Constitutional Environmental Rights: 
A Quantitative Analysis of Intra-Regional Influences

Abstract

Why do some countries have constitutional environmental rights while others do not? In this paper I conduct statistical analyses to respond to this inquiry. Through studying the impact of intraregional constitutional design, I aim to understand why states adopt environmental rights. I argue that regional isomorphism—that is, the tendency among states within a region to converge on certain policies—may explain the trend toward constitutionalization of environmental rights. In this paper I (1) define and provide historical background on environmental rights; (2) describe theories which support regional isomorphism as a means of explaining the adoption of constitutional environmental rights; and (3) conduct statistical tests to determine the validity of the regional isomorphism thesis. I find that the enactment of constitutional environmental rights within a region does not increase the likelihood that another state within the same region will include environmental rights within its constitution.

KEY WORDS: comparative governance, developing countries, environment, national governance

Introduction

Why do some countries have constitutional environmental rights while others do not? Does the inclusion of environmental rights in constitutions throughout a given region affect the likelihood that another state within the region will act similarly? In this paper I conduct statistical analyses to respond to these questions. I argue that regional isomorphism—that is, the tendency among states within a region to converge on certain policies—may explain the trend toward constitutionalization of environmental rights. The study proceeds in three stages: (1) define and provide historical background on environmental rights; (2) describe theories which support regional isomorphism as a means of explaining the adoption of constitutional environmental rights; and (3) conduct statistical tests to determine the validity of the regional isomorphism thesis. I find that the enactment of constitutional environmental rights within a region does not increase the likelihood that another state within the same region will include environmental rights
within its constitution. I conclude by suggesting other factors that might account for the increasing number of states with constitutional environmental rights.

**Constitutional Environmental Rights: Definitions and History**

What are environmental rights? This section develops a response to this query by examining the forms in which rights pertaining to the environment have been enshrined in domestic and international legal systems, and the development of environmental rights at the international, regional, and state levels. The purpose here is to provide an overview of the concept of environmental rights as a major legal and political innovation that seeks to address the complex relationship between people and their physical surroundings.

**Definition and Types**

Environmental rights are commonly understood to mean “the reformulation and expansion of existing human rights and duties in the context of environmental protection” (Shelton, 1991, p. 117).\(^1\) This view falls “between simple application of existing rights to the goal of environmental protection and recognition of a new full-fledged right to environment” (Shelton, 1991, p. 171).

There are three main types of environmental rights—procedural, substantive, and solidarity. Each of these types will be discussed below. First, procedural environmental rights refer to rights that “promote the transparency, participation, and accountability that form the cornerstones of environmental governance” (Bruch, Coker, & VanArsdale, 2001, p. 135). More specifically, procedural environmental rights “generally fall into four

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\(^1\) Other more specific definitions also exist: “The term ‘environmental rights’ is used to denote those procedural rights that are found in international human rights instruments…and are being applied to seek redress for environmental issues” (Atapattu, 2002, p. 82). However, procedural rights refer to only one of three possible types of environmental rights, as will be discussed in the next section.
categories: (1) freedom of association, (2) access to information, (3) public participation in decision-making, and (4) access to justice” (Bruch, Coker, & VanArsdale, 2001, p. 176). Essentially, procedural environmental rights describe the opportunities and abilities of individuals to participate in the policy-making process on issues pertaining to the environment.²

Second, substantive environmental rights refer to existing rights within the corpus of international human rights law that may be applied where environmental problems animate human rights concerns. Relevant substantive rights that may be used to address environmental issues that affect human life include “the right to life, the right to health, the right to an adequate standard of living, and the right to privacy” (Atapattu, 2002, p. 96).³ For example, some writers argue that a good environment is necessary to enjoy the right to life, for “without the environment, no life is possible” (Rehbinder & Loperena, 2001, p. 283).⁴ Utilizing existing human rights to pursue the protection of environmental rights may be more desirable than relying on procedural environmental rights alone, as one scholar explains: “even if procedural or participatory rights are fully realized, and perfectly distributed throughout civil society, it is entirely possible that a participatory and accountable polity may opt for short-term influence rather than long-term environmental protection…The point is that procedures alone cannot guarantee environmental protection” (Anderson, 1996, p. 10).

³ For a recent, comprehensive review of litigation involving procedural rights in the environmental rights context, see Shelton, 2006, pp. 132–163.
⁴ The right to life has been interpreted to include the protection of environmental rights in several domestic legal systems, including Bangladesh, Colombia, Costa Rica, Ecuador, India, Nepal, Pakistan, and Tanzania. See Bruch, Coker, & VanArsdale, 2001, pp. 164–174.
⁵ See also Atapattu, 2002, p. 99.
Third, environmental solidarity rights establish a specific right relating to the environment that, unlike other forms of rights which may be secured by states alone, mandates global participation for successful enforcement. Solidarity rights are labeled as such because they represent the broad community of actors and universal cooperation required to “[attain] a livable world” (Hassan, 1983, p. 54). Solidarity rights “are associated with the post-World War II anti-colonial revolutions that introduced the principles of self-determination and nondiscrimination” (McClymonds, 1992, p. 591).

