, and thus seem to contradict our argument. In each case, we find evidence of highly specific geographic or reputational incentives. Finally, we examine the very curious case of Australia, a major hazardous waste exporter that nonetheless created the regional Waigani Convention with stringent and enforceable provisions against trade. The details of the case studies can be found in the Online Appendix, and we summarize the key findings here.

7.1 Qualitative Evidence for Causal Mechanisms

We selected the four developing countries with the following criteria in mind. First, we wanted to study country cases from regions influenced by hazardous waste trade, so we selected both African and Asian countries. Second, we wanted to include some regional powers with a strong interest in global and regional regulatory practices, so we selected South Africa and India for the analysis. Finally, we wanted to analyze cases in which hazardous waste was a very salient political issue. Thus, we selected Côte d'Ivoire and the Philippines for our analysis.

South Africa has ratified the Basel Convention and, as a major importer of hazardous waste, exploited the opportunity to enhance regulatory capacity. It has not ratified the Ban Amendment, however, and national officials have explicitly stated that this is so because the country prefers to continue imports of hazardous waste. South Africa also did not ratify the Bamako Convention. This is consistent with our argument, because as the regional hegemon South Africa is a country that could make the Bamako Convention work.

India has also ratified the Basel Convention, and used it to improve its ability to regulate the large volumes of hazardous waste that the country imports. As a major player in the ship breaking industry, India has however not ratified the Ban Amendment. Again, national officials have explicitly stated that it is not in the country's interest to stop trade in hazardous waste.

In the Philippines, hazardous waste was a key political issue because a 2006 free trade agreement with Japan reduced tariffs for hazardous waste imports. While environmentalist constituencies in the Philippines demanded that the country ratify the Ban Amendment, the government chose not to do so.

At first blush, Côte d'Ivoire seems an ideal candidate for the Ban Amendment: the country experienced a severe accident related to hazardous waste imports in 2006, when the Swiss-chartered ship *Probo Koala* dumped hazardous waste in the surroundings of the national capita, Abidjan. Dozens were killed and tens of thousands sought medical assistance. The Basel Convention administered a large capacity building program in the country, yet the government did not ratify the Ban Amendment despite strong domestic and international pressure to do so. Instead, it chose to strike a bargain with the foreign shipowners, effectively agreeing to stop criminal proceedings against them on the deaths and injuries in the country, in exchange for monetary compensation.

7.2 Explaining Ban Amendment Ratifications

According to our theory, very few developing countries should have an interest in the ratification of the Ban Amendment. This is certainly borne out in the empirical data, yet some countries seem to deviate from our expectations. Why? To study this question, we selected three very different countries for analysis. First, from Africa we study Kenya, a poor country with a large electronic waste problem. Second, from Latin America we selected Chile, one of the wealthiest countries that should not have any trouble regulating hazardous waste flows without external assistance. Finally, given that many Arab countries have ratified the Ban Amendment we also studied the case of Egypt.

In Kenya, the Ban Amendment ratification was driven by domestic pressure. In addition to Kenya's hosting salient UNEP meetings on the topic, a Nobel Peace Laureate, Ms. Wangari Maathai of the Kenyan Green Belt Movement, lobbied for a more aggressive position on hazardous waste.

In Chile, the decision to ratify the Ban Amendment was related to the country's OECD membership bid. The OECD requires extensive environmental policy reforms, and given the dominance of European countries in the membership, it is not surprising that the organization's "roadmap" for Chile's membership demanded policies to combat hazardous waste. Thus, Chile ratified the Ban Amendment in 2009, only a year before the country's negotiations on OECD membership were successfully concluded.

Egypt illustrates the importance of specific geographic conditions. Much hazardous waste goes through the Suez Canal, and a major hazardous waste or nuclear accident in the canal would have disastrous consequences for the country's tourism industry. The negotiation history of the hazardous waste regime shows that Egypt has repeatedly emphasized the importance of reducing hazardous waste transit through the Suez Canal, and the ratification of the Ban Amendment is a natural continuation of this strategy.

7.3 Australia: Special Case

Australia's case provides additional insight into the reasons why some countries have gone beyond the Basel Convention. Due to its large mining sector, Australia is a major exporter of hazardous waste, and it has consistently opposed the Ban Amendment in negotiations. Along with New Zealand, it has nonetheless ratified the regional Waigani Convention in August 1998. Why?

From the very beginning, Australia has supported the regional Waigani Convention that aims at preventing the dumping of hazardous waste in small Pacific islands in the area. As the regional hegemon, it is in Australia's interest to pay particular attention to the environmental consequences of hazardous waste in these Pacific islands. They do not have the ability to safely dispose or recycle hazardous waste, and their regional proximity to Australia implies that the Australian government would probably foot the bill for cleaning up the mess. Consequently, it is perfectly rational for Australia to oppose

a global ban on hazardous waste trade—after all, Australia profits from exporting hazardous waste to Africa and Asia—while supporting a similar regional ban. Additionally, the Waigani Convention promotes the importation of hazardous waste from the Pacific islands to Australia and New Zealand, thus creating profits for Australian companies with expertise in hazardous waste management.

