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Letting Nature Take Its Course? An Analysis of Global Institutional Conflict around the Proliferation of National Parks

DISSERTATION

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DOCTOR OF PHILOSOPHY

In Sociology

by

Natasha Miric

Dissertation Committee:
Professor Ann Hironaka, Chair
Professor Evan Schofer
Professor Edwin Amenta
Professor Francesca Polletta
Professor Keith Murphy

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CURRICULUM VITAE

Natasha Miric

Department of Sociology

University of California, Irvine

3151 Social Science Plaza, Irvine CA 92697

Email: nmiric@uci.edu

Phone: (951) 283-4444

Education

2015 PhD Sociology, University of California Irvine

- Dissertation: Letting Nature Take Its Course? An Analysis of Global Institutional Conflict around the Proliferation of National Parks
- Committee: Ann Hironaka (Chair), Evan Schofer, Edwin Amenta, Francesca Polletta, Keith Murphy

2012 M.A. Sociology, University of California Irvine

2008 B.A. Sociology, *magna cum laude*, University of California Irvine

- Honor's Thesis: Soccer and Fan Identity: A Fan Typology

Research Interests

Globalization, Environment, Political Sociology, Social Movements, Sociology of Sports

Publications

Edwin Amenta and Natasha Miric. 2013. "Sports Fandom." Pp. 311-326 in **Companion to Sport**, edited by David L. Andrews and Ben Carrington. Malden, MA: Blackwell Publishing.

Research in Progress

R&R **Wesley Longhofer, Evan Schofer, Natasha Miric**. **David John Frank.** "NGOs, INGOs, and Environmental Policy Reform, 1970-2010." Revised and resubmitted to **Social Forces.**

In Progress **Natasha Miric**. "Kicking Off: International Football and the State-making Process." In preparation.

In Progress **Natasha Miric**. "A Natural Development? Competition and Conflict between Global Environmental and Development Regimes in the Case of National Park Expansion." Presented at the 2015 American Sociological Association's Annual Conference. Chicago, IL. In preparation.

In Progress **Maritza Jauregui, Tonya L. Schuster, Mary D. Clark, Joie P. Jones, and Natasha Miric.** "Pranic Healing: Documenting Use, Expectations, and Perceived Benefits." In preparation.

In Progress **Tonya L. Schuster, Maritza Jauregui, Mary D. Clark, Joie P. Jones, and Natasha Miric**. "The Dynamics of Wellness Domains Outcomes in Pranic Healing Users: A Longitudinal Study." In preparation.

In Progress **Natasha Miric**. "Processes of Park National Expansion: A Qualitative Comparative Analysis."

In Progress **Natasha Miric**. "National Parks and Intervention: An Analysis of National Park Types is Non-Western Countries."

Fellowships

2015 Summer Research Fellowship, Department of Sociology, UCI.

2014 Summer Research Fellowship, Department of Sociology, UCI.

2014 Associate Dean's Fellowship, School of Social Sciences, UCI.

2013 Summer Research Fellowship, Department of Sociology, UCI.

2012 Summer Research Fellowship, Department of Sociology, UCI.

2011 Summer Research Fellowship, Department of Sociology, UCI.

Employment

2015 - Instructor, Sociology 335, Social Psychology
California State University, Long Beach, Department of Sociology

2015 - Instructor, Sociology 135/Psychology 178N, Social Psychology of Networks
UC Irvine, Department of Sociology

2014 - Instructor, Sociology 2, Global and International Sociology
UC Irvine, Department of Sociology

2010-2015 - Teaching Assistant, UC Irvine Department of Sociology

Soc 41 Small Group Behavior, Soc 69 Soc of Sexuality, Soc 31/Psych 78A Intro to Social Psych, Soc 2 Global Social Change, Anthro 2D Language and Culture, Soc 155BW Baseball and Society, Soc 135/Psych 178N Social Psych Networks, Soc 3 Intro Into Social Problems, Soc 154 Medical Sociology

2009-2015, Research Assistant for Dr. Evan Schofer, University of California Irvine Collected data on philanthropic organizations as part of a cross-national study that examines the origins of voluntary associations. Collected, coded, and analyzed data on environmental international non-governmental organizations (INGOs).

Conference Presentations

"A Natural Development? Competition and Conflict between Global Environmental and Development Regimes in the Case of National Park Expansion." *American Sociological Association*. Chicago, IL, 2015.

"The Effect of Global Economic and Environmental Pressures in the Case of National Park Expansion." *Pacific Sociological Association*. Long Beach, CA, 2015.

Professional Development

2014 - Mentoring Excellence Program, UC Irvine

Professional and University Service

2014 - Graduate InterConnect (GIC) Peer Mentor, University of California Irvine

Provided information, guidance and a support network to incoming international graduate students and aided them in a smooth transition to UCI and Southern California.

2015-present - Newsletter Editor – Global and Transnational Sociology Section of the American Sociological Association

Memberships

American Sociological Association

Pacific Sociological Association

ABSTRACT OF THE DISSERTATION

Letting Nature Take Its Course? An Analysis of Global Institutional Conflict around the Proliferation of National Parks

by

Natasha Miric

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Professor Ann Hironaka, Chair

This research examines how apparent conflicts at the global level of civil society affect a unique environmental outcome, the establishment of national parks and protected areas. National parks are seen as a solution for a variety of environmental problems including limited biodiversity and climate change and have spread throughout Western and non-Western countries. International environmental organizations set the standards for national park establishment and management, but these standards may often impinge on a country's development goals, as setting aside land for protection makes some natural resources unavailable in the use of industry. This can potentially be detrimental to impoverished nation states that tend to rely on natural resources for a greater share of their economic activity. International development institutions, such as the World Bank, also support and legitimize development efforts that may be at odds with environmental protection. In three empirical chapters, I test which cultural and economic forces enable and constrain national park expansion and how these forces work in combination to promote expansion in non-Western countries.

In my dissertation I examine (1) the expansion of national parks and protected areas from 1970 to 2008, (2) the expansion of different park categories from 1970 to 2008, and (3) the combination of economic and cultural conditions that lead to park establishment in non-Western countries. I employ cross-national time series regression analyses as well as qualitative comparative analysis. Overall, I find strong evidence that embeddedness in both global culture and the world economic system promotes state environmental activities.

CHAPTER 1

Introduction: The Proliferation of National Parks and Protected Areas

Does the diffusion of global environmentalism lead to tensions between national and global notions of the environment and local development priorities? How do economic growth and development projects affect environmental outcomes in nations? In my research, I use quantitative analyses to examine the expansion of national parks and the roles that economic growth and environmental protection play in their establishment. I chose to focus on national parks because they are closely associated with global environmentalism and have become increasingly connected to development through projects like land trusts and ecotourism. The creation of new national parks and protected areas has been an increasingly common strategy employed by governments over recent decades to address a range of environmental problems such as protecting biodiversity and endangered species (Simmons 1974). I seek to explain why some countries have pursued this strategy more than others. Given this research concern, I use longitudinal statistical models to determine the impact of competing environmental and economic factors on park expansion. In doing so, I test the major sociological theories that seek to explain state behavior related to environmental concerns.

I examine the emergence and expansion of national parks and protected areas in three empirical chapters, employing both cross-national time series regression analyses and qualitative comparative analysis. I examine (1) the expansion of national parks and protected areas from 1970 to 2008, (2) the expansion of different park categories from 1970 to 2008 and (3) the combination of economic and cultural conditions affecting park expansion in non-Western countries. I proceed with a review of the world society approach and how it deals with issues of conflict and global embeddedness. Next, I provide an overview of national park expansion and

how it has changed over time. Finally, I outline the organization of the remainder of the dissertation.

World Society

World society approaches often emphasize the role of international organizations and structures, which embody global culture and serve to institutionalize global models. These studies typically study the diffusion of particular practices as a result of a single institution. For example, Boyle (2002) argues that citizens that are close to international governmental organizations (IGOs) and international nongovernmental organizations (INGOs) promoting western discourses are less likely to practice female genital mutilation than those that are more distanced from those organizations. Chabbott (1999) examines the expansion of educational development policies. Not all models, however, are equally likely to diffuse, as certain models are more likely to be successful than others. Models that fail to assert collective goods over private interests, that fail to articulate with prevailing global institutions, and models that lack international organizational carriers will be unlikely to diffuse, regardless of support from powerful and interested actors (Schofer, Hironaka, Frank, and Longhofer 2012). Although world society scholars have argued that there is often tension around the diffusion of specific global scripts and models, this is usually in terms of the decoupling between policy and practice. World society scholarship has largely failed to critically address conflict, particularly conflict among global institutions.

World society scholars argue that an emerging world polity provides scripts and models for action to actors at multiple institutional levels, ranging from nation states to organizations to local actors. This argument has motivated institutional scholars to analyze the development of the world polity, the association of world culture with national policies and practices, the association of structures with national economic or social characteristics, and the extent of

decoupling between policies and practices (Schneiberg and Clemens 2006), although less work has been done on the creation of world culture and the process of establishing cultural models, particularly the potential for conflict related to the dissemination of new models and scripts.

Institutionalization legitimizes a range of potential models and scripts, some of which may be expected to come into conflict. Organizational intuitionalist scholars have argued that organizational environments are often made up of competing institutional logics, and the same argument may be extended to international sphere and global regimes. World society creates and legitimates a number of institutional actors, many of which will pursue goals and interests that can contradict each other. Koenig and Dierkes (2011) argue that "universalistic principles are formulated in a highly pluralistic associational field without central authority, their elaboration and specification have a high propensity to result in institutional contradictions which, in turn, create latent conflicts by legitimating incompatible courses of action." For example, Western nations draw on scripts and models provided by the global environmental regime, while less developed countries are more likely to find scripts and models from the development regime as more suitable for needs. Both the environmental and development regimes are institutionalized in world society but at the same time their goals and interests can be contradictory and can lead to conflict. When is it possible for two contradictory regimes to coexist? When is it no longer possible?

Diffusion studies conducted by world society scholars often predominantly focus on single institutions and are therefore unlikely to address conflict directly, particularly if conflict exists between institutions. By focusing on only one institution at a time, world society scholars may bypass the issue of conflicting institutional logics in international organizations and regimes altogether. Institutional logics refer to taken for granted practices and beliefs of institutions that

define the behavioral possibility of actors (Friedland and Alford 1991). Institutions can embody multiple logics and institutions can legitimate different kinds of social action. Even work on institutional competition, however, has tended to focus on competing logics within a single institution rather than between them although there has been some work looking at competing institutions (Heimer 1999). Evans and Kay (2008) argue that environmentalists have had success by strategically leveraging structured opportunities available through the overlap of multiple fields. Rather then focus on a single field or institution, they focus on the structure of overlap between fields. Transformation in one field can occur because of the leverage derived from the way it interlocks with other fields and as a result of networked actors operating in multiple fields. By looking at two different global regimes and the dominant institutions working within them, I can examine how the seemingly competing and mutually exclusive logics of environment and development come into conflict and the effect of this encroachment in each regime.

From the world society perspective state behavior is highly guided by world culture and the convergence of state action at the domestic level can be causally attributed to the cultural models at the global level (Koenig and Dierkes 2011). This is in contrast to more economistic views that focus on an a-cultural conception of action and actors and argues, "real action by real actors has little to do with culture, especially as far as the world economy and geo-politics are concerned" (Boli 2005). From this standpoint culture largely influences state behavior, and while economic variables are still thought to influence some outcomes, this is largely perceived as a process separate from the world society approach. But how useful is it to distinguish types of embeddedness? Is economic embeddedness distinct from cultural embeddedness?

Nation states that are connected to world society are culturally embedded. This institutional structure provides definitions for international actors and establishes the guidelines

for their actions. The more embedded a country is the more likely it is to adapt to norms and expectations associated with the institutional structure. While in world society theory the emphasis is on culture, other theoretical perspectives highlight the effects of economic embeddedness on nation states. Most notably the World Systems perspective where nation states are embedded in a hierarchical economic system that largely disadvantages some countries to the benefit of others. Economic embeddedness is assumed to operate separately from cultural embeddedness. For example, Fourcade-Gourinchas and Babb (2002) present the World Bank as a key proponent and enforcer of neoliberalism. From a neoliberal point of view, parks represent state barriers to the market because they take valuable natural resources off the table. Would we then expect countries that are economically embedded through the World Bank to then produce fewer parks? What if they are simultaneously culturally and economically embedded? While most would argue that the World Bank represents ties to global capitalism and the neoliberal agenda, I argue instead that ties to the World Bank represent ties to world society generally. Countries with many Bank ties are not just economically embedded in the international sphere, but rather they are simply embedded.

Environment versus Development

Development and the environment are both heavily institutionalized in world society, with global regimes formed around these two causes. Regimes are defined as integrated collections of world-level organizations, understandings, and assumptions (Meyer, Boli, Thomas, and Ramirez 1997). Despite the importance of both these institutions in the international sphere, development and environment appear to be mutually exclusive, frequently coming into conflict. This is particularly true in the case of the environment, as development projects have sometimes had devastating environmental consequences. People think that the institutionalization of multiple regimes results in irreconcilable conflict but there is more evidence of system

accommodation than of system demise (Frank, Hironaka, and Schofer 2000). In this project, I will examine the conflicts between environment and development regimes, specifically in the context of park building in order to understand how the environment and development come to be reconciled in world society.

I will specifically look at national parks as a site of conflict between environment and development regimes. National parks and land protection projects are perceived differently by more developed countries and less developed countries as the local populations in these countries do not share the same conceptions of nature and wilderness and therefore have very different ideas of how land should be managed. In the mid 20th century, environment and development were thought to be incompatible by environmentalists and development organizations. Environmentalists in Western nations saw development and economic growth as a threat to the environment, whereas less developed nation states saw the environment as a barrier to development goals and environmentalism as completely inappropriate for their needs (McCormick 1995). Surprisingly, given the past conflicts between international organizations and nation states regarding environment and development projects, there has been some incorporation of the environment into the development regime and vice versa. Frank (2015) describes the changes of the ecology–economy relationship in the mid 20th century, as starting as a mostly one-way supply of natural resources from ecology to economy before shifting to an economy- ecology relationship where economic systems were perceived to threaten ecosystems. And finally the relationship is now characterized as sustainable development, the promise of robust economies and healthy ecologies. Hoffman and Ventresca (1999, p.1381), however, argue "in the arena of international regimes the institutionalized separation between environmental and economic interests are most pronounced. International standards often are established with a clear set of underlying assumptions that place economic growth and environmental protection in

separate domains with compatible solutions ruled out." Though conflict does persists, the environment and development are no longer viewed as completely incompatible and efforts have been made by environmentalists, international organizations, and nation states to reconcile these two opposing camps. Debt for nature swaps and pollution credits are some examples of mutual adaptation in environment and development regimes (Frank et al. 2000). As a result, I believe that these institutional separations become less clear over time. I am interested in the evolution of global environment and development regimes, specifically the ways in which they have come into conflict historically and the results of these conflicts.