Other solidarity rights include the “right to development” (Declaration on the Right to Development, G.A. Res. 41/128) and the “right to peace” (Declaration on the Right of Peoples to Peace, G.A. Res. 39/11). Yet while environmental rights have become prevalent in recent decades during the constitutionalization of solidarity rights, experience from within the United States suggests that courts have had difficulty “with the idea of conferring constitutional status on environmental rights” (Howard, 1996, pp. 405-6). Such rights have not been readily interpreted to possess the innate legal force commensurate with existing fundamental rights, and the ultimate viability of expressing environmental rights in solidarity form is a topic that has aroused considerable debate.5

International, Regional, and State Developments

International Environmental Rights

Since their emergence in the 1970s, environmental rights have been entrenched in various legal documents at different levels of governance. At the international level, the 1972 Stockholm Declaration is widely considered to be the first major document to assert

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5 While Gormley finds promise in conceptualizing environmental rights in terms of solidarity and including such rights under the banner of civil, political, economic, and social guarantees, Boyle expresses serious doubts about the utility of defining environmental rights as solidarity rights. Compare Gormley, 1990, p. 110 with Boyle, 1996, p. 59.
a connection between human rights and environmental protection. The Stockholm Declaration states, “[b]oth aspects of man’s environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights—even the right to life itself.” Principle 1 of the Stockholm Declaration more closely approximates the human-environment relationship in terms of fundamental rights while also placing the onus on man to preserve the environment: “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being and he bears a solemn responsibility to protect and improve the environment for present and future generations.” It is important to note here that the particular phrasing used in the Stockholm Declaration suggests that an environmental right may be considered derivative of the broader “right to life.” However, Principle 1 does not formally proclaim a separate solidarity right such as the right to a healthy environment. Instead, the statement may be more precisely construed to mean that a healthy environment is “necessary to enjoy other basic human rights” (Atapattu, 2002, p. 74).

Following the Stockholm Declaration was the 1982 World Charter for Nature. The Charter not only sets forth procedural environmental rights, but is also “unique in that it is the first, and so far the only, of its kind which recognizes the rights of nature,

10 At least two earlier international actions are also recognized by scholars as contributing to the emerging international consideration of the nexus between human rights and environmental protection. Thorme contends that “[t]he idea of environment as a human right first emerged in the international arena in 1968 when the General Assembly of the United Nations recognized that technological changes could threaten the fundamental rights of human beings” in a U.N. General Assembly Resolution (Thorme, 1991, p. 303). Gormley identifies the Council of Europe’s Conservation Year in 1970 as an important precursor to the Stockholm Declaration, albeit with less international participation. See Gormley, 1990, p. 98.

11 The Charter stipulates, “All persons, in accordance with their national legislation, shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment, and shall have access to means of redress when their environment has suffered damage or degradation.”
distinct from the rights of human beings” (Atapattu, 2002, p. 75). Thus, the Charter remains the sole international legal document espousing an eco-centric perspective on environmental rights.

In 1992 the international community again emphasized the inextricable link between humans and the environment in which they exist with the Rio Declaration, the centerpiece of international environmental law, at the U.N. Conference on Environment and Development. While not couching environmental rights explicitly in the language of fundamental rights, the Rio Declaration promoted the idea that human beings “are entitled to a healthy and productive life in harmony with nature.” In addition, the Rio Declaration enumerated a set of procedural environmental rights.⁸

Finally, after initially being appointed as Special Rapporteur to the U.N. Sub-Commission on Prevention of Discrimination and Protection of Minorities in 1990 and releasing three progress reports, Ms. Fatma Zohra Ksentini submitted her final report on human rights and the environment in 1994. Although not an international agreement, the Ksentini Final Report has been influential in the global dialogue on human rights and the environment. In particular, great attention has been paid to the Draft Declaration of Principles on Human Rights and the Environment (Draft Declaration) that accompanies her written report (Popović, 1996a). Many of the principles in the Draft Declaration directly recognize procedural and fundamental environmental rights (See Appendix A).

⁸ Specifically, procedural environmental rights were enumerated in Principle 10 of the Rio Declaration: “Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.”
While the Draft Declaration was intended by Ksentini to “serve as a basis for the United Nations to adopt a set of norms consolidating the right to a satisfactory environment” (Dommen, 1998, p. 33), her recommendations have not been advanced in the international arena since their submission. Still, her work remains at the forefront of scholarly debates about the legal basis for the protection of environmental rights. More generally, analysts continue to argue over the degree of legal authority vested in this and other documents that seek to codify environmental rights at the international level.

Regional Developments

In addition to the international legal sources described above, there are two major regional instruments that pertain to human rights and environmental protection. The 1981 African Charter on Human and Peoples’ Rights (African Charter) has the distinction of being “the first binding instrument, albeit regional, to explicitly endorse the fundamental right to a clean environment” (Atapattu, 2002, p. 87). The main provision of interest, Article 24, specifically states that “[a]ll peoples shall have the right to a general satisfactory environment favourable to their development.” However, the African Charter lacks a definitive articulation of obligations states have when implementing the

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13 Compare Atapattu’s general skepticism (i.e. asserting that “the basic premise on which her reports [sic] is based seems flawed”; Atapattu, 2002, p. 79) with Popović’s commendation (i.e. calling the Final Report “a milestone in advancing protection of human rights and the environment”; Popović, 1996b, pp. 491–492).

14 Compare Gormley’s assertion that the 1972 Stockholm Declaration constitutes customary international law, and that “such ‘soft law’ is evolving into binding customary international norms” (Gormley, 1990, p. 98, 115) with Atapattu’s negative assessment of the bindingness of the Draft Declaration (Atapattu, 2002, p. 97) and May’s contention that both the Stockholm and Rio Declarations are unenforceable (May, 2006, p. 122).

15 Europe has yet to develop a regional treaty that specifically articulates a binding legal obligation to protect solidarity environmental rights, although the 1990 draft Charter on Environmental Rights and Obligations composed by the United Nations Economic Commission for Europe (UNECE) marked a step in that direction by “[affirming] the universal right to an environment adequate for general health and well-being, as well as the responsibility to protect and conserve the environment for present and future generations” (Taylor, 1997, p. 348).
agreement, and thus it falls somewhere between conventional international law and a declaration in terms of its actual legal authority (Hodkova, 1991, p. 76).