8 Conclusion

Classical cooperation theory emphasizes international cooperation problems as the primary reason why states form regulatory treaties (Keohane 1984; Koremenos et al. 2001). However, many regulatory treaties focus on addressing largely national problems. We have argued that while activists in industrialized countries may promote such treaties for normative or ideological reasons, developing countries ratify such treaties to enhance their national regulatory capabilities. To test this hypothesis, we have examined the global regime for managing hazardous waste. We have found that developing countries with limited regulatory capabilities have been eager to ratify the Basel Convention, whereas other treaties in the regime have achieved limited participation among developing countries. The fact that the Basel Convention does not ban trade in hazardous waste appears optimal for them.

These findings can also help understand global environmental regimes. As Mitchell and Keilbach (2001) have argued, the structure of the cooperation problem is important for understanding institutional design and cooperation outcomes. Similarly, the situation structure mediates environmental regime effectiveness (Victor et al. 1998). We have found that even situation structures seemingly unconducive to treaty formation can produce cooperation. However, the effectiveness of these treaties is in the eye of the beholder: if developing countries' primary interest is in regulatory capacity building, treaty effectiveness should be measured in terms of regulatory capacity building. Given the increasing importance of North-South interactions in global environmental politics, a more nuanced theoretical and empirical understanding of developing countries' incentives and preferences could prove useful. Our analysis shows both how one can theorize about these incentives and preferences and how qualitative and quantitative methods can be combined to test the resulting hypotheses.

Participation is a necessary, though not necessarily sufficient, condition for successful regulatory cooperation. We have shown that such participation is hard to attain if a treaty forces states with divergent preferences to adopt or ban a policy. Policymakers interested in maximizing participation without falling into the trap of shallow cooperation should increase their efforts to design treaties that allow many states to reap the concrete benefit of improved regulatory capacity. Such benefits are not synonymous to shallow cooperation, yet they can increase participation and thus contribute to an increasingly effectual global regulatory regime.

References

Abbott, K. W., & Snidal, D. (1998). Why states act through formal international organizations. *Journal of Conflict Resolution, 42*(1), 3–32.

Abbott, K. W., & Snidal, D. (2010). International regulation without international government: Improving IO performance through orchestration. *Review of International Organizations, 5*(3), 315–344.

Alter, K. J., & Meunier, S. (2009). The politics of international regime complexity. *Perspectives on Politics, 7*(1), 13–24.

Barnett, M., & Duvall, R. (2005). Power in international politics. *International Organization, 59*(1), 39–75.

Bernauer, T., Kalbhenn, A., Koubi, V., & Spilker, G. (2010). A comparison of international and domestic sources of global governance dynamics. *British Journal of Political Science, 40*(3), 509–538.

Bernhagen, P. (2008). Business and international environmental agreements: Domestic sources of participation and compliance by advanced industrialized democracies. *Global Environmental Politics, 8*(1), 78–110.

Bjørnskov, C. (2011). Combating corruption: On the interplay between institutional quality and social trust. *Journal of Law and Economics, 54*(1), 135–159.

Bob, C. (2005). *The marketing of rebellion*. New York: Cambridge University Press.

Box-Steffensmeier, J. M., & Jones, B. S. (2004). *Event history modeling: A guide for social scientists*. New York: Cambridge University Press.

Chayes, A., & Chayes, A. H. (1995). *The new sovereignty: Compliance with international regulatory agreements*. Cambridge: Harvard University Press.

Clapp, J. (1994). Africa, NGOs, and the international toxic waste trade. *Journal of Environment and Development, 3*(2), 17–46.

Clapp, J. (2001). *Toxic exports: The transfer of hazardous wastes from rich to poor countries*. Ithaca: Cornell University Press.

Congleton, R. D. (1992). Political institutions and pollution control. *Review of Economics and Statistics, 74*(3), 412–421.

Dai, X. (2006). The conditional nature of democratic compliance. *Journal of Conflict Resolution, 50*(5), 690–713.

Dasgupta, S., Laplante, B., Wang, H., & Wheeler, D. (2002). Confronting the environmental Kuznets curve. *Journal of Economic Perspectives, 16*(1), 147–168.

Desombre, E. R. (1995). Baptists and bootleggers for the environment: The origins of United States unilateral sanctions. *Journal of Environment and Development, 4*(1), 53–75.

Djankov, S., Porta, R. L., Lopez-De-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *Quarterly Journal of Economics, 117*(1), 1–37.

Downs, G. W., Rocke, D. M., & Barsoom, P. N. (1996). Is the good news about compliance good news about cooperation? *International Organization, 50*(3), 379–406.