National Parks

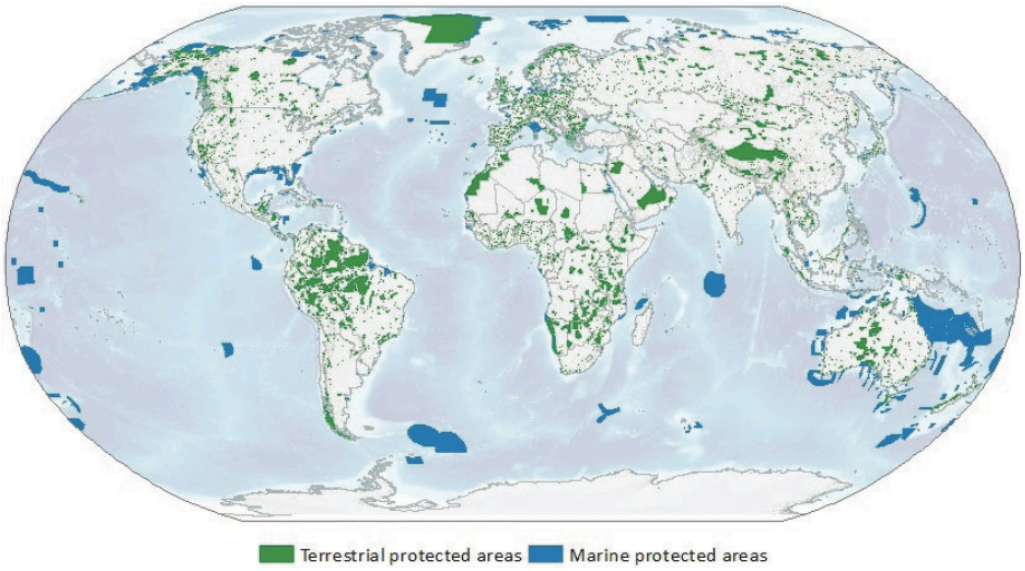
National parks and protected areas are strongly associated with environmentalism now, but this has not been true historically. There is a long colonial history of private reserves, usually set aside as hunting grounds for the elite (Hayden 1942). But late in the nineteenth century, a new form arose: public areas set aside for the aesthetic, spiritual, and recreational benefits of the people at large and moreover for the well-being of nature. States acquired responsibilities not only to protect their citizenries but also to protect their plants and animals and rocks and streams. While states have been setting aside land for recreation, tourism, and environmental protection since before the 19th century, it was not until the mid 20th century that an international definition for parks and protected areas were established.

The International Union for the Conservation of Nature (IUCN), originally, the International Union for the Protection of Nature, was founded after World War II during the same period in which the United Nations and its agencies were formed. The IUCN was formed in 1948 supported by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and is considered one of the first global organizations for nature protection. It was first tasked with compiling a list of all national protected areas, which the organization still

maintains. To do so the organization established the criteria for national parks requiring that protected areas not be materially altered by human intervention.

Since the start of the 20th century, governments around the world have created over 209,429 new national parks that limit development on 32,868,673 square kilometers of land. This accounts for approximately 3.41% of the world's marine area and 14% of the world's terrestrial area (IUCN and UNEP-WCMC 2014),. Figure 1.1 illustrates the expansion of protected areas globally.

Figure 1.1: Map Representing Designated Marine and Terrestrial Protected Area



Source: UNEP-WCMC 2014

The IUCN has also established international targets for protected areas and aim to increase coverage to 17% of terrestrial and 10% of marine protected areas by 2020 (Deguignet, Juffe-Bignoli, Harrison, MacSharry, Burgess, and Kingston 2014).

Parks and protected areas have been major areas of contestation for environmentalism and development as preservationists try to protect land for environmental purposes by keeping it

free from human intervention while local populations may rely on natural resources for a greater share of their environmental activity, especially in developing countries. For example, in India the environmental movement is associated with elites in urban areas who appear out of touch to rural farmers who work the land that they may be evicted from to make way for parks. Conservationists and policy makers seek to keep people out of protected areas, but locals have traditionally been allowed access to and therefore rely on the resources they provide. This exclusionary approach to conservation adopted by most environmental organizations and international institutions have proved harmful to the poor in rural areas and have become a major source of conflict (Saberwal, Rangarajan, and Kothari 2001).

The case of Keoladeo Gahna National Park illustrates this conflict. It was initially created as a shooting reserve for the Maharaja of Bharatpur in the 1890s. After, independence the Maharaja managed to retain possession of the reserve, creating conflict between locals and the Maharaja as poor farmers were yet again denied access to the resources provided by the wetlands. Ironically, the area narrowly avoided being converted into agricultural land, as environmentalists argued it provided benefits to the local people they would later deny access to yet again (Lewis 2003). The reserve was eventually turned over to the state, but conflicts with the local populations escalated. Bharatpur was declared a national park in August 1981, which required that it be free of human activities, but villagers dependent upon the land for animal grazing continued to use it. In 1982 a government decision to enforce park rules and completely exclude locals from parks resulted in locals being shot and killed by police (Lewis 2003, Saberwal et al. 2000). Not only was the exclusionary approach taken by the government detrimental to the livelihood of those in the surrounding community, but also there is little evidence that human activities such as grazing were detrimental to the ecosystem of the area.

While there is still great debate surrounding the extent to which human intervention should be permitted, the IUCN largely views development and the environment as compatible. After establishing a new online system for protected areas, the IUCN claimed "protected areas are not a luxury with their value resting outside the economy" acknowledging the "value of natural capital" (IUCN 2014a). And during the 2014 World Parks Congress it suggested that protected areas be considered as mainstream contributions to sustainable development and be incorporated into national development policies (IUCN 2014b). This may suggest to some, that the organization has adopted economic as opposed to environmental rhetoric to appeal to countries pursuing development goals. The IUCN is not, however, the only international organization to make these claims. The World Bank in recent years acknowledged the importance of national parks and protected areas to both biodiversity and development. The World Bank has claimed that the conservation and sustainable use of natural ecosystems and biodiversity is a critical component of the World Bank's mission to help alleviate poverty and support sustainable development. They also claim that protected areas are key tools in biodiversity conservation (World Bank 2003). Though critics would argue that this "greening" of the World Bank merely pays lip service to environmental concerns (Goldman 2006). While seemingly possessing different goals and interests, both international organizations are focused on issues of sustainable development and see national parks as resolving very different issues falling under their purview. Does this then suggest environmental and development goals can be reconciled? How does this effect park expansion?

An Analysis of Global Institutional Conflict around National Parks: National Park Data

At the behest of UNESCO, the IUCN compiled the first United Nations List of Protected Areas in 1962. Together with the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), they have regularly maintained the list, updating it fourteen

times since its inception (Deguignet et al. 2014). The latest update was in 2014. All national parks on the list are designated as such by national governments. The IUCN provides the definition for what constitutes a park as well as the criteria for park type categories.

In addition to the annual list, the IUCN also maintains the World Database for Protected Areas (WDPA), an online resource compiling data on all national parks as well as descriptive statistics. The WDPA is a joint product between the United Nations Environment Programme (UNEP) and the IUCN, and it is managed by UNEP-WCMC. As an online resource, countries can regularly provide new information to the WDPA and the site is updated monthly. Data on parks include spatial information, such as size, shape, and boundaries, as well as descriptive information, such as park type and founding year (Deguignet et al. 2014). The primary criterion for inclusion on the list is whether or not a park meets the park definition created by the IUCN. Although the list is fairly comprehensive in terms of listing the actual national parks, many of the park entries have missing descriptive information. Missing information is added to the entries based on data previously submitted to the WDPA and the IUCN works with government representatives to make sure all data is accurate.

In compiling the most recent 2014 list, the IUCN requested that countries review and update their information, providing them with a questionnaire detailing the type of management and governance of their national parks. Some countries submitted only minor edits while other countries provided complete updates. For countries that did not update their data, the IUCN again used protected area data previously submitted to the WDPA for the current list.

An Analysis of Global Institutional Conflict around National Parks: Dissertation Outline

My dissertation consists of three empirical chapters examining the role global environmental and development institutions played in park expansion historically. Chapter two, the first empirical chapter, consists of cross-national time series regression analyses on the

cumulative number of national parks from 1970-2008 using a fixed effects model. By using this type of analysis I can answer the following questions: Does emergent environmentalism affect the formation of national parks? Does the pursuit of economic growth impact park formation? Specifically, I test a series of hypotheses about whether development-oriented pressures (including development projects sponsored by the World Bank) reduce subsequent governmental efforts to expand national parks.

My third dissertation chapter is an analysis of the expansion of different national park types. National parks contribute to environmental protection by preventing exploitation and preserving biodiversity. Park building can create conflict in many Non-western countries, however, as people live, work, and farm on land being set aside for preservation. Environment and development are often thought to be at odds in these countries as environmental and economic interests clash. Parks can also vary in the amount of human intervention permitted within the park, ranging from strict nature reserves to protected areas that allow for use of sustainable resources. Western and non-Western conceptions of parks vary in this regard with Western conceptions emphasizing little human intervention in park areas and non-Western conceptions supporting limited land use for local populations. This may suggest that non-Western countries might build parks that do not meet Western expectations. In this chapter I will use cross-national time series regression analyses on the cumulative number of national parks by category from 1970-2008 using a fixed effects model in order to determine what affects the creation of different types of parks in non-Western countries. By doing this I hope to determine whether some factors influence the production of a specific type of park more than others. For this analysis I will use the same dataset as chapter one in the dissertation.

My fourth dissertation chapter will be a qualitative comparative analysis (QCA) of park expansion in non-Western countries. QCA is an innovative method, developed by Dr. Charles

Ragin (2000), which bridges the gap between quantitative cross-national research and qualitative case studies. QCA can be used to analyze diversity among cases. The initial results of the time series regression analyses from chapter one, suggests different processes operating in park expansion in non-Western countries. Using this method, I can identify the extent to which different configurations of environmental and economic conditions have a causal effect on park expansion for specific countries. Although there may be general global trends in how conflicts between environmentalism and economic growth are resolved with respect to parks, there might be real between-country differences. QCA will allow me to answer the following questions: how do the causal conditions promoting park growth vary between countries? How is the environment/development conflict resolved across countries? How does it vary? With QCA, I will test a series of hypotheses about whether development-oriented pressures have different effects on a government's effort in expanding parks given between country differences, such as level of involvement in international activity. Together, these chapters provide a comprehensive look at the determinants of national park expansion over time and across nation states.

Finally, in chapter five, I draw conclusions on the determinants of national park expansion based on the findings of the three empirical chapters. I highlight the theoretical contributions of each analysis and how they contribute to our understanding of expansion as it relates to the environment and development. I discuss the applicability of the findings of these analyses to understanding how positive environmental outcomes are affected by both environment and development at the global level. Finally, I outline my central argument, that global embeddedness, whether cultural or economic, promotes states' environmental activities.

With the empirical examination of the cultural and economic determinants behind global park expansion this research contributes to globalization and environmental sociology literatures. In addition, by focusing on the conflicts between institutional regimes, it advances

neoinstitutionalism in sociology. National ties to international environmental nongovernmental organizations appear to operate similarly to ties to the World Bank, with both acting as indirect carriers of understandings of legitimate environmental goals. This suggests that there may only be a weak distinction between types of global embeddedness.

CHAPTER 2

Competition and Conflict between Global Environmental and Development Regimes in the Case of National Park Expansion, 1970-2008

In the latter half of the 20th century, there has been tremendous growth in the number of protected areas, starting in the West but extending throughout the world. National parks and protected areas conserve habitats, thus they have a positive effect on biodiversity and endangered species. While great for conservation, the land and natural resources found in these pristine wilderness areas are still often seen as necessary for development projects, such as water conservation schemes or mineral working, which can negatively impact a government's efforts to build parks. These development pressures are even greater in industrializing and impoverished non-Western countries where addressing poverty and economic growth is a priority.

Scholars have noted that at the international level there is a pronounced institutionalized separation between environmental and economic interests (Hallett and Ventresca 1999). How feasible then is park creation for countries still struggling with development? Environmental values can be seen as directly counter to economic development in the non-West. Yet since the start of the 20th century, governments around the world have created over 209,429 new national parks and protected areas that limit development on approximately 32,868,673 square kilometers of land (See Figure 1.1). Research on national parks in developing countries suggests that countries vary in their motives for establishing parks. The conventional story suggests that affluence leads to greater environmental protection, and thus developed countries are more likely to establish national parks than less developed countries. The tremendous expansion of national parks, however, is not limited to Western nation-states.

World Society theorists argue that the emergence of shared world culture has created an opportunity for the growth of international non-governmental organizations (INGOS). There is

now space to articulate and address global environmental concerns. This has led to proliferation of environmental organizations and new environmental polices throughout the world. INGOs are seen as a key conduit of world society models and discourses (Hironaka and Schofer 2005). Environmental INGOS convey environmental norms and models to national populations that then get institutionalized at the national level. I argue that environmentalism diffuses as a cultural value via networks of social relations between countries, a shared world culture. I chose to focus on national parks as they are closely associated with the global environmental regime but have become increasingly connected to development.

The Proliferation of Parks

National parks and protected areas have experienced massive proliferation in both Western and non-Western countries. While this expansion has been less pronounced in some countries, parks have nevertheless spread everywhere. Figure 2.1 illustrates the extent to which the number of parks has expanded since 1970 in a variety of countries.

Figure 2.1: Total Number of Parks per Year: 1970, 1990, 2008

Country	1970	1990	2008
Germany	3,776	9.992	21,450
France	17	811	3,344
Brazil	115	480	1,674
Mexico	44	112	965
USA	165	484	751
Zambia	231	517	526
Philippines	64	127	513
Malaysia	209	366	441
Korea	29	57	301
Kenya	196	264	281
Ghana	237	258	265
Chile	34	98	165
Laos	1	1	23
Botswana	4	14	19

Figure 2.2 illustrates the percentage of land that is currently protected in 2014 in those same countries.

Figure 2.2: Park Land Area by Country, 2014

Country	Total % of Protected Land	Km² Total Land Area	Km² Protected Land Area
Germany	37%	357,584	133,732
Botswana	29%	581, 163	169,420
Brazil	28%	8,533,059	2,426,790
France	25%	549,104	139,093
Malaysia	18%	331,699	610,072
Chile	18%	759,769	139,359
Laos	17%	231,276	38,452
Ghana	15%	240,330	36,180
Mexico	13%	1,965,281	253,821
USA	13%	9,336,666	1,294, 476
Kenya	12%	586,769	72,588
Philippines	11%	298,763	32,740
Korea	8%	99,624	7,568
Zambia	4%	10,758	447

National parks originated in the U.S. and New Zealand towards the end of the 19th century, with Europe following in the early 20th century (Duffy 1983). Early on, the overriding motive behind park creation was to protect the particularly wondrous scenes of nature from development and enterprise. This initial aesthetic motivation, however, was soon replaced with economic and environmental concerns in the U.S. and Europe. In the U.S., land that was of little commercial value was preserved in national parks. In this way, park building would not get in the way of economic development and would create opportunities for tourism. Although American preservationists initially pushed for preserving all of the natural wonders found in nature, rather than only economically worthless land, the ascension of Roosevelt shifted the focus away from scenic conservation to utilitarian conservation. This shift allowed American

preservationists to channel cultural nationalism into both an aesthetic and economic defense of national parks (Runte 1981).