However, ambiguities notwithstanding, Article 24 of the African Charter was front and center in *SERAC v Nigeria*, a case in which people of the Niger Delta sought to put an end to human rights abuses and environmental degradation caused by exploitation of local oil reserves. Also known as the Ogoni case after the group of people alleging harm to human health and the environment due to the joint petroleum development activities of the Nigerian state and Shell Oil, this case marked a significant moment in regional environmental rights jurisprudence because it was “the first time the [African] Commission expanded on the meaning, interpretation and scope of the right to a satisfactory environment provided in the African Charter” (Ebeku, 2003, p. 161). Specifically, the African Commission found in favor of the Ogoni, citing that, while Nigeria had a right to produce oil, the state failed to offer adequate protection to local inhabitants in accordance with sustainable development and human and environmental rights. Although Nigeria was ultimately held to be in violation of Articles 16 and 24 of the African Charter and the result was considered a victory for the Ogoni people, decisions made by the African Commission are non-binding and there is scant evidence to suggest that conditions in the Niger Delta have improved (Ebeku, 2003, pp. 164–5).

Another significant regional instrument that includes environmental rights is the 1988 Additional Protocol to the American Convention in Human Rights. Article 11 of the Protocol of San Salvador deals explicitly with environmental rights: “(1) Everyone shall have the right to live in a healthy environment and to have access to basic public services. (2) The State Parties shall promote the protection, preservation and improvement of the
environment.” This formulation of environmental rights provides for both a fundamental environmental right and a public policy statement mandating a positive duty to be carried out by participating states. Interestingly, the fundamental environmental right is qualified by the addition of the phrase “to live,” which serves to link the provision to the broader substantive right to life.

If the experiences from these regional agreements are any indication, such progressive attempts to establish fundamental environmental rights at the regional level will likely have little impact in domestic legal systems. Despite efforts to insert environmental rights into these regional agreements, these provisions have been utilized sparingly, if at all. One scholar speculates that few cases from Africa and Latin America have invoked these rights because “there are other preoccupations and priorities when utilizing human rights treaties than protecting the environment” (Churchill, 1996, p. 108). In short, regional instruments have proven thus far no more viable as legal mechanisms for the protection of environmental rights than have international agreements with similar provisions.

Although regional treaties have been scarcely utilized to enforce protection of environmental rights at the domestic level, regional human rights bodies continue to address issues pertaining to human rights and the environment. The Inter-American

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16 There is at least one notable instance in which a regional instrument was utilized successfully to provide a justiciable environmental right. Under the instruction of the African Commission on Human and Peoples’ Rights in Communication 155/96—The Social and Economic Rights Action Centre and Another v. Nigeria, Nigerian courts were authorized to recognize Article 24 of the African Charter. Since then Article 24 has been successfully invoked in Nigeria in the case of Gbemre v. Shell. See Ebeku, 2007.

17 The Aarhus Convention, a treaty established among members of the UN Economic Commission for Europe in 1998, may be a promising instrument for the protection of procedural environmental rights at the regional level. While endeavoring to build off existing international environmental rights treaties by promoting the protection of a solidarity environmental right through the adoption of procedural environmental rights, the Aarhus Convention has been used by the European Court of Human Rights in jurisprudence relating to Article 8 of the European Convention on Human rights in Taşkin and others v. Turkey. See Schall, 2008.
Commission on Human Rights (IACHR) has been quite active on this front. For example, the IACHR has emphasized in a report on human rights in Ecuador that “[c]onditions of severe environmental pollution, which may cause serious physical illness, impairment and suffering on the part of the local populace, are inconsistent with the right to be respected as a human being.” Again, the language used in this report, while suggestive, does not firmly contend for the establishment of a fundamental environmental right, but instead locates an environmental right under the banner of the more universal “right to life.” Still, while not a binding legal document, this IACHR report and others dealing with environmental rights contribute to a growing cognizance within the region that environmental quality, especially when it impacts human health, falls within the ambit of human rights.

Developments at the State Level

Since the 1970s the world has witnessed a dramatic increase in the absolute number and percentage of domestic constitutions that contain provisions for environmental protection (see Figure 1).

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18 For a fuller discussion of environmental rights in the context of regional human rights bodies, see Hill, Wolfson, & Targ, 2003, pp. 379–381.
When enshrined in constitutions, environmental rights may be articulated generally in two forms—fundamental rights or statements of public policy (Brandl & Bungert, 1992, p. 8). These two variations of constitutional environmental provisions will be examined here. First, “[a] fundamental right is a provision granting the individual a subjective, or personal, guarantee” (Brandl & Bungert, 1992, p. 9). More specifically, “fundamental rights are more indestructible than statements of policy or procedural norms, enjoy the highest level of legal norms, are less subject to political whims, and tend to be better understood by both the polity and citizenry” (May, 2006, p. 118). Therefore, a fundamental environmental right is a state’s guarantee of the highest legal order assuring an individual of his or her protection from environmental harm.\(^\text{15}\) Given its lofty status, it

\[\text{Figure 1. Percent of constitutions worldwide with environmental protection provisions, 1850-2000.}\]

\(^{19}\) A fundamental environmental right, unlike a statement of public policy, is afforded the same level of respect as other fundamental rights occupying the apogee of legal norms, such as the right to life. See Brandl & Bungert, 1992, p. 87.
should serve as no great surprise that of those countries that have addressed the environment in their constitutions, relatively few have promulgated a fundamental environmental right since the 1970s, and even fewer have been found to be directly enforceable in domestic legal systems (see Figure 2).^{16}

Second, states may seek to include environmental rights in their respective constitutions in the form of a statement of public policy. Such constitutional pronouncements feature “directives and guidelines for governmental action or objective state goals” (Brandl & Bungert, 1992, p. 16). Statements of public policy may appear in one of two types: “(1) mandates to the legislature obligating the legislature to regulate specific areas, and (2) guidelines for the state which address not only the legislature, but also the judicial and executive branches of government” (Brandl & Bungert, 1992, p. 17). However, statements of public policy are imbued with significantly less authority than constitutional environmental rights. More precisely, statements of public policy “are not enforceable by citizens who are aggrieved by environmental degradation” (May, 2006, p.