Evans, N. R. (1996). The Basel convention: A toxic treaty for a toxic trade? *Economic Affairs, 16*(5), 17–23.

Finnemore, M, & Sikkink, K. (1998). International norm dynamics and political change. *International Organization, 52*(4), 887–917.

Gehring, T., & Obertür, S. (2009). The causal mechanisms of interaction between international institutions. *European Journal of International Relations, 15*(1), 125–156.

Gruber, L. (2000). *Ruling the world: Power politics and the rise of supranational institutions*. Princeton: Princeton University Press.

Guzman, A. T. (2008). *How international law works: A rational choice theory*. New York: Oxford University Press.

Henry, L. A., & Sundstrom, L. M. (2007). Russia and the Kyoto protocol: Seeking an alignment of interests and image. *Global Environmental Politics, 7*(4), 47–69.

Jones, W. F. (1993). The evolution of the Bamako convention: An African perspective. *Colorado Journal of International Environmental Law and Policy, 4*, 324–342.

Kempel, W. (1999). The negotiations on the Basel convention on the transboundary movement of hazardous wastes and their disposal: A national delegation perspective. *International Negotiation, 41*(3), 411–431.

Keohane, R. O. (1984). *After hegemony: Cooperation and discord in the world political economy*. Princeton: Princeton University Press.
Koremenos, B., Lipson, C., & Snidal, D. (2001). The rational design of international institutions. *International Organization, 55*(4), 761–799.
Krasner, S. D. (1991). Global communications and national power: Life on the Pareto frontier. *World Politics, 43*(3), 336–366.
Langbein, L., & Knack, S. (2010). The worldwide governance indicators: Six, one, or none? *Journal of Development Studies, 46*(2), 350–370.
Mitchell, R. B., & Keilbach, P. M. (2001). Situation structure and institutional design: Reciprocity, coercion, and exchange. *International Organization, 55*(4), 891–917.
Neumayer, E. (2002). Do democracies exhibit stronger international environmental commitment? A cross-country analysis. *Journal of Peace Research, 39*(2), 139–164.
Oates, W. E. (1999). An essay on fiscal federalism. *Journal of Economic Literature, 37*(3), 1120–1149.
Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change, 20*(4), 550–557.
Perrin, S., & Bernauer, T. (2010). International regime formation revisited: Explaining ratification behaviour with respect to long-range transboundary air pollution agreements in Europe. *European Union Politics, 11*(3), 405–426.
Raustiala, K., & Victor, D. G. (2004). The regime complex for plant genetic resources. *International Organization, 58*(2), 277–309.
Roberts, J. T., Parks, B. C., & Vásquez, A. A. (2004). Who ratifies environmental treaties and why? Institutionalism, structuralism and participation by 192 nations in 22 treaties. *Global Environmental Politics, 4*(3), 22–64.
Sánchez, R. (1994). International trade in hazardous wastes: A global problem with uneven consequences for the third world. *Journal of Environment and Development, 3*(3), 139–152.
Selin, H. (2010). *Global governance of hazardous chemicals: Challenges of multilevel management*. Cambridge: MIT Press.
Simmons, B. A. (2009). *Mobilizing for human rights: International Law in Domestic Politics*. New York: Cambridge University Press.
Simmons, B. A., & Danner, A. (2010). Credible commitments and the international criminal court. *International Organization, 64*(2), 225–256.
Sprinz, D., & Vaahtoranta, T. (1994). The interest-based explanation of international environmental policy. *International Organization, 48*(1), 77–105.
Tallberg, J. (2002). Paths to compliance: Enforcement, management, and the European union. *International Organization, 56*(3), 609–643.
Thomas, D. (2001). *The Helsinki effect: International norms, human rights, and the demise of communism*. Princeton: Princeton University Press.
Urpelainen, J. (2009). Explaining the Schwarzenegger phenomenon: Local frontrunners in climate policy. *Global Environmental Politics, 9*(3), 82–105.
Urpelainen, J. (2010a). Enforcement and capacity building in international cooperation. *International Theory, 2*(1), 32–49.
Urpelainen, J. (2010b). Regulation under economic globalization. *International Studies Quarterly, 54*(4), 1099–1121.
VanDeveer, S. D., & Geoffrey, D. D. (2001). "It's capacity, stupid: International assistance and national implementation. *Global Environmental Politics, 1*(2), 18–29.
Victor, D. G., Raustiala, K., & Skolnikoff, E. B. (Eds.) (1998). *The implementation and effectiveness of international environmental commitments: Theory and practice*. Cambridge: MIT Press.
Vogel, D. (1995). *Trading up: Consumer and environmental regulation in a global economy*. Cambridge: Harvard University Press.
Von Stein, J. (2008). The international law and politics of climate change. *Journal of Conflict Resolution, 52*(2), 243–268.