Like the U.S. case, the United Kingdoms' park construction was also prompted by a desire to protect beautiful landscapes while allowing public access to private lands. National-parks legislation was intended to preserve landscapes and provide recreation. The emphasis of legislation was preservation, as natural areas both inside and outside of parks were threatened by development, such as water conservation schemes, mineral working, and road improvements (Davidson 1974). Aesthetic preservation and recreation were primarily the motivations for park building in the U.K., as they were in the U.S., but there was still continued pressure to use parkland.

Eventually, the purpose of national parks in Western countries shifted from simply the protection of natural monuments and wonders to the actual conservation of wild life and natural systems (MacEwen and MacEwen 1983). The construction of national parks was motivated by the desire of nation states to set aside land away from production, in the typical economic sense, and to designate these as protected areas (Simmons 1974). While outdoor recreation was one of the most important social roles of parks, there was a push by environmentalists and nation states to de-emphasize the recreational use of parks in favor of cultural, educational, and scientific values. Ultimately, recreation became thought of as compatible with conservation.

As parks spread in the U.S. and Europe, the International Union for the Conservation of Nature (IUCN) provided a standard definition for parks. Although there were some cultural differences between countries, parks for the most part had to be built on land that would not be materially altered, exploited, or occupied by people, and visitors could only be allowed to enter under special conditions (Duffy 1983). This definition was interpreted flexibly, with the IUCN accepting some types of limited exploitation. In addition to having some type of recreational

value, parks also were expected to have some sort of educational or scientific interest for conservation. In the Western case, the environment and development conflict grew over the debate about which lands were suitable for preservation and which were not. While parks were later valued for environmental and scientific reasons, rather than just aesthetic or tourism purposes, there were still tensions between preservation and land use driven by development. The IUCN still provides the most current definition of parks used internationally and tracks data on park establishment internationally. The types of parks under analysis in this paper, therefore, are the parks that fall under IUCN criteria.

National Parks in Non-Western Countries

Western countries and international environmental organizations conceive of parks as wilderness areas protected from human interference. This model, however, is problematic for local populations that live and work in and around national parks, especially for those in developing countries. Physical eviction and displacement, often economic displacement, has been a consequence of park formation in many developing countries, especially those in Africa (Brockington et al. 2008). This model tends to promote a European image of wilderness that emphasizes man and nature as separate. The wilderness model fails to acknowledge the groups whose home and way of life are a part of this wilderness, like the indigenous populations evicted from their land (B. Child 2009, Brockington 2006). For many people who live, farm, and work in natural areas, the idealized image of nature and national parks conflicts with their understanding of nature and wilderness. The wilderness model is seen as an imposition by outsiders on those who live and work in an environment in which nature is not primarily an object of scientific interest or aesthetic contemplation, but rather something with which one has a working relationship (O'Neill 1997). Nature is thus culturally defined, and the absence of humans in

nature is a cultural value imposed by one community over another, those that live in cities and those that live in rural areas (Cronon 1996).

Also, while the establishment of parks in Western countries was often driven by a desire to preserve aesthetic features of nature for cultural and recreational purposes, this was not the case in developing countries where parks and conservation projects are often undertaken to "safeguard and sustain their access to resources" (Ramutsindela 2004). For example, despite a proliferation of national parks in Africa that rejected the commercial utilization of wildlife in the 1960s, national parks in Africa came under pressure in the 1990s. Funding declined as arguments for pure conservation seemed of limited relevance in societies that needed to address poverty, economic growth, and employment (B. Child 2009). While parks are intended to protect the environment and preserve biodiversity, the creation of parks are still influenced by some economic and development motivations.

Although Western and non-Western parks draw on the same global models, the way developed nations and less developed nations construct parks in practice are very different. While less developed countries can get funding to build parks resembling those in Western countries, the land reserved for protection can still often be used to live or work on (Brockington et al. 2008, Ramutsindela 2004). Parks are routinely sites of conflict and contestation between the environment and development, both within and between countries, thus making it an important case for analysis. The environmental regime provides common logics that environmentalists, particularly Western ones, and nation states draw on when building parks, but the global development regime might have a greater appeal to developing nation states and their populations. While prior research has highlighted the tensions centered on park construction in developing countries in specific cases, few examine the motivations driving park expansion in these countries cross nationally. Also, while research suggests that Western and non-Western

countries conceptualize parks in different ways, we have still seen expansion of wilderness-model type parks all over the world.

Theoretical Argument

Drawing on Marxian imagery, the political economy perspective focuses on global capitalism and its unequal effects on nation states based on their positions in the hierarchy of the global economy. More developed countries are positioned more advantageously in the global world economy than less developed countries. This allows them to secure more favorable trade agreements and economic policies to maintain their positions at the expense of less developed countries. From this perspective, nation states are under great pressure to pursue development, which in turn creates powerful pressures toward environmental degradation. Through ecologically unequal exchange more developed countries externalize their environmental costs leading to greater degradation in less developed countries. Research in this area has found that economic and development policies and pursuits have had negative environmental outcomes, especially in less developed countries (Bunker 1996, Jorgenson 2010).

Political economy approaches can often downplay the role of international regimes and suggest that they have modest effects on real world outcomes. In the case of the environment specifically, some have questioned the impact of international organizations in light of global and domestic economic pressures to consume and degrade the environment (Buttel 2000). Political economy scholars have further suggested that international institutions like the World Bank mainly serve to reinforce this system and are therefore contribute to environmental degradation. While some scholars have argued that the World Bank has been more committed to the environment, critics argue that the "greening of the World Bank" is simply a facade (Goldman 2006). The World Bank began to seriously incorporate environmental concerns into its projects at the start of the 1990s, and by the mid-1990s the World Bank claimed to be the

leader in environmentally sustainable development (Fox and Brown 1998). It is unclear to what extent the World Bank has positively affected environmental outcomes. Escobar, for example, suggests that the rise of sustainable development discourses is merely an attempt to reconcile economic growth and preservation without drastic changes to the capitalist system (1996). Shandra et al. has found that structural adjustment loans are related to higher levels of deforestation (2011). This raises questions to whether or not the World Bank is seriously addressing environmental concerns or if their environmental projects are simply window dressing. This perspective suggests that development and economic interest in land will trump efforts at environmental protection efforts, which will hinder the expansion of national parks and protected areas.

The world society approach, however, places great emphasis on the role of international non-governmental organizations in the spread of global norms, models, and scripts, such as those centered on environmentalism. Because there is a shared world culture, models spread throughout the world. And as these organizations develop and elaborate these models, they become more influential than economic and political interests (Meyer 1997). The models are pervasive in the global world culture giving them the perception of universality. International nongovernmental organizations, educational systems, and laws can serve as cultural models for individuals and organizations. From a world society perspective nation states legitimate themselves by adopting global models and face great pressure in the international arena to conform.

World society scholars have suggested that the formation of a shared world culture has resulted in the emergence of a global associational structure that could support intergovernmental organization and has created a space to articulate and address global environmental concerns. This has led to proliferation of environmental organizations and new environmental polices

throughout the world, including the establishment of protected areas. Theorists have challenged arguments that INGOs fail to impact environmentalism in face of developmental concerns (Shandra et al. 2011, 2012). People think that the institutionalization of both the environment and development in world culture results in irreconcilable, but while conflict persists, the environment and development are no longer viewed as completely incompatible. Environmentalists, international organizations, and nation states have all attempted to reconcile these differences giving rise to sustainable development discourse. Debt for nature swaps and pollution credits are some examples of mutual adaptation in environment and development regimes although the success of these programs in terms of preserving biodiversity, particularly in less developed countries, is questionable (Lewis 2003, Shandra et al. 2011).

Schofer and Hironaka argue that "legitimated models and discourses of global environmentalism have, to varying degrees, infused international economic and development institutions, such as the World Bank (2005). World Bank projects with potentially detrimental environmental consequences have faced increased resistance due to global environmental mobilization and new environmental requirements have become an increasingly common feature of development projects (Hironaka and Schofer 2002). While organizations such as the World Bank prioritize development, they still face international pressures to protect the environment, resulting in "debt-for-nature" swaps, environmental impact assessment requirements, and pollution credits. That nation states are pursuing nature-based solutions when dealing with access, use, and maintenance of natural resources in any form suggests system accommodation to some extent. Sustainable development is also becoming a priority for both environmental and development organizations. Initially a focus of the 1992 United Nations Conference on the Environment and Development, the concept of sustainable development has persisted despite the apparent contradictions between environment and development**.**

National parks and protected areas are now viewed as critical to both conservation efforts and to sustainable development not only by nation states but also international organizations such as the IUCN, the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), and even the World Bank. At the 2014 IUCN World Parks Congress the organization posited that "protected areas and other nature-based solutions can help the world meet some of the most pressing development challenges by delivering significant environmental, social and economic benefits in an efficient and cost-effective manner" and argued for "[strengthening] the role of protected areas in defining and delivering on the world's Sustainable Development Goals" (IUCN 2014a). While the UNDP committed to mobilize around one hundred million dollars "in support of the diversity and quality of governance of protected areas" (IUCN 2014b). In 2003 the World Bank described protected areas as "the cornerstones of biodiversity protection and key tools in Bank support for biodiversity conservation" and "a critical component of the World Bank's mission" (World Bank 2003). The environment was also included as one of the Millennium Development Goals (MDGs). And more recently, the World Bank claimed it was "ready to provide its convening power, global knowledge and financial support to build partnerships and mobilize long-term funding for biodiversity conservation" (World Bank 2012).

UNEP and the IUCN are pushing for both the creation of more parks and protected areas as well as improving management, governance, and financing in existing parks (UNEP 2014). The efforts of both organizations have recently culminated in "The World Parks Congress" in 2014. This event was designed to address the future direction of protected areas in the next decade and promote greater investment in protected areas in order to preserve biodiversity and combat climate change. The push for more parks has expanded into spheres beyond the

environmental. The World Bank established environmental sustainability as a millennium goal and it views biodiversity preservation, particularly through the development of national parks and protected areas, as crucial for their objectives (World Bank 2003, 2006, 2008)

Many existing studies have shown that the expansion of world civil society affects national policies, although only a few have examined the relationship between international organizations and environmental outcomes (Schofer and Hironaka 2005, Jorgenson 2010). For example, in the case of deforestation, Shandra finds that international non governmental organizations reduce deforestation despite increased cooperation with institutions that may be complicit in forest loss, although the effect of INGOs are greater in countries with greater levels of democracy (2007). Even so, a World Society approach may benefit from considering prior economic and political factors that can make some world policies far more palatable than others and render certain kinds of organizational carriers far more tolerable than others (Amenta and Ramsey 2010).

This work extends current research by addressing how conflicts at the global level of civil society affect a unique environmental outcome, the establishment of national parks. I am interested in the extent to which environmentalism and economic growth factor into expansion. Do we see a proliferation of parks in all countries closely linked to global civil society through environmental international organizations? Is park expansion delayed in countries where poverty and economic growth has become a central concern? Does the World Bank actually aid park expansion despite its commitments to development? I will analyze the role of both political-economic and institutional factors in shaping park expansion. I draw on and test political economy and world society perspectives using fixed effects panel regression analyses.

Hypotheses

Political Economy

Political Economy arguments focus on the exploitative relationship between rich and poor countries in the global capitalist system. This would suggest that in the case of the environment, environmental degradation persists in non-Western countries as a result of global capitalism. From this perspective, it can be argued that parks are more likely to be built in Western industrialized countries than less-developed non-Western countries as a result of economic pressures. Competing industries may hinder park development if land gets allocated for other projects. One hypothesis would suggest that in countries with competing industries, such as agriculture, parks would fail to spread. Presumably, a decline in one industry can give rise to another.

H1: Countries with greater GDP are more likely to build parks than countries with low GDP.

H2: Countries with more land allocated toward agriculture will have fewer parks than those that do not.

This argument may also extend to World Bank commitments. Countries focused on development projects will allocate less land and resources to parks as a result. There is less incentive for countries to pursue their own conservation agendas in the form of park building while trying to implement World Bank development projects.

H3: Countries engaged in many World Bank projects will establish fewer parks than those that are not.

Non-Western countries are more likely to need and receive World Bank support than Western countries and as a result World Bank projects and funding can be expected to play a more significant role in these countries.

World Society

Boli and Thomas (1999) argue that national memberships in international organizations are indicators of linkage to the wider world. Scholars have also demonstrated that INGO membership is related to the diffusion of global models and that they have had positive effects on environmental outcomes (Schofer and Hironaka 2005). One hypothesis would suggest that INGO membership would positively influence the diffusion of global national park models. Countries linked to global civil society through INGOs are more likely to have parks than those that do not.

While world society theory highlights the role international organizations play in social and political processes by reinforcing global norms, these organizations are often thought to operate indirectly as carriers of global culture, with countries that are more tightly linked to these organizations adhering more closely to these norms. I argue that while the World Bank is a development institution it still operates as a carrier of global culture more generally. Thus, countries connected to global society through the World Bank will adhere more closely to both global development and environmental norms.

H4: Non-Western countries engaged in more World Bank projects will establish a greater number of national parks than those engaged in fewer.

H5: Countries with high INGO membership establish parks in greater numbers than those with low INGO membership.

Domestic Environmental Context

Finally, countries may already have a well-developed national associational structure; specifically many countries have domestic pro-environmental NGOs. In the case of many environmental outcomes, the conventional story suggests a bottom up process, where domestic organizations mobilize activity around a cause hoping to affect certain outcomes. The literature suggests that the expansion of international environmental organizations often precede the

expansion of domestic environmental organizations (Schofer et al. 2012). In industrialized countries, however, this processes is reversed.

H6: Industrialized countries with domestic environmental organizations will establish more parks, whereas in less industrialized countries the effect of domestic organizations on park expansion will be weaker.

Data and Methods

I conduct cross-national time series regression analyses on the cumulative number of national parks using a fixed effects model. For these analyses I use a panel of the cumulative number of national parks from 1970 to 2008. The analysis includes 164 different countries, all countries that had available data. Countries in the analysis include both Western and non-western countries. Data on national parks is available for all countries, and Western countries are not disproportionately represented in this sample. Around the 1990s there were a number of World Bank countries that graduated from loan recipients to loaners, thus changing the World Bank effect in this period. I have included interaction term in the models to account for this.

Dependent Variable

The dependent variable is the logged cumulative number of established national parks from 1970-2008. Data are from the World Database on Protected Areas (WDPA), a global database of protected areas, a joint project of IUCN and UNEP (2014). Unlogged values range from 0 parks and protected areas in countries like Somalia to over 20,000 in Germany.

Independent Variables

Domestic Environmental Context

I include the logged sum of domestic NGOs. Primary data on domestic environmental associations are from the *World Directory of Environmental Organizations* ("the Directory") and

the *Encyclopedia of Associations: International Organizations* (the "Encyclopedia") (Gale 2001). Gale's keywords were used to identify groups that had an environmental focus, excluding organizations that were branches of international NGOs.

World Society

World society influence is measured country chapters of environmental international non-governmental organizations (INGOs). Data from the Union of International Associations (2001) measures the number of INGOs to which citizens from a given country hold membership. I used the UIA subject indices to identify the population of environmental INGOs, consulting multiple years of the yearbook and arranged these by founding date. Organizations that did not primarily focus on the environment or that did not include membership data were dropped. I then sampled every 8th organization, which provided a sample of 54 environmental INGOs. This measure represents the yearly count of environmental INGO chapters in a given country out of the sample of 54. This variable is measured by logged number of memberships.