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^{20}“Indeed, of the 130 constitutions that address the environment, only about sixty grant individuals what may be fairly characterized as a fundamental right to a ‘clean,’ ‘healthful,’ or ‘favorable’ environment. More importantly, of these sixty, only a handful have earned judicial imprimatur as being enforceable by affected individuals” (May, 2006, p. 114). As of 2012, data from the Comparative Constitutions Project, along with supplemental research, indicate that approximately 73 countries have adopted a constitutional provision that enumerates a solidarity right to the environment. See Environmental Provisions.
116), thereby limiting the ability of individuals to have their environmental grievances taken up by the courts. To briefly summarize, while fundamental environmental rights in constitutions confer personal, enforceable rights that may be used by individuals to bring a complaint of an environmental nature to court, statements of public policy describe guidelines for governmental action but are not individually enforceable. Neither form of environmental rights may be codified in specific terms. Perhaps most importantly, the exact language used to articulate an environmental right “falls somewhere along a continuum between the subjective fundamental right at one extreme, and the objective statement of public policy at the other” (Brandl & Bungert, 1992, p. 18).

Since 1850, of those constitutions with provisions for environmental protection, 72% have featured positive duties of the government in the form of public policy statements. However, historically less than one-third of constitutions with environmental protection provisions have included fundamental environmental rights, resulting in a relatively meager percentage of constitutions worldwide to include such rights. Today, approximately 40% of countries with environmental protection provisions in their constitutions include fundamental environmental rights. The majority of countries with constitutional environmental rights are found in Europe and Central Asia, Latin America and the Caribbean, and Sub-Saharan Africa. In addition, while the United States

21 The following is a comprehensive listing of countries with constitutional environmental rights, by region: East Asia and Pacific—East Timor, Indonesia, Mongolia, the Philippines, South Korea; Eastern Europe—Croatia, Czech Republic, Hungary, Slovak Republic, Slovenia; Europe and Central Asia—Armenia, Azerbaijan, Bulgaria, Georgia, Kosovo, Kyrgyz Republic, Latvia, Macedonia, Moldova, Montenegro, Romania, Russia, Serbia, Turkey, Turkmenistan, Ukraine; Latin America and the Caribbean—Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guyana, Mexico, Nicaragua, Paraguay, Peru, Venezuela; Middle East and North Africa—Iraq; South Asia—Maldives, Nepal; Sub-Saharan Africa—Angola, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Democratic Republic of Congo, Republic of Congo, Côte d’Ivoire, Ethiopia, Guinea, Kenya, Mali, Lesotho, Mali, Mozambique, Niger, São Tomé and Principe, Senegal, Seychelles, South Africa, Sudan, Togo, Uganda; Western Europe—Belgium, Finland, France, Greece, Norway, Portugal, Spain.
Constitution does not contain a provision for a fundamental environmental right,\textsuperscript{18} at least eight states have enshrined a fundamental environmental right within their respective constitutions.\textsuperscript{19}

Scholars have offered many potential explanations for the trend toward constitutionalization of environmental rights over the past 40 years. Some hypotheses are regionally specific. For instance, one analyst argues that post-Communist states placed environmental rights in their constitutions because the old constitutions had environmental social rights, and policymakers felt that the new democratic constitutions “must not pale in comparison” (Brandl & Bungert, 1992, p. 99). Another scholar contends that post-Communist states included “comparatively bold environmental rights” in their constitutions “perhaps to spearhead the cleanup of a half-century of neglect” (Gravelle, 1996, p. 633). Other hypotheses refer more generally to the pursuit of legitimacy in the eyes of the international community.\textsuperscript{20} For example, Brazil’s adoption of a suite of environmental statutes, establishment of a new environmental ministry, and promulgation of “the right to an ecologically balanced environment”\textsuperscript{21} in the 1988 Constitution have been speculatively regarded as part of a larger effort “to gain international legitimacy and credibility” (Fernandes, 1996, p. 279). Initial conjecture aside, much empirical and theoretical work related to deciphering the rationales and mechanisms behind the widespread adoption of constitutional environmental rights over

\textsuperscript{22} From the late 1960s through the late 1980s, several attempts were made to codify environmental rights in the U.S. either by constitutional amendment or statute. However, all such efforts ultimately failed. For a discussion of the history of these efforts, see Brooks, 1992, pp. 1068–70.
\textsuperscript{23} These states are: Alaska, Hawai‘i, Illinois, Massachusetts, Montana, Pennsylvania, Rhode Island, and Texas. For a listing of the exact language of the state constitution environmental rights provisions, see Popović, 1996b, p. 356, n. 75.
\textsuperscript{24} The very process of constitutionalization is argued to have a legitimating effect. See Klug, 2000, p. 48 (Calling constitutionalism “a passport to international acceptability”).
\textsuperscript{25} Brazil Constitution, tit. VIII, ch. VI, art. 225.
the past few decades remains as scholars seek to answer the question, “is there a genuine commitment to environmental rights…or has a right to a clean environment simply been included to mollify the populace and lead overall credibility to the documents and the governments created?” (Gravelle, 1996, p. 647).

Direct articulations of environmental rights found within domestic constitutions constitute only one way in which states have sought to protect rights of individuals or groups relating to the environment. Some states have also endeavored to protect environmental rights through creative judicial interpretation of existing fundamental rights. Such rights are often construed as a natural extension of the right to life, as exemplified by the case of India. Although constitutional environmental rights and public policy statements appear in the constitutions of a relatively small, but significant, number of countries, instances where environmental rights have been interpreted to exist under the umbrella of broader constitutional fundamental rights have been located in only a handful of countries.22

Therefore, it may be concluded that there exist mainly two forms in which environmental rights have been integrated into domestic legal systems with the explicit purpose of protecting the rights of individuals or groups where environmental issues are concerned: fundamental environmental rights and environmental rights located under fundamental rights.23 The first type is present in the form of a potentially functional,

\[26\] At the time of writing, at least 11 such countries have been recognized: Bangladesh, Brazil, Chile, Colombia, Costa Rica, Ecuador, India, Nepal, Nigeria, Pakistan, the Philippines, and Tanzania. It is interesting to note that of those countries listed, seven (Brazil, Chile, Colombia, Costa Rica, Ecuador, Nepal, and the Philippines) also have constitutional environmental rights.

\[27\] For the purposes of this paper, procedural and substantive environmental rights have been excluded from additional consideration as they do not confer the same level of broad protection of individuals and groups regarding environmental matters as do fundamental (i.e. solidarity or third generation) environmental rights. In addition, statements of public policy are similarly excluded because they are primarily focused on
though not necessarily self-executing, right within a given constitution, whereas the second type is actively established by judges seeking to expand the purview of existing rights relating to citizens and their natural surroundings. Some empirical examples will no doubt prove illustrative. In terms of justiciable constitutional environmental rights, Angola’s constitution presents a suitable example: “All citizens shall have the right to live in a healthy and unpolluted environment.” This environmental right appears in Part II of the Constitution, Fundamental Rights and Duties, and is followed by both a statement of public policy regarding the environment and the stipulation that acts contrary to the state goal of conservation are punishable by law. With regard to environmental rights interpreted by judges to fall under the larger scheme of fundamental rights, India serves as a prime exemplar. In Subhash Kumar, the Court held that article 21 of the Indian Constitution, which guarantees the right to life, “includes the right of enjoyment of pollution-free water and air for full enjoyment of life” (AIR 1991 SC 420/1991 (1) SCC 598). Both of these examples serve to highlight instances in which environmental rights have been included among the corpus of rights at the state level, providing individuals and groups with legitimate legal avenues for pursuing litigation involving humans and the environment they inhabit.

**Regional Isomorphism**

the role of the state in achieving certain policy goals as opposed to being centered on both a positive and negative right to a certain level of environmental quality that individuals or groups possess.

28 Indeed, few state constitutions possess self-executing environmental rights provisions. “To be self-executing, either a provision must expressly state that specific parties have a right to enforce the provision or articulate a clear enough standard so that a court has a law to apply” (Hill, Wolfson, & Targ, 2003, pp. 391–392). In addition, provisions found in a Bill of Rights or Fundamental Rights section are said to be justiciable, whereas provisions appearing in a Directive Principles section or preamble are generally not. However, there are occasional examples stating otherwise. For instance, solidarity environmental rights appear in the preambles of the constitutions of Cameroon and Comoros, but later clauses stipulate that the preamble is to be considered an integral part of the constitution.

The adoption of constitutional environmental rights may be informed by four distinct but intimately intertwined bodies of literature—environmental rights, constitutional design, human rights, and international norms. Literature on environmental rights consists mainly of normative legal arguments in favor of expanding human rights to include environmental rights and case study analyses that chronicle the development of environmental rights provisions in constitutions throughout the world (Brandl & Bungert, 1992; Bruch, Coker, & VanArsdale, 2001; Gormley, 1990; Hodkova, 1991; May & Daly, 2009; Osofsky, 2005; Sax, 1990; Shelton, 1991; Thorme, 1991). Scholarship on constitutional design entails empirical studies that describe the trend in global constitutionalism and provide descriptive accounts of the constitution-making process in post-colonial and post-communist states (Brown, 2003; Elster, 1995; Ghai & Galli, 2006; Go, 2003; Ludwikowski, 1993; Osiatynski, 2003). Recent work on human rights focuses on why states sign international human rights treaties and how ratification affects state human rights performance (Goodman & Jinks, 2003; Hafner-Burton & Tsutsui, 2005; Hathaway, 2002; Hathaway, 2007; Heyns & Viljoen, 2001; Lutz & Sikkink, 2000; Neumayer, 2005). Finally, scholars of international norms have suggested that the domestic and international legal contexts in which states operate facilitate the adoption of international norms (Boyle et. al. 2002, Dommen, 1998; Finnemore & Sikkink, 1998; Lutz & Sikkink, 2001; May, 2006; Sandholtz, 2008; Simmons, 2000). However, none of the bodies of literature described above offer an explanation for the global expansion of constitutional environmental rights among developing countries.

Theories regarding policy transfer and diffusion present possible sources of explanatory value for the adoption of constitutional environmental rights. Policy transfer
refers to “the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions, and ideas in another political system” (Dolowitz & Marsh, 2000, p. 5). Policy transfer in particular is concerned with understanding who is responsible (i.e., policymakers) for transferring what forms of information to what ends, and deciphering whether the transfer is successful or not.²⁶

Related to policy transfer is the concept of policy diffusion. Policy diffusion refers to understanding the mechanisms by which “innovations, policies, or programs spread from one governmental entity to another” (Newmark, 2002, p. 151, 152). Unlike policy transfer, however, policy diffusion casts a broader conceptual net: “policy diffusion is not restricted to the operation of specific mediation mechanisms, but includes all conceivable channels of influence between countries” (Knill, 2005, p. 764, 766). Perhaps more importantly, policy diffusion differs from policy transfer in that it is often used to describe structural reasons for patterns of policy adoption as opposed to explaining the adoption of policy in a particularized circumstance (Jordana & Levi-Faur, 2005, p. 102). When considered in tandem, policy transfer and policy diffusion offer a pair of theoretical concepts that may prove useful in the present study, as they both “reflect processes which under certain circumstances might result in policy convergence” (Knill, 2005, p. 767). For the purposes of this paper, I will refer to both policy transfer and policy diffusion as contributing to the broader concept of regional isomorphism.