Political Economy

I use an agricultural land variable to analyze the effect of competing industries on park expansion. Agricultural land is included as percentage of total land area, data is from World Bank's *World Development Indicators* (2014).

I include a World Bank project variable, which is the total number of Bank projects within a country from 1970 to 2008, lagged by three years. The variables were created using data from the World Bank Project Database (2014). It includes any project that is in the projects and operations database.

I included a measure of World Bank loan eligibility. World Bank countries that are eligible to receive International Bank of Reconstruction and Development (IBRD) loans or

International Development Association may eventually graduate from loan recipients to lenders. This variable measures a countries eligibility status from 1970-2008.

Controls

I control for other factors likely to affect environmental outcomes, such as economic development. These variables are real Gross Domestic Product (GDP) per capita, logged and population. Per capita gross domestic product (GDP) is measured in constant 2005 US dollars. This variable is from the Penn World Table. GDP is logged. The population variable is from the World Bank's *World Development Indicators* (2014). Population is often associated with degradation and is often included in studies analyzing environmental degradation. Economic development indicators are included as states with more resources may have a greater capacity to address environmental concerns. I also control for total land area, which is measured in kilometers squared and logged.

Interaction Terms

I include an interaction term between the total World Bank projects variable and a variable for the post 1990 period. World Bank countries that are eligible to receive International Bank of Reconstruction and Development (IBRD) loans or International Development Association (IDA) may eventually graduate from loan recipients to lenders. Around 40 countries have transitioned to lenders, particularly around the 1990s. As these countries transition, the remaining countries tend to be impoverished. This may indicate a reduced World Bank effect over time. I've also included a World Bank eligibility variable. This variable measures a countries eligibility status for either IBRD or IDA loans from 1970-2008.

Findings

Table 2.1: Fixed Effects Regression Analysis Total National Park Foundings in all Countries, 1970-2008

	Model 1	Model 2	Model 3	Model 4	Model 5
GDP (log)	0.688***	0.597***	0.561***	0.533***	0.494***
	-19.07	-15.49	-15.12	-14.58	-13.41
Population (log)	1.213***	0.845***	0.831***	0.655***	0.684***
	-16.29	-10.46	-10.46	-7.691	-8.07
Land Area (log)	1.888	4.048*	3.711*	2.474	2.374
	-1.532	-2.171	-2.108	-1.426	-1.375
% Agricultural	-0.00875**	-0.00408	-0.00233	0.00239	0.00349
	(-2.728)	(-1.262)	(-0.741)	-0.764	-1.121
Dom NGO (log)	0.455***	0.333***	0.277***	0.290***	0.285***
	-14.51	-10.22	-8.556	-8.943	-8.848
Envt INGOs (log)		0.374***	0.346***	0.292***	0.286***
		-13.6	-13.11	-10.07	-9.881
WB Projects (lag)			0.0106***	0.0376***	0.0390***
			-3.677	-10.26	-10.69
Late period				0.338***	0.341***
				-8.356	-8.461
WBxLate period				-0.0377***	-0.0370***
				(-11.53)	(-11.38)
WB Eligibility					-0.465***
					(-6.849)
Constant	-33.71*	-56.78*	-52.30*	-36.5	-34.79
	(-2.306)	(-2.560)	(-2.499)	(-1.770)	(-1.695)
Observations	5,002	4,880	4,715	4,715	4,715
R-squared	0.425	0.452	0.443	0.461	0.467
Total Number	160	158	158	158	158

***p<.000, **p<.01, *p<.05

Cross-national longitudinal fixed effects regression analyses of cumulative park numbers in all countries from 1970-2008 are reported in Table 2.1. The base model includes control variables, total land area, percentage of agricultural land, and domestic NGOs. GDP and population have a positive effect on park establishment initially, while the percentage of agricultural land has a significant negative effect. Next, I add a domestic association variable and an environmental INGO variable in models 2 and 3 respectively, both of which has a significant positive effect. A total World Bank projects variable and a time-interaction variable are added in models 4, 5. World Bank projects have a significant positive effect, but the time-interaction variable is negatively significant, suggesting this effect is reduced over time. The World Bank

eligibility variable is negatively significant. Countries graduate from receiving loans to being lenders, once they have achieved some level of economic stability. The remaining countries are then the most impoverished and may have fewer resources and no infrastructure to pursue park building. While I do find some support for both the political economy and world society arguments, these models are unable to account for differences between Western and non-Western countries, which can vary in World Bank funding, types of industry, and domestic and international environmental association.

Table 2.2: Fixed Effects Regression Analysis Total National Park Foundings in Western Countries, 1970-2008

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
GDP (log)	1.250***	0.474**	0.214	0.508**	0.441**
	8.755	-2.652	1.344	2.963	2.625
Population (log)	-0.184	-0.144	-0.422	-0.711	-0.771
	(-0.383)	(-0.307)	(-0.975)	(-1.638)	(1.818)
Land Area (log)	33.3	6.548	4.212	8.856	-12.28
	-1.918	-0.377	-0.272	-0.577	(-0.803)
% Agricultural	-0.0910***	-0.0789***	-0.0679***	-0.0632***	-0.0654***
	(-10.47)	(-9.115)	(-8.993)	(-8.381)	(-8.878)
Dom NGO (log)	0.965***	0.890***	0.836***	0.873***	0.675***
	-9.026	-8.483	-8.387	-8.811	-6.672
Envt INGOs (log)		0.515***	0.617***	0.496***	0.506***
		-6.925	-9.509	-6.502	-6.785
WB Projects (lag)			-0.0509***	0.000748	0.0389*
			(-3.857)	-0.0433	-2.186
Late period				0.1	0.124
				-1.181	-1.487
WBxLate period				-0.0968***	-0.116***
				(-4.656)	(-5.640)
WB Eligibility					-0.774***
					(-6.654)
Constant	-416.9	-79.05	-45.46	-104.3	158.1
	(-1.946)	(-0.368)	(-0.238)	(-0.551)	-0.836
Observations	966	966	920	920	920
R-squared	0.585	0.606	0.626	0.635	0.653
Total Number	31	31	31	31	31

***p<.000, **p<.01, *p<.05

Table 2 presents the cross-national longitudinal fixed effects regression analyses of cumulative park numbers in Western countries from 1970-2008. GDP is still significant while population is not. Land area initially has a negative significant effect, although this effect disappears in the later models. Agriculture has a large negatively significant effect. This suggests that in Western countries parks may operate as a competing industry. If land is set aside for agriculture, it cannot be set aside for conservation. Domestic NGOs and environmental INGOs have a significant positive effect. Most Western countries are members of the World Bank, although they act as lenders and few still receive loans and get projects funded when compared to non-Western countries. In the post war period, Western countries did receive reconstruction loans from the World Bank. Some smaller European countries have also received loans in the more modern period. Bank effects are mixed. While slightly positively significant in model 6, when controlling for time and eligibility, the Bank effect is reduced. So although the World Bank projects variable as a slightly significant effect, over time this effect lessens. Domestic NGOs and Environmental INGOs seem to have the greatest positive effect on park expansion in Western countries during this period.

Table 2.3: Fixed Effects Regression Analysis Total National Park Foundings in Non-Western Countries, 1970-2008

	Model 1	Model 2	Model 3	Model 4	Model 5
GDP (log)	0.488***	0.510***	0.481***	0.477***	0.459***
	-13.28	-13.05	-12.52	-12.53	-11.94
Population (log)	1.326***	1.159***	1.149***	0.916***	0.923***
	-18.32	-14.01	-13.81	-9.891	-9.968
Land Area (log)	0.608	1.255	1.559	0.838	0.825
	-0.518	-0.69	-0.889	-0.483	-0.476
% Agricultural	0.0208***	0.0201***	0.0183***	0.0203***	0.0209***
	-6.162	-5.829	-5.349	-5.967	-6.136
Dom NGO (log)	0.362***	0.307***	0.254***	0.252***	0.254***
	-11.63	-9.232	-7.576	-7.471	-7.545
Envt INGOs (log)		0.159***	0.129***	0.124***	0.123***
		-5.035	-4.145	-3.744	-3.712
WB Projects (lag)			0.0171***	0.0375***	0.0378***
			-5.841	-9.987	-10.09
Late period				0.295***	0.298***
				-6.453	-6.506
WBxLate period				-0.0292***	-0.0289***
				(-8.505)	(-8.412)
WB Eligibility					-0.264**
					(-3.221)
Constant	-18.33	-25.33	-28.5	-18.73	-18.24
	(-1.330)	(-1.182)	(-1.380)	(-0.916)	(-0.893)
Observations	4,036	3,914	3,795	3,795	3,795
R-squared	0.444	0.451	0.44	0.453	0.454
Total Number	129	127	127	127	127

***p<.000, **p<.01, *p<.05

Table 2.3 presents the cross-national longitudinal fixed effects regression analyses of cumulative park numbers in non-Western countries from 1970-2008. GDP and population have a positive effect on park establishment. Unlike in Western countries, the percentage of agricultural land does not have a significant effect and instead has a significant positive effect.

The domestic association, environmental INGOs, and World Bank projects variables are all positively significant. While the positive effects of GDP and population provide some support for the political economy argument, the effect of environmental INGOS and park expansion remains strong. Environmentalism and development are not at odds in this early period. This

suggests that while the Bank is primarily a development institution, as an IGO it can indirectly spread global norms and values, even those that it is not directly associated with.

Discussion

Hypothesis 1 is supported by the findings. GDP does have a significant effect on park expansion. The higher the GDP the more likely a country is to build parks. There are mixed results for Hypothesis 2. Agriculture has a negative significant effect in the Western countries but has a positive significant effect in non-Western countries in the latter period. This suggests that contrary to what would be expected in a political economy approach, competing industries do not necessarily hinder park expansion in developing countries. This may be a result of the rationalization of land. Many of the non-Western countries in this analysis were former colonies and achieved independence fairly recently when compared to non-Western countries. In addition to norms of environmentalism, INGOs have been linked to the spread of universalism, rational progress, and world citizenship (Boli and Thomas 1999). This rationalization can extend to land. With increasing scientization and rationalization all land is presumed to have a purpose, whether for conservation, recreation, or industry. As countries establish what land they will set aside for park land they also establish what land can and will be used for other industries such as agriculture. This is different from park establishment in Western countries, where much of the land set aside for parks was the land that could not be used for agriculture or industry (Runte 1981).

World Bank projects and funding have a significant positive effect in non-Western countries. Hypothesis 3, the political economy World Bank argument, is not supported. While some Bank projects may be categorized as environmental, the vast majority of projects do not have an environmental component. Despite these projects being development oriented, increased Bank activity in a country is associated with greater numbers of parks. This does support

hypothesis 4, the world society argument. The increase in park expansion in non-Western countries is associated with a higher number of Bank projects, suggesting that the World Bank can indirectly spread global environmental norms.

Hypothesis 5 and 6 are also supported. INGO membership initially has a positive significant effect in both Western and non-Western countries, although this significance is somewhat diminished in the latter period in Western countries. Domestic association is positively associated with park expansion in both Western and non-Western countries. While demonstrating support for the environment, general environmental activities promoted by INGOs do not necessarily promote conservation or parks specifically.

Conclusion

National Parks and protected areas are important for both protecting resources and preserving biodiversity, but they often create conflict when there is pressure to use land for economic and development purposes. There has been an overall increase in the proliferation of parks, but is this increase impeded by development? This study examines the effect of both economic and cultural factors on park expansion cross nationally and over time, testing hypotheses from both the world society and political economy perspectives. The analyses provide more support for the former perspective than the latter. I find that connections to the wider world culture, through participation in international organizations that promote environmentalism, have a positive effect on park establishment in all countries. And while the World Bank is primarily a development institution, its activity positively affects park expansion in non-Western countries, suggesting that in the case of parks, domestic development pressures do not preclude positive environmental outcomes.

Both environmental INGOs and World Bank operate indirectly in this case. Neither necessarily advocates just for parks and protected areas, but rather seek to influence a variety of different environmental outcomes. Both INGOs and the World Bank can legitimize environmental outcomes and bring in a broader scientific understanding to a country. There is some support for the political economy perspective as less developed states with higher levels of economic development are more likely to establish parks than less developed states with lower levels of economic development, but agricultural land allotment has no negative effect on park expansion. This suggests that economic interests do not necessarily take precedence over environmental outcomes in non-Western countries. A country's ties to the wider world culture whether it's through INGOs or the World Bank, makes it more likely that they will adhere to global norms and models related to the environment. State behavior can then be guided by world culture if that state is sufficiently embedded.

CHAPTER 3

The Effect of Economic and Social Cultural Factors on the Expansion of Different Park Types, 1970-2008

National parks and protected areas are spreading throughout the world, with approximately 14% of the world's terrestrial land mass currently protected and with organizations like the IUCN hoping to increase this number to 17% by 2020 (IUCN 2014). The proliferation of national parks is not just a phenomenon in Western countries although the predominant national park model relies on Western conceptions of wilderness. Previous work identifies the conflicts surrounding park creation in many non-Western countries, as local populations struggled to reconcile national parks with their own attitudes towards nature (Brockington and Igoe 2006, Duffy 2000, Lewis 2003, Saberwal et al. 2001). Given these conflicts, to what extent do parks in non-Western countries follow the models established by Western countries? Are the parks in non-Western countries managed differently from those in the West? In this chapter, I examine the expansion of different types of national parks in non-Western countries in order to determine which are more likely to diffuse, those limiting human intervention or those that allow limited land use. Do economic and cultural factors vary in their effects on the expansion of parks depending on park category? Whereas the previous chapter analyzed all national parks – including all parks falling within the seven of the IUCN categories – this chapter focuses on two subsets of categories: those limiting human intervention and those allowing it.

In this analysis, I examine which forces promote the expansion of different types of national parks. I consider economic forces as well as established connections to a wider world culture, either through ties to environmental INGOs or ties to the World Bank. Cross-national time series regression analyses yield evidence for the institutional foundations of park expansion

for both subsets of park types. Like in the previous chapter, countries connected to the wider world culture through environmental INGOs and or the World Bank are more likely to build parks in both categories. Interestingly, there is not a great difference between the conditions related to the establishment of parks based on their categories.

Changing Conceptions of Nature

An initial aesthetic motivation was the early driving force in establishing national parks in both the U.S. and Europe. But soon it became clear that parks could have economic benefits as areas for recreation and leisure while still addressing environmental concerns to some extent. While the focus shifted from the aesthetic to the economic, the preservationist park model was still predominant, and over time the focus shifted again from recreation to actual conservation. Eventually, national parks in Western countries were being established to support conservation of wild life and natural systems rather than simply protecting natural wonders (MacEwen and MacEwen 1983). Outdoor recreation is still an important social role for Western parks, but now parks have cultural, educational, and scientific value as well.