Following the insights provided by theories of policy transfer and policy diffusion, I hypothesize that the greater percentage of other countries in the region with

³⁰ For the purposes of this paper, law may be considered a form of policy (i.e. as a policy instrument) and judges act as policymakers despite their omission from the list of common actors in the policy transfer process.
environmental rights, the more likely it is that a country will adopt environmental rights. This hypothesis is rooted in the notion that countries within the same geographic region will tend toward isomorphism with regard to legal commitments in order to avoid appearing like regional laggards and enhance their reputation to compete intra-regionally for investment (Simmons, 2000, p. 832).27

Quantitative Analysis of the Regional Isomorphism Thesis

Case Selection

In order to test the validity of the regional isomorphism thesis in explaining the proliferation of constitutional environmental rights, I analyzed the accumulation of said rights from the period of 1974 through 2010 in Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), and Sub-Saharan Africa (SSA).28 The year 1974 marks the first time that an environmental right appeared in a governing charter, the Constitution of the Socialist Federative Republic of Yugoslavia, ratified on February 21st 1974. This year represents the first time in which constitutional environmental rights formally appeared in the international community, and policy transfer or diffusion became possible. I elected to analyze three regions populated mainly by developing countries, Europe and Central Asia, Latin America and the Caribbean, and Sub-Saharan Africa, because these areas constitute three of the densest regional concentrations of

27 Farber clarifies the causal logic underpinning this study’s rationalist-materialist hypothesis: “Because rights operate as trumps over normal governmental interests, they have an inherent cost. Consequently, by entrenching protection for human rights, governments can signal a willingness to give up power in the short term to obtain long-term benefits. Investors can infer from this that the government has a low discount rate and is less likely to pose a threat of expropriation. Similarly, when courts vigorously enforce human rights, they dramatize their judicial independence, which is valuable to investors, who themselves may have no interest in human rights. Thus, human rights enforcement may help encourage investment and thereby indirectly foster economic growth” (Farber, 2002, p. 83). Also see Law, 2008, pp. 46-48 n142.

31 For the current study I have elected to use these regions as they are defined by the World Bank, as opposed to analyzing traditional continental demarcations.
states with constitutional environmental rights. If the regional isomorphism thesis holds any explanatory power, it needs to adequately explain convergence in regions where its application is most likely to be verified empirically. More succinctly, ECA, LAC, and SSA represent three of the most likely cases for regional isomorphism, and therefore serve as viable regions for the kind of statistical analysis conducted here.

Variables

Regional isomorphism was determined by the extent to which states have followed other states in adopting constitutional environmental rights. The presence or absence of this behavior was captured by the first independent variable, Regional Influence (RI), which was operationalized as the percentage of states within the geographic region in which a country is located (not including the country itself) that have constitutional environmental rights in place in a given year. Percentages of adoption within a given region were recorded for each country and for each period of years in which an event occurred. When a country adopted a constitutional environmental right, the percentage of adoption within that region during a period of years did not include that country in the regional percentage. The second independent variable, Group, is the region in which a country is located. The three Groups were compared statistically in pairwise fashion, with one region coded “0” and the other coded “1.” In all, three pairs were analyzed and the comparative results of different combinations were evaluated. The dependent variable for each country-year is the presence (coded “1”) or absence (coded

29 While the number of countries within both Latin America and the Caribbean (n = 36) and Sub-Saharan Africa (n = 47) did not vary during the period of eligibility for the adoption of constitutional environmental rights (1974-onward), the number of states within Europe and Central Asia ranged considerably over the same period. Therefore, percentages of states with constitutional environmental rights within that region were calculated based upon the number of recognized countries in existence during a given year according to Correlates of War data.
“0”) of a constitutional environmental right. Data on constitutional environmental rights was extracted from Boyd (2010), the *Comparative Constitutions Project*, and *ECOLEX*, an environmental law database.

*Methods*

This study involves assessing the effects of a time-dependent independent variable (Regional Influence) and a binary independent variable comparing three regions (Group) on the likelihood of obtaining a certain value of dichotomous outcome (presence or absence of a constitutional environmental right). The data are similar to survival data in that analysis revolves around the time until an event occurs (here, instantiation of a constitutional environmental right) for subjects (in this case, states) in the study. Further, the data are censored, meaning that the “end-point of interest has not been observed for that individual” (Collett, 2003, pp. 1–2). In this study, many data are right-censored, since “censoring occurs…to the right of the last known survival time” (Collett, 2003, p. 2). For instance, some countries have yet to ratify a constitution that features an environmental right, so the final data point for these countries ending in 2010 is said to be right-censored. Therefore, in order to conduct the statistical analysis I employ a method of modeling survival data useful for measuring the effect of a treatment (RI) and an environmental condition (Group) on the hazard rate of adopting a constitutional environmental right—the Cox model. Also known as the proportional hazards model or Cox regression model, this model is semi-parametric in that “the model is based on the assumption of proportional hazards,” although “no particular form of probability distribution is assumed for the survival times” (Collett, 2003, p. 56). The formula for the Cox model used in this analysis is as follows:
\[ h_{ij}(t) = h_0(t)e^{\beta_{RI} X_{RI}(t)}, \]

where RI refers to the Regional Influence variable, \( i \) refers to the country, and \( j \) refers to the Group or region.

**Results**

Results of the analysis are presented below in Table 1.\(^{30}\)

<table>
<thead>
<tr>
<th>Pair</th>
<th>Hazard Ratio (RI)</th>
<th>Hazard Ratio (Group)</th>
<th>Coefficient (RI)</th>
<th>Coefficient (Group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA-LAC</td>
<td>0.45*</td>
<td>0.00*</td>
<td>-0.80*</td>
<td>-9.11*</td>
</tr>
<tr>
<td>SSA-ECA</td>
<td>0.95</td>
<td>1.37</td>
<td>-0.05</td>
<td>0.31</td>
</tr>
<tr>
<td>LAC-ECA</td>
<td>0.95</td>
<td>4.43*</td>
<td>-0.05</td>
<td>1.49*</td>
</tr>
</tbody>
</table>

Table 1. Statistical output for the three paired regional Cox models.

For the SSA-LAC pair, the Cox model yielded a regression coefficient of -0.80 for the Regional Influence variable. This finding means that the likelihood of adopting a constitutional environmental right decreases as the percentage of countries in the region with constitutional environmental rights increases. The hazard ratio for the Regional Influence variable was 0.45, which means that with every increase of 1% in the percentage of countries with a constitutional environmental right the estimated likelihood of another country adopting a constitutional environmental right is reduced by 55%.

More directly, an increase in the percentage of countries with constitutional environmental rights suggests that the likelihood of another country following suit is greatly diminished. In terms of evaluating differences between the two regions, the hazard ratio for the Group variable was 0.00, which suggests that the difference between

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\(^{30}\) All results that attained statistical significance at the 0.05 level are indicated by the appearance of an asterisk (*).
regions with regard to the likelihood of adopting constitutional environmental rights is marginal at best.\textsuperscript{31}

For the two pairings involving ECA, none of the values corresponding to the RI variable were statistically significant at the 0.05 level. The only values that achieved significance at that level were those in the LAC-ECA model pertaining to the Group variable, which represented the differential likelihood of promulgating constitutional environmental rights. The output from this third model suggests that the difference in the levels of constitutional environmental rights enactment between the two regions is large and statistically significant. Overall, incorporation of Europe and Central Asia into the analysis did not produce statistically meaningful results that would allow for the acceptance or rejection of the hypothesis.

\textit{Discussion}

The results of the statistical analysis suggest that countries are less, not more, likely to adopt constitutional environmental rights as other countries in the region move to ratify constitutions featuring such provisions. Therefore, the hypothesis that countries will tend toward isomorphism on the decision to include an environmental right in a constitution can be rejected. Countries that have yet to adopt constitutional environmental rights may be reticent to do so for at least two reasons.

First, rather than being laggards, these countries may have positioned themselves to simply “wait and see” the effects of including these kinds of provisions in constitutions. This perspective may be founded on the premise that it is best to observe

\textsuperscript{32} However, the 95\% confidence interval for the hazard ratio comparing Latin America and the Caribbean to Sub-Saharan Africa includes zero, which suggests that it is possible that the differences between regions may be negligible.
how these situations played out in other states before promulgating an environmental rights provision in one’s home constitution. Some countries may wait in order to observe the experience of those states with constitutional environmental rights (i.e. number of cases filed, number of issues resolved, costs of litigation, etc.) before deciding to enact such a right. As the data is right-censored, still more countries within the three regions examined here may adopt constitutional environmental rights in a new constitution or as an amendment to the existing constitution.

Second, developing states may have deliberately avoided instantiating environmental rights in their respective constitutions cognizant of the lack of resources these countries have to adequately protect such a broad right. Resources necessary to the successful protection of an environmental right may include an environmental agency with sufficient personnel, budget, and discretion to investigate environmental problems; a legal system with the capacity and integrity to adjudicate cases involving environmental harms committed by state and private actors; and well-functioning organizations with the financial capacity to help bring cases on behalf of marginalized and indigent members of society who would otherwise have little legal recourse to the alleged violations of their constitutional rights. It may be the case that some countries establish an environmental agency to oversee the implementation of environmental objectives but do not have constitutional environmental rights. However, in some instances the converse may also be true; that is, countries may adopt a solidarity environmental right absent the institutional resources necessary to fulfill the legal imperative. More research is needed to determine the motive(s) behind pursuing one or more avenues for protecting environmental rights.
In spite of the reasons why countries may have purposely avoided adopting constitutional environmental rights and the effect of methodological choices on the analysis, it stands to reason that the study may be enhanced by including more regions in the statistical analysis and continuing to watch the actions of states as they create and ratify new constitutions. For example, the world’s newest state, South Sudan, has opted to include a solidarity environmental right in Article 41 of its transitional constitution.

Regarding the statistical findings, it is important to note that the decision to use regions as they are defined by the World Bank did have an impact on the analysis. The selection of Sub-Saharan Africa, instead of the whole continent of Africa, had the result of artificially inflating the density of countries within the region that have constitutional environmental rights (52% of countries in the region in 2010 by excluding North Africa as opposed to 47% for the entire continent in the same year). However, the selection of Latin America and the Caribbean, instead of South America, had the effect of artificially deflating the percentage of countries within the region that have constitutional environmental rights (40% of countries in the region in 2010 by including Central America and the Caribbean as opposed to 92% for only South America in the same year). Analyzing the adoption of constitutional environmental rights using the continents of Africa and South America instead of the regions defined by the World Bank yielded a regression coefficient of -0.36 for the Regional Influence variable. This finding means that the likelihood of adopting a constitutional environmental right decreases as the percentage of countries in the region with constitutional environmental rights increases, albeit to a lesser extent than that of the World Bank regions used in the previous analysis. The hazard ratio for the Regional Influence variable using continents instead of the
World Bank regions was 0.70, which means that with every increase of 1% in the percentage of countries with a constitutional environmental right the estimated likelihood of another country adopting a constitutional environmental right is reduced by 30%. In terms of evaluating differences among the two regions by examining the two continents, the hazard ratio for Latin America and the Caribbean compared to Sub-Saharan Africa was 10932.09, which suggests that the difference between regions with regard to the likelihood of adopting constitutional environmental rights is great. This result is contrary to the findings obtained using the World Bank demarcations for the two regions. The findings contained within this section suggest that the statistical analysis is affected to a nontrivial extent by the boundaries used to describe the regions under examination.