The IUCN standard definitions for parks require that parks not be materially altered, exploited, or occupied by people, but the IUCN still accepts some types of limited exploitation (Duffy 1983). The standards set by the IUCN emphasis three different purposes for parks: recreation, conservation, and scientific interest. In Western countries, debates ranged over where parks could and should be created, but not whether they should be created at all. Parks in the U.S. and Western Europe are largely built on areas that have no other purpose such as industry or habitation, which makes it easier to adhere to a model of national parks that conceptualizes nature as untouched by humans (O'Neill 1997)

It is generally believed in most non-Western countries, however, that humans and nature are able to coexist. Ramutsindela (2004) argues, "national parks in present-day southern Africa

are a manifestation of nature conservation ideas that had originally been alien to Africa." Parks were founded by Westerners and shaped in the Western vision of nature and this view became the dominant view. White settlement decimated the environment and wildlife in many parts of Africa. Hunting and agricultural were extremely profitable in an economy lacking the institutions that could control increasingly scarce resources (G. Child 2009). In reaction to environmental damage caused by colonizers and after a lobby by European hunters, legislation was created to set aside land for game preservation and eventually parks (Ramutsindela 2004).

Access to hunting was much greater motivation for establishing national parks than concerns about the environment or biodiversity. Hunting legislation not only protected wildlife, but has also been historically used to determine access to wildlife along racial lines. Similar processes occurred in other developing countries, although not all parks followed that model. In non-Western countries many parks are still built with economic development goals in mind, such as eco tourism, while many areas that contribute to biodiversity or are of scientific value remain unprotected. Utility predominantly drives what areas are chosen for parks. The link between conservation and economics in developing countries indicates that nature conservation is often influenced by economic values not environmental concerns (Ramutsindela 2004). Nearly all non-Western countries have established at least one park since the 1970s despite these conflicts, but what do these parks look like in practice in developing countries? Over time, do states construct parks that are similar to those in the West or does the conflict allow for some variation in park construction?

IUCN Park Categories

UNEP was formed in 1972 to organize the UN's environmental activities and currently promotes environmental policies and practices in member states. The IUCN was established in 1948, and it is an international environmental organization focused on promoting conservation

and environmental solutions among its member states. The IUCN, working closely with UNEP and other international organizations, provides the UN with data on protected areas and national parks. It has also provided most international bodies with the working definition for national parks and protected areas.

The IUCN collects data on all parks and protected areas and classify them based on the management objectives. These categories are recognized by international organizations, such as the UN, and national governments and have been increasingly incorporating them into legislation. There are seven categories and while most allow for only limited human intervention the final two categories allow for limited land use. The criteria for these categories are listed below in Figure 3.1. For this analysis I split the categories into two groups based on the level of human intervention they allow.

Figure 3.1: IUCN Park Categories

Category	Management Objectives	Level of Intervention
Ia	Strict Nature Reserve: protected area managed mainly for science	Free from human intervention
Ib	Wilderness Area: protected area managed mainly for wilderness protection	
II	National Park: protected area managed mainly for ecosystem protection and recreation	
III	Natural Monument: protected area managed mainly for conservation of specific natural features	
IV	Habitat/Species Management Area: protected area managed mainly for conservation through management intervention	
V	Protected Landscape/Seascape: protected area managed mainly for landscape/ seascape conservation and recreation	Limited land use
VI	Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems	

These park categories allow for great variation in terms of parks and land management. Categories limiting human intervention align fairly closely to Western conceptions of nature, whereas those allowing limited use align more with non-Western conceptions. Even in non-Western countries there has been an expansion of both types of parks. Figure 3.2, shown below, provides a breakdown of the number of parks in a variety of countries that fall into the 1-4 park categories and the number of parks that fall into the 5-6 categories, excluding parks that have not been categorized. When looking at the numbers of both groups included in the figure, they appear to be almost evenly split with category 1-4 parks accounting for 21,735 out of 46,759 total parks (around 46%) and category 5-6 parks accounting for the remaining 25,024 (54%). While the majority of the parks fall within the category 5-6 group, when looking at the individual breakdown, the distribution in specific countries is much less obvious with great variation between countries. For example, when the U.S. is removed, there is a slight shift in the breakdown with the majority of parks now falling within the category 1-4 group, with 11,768 out of 21,046 (around 56%), while the remaining 9, 278 (around 44%) fall within the category 5-6 group.

Figure 3.2: Total Number of Parks per Year by Category in 2015

Country	Category 1-4	Category 5-6	Total
Germany	8,097	8,203	16,300
France	2,514	57	2,571
Brazil	376	341	717
USA	9,967	15,746	25,713
Zambia	36	36	72
Philippines	62	328	390
Malaysia	235	10	245
Korea	204	286	490
Kenya	40	12	52
Ghana	11	5	16
Chile	152	0	152
Laos	21	0	21
Botswana	20	0	20
Total	21,735	25,024	46,759

I am interested in whether or not different economic and social cultural factors promote the creation of parks in different categories. Countries pursuing development goals, for example, may favor establishing category 5-6 parks as they will still allow some access to natural resources. Category 5-6 parks also align more closely to non-Western conceptions of nature and may therefore be more likely to be established than category 1-4 parks. On the other hand, increasing environmental pressures at the global level may instead lead countries to establish category 1-4 parks that prevent human intervention as those types of parks adhere more closely to global environmental norms. In this chapter I will present the cross-national time series regression analyses for both groups of parks for all countries and for non-Western countries. For the results of the regression analyses for Western countries see Appendix A and B.

Hypotheses

Political Economy

Political Economy arguments suggest that non-Western countries tend to rely on natural resources for a greater share of their economic activity. From this perspective, it can be argued that category 1-4 parks represent state barriers to the market as they take valuable natural resources off the table, while category 5-6 parks may provide some economic benefit to states by allowing sustainable use. One hypothesis would suggest that as more impoverished countries rely more on natural resources that category 1-4 parks would fail to spread in these countries while category 5-6 parks would be more likely to spread. In addition, countries allocating land for competing industries, such as agricultural, may be less likely to create category 1-4 parks as those would prevent their access to land. Category 5-6 parks can potentially allow farmers to access some resources such as water or grazing grasses and for those reasons they can be more compatible with agriculture.

H1: Countries with greater GDP are more likely to build parks category 1-4 parks, while those with less GDP are more likely to build category 5-6 parks.

H2: Countries with more land allocated toward agriculture will have fewer category 1-4 parks, but are more likely to build category 5-6 parks.

This argument may also extend to the World Bank. Ties to the World Bank represent ties to global capitalism and neoliberalism. Countries that are economically but not socially embedded in world culture, will prioritize development and land use over the environment. World Bank development projects may lead to the establishment of category 5-6 parks as these parks have greater economic potential. At the same time this may lead to to less land being allocated for category 1-4 parks.

H3: Countries that have engaged in World Bank projects will establish category 5-6 parks, but not category 1-4 parks.

Economic embeddedness through the World Bank can promote the expansion of parks allowing for sustainable use, while hindering the expansion of parks that strictly limit human intervention.

World Society

World society scholars have demonstrated that countries that are deeply embedded in world society follow global models and scripts, and as the environment becomes increasingly institutionalized these countries will adopt policies and practices that result in positive environmental outcomes (Schofer and Hironaka 2005). National memberships in international organizations are often used as indicators of linkages to the wider world. From this perspective, one hypothesis would suggest that INGO membership would positively influence the diffusion of category 1-4 parks, as these parks most closely adhere to the conception of nature as separate from man that has diffused through international organization such as UNEP and the IUCN.

World society theory views INGOs as carriers of global culture, with memberships signifying cultural and social embeddedness. INGOs are thought to promote global models and scripts both directly and indirectly. One can argue, that as a result countries linked to the world culture through INGOs are less likely to build category 5-6 parks as they do not follow the models promoted in the international arena. Countries connected to the World Bank, however, may be more likely to build category 5-6 parks as they align with global development norms. I, however, argue that embeddedness is embeddedness, whether it is cultural or economic and as a result ties to INGOs and/or the World Bank will lead to more park creation generally. While they do not completely fit with conceptions of nature and wilderness at the international level, category 5-6 parks show some adherence to global norms. Countries linked to global civil society through INGOs are thus more likely to have parks in both categories than those that do not.

H4: Countries engaged in more World Bank projects will establish a greater number of both category 1-4 and 5-6 national parks than those engaged in fewer.

H5: Countries with high INGO membership will establish both category 1-4 and 5-6 parks in greater numbers than those with low INGO membership.

Domestic Environmental Context

Finally, countries that have a well-developed national associational structure can mobilize activity around a cause hoping to affect certain outcomes. If a country has pro-environmental domestic associations, in a bottom up process, they may promote a range of pro-environmental policies including park expansion and apply pressure to the state. Countries with domestic pro-environmental NGOs would therefore be more likely to build parks of all kinds. Countries with active environmental movements may also be able to resist both global and domestic development pressures.

H6: Countries with a domestic environmental NGO presence will establish both category 1-4 and 5-6 parks.

Data and Methods

I conduct cross-national time series regression analyses on the cumulative number of parks by category using a fixed effects model. For these analyses I use a panel of the cumulative number of national parks from 1970 to 2008. These parks are then placed into two groups based on category. Category 1-4 parks are placed into a strict protection group, while category 5-6 parks are placed into a limited human intervention group. A separate regression analyses is run for each group. The analysis includes 158 different countries, all countries that had available data. Separate analyses were run for non-Western countries.

Dependent Variable

The dependent variable is the logged cumulative number of established national parks from 1970-2008. Data are from the World Database on Protected Areas (WDPA), a global database of protected areas, a joint project of IUCN and UNEP (2014). These are transformed into two variables based on category, a strict protection variable which is the logged cumulative number of category 1-4 parks in a country and a limited human intervention variable which is the logged cumulative number of category 5-6 parks in a country. Unlogged values for the strict protection variable range from 0 parks and protected areas in countries like Turkey and Albania to over 10,000 in Russia. Unlogged values for the limited human intervention variable range from 0 parks and protected areas in countries like Slovenia to over 15,000 in the U.S.

Independent Variables

Domestic Environmental Context

I include the logged sum of domestic NGOs. Primary data on domestic environmental associations are from the *World Directory of Environmental Organizations* ("the Directory") and the *Encyclopedia of Associations: International Organizations* (the "Encyclopedia") (Gale 2001). Gale's keywords were used to identify groups that had an environmental focus, excluding organizations that were branches of international NGOs.

World Society

World society influence is measured country chapters of environmental international non-governmental organizations (INGOs). Data from the Union of International Associations (2001) measures the number of INGOs to which citizens from a given country hold membership. I used the UIA subject indices to identify the population of environmental INGOs, consulting multiple years of the yearbook and arranging these by founding date. Organizations that did not primarily focus on the environment or that did not include membership data were dropped. I then sampled every 8th organization, which provided a sample of 54 environmental INGOs. This measure represents the yearly count of environmental INGO chapters in a given country out of the sample of 54. This variable is measured by logged number of memberships.

Political Economy

I use an agricultural land variable to analyze the effect of competing industries on park expansion. Agricultural land is included as percentage of total land area, data is from World Bank's *World Development Indicators* (2014).

I include a World Bank project variable, which is the total number of Bank projects within a country from 1970 to 2008, lagged by three years. The variables were created using data from the World Bank Project Database (2014). It includes any project that is in the projects and operations database.

I included a measure of World Bank loan eligibility. World Bank countries that are eligible to receive International Bank of Reconstruction and Development (IBRD) loans or International Development Association may eventually graduate from loan recipients to lenders. This variable measures a countries eligibility status from 1970-2008.

Controls

I control for other factors likely to affect environmental outcomes, such as economic development. These variables are real Gross Domestic Product (GDP) per capita, logged, foreign direct investment, logged, and population. Per capita gross domestic product (GDP) is measured in constant 2005 US dollars. This variable is from the Penn World Table. GDP is logged. The foreign direct investment and population data is from the World Bank's *World Development Indicators* (2014) and both are logged. Population is often associated with degradation and is often included in studies analyzing environmental degradation. Economic development indicators are included as states with more resources may have a greater capacity to address environmental concerns. I also control for total land area, which is measured in kilometers squared and logged.

Interaction Terms

I include an interaction term between the total World Bank projects variable and a variable for the post 1990 period. World Bank countries that are eligible to receive International Bank of Reconstruction and Development (IBRD) loans or International Development

Association (IDA) may eventually graduate from loan recipients to lenders. Around 40 countries have transitioned to lenders, particularly around the 1990s. As these countries transition, the remaining countries tend to be impoverished. This may indicate a reduced World Bank effect over time. I've also included a World Bank eligibility variable. This variable measures a countries eligibility status for either IBRD or IDA loans from 1970-2008.

Findings

Table 3.1: Fixed Effects Regression Analysis Category 1-4 National Park Foundings in all Countries

	Model 1	Model 2	Model 3	Model 4	Model 5
GDP (log)	0.419***	0.395***	0.390***	0.377***	0.362***
	-17.55	-16.52	-16.31	-15.86	-15.11
Population (log)	-0.024	-0.0269	0.0167	-0.115*	-0.104
	(-0.480)	(-0.541)	-0.328	(-2.093)	(-1.894)
Land Area (log)	5.249***	5.357***	5.204***	4.663***	4.618***
	-4.542	-4.665	-4.614	-4.162	-4.129
% Agricultural	-0.0204***	-0.0193***	-0.0182***	-0.0158***	-0.0154***
	(-10.19)	(-9.670)	(-8.976)	(-7.826)	(-7.635)
Dom NGO (log)	0.192***	0.176***	0.167***	0.163***	0.162***
	-9.495	-8.749	-8.026	-7.804	-7.75
Envt INGOs (log)	0.285***	0.265***	0.255***	0.212***	0.210***
	-16.72	-15.53	-14.96	-11.28	-11.18
FDI (log)		0.00951***	0.00885***	0.00762***	0.00723***
		-7.895	-7.198	-6.193	-5.871
WB Projects (lag)			-0.00403*	0.00638**	0.00705**
			(-2.167)	-2.679	-2.955
Late				0.202***	0.204***
				-7.656	-7.747
WB X Late				-0.0141***	-0.0139***
				(-6.666)	(-6.570)
WB Eligibility					-0.183***
					(-4.148)
Constant	-63.33***	-64.50***	-62.87***	-55.58***	-54.84***
	(-4.609)	(-4.724)	(-4.690)	(-4.173)	(-4.124)
Observations	4,880	4,880	4,715	4,715	4,715
R-squared	0.383	0.391	0.374	0.385	0.387
Total Number	158	158	158	158	158

***p<.000, **p<.01, *p<.05

Cross-national longitudinal fixed effects regression analyses of cumulative category 1-4 national park foundings in all countries from 1970-2008 are reported in Table 3.1.

The base model includes control variables, total land area, percentage of agricultural land, and domestic NGOs, and environmental INGOs. GDP, land area, domestic NGOs, and INGOs have a positive effect on park establishment initially, while the percentage of agricultural land has a significant negative effect. Next, I add the FDI variable in model 2, which has a significant positive effect. A total World Bank projects variable is added in model 3 and it initially has a significant negative effect. In models 4 and 5 I add a World Bank and time interaction term and a World Bank eligibility variable respectively. The World Bank effect is positively significant but over time it's effect diminishes. This is likely the effect of countries transitioning from lenders to loaners, with the remaining eligible countries being those with the fewest resources to allocate to the environment. The World Bank eligibility variable in model 5 has a significant negative effect, providing some support for this argument. Domestic NGOs and global embeddedness through environmental INGOs and the World Bank seem to have the greatest positive effect on category 1-4 park expansion for all countries as well as some of the economic indicators such as GDP. The positive effect of FDI may either be explained in terms of resources, these countries may have greater capacity than those without, or it might operate as another tie to global economic embeddedness similarly to the World Bank.