**Conclusion**

This study is designed to help understand whether regional isomorphism helps explain the trend toward constitutionalization of environmental rights. In particular, I conducted a statistical analysis to determine the extent to which regional isomorphism provided a suitable explanation for the proliferation of constitutions featuring environmental rights since the mid-1970s. Using a Cox model for analyzing survival data, I found that regional isomorphism was not a sufficient explanation for the phenomenon observed. However, this study was limited in scope geographically and empirically. Further research on the topic would benefit by expanding the units of analysis under scrutiny (i.e. comparing regional trends with subnational trends), and testing for the explanatory value of other independent variables such as legal tradition, amount of foreign aid from a country known for its environmental stewardship, number of international non-governmental organizations present during a given year, and human
rights legacy. In addition, a similar analysis could be undertaken to evaluate whether regional isomorphism helps explain related phenomena such as the trend toward national judicaries in South Asia recognizing environmental rights as fundamental to the protection of broader substantive rights or the patterns of national adoption of international human rights law. As environmental concerns continue to increase in importance and the dynamic international legal context continues to influence the form and content of governing charters throughout the world, the study of environmental rights will remain a compelling area of research for the foreseeable future.

References


Atapattu, S. (2002). The right to a healthy life or the right to die polluted?: The emergence of a human right to a healthy environment under international law. Tulane Environmental Law Journal, 16, 65–126.


Appendix A. Draft Principles on Human Rights and the Environment

Part I

1. Human rights, an ecologically sound environment, sustainable development and peace are interdependent and indivisible.
2. All persons have the right to a secure, healthy and ecologically sound environment. This right and other human rights, including civil, cultural, economic, political and social rights, are universal, interdependent and indivisible.
3. All persons shall be free from any form of discrimination in regard to actions and decisions that affect the environment.
4. All persons have the right to an environment adequate to meet equitably the needs of present generations and that does not impair the rights of future generations to meet equitably their needs.

Part II

5. All persons have the right to freedom from pollution, environmental degradation and activities that adversely affect the environment, threaten life, health, livelihood, well-being or sustainable development within, across or outside national boundaries.
6. All persons have the right to protection and preservation of the air, soil, water, sea-ice, flora and fauna, and the essential processes and areas necessary to maintain biological diversity and ecosystems.
7. All persons have the right to the highest attainable standard of health free from environmental harm.
8. All persons have the right to safe and healthy food and water adequate to their well-being.
9. All persons have the right to a safe and healthy working environment.
10. All persons have the right to adequate housing, land tenure and living conditions in a secure, healthy and ecologically sound environment.
11. (a) All persons have the right not to be evicted from their homes or land for the purpose of, or as a consequence of, decisions or actions affecting the environment, except in emergencies or due to a compelling purpose benefiting society as a whole and not attainable by other means.
(b) All persons have the right to participate effectively in decisions and to negotiate concerning their eviction and the right, if evicted, to timely and adequate restitution, compensation and/or appropriate and sufficient accommodation or land.
12. All persons have the right to timely assistance in the event of natural or technological or other human-caused catastrophes.
13. Everyone has the right to benefit equitably from the conservation and sustainable use of nature and natural resources for cultural, ecological, educational, health, livelihood, recreational, spiritual and other purposes. This includes ecologically sound access to nature.
Everyone has the right to preservation of unique sites consistent with the fundamental rights of persons or groups living in the area.
14. Indigenous peoples have the right to control their lands, territories and natural resources and to maintain their traditional way of life. This includes the right to security in the enjoyment of their means of subsistence.
Indigenous peoples have the right to protection against any action or course of conduct that may result in the destruction or degradation of their territories, including land, air, water, sea-ice, wildlife or other resources.

Part III

15. All persons have the right to information concerning the environment. This includes information, howsoever compiled, on actions or courses of conduct that may affect the environment and information necessary to enable effective public participation in
environmental decision-making. The information shall be timely, clear, understandable and available without undue financial burden to the applicant.

16. All persons have the right to hold and express opinions and to disseminate ideas and information regarding the environment.

17. All persons have the right to environmental and human rights education.

18. All persons have the right to active, free and meaningful participation in planning and decision-making activities and processes that may have an impact on the environment and development. This includes the right to a prior assessment of the environmental, developmental and human rights consequences of proposed actions.

19. All persons have the right to associate freely and peacefully with others for purposes of protecting the environment or the rights of persons affected by environmental harm.

20. All persons have the right to effective remedies and redress in administrative or judicial proceedings for environmental harm or the threat of such harm.

Part IV

21. All persons, individually and in association with others, have the duty to protect and preserve the environment.

22. All States shall respect and ensure the right to a secure, healthy and ecologically sound environment. Accordingly, they shall adopt administrative, legislative and other measures necessary to effectively implement the rights in this Declaration. These measures shall aim at the prevention of environmental harm, at the provision of adequate remedies, and at the sustainable use of natural resources and shall include, inter alia:

- Collection and dissemination of information concerning the environment;
- Prior assessment and control, licensing, regulation or prohibition of activities and substances potentially harmful to the environment;
- Public participation in environmental decision-making;
- Effective administrative and judicial remedies and redress for environmental harm or the threat of such harm;
- Monitoring, management and equitable sharing of natural resources;
- Measures to reduce wasteful processes of production and patterns of consumption;
- Measures aimed at ensuring that transnational corporations, wherever they operate, carry out their duties of environmental protection, sustainable development and respect for human rights; and
- Measures aimed at ensuring that the international organizations and agencies to which they belong observe the rights and duties in this Declaration.

23. States and all other parties shall avoid using the environment as a means of war or inflicting significant, long-term or widespread harm on the environment, and shall respect international law providing protection for the environment in times of armed conflict and cooperate in its further development.

24. All international organizations and agencies shall observe the rights and duties in this Declaration.

Part V
25. In implementing the rights and duties in this Declaration, special attention shall be given to vulnerable persons and groups.

26. The rights in this Declaration may be subject only to restrictions provided by law and which are necessary to protect public order, health and the fundamental rights and freedoms of others.

27. All persons are entitled to a social and international order in which the rights in this Declaration can be fully realized.