Table 3.2: Fixed Effects Regression Analysis Category 1-4 National Park Foundings in Non-Western Countries

	Model 1	Model 2	Model 3	Model 4	Model 5
GDP (log)	0.348***	0.334***	0.334***	0.333***	0.330***
	-20.32	-19.38	-19.12	-19.08	-18.69
Population (log)	0.254***	0.248***	0.276***	0.220***	0.221***
	-6.989	-6.858	-7.341	-5.208	-5.234
Land Area (log)	2.915***	3.001***	3.161***	3.090***	3.087***
	-3.65	-3.774	-3.995	-3.905	-3.901
% Agricultural	-0.00144	-0.000834	-0.00132	-0.000952	-0.000843
	(-0.952)	(-0.552)	(-0.850)	(-0.613)	(-0.542)
Dom NGO (log)	0.193***	0.186***	0.171***	0.165***	0.165***
	-13.21	-12.79	-11.29	-10.72	-10.75
Envt INGOs (log)	0.0698***	0.0600***	0.0558***	0.0440**	0.0438**
	-5.022	-4.307	-3.948	-2.91	-2.896
FDI (log)		0.00548***	0.00521***	0.00480***	0.00476***
		-5.853	-5.409	-4.942	-4.894
WB Projects (lag)			0.0018	0.00301	0.00309
			-1.347	-1.744	-1.792
Late				0.0604**	0.0609**
				-2.862	-2.888
WB X Late				-0.00159	-0.00152
				(-1.012)	(-0.971)
WB Eligibility					-0.0521
					(-1.392)
Constant	-37.24***	-38.17***	-40.18***	-39.02***	-38.91***
	(-3.960)	(-4.076)	(-4.313)	(-4.185)	(-4.174)
Observations	3,914	3,914	3,795	3,795	3,795
R-squared	0.451	0.456	0.443	0.444	0.444
Total Number	127	127	127	127	127

***p<.000, **p<.01, *p<.05

Table 3.2 presents the cross-national longitudinal fixed effects regression analyses of cumulative category 1-4 national park foundings in all non-Western countries from 1970-2008. GDP, population, and domestic NGOs have a positive effect on park establishment. Unlike in the prior analyses, the percentage of agricultural land does not have a significant effect. Land area, however, does. This suggests that larger non-Western countries build category 1-4 parks. This may be because setting aside land solely for conservation, whether its productive land or not, is less of an imposition in larger countries where there is still land available for other projects or industry. Environmental INGOs and FDI are positively significant. For non-Western countries

the World Bank has no significant effect on category 1-4 parks. World Bank eligibility, however, no longer has a negative effect. In addition the period variable is positively significant suggesting that more parks are being built in these categories after 1990. Category 1-4 parks align closest with Western conceptions of parks, and it seems that the World Bank does not hinder their category 1-4 park expansion in non-Western countries, although they do not aid it either.

Table 3.3: Fixed Effects Regression Analysis Category 5-6 National Park Foundings in all Countries

	Model 1	Model 2	Model 3	Model 4	Model 5
GDP (log)	0.340***	0.321***	0.313***	0.308***	0.295***
	-16.09	-15.15	-14.97	-14.71	-13.96
Population (log)	-0.267***	-0.269***	-0.216***	-0.292***	-0.282***
	(-6.029)	(-6.111)	(-4.861)	(-6.026)	(-5.829)
Land Area (log)	-0.651	-0.567	0.00764	-0.0689	-0.109
	(-0.637)	(-0.557)	-0.00774	(-0.0698)	(-0.111)
% Agricultural	0.00428*	0.00515**	0.00493**	0.00566**	0.00601***
	-2.413	-2.913	-2.785	-3.177	-3.376
Dom NGO (log)	0.249***	0.237***	0.209***	0.198***	0.197***
	-13.94	-13.27	-11.48	-10.76	-10.71
Envt INGOs (log)	0.216***	0.201***	0.189***	0.161***	0.159***
	-14.31	-13.25	-12.68	-9.747	-9.641
FDI (log)		0.00743***	0.00569***	0.00518***	0.00484***
		-6.959	-5.288	-4.787	-4.465
WB Projects (lag)			0.00591***	0.00609**	0.00668**
			-3.628	-2.904	-3.181
Late period				0.0857***	0.0875***
				-3.693	-3.777
WB X Late period				5.45E-05	0.000251
				-0.0293	-0.135
WB Eligibility					-0.161***
					(-4.159)
Constant	6.99	6.078	-0.963	0.47	1.131
	-0.575	-0.502	(-0.0821)	-0.0401	-0.0966
Observations	4,880	4,880	4,715	4,715	4,715
R-squared	0.324	0.331	0.32	0.322	0.325
Total Number	158	158	158	158	158

***p<.000, **p<.01, *p<.05

Cross-national longitudinal fixed effects regression analyses of cumulative category 5-6 national park foundings in all Countries from 1970-2008 are reported in Table 3.3. GDP, the percentage of agricultural land, and domestic NGOs have a positive effect on park establishment.

Environmental INGOs, FDI, and World Bank projects are also positively significant. The interaction term is not significant, which suggests that the World Bank effect continues to have a similar effect after the 1990s. The period variable is positively significant suggesting that more parks are being built in these categories over time. Finally, World Bank Eligibility has a significant negative effect.

Table 3.4: Fixed Effects Regression Analysis Category 5-6 National Park Foundings in Non-Western Countries

	Model 1	Model 2	Model 3	Model 4	Model 5
GDP (log)	0.251***	0.238***	0.231***	0.230***	0.230***
	-12.94	-12.16	-11.85	-11.79	-11.67
Population (log)	0.00852	0.00295	0.0575	0.0282	0.0282
	-0.207	-0.0718	-1.371	-0.598	-0.598
Land Area (log)	-1.313	-1.229	-0.492	-0.378	-0.378
	(-1.451)	(-1.362)	(-0.557)	(-0.428)	(-0.428)
% Agricultural	0.00937***	0.00996***	0.00902***	0.00913***	0.00913***
	-5.461	-5.809	-5.21	-5.272	-5.264
Dom NGO (log)	0.165***	0.159***	0.126***	0.114***	0.114***
	-9.985	-9.612	-7.435	-6.662	-6.66
Envt INGOs (log)	0.139***	0.130***	0.112***	0.0907***	0.0907***
	-8.837	-8.202	-7.132	-5.38	-5.379
FDI (log)		0.00532***	0.00411***	0.00395***	0.00395***
		-5.004	-3.82	-3.648	-3.646
WB Projects (lag)			0.00942***	0.00483*	0.00483*
			-6.316	-2.512	-2.51
Late period				0.0169	0.0169
				-0.717	-0.717
WB X Late period				0.00673***	0.00673***
				-3.848	-3.846
WB Eligibility					0.000161
					-0.00386
Constant	13.47	12.57	3.653	2.527	2.526
	-1.264	-1.183	-0.351	-0.243	-0.243
Observations	3,914	3,914	3,795	3,795	3,795
R-squared	0.303	0.307	0.306	0.31	0.31
Total Number	127	127	127	127	127

***p<.000, **p<.01, *p<.05

Table 3.4 presents the cross-national longitudinal fixed effects regression analyses of cumulative category 5-6 national park foundings in all non-Western countries from 1970-2008.

GDP and domestic NGOs have a positive effect on park establishment. Like the prior analysis, the percentage of agricultural land has a significant positive effect. Environmental INGOs and FDI are also positively significant. For non-Western countries the World Bank still has a positive effect, but it again becomes slightly less significant when controlling for time. While the Bank time interaction term is not significant for all countries, in the analysis for non-Western countries it has a significant positive effect, indicating that over time the World Bank effect on park expansion for this category is increasing.

There is not a great difference in the effects of social cultural and economic variables in terms of park types, with the exception of agriculture and some Bank effects. In non-Western countries particularly, agriculture does not appear to be a competing industry hindering park expansion. While it does have a negative effect in the all countries analysis for category 1-4 parks, presented in table 3.1, it has a positive effect in non-Western countries and on category 5-6 parks. Category 5-6 parks allow for some limited human access to parks, and does not seem as antithetical to agriculture as the pristine wilderness parks of categories 1-4. Also, category 5-6 parks may face less backlash from local rural populations thus making them easier to establish in non-Western countries.

FDI was consistently positively significant in all of the analyses presented in this chapter while the World Bank variable had mixed results. There was slight variation, as the World Bank has a positive effect in the all country models for both groups of parks and a positive effect on category 5-6 parks in non-Western countries, but this result is only moderately significant and it has no significant effect on category 1-4 parks in non-Western countries. Although initially only moderately significant, the effect is shown to increase over time in the analysis of category 5-6 parks in non-Western countries. Overall, this shows that economic embeddedness operates

similarly to cultural embeddedness, and therefore does not necessarily hinder the expansion of global environmental norms, at least in the case of national parks.

Discussion

Political economy arguments would expect greater differences in the variables affecting the expansion of different park categories, as category 5-6 parks seem more easily reconciled with development goals. The establishment of these parks might also be perceived as merely window dressing, as countries can use them to give the appearance of being green without adhering to strict preservationist park models. There is mixed support for hypothesis 1 and 2. GDP generally leads to the expansion of both category 1-4 and category 5-6 parks. Countries with higher percentages of land allocated for agriculture in the analysis for all countries were less likely to build category 1-4 parks, but this was not true for the analyses of non-Western countries were the negative effect disappeared. Instead there was a significant positive effect on the expansion of category 5-6 parks. This may suggest that in countries reliant on agricultural production, category 5-6 parks are more palatable than category 1-4 parks. There is some support for hypothesis 3. World Bank projects have a significant positive effect on park expansion for both analyses of category 5-6 parks, and this effect does not diminish over time in non-Western countries. For category 5-6 parks in non-Western countries the World Bank effect actually increases over time.

The world society hypotheses, hypothesis 4 and 5 are generally supported. Countries engaged in more World Bank projects will establish a greater number of national parks more generally, with the exception of category 1-4 parks in non-Western countries. At the same time, the World Bank does not have a negative effect on category 1-4 parks in non-Western countries. Also, countries with high INGO membership will establish parks in greater numbers than those

with low INGO membership. As parks and protected areas become increasingly important in the international arena, they will continue to expand. Category 1-4 parks are more prevalent than category 5-6 parks more generally, but the same factors seem to be promoting park expansion for both types.

Finally, there is support for hypothesis 6 as the domestic environmental context has a positive affect on the expansion of all park types. These countries are already able to mobilize around environmental issues and will therefore be more receptive to global environmental norms and scripts from the international arena.

Category 5-6 parks initially appear to be more compatible with development that the strict preservationist category 1-4 parks, and as they align more closely with non-Western conception of nature they also seemed more likely to spread in those countries. In this case of national parks, economic and social cultural factors had similar effects on both types of park categories. This is particularly interesting in regards to the World Bank, as these analyses provided further support for the argument that like INGOs the World Bank can positively influence some environmental outcomes.

Conclusion

Economic capacity matters to some extent in the establishment of parks of any type, although World Bank loan eligibility did not seem to affect the expansion of category 5-6 parks. These parks may be slightly less costly to establish, especially as they can potentially bring in revenue through their resources as well. But the World Bank does not appear to hinder any type of park expansion. More category 1-4 parks are being built over time as well. In each analysis, domestic NGOs had a positive effect on park establishment. This might be a result of a bottom up process where environmental organization on the ground influences state policies. The literature suggests that the expansion of international environmental organizations often precede

the expansion of domestic environmental organizations (Schofer et al., forthcoming) so it may be that domestic organizations amplify the effect of international organizations.

In the case of the national parks and protected areas, both category 1-4 and category 5-6, ties to world society, whether cultural or economic, were the greatest determinants of expansion. While INGOs represent ties to global culture, the World Bank represents ties to the global economy, yet their effects were similar. This is consistent with the results found in chapter 2. In fact, even FDI had a positive effect in each analysis. Countries embedded in the world culture are more likely to adopt global environmental norms. And park expansion, particularly the expansion of category 1-4 parks, is not slowing down. This is not surprising as international organizations in both the development and environmental regimes, such as the IUCN and the World Bank, are encouraging sustainable development, particularly the creation of national parks and protected areas, as a solution for problems in both regimes.

CHAPTER 4

How Global Environmental and Development Pressures Affect National Park Expansion in Non-Western Countries

The analyses in the previous chapters suggest that the environment and development can be reconciled in the case of national parks and protected areas. Connections to the wider world culture, through participation in international organizations that promote environmentalism, have a positive effect on park establishment in all countries, whether these connections are with traditional environmental INGOs or the World Bank. At the same time, states with higher levels of economic development are more likely to build parks as they have the capacity to address environmental concerns. Park building requires an initial economic investment as well as the bureaucratic capacity to continue management of these areas. This pattern held even when analyzing differences in park types.

But which of these conditions are most important? The World Bank and environmental INGOs can generally promote global norms and environmentalism, but are they sufficient in driving park expansion? Are different conditions at work in different countries? I argue that the there can be multiple paths to park expansion, and that these paths rely on the presence of multiple conditions. In chapter 2 and 3 I used regression analyses to determine the general correlates of park expansion. In this chapter I will examine the process more closely by identifying the complex causal configurations associated with park expansion. I proceed with an overview of my main argument on global embeddedness and its effects on state actions. To develop this argument further, I briefly discuss park establishment and how it has progressed in three different countries in sub-Saharan Africa. These three cases provide insight into how

particular causal factors may operate in combination. Based on these cases, I propose several potential causal pathways. Finally, I use QCA to identify common causal pathways to park expansion in non-Western countries.

Fixed effects panel regression analyses test the effects of each independent variable net of all other independent variables and controls in the analyses. The results of the regressions in the prior two chapters assessed the effects of several individual variables and show that multiple variables positively effect park expansion, specifically membership in environmental INGOs, the number of World Bank projects in a country, the number of domestic environmental organizations, GDP, and FDI. Given the great differences in the history of park establishment in non-Western countries, there may be several different paths towards park expansion but the regression analyses do not account for them. QCA is advantageous for these types of analyses as it can be used to identify multiple pathways to an outcome that involve multiple interacting variables (Ragin 2000).

In this chapter I use, I use QCA in order to assess the importance of each independent variable in combination with the others in regards to the expansion of national parks and protected areas. Connections to the wider culture may lead to the outcome in certain cases but not across all cases. Based on the findings of the prior two chapters, I expect that in countries with limited domestic environmental activity park expansion may rely on international connections, whereas in countries where domestic associations support environmentalism they will have less of an impact.

Economic and Cultural Embeddedness

The results of the panel analyses in chapters 1 and 2 provided some support for world society arguments. The creation of a shared world culture has created a space for nation states and international actors to address global environmental concerns. International non-

governmental organizations are created to deal with issues and problems that are believed to affect societies throughout the world, rather than simply local or national issues. Although, there is now an international space for organizations to articulate their concerns, there are also global norms and discourses that influence what are considered real concerns. International organizations are seen as key conduits of world society models and discourses (Boli and Thomas 1999, Hironaka and Schofer 2005). But while international organizations can help spread global ideas and values, they are also heavily influenced and shaped by them. Schofer and Hironaka argue that "the legitimated models and discourses of global environmentalism have, to varying degrees, infused other international organizations [such as] the World Bank and other international economic and development institutions" (Hironaka and Schofer 2005). This can explain why organizations like the World Bank are addressing environmental issues to some extent despite being focused on issues of development, and also why organizations like the IUCN are trying to promote sustainable development rather than just pure conservation. Even contradictory global regimes, must find ways to reconcile their differences as they become increasingly institutionalized at the global level.

Over time, as states become more embedded into world society, global norms become more influential (Frank et al. 2000). World society is inherently a cultural approach, emphasizing the cultural models and scripts actors adhere to and downplaying the role of agentic actors and purposive action. Cultural embeddedness ensures that actors, nation states in this case, look towards the institutional environment for guidance. Economic embeddedness on the other hand seems at odds with the cultural embeddedness envisioned by world society theorists. Economic embeddedness is based on a state's position in the global economy in relation to others and the inequalities produced by this hierarchy. Economic embeddedness is thought to affect the

economic policies and strategies of nation states, but while this approach emphasizes the roles of institutions and other structural forces on outcomes, it largely distinguishes this process from culture (Inglot 2008, Muller 2009, Peet 2003). Distinguishing between the two types of embeddedness, it might be thought that cultural embeddedness would be associated with the diffusion of positive environmental outcomes, while economic embeddedness would be associated with policies supporting economic growth. This may not, however, be a useful distinction.

Most scholars see ties to the World Bank as representing ties to global capitalism and the neoliberal agenda. I argue, based on the findings of the previous chapter, that ties to the World Bank represent ties to world society generally. Ties to the World Bank do not represent economic embeddedness alone, but instead just general global embeddedness. By virtue of operating as a global institution, the World Bank provides indirect connections to global norms and models, even those that may conflict with its general goals, such as global environmentalism. By focusing on both environmental INGOs and the World Bank and their roles in park expansion, I hope to show that both cultural and economic embeddedness in the larger global cultural have similar effects on diffusion processes. I argue that for many countries, cultural or economic embeddedness can both be a path to park expansion despite tensions between the environment and development.

One criticism of the world society approach is that it ignores inequalities and power relations amongst modern states and therefore the historical path-dependence that may explain varying modes of adopting global scripts in local contexts (Koenig and Dierkes 2011). By using QCA I hope to identify the different combinations of world society and economic conditions leading to diffusion in the non-West, and in doing so highlight the path dependent nature of park

expansion. Because of the emphasis on combined effects in QCA, I can determine whether INGOs and the World Bank work in conjunction or independently. Also, while the World Bank generally has a positive effect on park expansion in some case, it may have a negative.

National Parks in Non-Western Countries

The preservationist models behind Western national parks conflict with local logics in non-Western countries. Park expansion has often had a negative impact on local communities where conservation efforts were tied to the physical displacement of indigenous peoples (Brockington 2006, Brockington et al. 2008, Child 2009). Setting aside land for park use comes at the expense of its use in development projects or industry. While antagonism between people and parks exist in some areas, attitudes towards parks are influenced by current approaches towards park management not just the historical precedent. While Western parks served mainly recreational purposes, parks in non-Western countries draw revenue from tourism and game hunting (Ramutsindela 2004, Duffy 2000). In countries where poverty and economic growth are major concerns, ideas of turning wildlife into resources and ideas of sustainable use have great appeal despite their contradictions with strict preservation.

While Western notions of nature and wildlife became the dominant view in the international sphere, conservation is often influenced by economic values not environmental concerns in many non-Western countries (Ramutsindela 2004). For example in non-Western countries park management has gone through several different stages. During the colonial period, white settlement led to the decimation of wildlife as a result of both industry and game hunting. This was then followed by a preservationist phase, as Europeans became increasingly concerned with the disappearing wildlife in these areas. This eventually culminated in intensified park building especially in 1960s. Western conservation approaches were not always successful. Preservationist approaches were exclusionary, resulting in local people being removed from their

land and excluded from parks. Despite this, poaching and land use continued in these areas resulting in parks on paper but not in practice. Polices based on sustainable use were more inclusionary and therefore more successful, but they do not match Western conceptions of parks and nature. Whether a country's approach to parks was primarily exclusionary or inclusionary depended on colonial histories, local attitudes towards nature and development, and domestic movement activity. Given this variation, it would be difficult to expect these countries to all take the same path towards park establishment.

The Cases: National Parks in Three States in Sub-Saharan Africa

Zimbabwe, South Africa, and Mozambique have all set aside land for national parks and protected areas, including joining trans-frontier conservation areas. In addition they have similar colonial histories, which led to the development of the game reserves that were the predecessors to national parks. There was great concern about wildlife in Africa in Europe during the late 1800s as colonial settlement led to the decimation of wildlife. The colonial powers drafted the 1900 London Convention Concerning the Preservation of Wild Animals, Birds, and Fish in Africa. Though never ratified, its intent was to standardize game laws across colonial Africa. It encouraged setting aside land for game preservation, which led to a wave of park establishment (Suich and child eds. 2009).

European and South African understandings of conservation conflicted. Europeans rejected the idea of the utilization of wildlife, whereas Africans emphasized wise land use. Colonial officials were responsible, however, for managing wildlife both within and around national parks. Laws were designed to prevent landholders from using wild life and keep them away from national parks (Suich and Child 2009). Conservation and development have traditionally been thought of as conflicting as conservation requires setting aside land for

protection that could otherwise be used for crops, livestock, and industry in impoverished nations. The exclusionary approach taken by colonial and later modern park officials throughout Africa has often been unsuccessful, as locals continued to use and poach in national parks (Duffy 2000).

Despite this, parks have continued to expand after these former colonies achieved independence. Zimbabwe currently has 229 protected areas, with 27% of its land area protected. South Africa has 1,043 protected areas with 9% of its land area protected. And Mozambique has 50 protected areas with 19% of its land area protected (IUCN and UNEP-WCMC 2014). All three have seen some form of park expansion, but to varying extents. What accounts for this expansion? Was the path to park expansion different for each of these countries or did the same environmental pressures drive it?

Zimbabwe's approach to conservation favors the sustainable utilization of wildlife. The 1975 Parks and Wildlife Act establishes that parks are intended to preserve and protect the natural landscape and protect wildlife while also recognizing landowners as custodians of natural resources who have the right to use wildlife. Zimbabwe did not challenge existing patterns of use and instead built on them. It established the Communal Areas Management Programme for Indigenous Resources (Campfire), which treats wildlife as a resource, and revenue derived from it is used on rural development. Wildlife generates revenue as a tourist attraction in the form of national parks, through hunting and game reserves, and as a product. Campfire has been deemed a success by the Zimbabwe Parks Department and local NGOs. Zimbabwe has a strong tradition of local NGO involvement in environmental issues and they were critical to the creation of Campfire (Duffy 2000). Zimbabwe has found success through inclusion, in contrast to the policies established by other African nation states. Preservationist model parks still exist in Zimbabwe, however, as they continue to serve as tourist attractions, bringing in revenue to the

state. In this case, much of the environmental and conservation policies adopted by the state appear to stem from a bottom up process. NGOs worked with the state to enact polices that would benefit rural communities. While there was some support from INGOs, much of the work of NGOs was incompatible with the emphasis on animal rights adopted by most international organizations at the time. This did not appear to halt park progress in Zimbabwe, and now the country serves as a model for how parks should be addressed in Africa.

Unlike Zimbabwe, parks in South Africa are more likely to resemble the national parks of the United States and Europe. During the colonial period, game reserves were built on land with no other practical purpose. The U.S. had shown that parks as recreational areas could bring in revenue for the state. Following trends in the U.S., parks were managed more for tourism rather than preservation. Attitudes are shifting again, away from the exclusionary models promoted by the U.S. and Europe and towards a more inclusionary approach, like that of Zimbabwe (Carruthers 2009). South Africa appears to be heavily influenced by global cultural norms, adopting an exclusionary approach to parks that fit Western models early on and then shifting to an inclusionary approach as ideas of sustainable development become more institutionalized at the global level.

Mozambique has had a more turbulent history that has also affected its park expansion. Conservation became an area of concern as a result of uncontrolled hunting by Europeans. Mozambique's response was more utilitarian than protectionist, but through the 1960s and 1970s they had established some protected areas. This expansion was halted by the civil war, as the state no longer had the capacity to manage conservation. Progress is still slow as the lack of bureaucratic capacity makes it difficult to enforce policies and legislation (Soto 2009). Mozambique lacks both the pro-environmental domestic context of Zimbabwe and the international linkages of South Africa and in addition lacks the general capacity needed for park

building. As a result, after some early efforts, Mozambique has not had much success in park expansion.

All three of these countries are based in Sub-Saharan Africa and even share a biome, suggesting the countries share similar environments and their different approaches to environmental protection are thus not a result of differences in type of land or biodiversity. These countries vary in three distinct ways: (1) domestic environmental activity; (2) ties to the international community; and (3) capacity. Based on the history of these states I expect them to all take different paths towards park expansion. Zimbabwe has a strong tradition of environmental NGOs that can be credited with assisting in establishing policies for sustainable utilization that allowed the state to reconcile economic growth and conservation goals. Ties to the international community make no difference in terms of park expansion in the case of Zimbabwe. I expect that in countries that already possess a strong domestic environmental presence, like that of Zimbabwe, conservation is a bottom up process with domestic activity driving park expansion.

South Africa has looked to international models, specifically the U.S. and Europe, for guidance when establishing its early parks. While they may be shifting away from the exclusionary approach to conservation they adopted early on, a more inclusionary approach still aligns with the current global norms towards the environment and sustainable development. In this case it seems that international linkages play a greater role in park expansion. Also, unlike Mozambique, South Africa possesses both the economic and bureaucratic capacity for park expansion. I expect that linkages to the international community will lead to park expansion in countries similar to South Africa as long as those countries also have some level of economic capacity. Also, while South Africa's ties are mainly to the international environmental regime, based on the panel analyses of the previous chapters, I expect that countries linked to global

development will also experience park expansion. While international ties are important, I do not believe they are sufficient in terms of park expansion. Mozambique's reduced capacity due to civil unrest and limited ties to the international community has negatively impacted park expansion, and I expect similar outcomes in countries with either limited economic or bureaucratic capacity.

Data and Methods

The results of the cross-national time series regression analyses on the cumulative number of national parks in chapters 2 and 3 indicated that connections to the wider world culture, through participation in international organizations that promote environmentalism, have a positive effect on park establishment in all countries. And while the World Bank is primarily a development institution, its activity positively affects park expansion in non-Western countries, suggesting that in the case of parks, domestic development pressures do not preclude positive environmental outcomes.

I am using fuzzy-set qualitative comparative analysis, (fsQCA), as I expect multiple causal paths may lead to park expansion in non-Western countries, and I also expect these paths to be made up of multiple components rather than one-factor routes. While my initial analyses suggest membership in environmental INGOs, World Bank activity, and domestic environmental activity are all-important factors in the expansion of national parks, they are unable to explain when these conditions are most important. There can be several different paths that lead to park creation in non-Western countries, as suggested by the case examples described above.

Based on the prior analyses and case knowledge, I expect that World Bank activity and membership in international environmental organizations will help countries with limited domestic environmental activity start on the path toward park creation. In countries where domestic association is already strong, World Bank activity and international organizational

membership will matter less. Also, although World Bank activity seems to promote park expansion in many non-Western countries, given the analyses from chapter one, it may still impede development in particularly impoverished nations that do not have the finances or infrastructure to implement environmental projects.

The sample for the fsQCA is made up of non-Western countries excluding small island nations, 135 countries in total. Islands tend to be smaller with marine rather than terrestrial protected areas and as a result may not accurately represent the process of park expansion experienced by most non-Western countries. I calibrated the conditions using a four value fuzzy set (fully in=1, more in than out=.75, more out than in=.25, fully out=0). Based on the results of the panel analyses, I include several different conditions in this analysis. The outcome is park establishment. This is a fuzzy outcome variable based on the total number of national parks and protected areas in a country in 2008. The number of parks within non-Western countries ranges from 0 to the thousands, although the latter is less common. Countries with 100 or more parks are fully in the set, countries with 46-99 are partially in, countries with 6-44 are partially out, and countries with 5 parks or fewer are fully out of the set. Park data are from the World Database on Protected Areas (WDPA), a global database of protected areas and a joint project of IUCN and UNEP (2014).

Independent conditions include a large environmental INGO presence, large World Bank presence represented by the total number of World Bank projects within a country through 2008, high presence of domestic environmental activity represented by the number of domestic environmental NGOs in a country, high amounts of foreign direct investment (FDI), and high income. Data on memberships in environmental INGOs are from the Union of International Associations (2001). This measures the number of INGOs a country has membership in from a sample of 54 organizations. The number of memberships in environmental INGOs in non-

Western countries ranges from 0-23. Countries with memberships in 16 or more organizations are fully in the high environmental INGO presence set, countries with 10-15 are partially in, countries with 5-9 are partially out, and countries with 0-4 memberships are fully out.

The data on the number of World Bank projects within a country are from the World Bank Project Database (2014). It includes any project that is in the projects and operations database. The total number of projects in a non-Western countries ranges from 0-400 with the majority falling under 100 projects. States with 80 or more projects are fully in the high World Bank presence set, countries with 25-79 are partially in, countries with 1-24 are partially out, and countries with 0 projects are fully out of the set.

Primary data on domestic environmental associations are from the *World Directory of Environmental Organizations* ("the Directory") and the *Encyclopedia of Associations: International Organizations* (the "Encyclopedia") (Gale 2001). The number of NGOs within no-Western countries ranges from 0-15, although this data source mainly includes larger associations and those that are active in the public sphere and may not account for smaller organizations. Countries with 9 or more domestic NGOs are fully in the high domestic NGO presence set, countries with 4-8 are partially in, countries with1-3 partially out, and countries with 0 are fully out of the set.

The Foreign Direct Investment data is from the World Bank's *World Development Indicators* (2014). It's measured in US dollars and logged. Countries with a log of 15 and above are fully in the high FDI set, countries with a log of 5-15 are partially in, countries with 2-5 are partially out, and countries falling under 2 are fully out of the set.

Income is based on GNI and is categorized as high, upper middle, lower middle, and low. Data is from the World Bank's World Development Indicators. Countries categorized as high income are fully in the high income set, countries categorized as upper middle income are

partially in, countries categorized as lower middle income are partially out, and countries categorized as low income are fully out of the set.

I expect three different recipes to produce park expansion in non-Western countries. In FSQCA notation, uppercase letters denote the presence of a condition while lowercase letters denote its absence. A plus sign indicates the operator "or" while an asterisk indicates the operator "and". The recipes are as follows: PARKS=DNGOS+HIGH INCOME *(WB+EINGOS). I expect that (1) countries with a large domestic environmental organizational presence will be more likely to build parks; (2) high income countries that have participated in many World Bank projects will build more parks; and (3) high income countries with large numbers of EINGO memberships will also be more likely to build parks. Following the cases described above, these recipes highlight the importance of both capacity and global embeddedness to park expansion.

Results and Discussion

There are 32 combinations of the five conditions that describe the experiences of the 135 countries as shown in Table 4.1 below. I tested for necessary conditions and none of these conditions on their own are necessary. The results indicate that 16 out of the 32 combinations consist of states where the outcome, park expansion, was present.

Table 4.1: Truth Table of Conditions that Produce National Parks in Non-Western Countries (Outcome: parks, Conditions: EINGOs, DNGOs, WB, Income, FDI)

Conditions	Cases	Parks	Conditions	Cases	Parks	Conditions	Cases	Parks
EdWIF	2	1	eDwIf	1	1	eDwiF	0	0
EdwIf	2	1	eDwif	1	1	eDWIf	0	0
EdwIf	3	1	eDWiF	6	1	eDWIF	0	0
EdWIf	3	1	eDwIF	1	1	Edwif	0	0
EDWIf	7	1	edwiF	2	1	EdwiF	0	0
EDWiF	3	1	edWIF	9	0	EdwIF	0	0
EdWiF	1	1	edwIF	7	0	EdWif	0	0
EDWIF	5	1	edwif	4	0	Edwif	0	0
EDWif	6	1	edWif	17	0	EdwiF	0	0
edWIf	1	1	edwIf	13	0	EdwIF	0	0
eDWif	9	1	edWiF	18	0			
E= EINGO presence				e=low EINGO presence				
D= DNGO presence				d= low DNGO presence				
W= World Bank presence				w= low World Bank presence				
I= high income				i= not high income				
F= high FDI				f= not high FDI				

There are five combinations that drive park expansion as shown in Table 4.2 below. The solution coverage is 75%, which is not unusual for an analysis with large N, but this does suggest that there are some paths not covered by these solutions.

Table 4.2: Fuzzy-Set Qualitative Comparative Analysis of Conditions that Produce National Parks in Non-Western Countries (Outcome: parks, Conditions: EINGOs, DNGOs, WB, Income, FDI)

Set	Solution Coverage	Solution Consistency
DNGOs presence	.59	.86
high WB presence*EINGO presence	.46	.95
high FDI* not high income* low WB presence	.18	.86
Low FDI*high income* WB presence	.33	.93
Low FDI*high income* EINGO presence	.32	1
Total Coverage:	.75	
Solution Consistency:	.86	

This first expression indicates that states with a strong domestic NGO presence are expected to build parks. This supports the argument that states in countries where domestic association was already strong, global institutional connections will matter less. Zimbabwe is a case with membership in this solution category. The 1975 Parks and Wildlife act was a turning point for conservation in Zimbabwe and the Campfire convention was able to reconcile conservation with ideas of sustainable use and rural development. Local NGOs were critical in this process whereas international INGOs' focus on animal welfare had put them at odds with organizations and governments promoting sustainable use in Zimbabwe.

The second expression indicates that countries with both a strong World Bank and INGO presence are also expected to build parks. The fourth and fifth expressions indicate that high income countries with low FDI and either a strong World Bank or INGO presence are expected to build parks. These three expressions provide support for the world society perspective. World Bank activity and membership in international environmental organizations seem to help countries with limited domestic environmental activity start on the path toward park creation. South Africa has membership in the low FDI, high income, INGO category. INGOs can promote environmental models and ideas that the nation can draw on when trying to establish parks. These international models shape park expansion in the domestic context. The third expression indicates that countries that are not high income and that do not have a strong World Bank presence but do have high FDI are still expected to build parks. This may be because some countries that are not high income are no longer eligible for World Bank assistance and instead rely on FDI.

Repeating the analysis for the negation of the outcome, provides additional support for the world society perspective. There are 22 combinations of the five conditions that describe the

experiences of the 135 countries as shown in table 4.3 below. The results indicate that 4 out of the 22 combinations consist of states where the outcome, park expansion, was absent.

Table 4.3: Truth Table of Conditions that Produce National Parks in Non-Western Countries (Outcome: parks-negated, Conditions: EINGOs, DNGOs, WB, Income, FDI)

Conditions	Total Cases	Few Parks	Conditions	Total Cases	Few Parks
edwif	4	1	EdWiF	1	0
edwiFf	2	1	eDWiF	6	0
edWiF	18	1	eDWif	9	0
edwIf	13	1	EdWIF	2	0
eDwif	1	0	EdwIf	3	0
edwIF	7	0	EdWIf	3	0
edWif	17	0	EDWif	6	0
eDwIf	1	0	EdwIf	2	0
eDwIF	1	0	EdwiF	3	0
edWIF	9	0	EDWIF	5	0
edWIf	1	0	EDWIf	7	0
E= EINGO presence			e=low EINGO presence		
D= DNGO presence			d= low DNGO presence		
W= World Bank presence			w= low World Bank presence		
I= high income			i= not high income		
F= high FDI			f= not high FDI		

There are two combinations that account for the absence of park expansions as shown in Table 4.4. The solution coverage is 66%, suggesting that there are some paths not covered by these solutions that may also account for the absence of parks.

Table 4.4: Fuzzy-Set Qualitative Comparative Analysis of Conditions that Produce National Parks in Non-Western Countries (Outcome-negated: parks, Conditions: EINGOs, DNGOs, WB, Income, FDI)

Set	Solution Coverage	Solution Consistency
low EINGO presence*low DNGO presence* low WB presence* not high FDI	.45	.84
low EINGO presence*low DNGO presence* not high income* high FDI	.39	.80
Total Coverage: Solution Consistency:	.66 .81	

Countries with a low environmental INGO and low domestic NGO presence that also have a low World Bank presence and FDI that is not high are expected to experience an absence of parks. In

addition, countries with a low environmental INGO and low domestic NGO presence that are also not high income and have high FDI are expected to experience an absence of park expansion. Mozambique has membership in the latter category. This suggests countries that are not linked to the wider world culture build fewer parks. In the case of Mozambique a civil war led to diminished capacity, which in turn makes it difficult to align even existing policies with practice. With the low solution coverage, however, there may still be other accounts that affect this particular outcome.

The results do align with my earlier expectations. The domestic environmental context can lead to park expansion, and in addition connections to the wider world culture, either through the World Bank or environmental INGOs, can also drive this expansion. In addition to World Bank or environmental INGO presence, non-Western countries must also have some sort of capacity for park building, such as being a high-income country.

Conclusion

Nation states are generally thought to experience some sort of economic and cultural embeddedness as members of an international community. Economic embeddedness is associated with economic growth at the expense of the environment, whereas cultural embeddedness is thought to promote environmentalism. The results of the QCA, leads me to question the utility of distinguishing between these types of embeddedness.

Global environment and development regimes are frequently perceived to be at odds, especially in non-Western countries where pressures to protect the environment and consume natural resources in a sustainable matter conflict with efforts to promote economic growth and address poverty. Despite this, non-Western countries have been building parks, some more than others. My prior analyses, suggested that participation in international organizations that promote environmentalism have a positive effect on park establishment. Using fsQCA I find that the

World Bank and environmental INGOs operate as alternative routes to park expansion. While the World Bank is not typically associated with the environment, like INGOs, the World Bank connects countries to global regimes. These analyses suggest that distinguishing between cultural and economic embeddedness may no longer be reasonable.

CHAPTER 5

Conclusions: World Society, Embeddedness, and National Parks

Development and the environment are both heavily institutionalized in world society, with global regimes centered around these two areas. Despite the importance of both these institutions in the international sphere, development and the environment appear to be mutually exclusive, frequently coming into conflict. Development projects have sometimes had devastating environmental consequences, particularly in non-Western countries, and environmental policies and legislation have also harmed local populations economically.

National parks have emerged as a solution to a variety of environmental problems and have proliferated across the globe. Though national parks have spread dramatically during the 20th century they have still been a source of conflict in many countries struggling to reconcile their environmental goals with their development priorities. Parks and protected areas have spread unevenly and there is great variation in the number of parks across countries. In addition, there is tremendous variation in the types of parks that have proliferated with some limiting human intervention completely and others allowing for limited land use. For example, the U.S. is currently home to over 25,000 parks and protected areas but only around 10,000 are strictly preservationist with the remaining 15,000 allowing limited land use.

This dissertation research examined the proliferation of parks and protected areas cross-nationally from 1970-2008. In this research I sought to explain sate behavior in regards to environmental concerns, specifically focusing on the roles economic growth and environmental protection played in the process of national park expansion. In this research I tested major sociological theories that seek to explain state behavior related to environmental concerns, specifically political economy theory and world society theory. I consider global institutional ties

as potential determinants of park expansion. Further, I argue that embeddedness in the world economic system operates similarly to cultural embeddedness and thus promotes state environmental activities. The increasing institutionalization of the environment at the global level allows a multitude of institutional actors to communicate the global standards and norms on conservation whether they were explicitly created to deal with environmental issues or not.

Determinants of National Park Expansion

The establishment of national parks is often viewed as a primarily environmental process. They are constructed to conserve land and protect areas with great biodiversity or scientific value. This can be a great detriment to countries, especially non-Western countries that rely on natural resources for a great deal of their economic activity. But while parks have been and are sometimes sites of conflict, I find very little evidence that institutions that are part of the development regime hinder park expansion. If park expansion was hindered by development I would expect that countries tied to the World Bank through a number of development projects would establish fewer parks than those that are not, as development takes a priority over conservation. In areas of finite resources, setting aside land for conservation prevents it from being used in industry and development. In addition, the World Bank would legitimate development projects even those with environmental consequences. However, the number of World Bank projects within a country was not negatively associated with park expansion in any of the three preceding analyses.

This research focuses on institutional conflict among global regimes and how it is reconciled in the case of national parks. I employed both cross-national time series regression analyses and qualitative comparative analysis to examine (1) the expansion of national parks and protected areas from 1970 to 2008, (2) the expansion of different park categories from 1970 to

2008 and (3) the combination of economic and cultural conditions affecting park expansion in non-Western countries.

The findings of all three analyses show that institutional ties and economic capacity are the greatest determinants in national park expansion. In the second dissertation chapter, using fixed effects panel regression analysis to examine the effect of both economic and cultural factors on park expansion, I find more support for world society arguments over political economy arguments. While economic capacity is important as at least some resources are required for park building, it does not appear that participation in development projects hinder environmental outcomes. In non-Western countries, participation in development projects through the World Bank positively affected park expansion. I argue that this is due to connections to the wider world culture. Participating in international activity, even through organizations that are not environmental, allows global cultural environmental norms to influence state action. Countries that are more highly embedded experience greater influence. State behavior can then be guided indirectly through its ties.

The third dissertation chapter was an analysis of the expansion of different national park types. While all countries are building parks, it could be assumed that non-Western countries might build parks that do not meet Western expectations as a result of prioritizing the economy over the environment. In this chapter I used fixed effects regression analysis to examine the expansion of national parks by category from 1970-2008. This provided further support for the findings in chapter 2. Economic capacity matters in the establishment of parks of any type. There was some evidence that parks that allow limited intervention may be slightly less costly to establish. Overall, many of the same conditions appeared to influence the expansion of both groups of parks. The results show that the domestic NGOs and environmental INGOs are

positively associated with the expansion of both park types. In addition, the World Bank again does not appear to hinder park expansion of either pristine parks or those that allow limited use. For the latter there is actually a significant positive association. The results also showed that more category limited intervention parks are being built over time as well.

Finally, in my fourth dissertation chapter, using qualitative comparative analysis (QCA) I identified the extent to which different configurations of environmental and economic conditions have a causal effect on park expansion for specific countries. The causal recipes for the outcome of park expansion included domestic environmental activity, ties to world society, and economic capacity. In the solutions, both environmental INGOs and the World Bank were included together and separately. Domestic NGOs and in countries with some level of capacity the World Bank and Environmental INGOs operate as alternative pathways to park expansion.

In sum, this research demonstrates that state behavior is guided by world culture with respect to park formation. As both the environment and development get institutionalized at the global level, both are likely to affect environmental outcomes but development no longer takes precedence over the environment. Findings from this study contribute to globalization and environmental sociology literatures. It also advances world society theories in sociology by addressing conflict across multiple institutions.

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APPENDIX A: Fixed Effects Regression Analysis Category 1-4 National Park Foundings in Western Countries

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
GDP (log)	-0.118	-0.094	-0.27	-0.14	-0.166
	(-0.645)	(-0.519)	(-1.463)	(-0.700)	(-0.831)
Population (log)	0.437	0.397	0.639	0.291	0.269
	-0.911	-0.835	-1.275	-0.575	-0.533
Land Area (log)	-0.881	-2.016	3.324	5.804	-1.729
	(-0.0497)	(-0.115)	-0.185	-0.325	(-0.0948)
% Agricultural	-0.0702***	-0.0699***	-0.0685***	-0.0641***	-0.0649***
	(-7.942)	(-7.985)	(-7.819)	(-7.299)	(-7.395)
Dom NGO (log)	0.578***	0.454***	0.469***	0.482***	0.421***
	-5.401	-4.114	-3.957	-4.071	-3.441
Envt INGOs (log)	0.595***	0.540***	0.569***	0.385***	0.392***
	-7.838	-7.075	-7.436	-4.302	-4.386
FDI (log)		0.0175***	0.0167***	0.0158***	0.0143**
		-4.199	-3.851	-3.66	-3.265
WB Projects (lag)			-0.0438**	-0.0135	0.000452
			(-2.861)	(-0.670)	-0.0212
Late				0.326**	0.336***
				-3.287	-3.387
WB X Late				-0.0643**	-0.0713**
				(-2.653)	(-2.916)
WB Eligibility					-0.276*
					(-1.963)
Constant	15.34	29.37	-36.1	-65.73	27.79
	-0.07	-0.135	(-0.163)	(-0.298)	-0.123
Observations	966	966	920	920	920
R-squared	0.471	0.481	0.459	0.468	0.47
Total Number	31	31	31	31	31

***p<.000, **p<.01, *p<.05

APPENDIX B: Fixed Effects Regression Analysis Category 5-6 National Park Foundings in Western Countries

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
GDP (log)	1.117***	1.124***	1.007***	1.090***	1.080***
	-9.579	-9.652	-8.877	-8.817	-8.721
Population (log)	-2.376***	-2.388***	-2.305***	-2.399***	-2.407***
	(-7.757)	(-7.807)	(-7.479)	(-7.669)	(-7.694)
Land Area (log)	33.06**	32.71**	21.31	22.64*	19.87
	-2.918	-2.892	-1.932	-2.05	-1.759
% Agricultural	0.0259***	0.0260***	0.0239***	0.0254***	0.0251***
	-4.589	-4.61	-4.445	-4.672	-4.613
Dom NGO (log)	1.272***	1.234***	1.275***	1.286***	1.263***
	-18.6	-17.4	-17.48	-17.56	-16.68
Envt INGOs (log)	0.0315	0.0148	0.0477	0.00701	0.00969
	-0.651	-0.302	-1.013	-0.127	-0.175
FDI (log)		0.00535*	0.00281	0.00257	0.00202
		-1.994	-1.055	-0.964	-0.745
WB Projects (lag)			0.0181	0.0330**	0.0382**
			-1.921	-2.655	-2.892
Late				0.0438	0.0474
				-0.714	-0.772
WB X Late				-0.0284	-0.0310*
				(-1.896)	(-2.047)
WB Eligibility					-0.102
					(-1.167)
Constant	-404.3**	-400.0**	-258.4	-275.2*	-240.8
	(-2.890)	(-2.863)	(-1.898)	(-2.018)	(-1.726)
Observations	966	966	920	920	920
R-squared	0.567	0.569	0.569	0.571	0.571
Total Number	31	31	31	31	31

***p<.000, **p<.01, *p<.05