

Pace University School of Law

**Peace Parks for Mountain Forests:
The Law and Policy of Transforming Conflict to Stewardship**

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I. INTRODUCTION

The Political Ecology of Peace Parks

“The Earth is one but the world is not.”¹

- Brundtland Commission in *Our Common Future*

Political borders have been a convenient crutch for dividing human communities across Earth's unitary biosphere. Ossification of principles such as the nation-state and territorial sovereignty, have made borders the presumed and accepted framework for governing peoples. Although borders have historic and political uses, they can complicate conservation efforts seeking to maintain ecological integrity. Many environmental harms are inherently transboundary in nature (e.g., climate change); while others, although more localized (e.g., forest fires), are better confronted from all fronts when they occur in frontier regions. Climate change demands that we view borders more flexibly, not just for the human migrations that will inevitably occur as islands and low-lying coastal regions succumb to rising sea-levels and shoreline erosion, but also for Earth's other species, which will find themselves seeking more hospitable environments as theirs are altered by changes in natural systems. Borders were meant to be a construct for maintaining social order, but history shows us that they can also serve as a point of friction between peoples.

Peace parks provide a land ethic that transcends borders and seeks to stabilize tensions between bordering States, honoring the unity of biosphere systems in its efforts to achieve peace, conservation and cooperation. In theory, peace parks recognize that humans and the biosphere are one and that natural resources, just as cultural resources, must be collaboratively protected. In the cases of inhabited border regions, peace park principles of holistic conservation, cooperation and peace require that local communities be incorporated into park management. I posit that this is all the more true for frontier communities in regions of conflict, weak governance or political instability. This paper examines legal frameworks for instituting peace parks by local communities themselves, when action on the part of their governments is absent or counter-productive. In doing so, I will comparatively analyze transboundary protected areas in different regions of the world, extracting useful legal mechanisms that best reflect peace park principles. I focus this study on transboundary mountain regions because they demonstrate many valuable attributes, such as forests or watershed tributaries, and are oftentimes inhabited by marginalized communities. Degraded environments and disenfranchised peoples are particularly vulnerable to conflict² and border strife (they are difficult to defend or reach), making such areas particularly interesting for a study on cross-border collaborative conservation.³

1 World Commission on Environment and Development, *Our Common Future* 27 (1987).

2 Thomas F. Homer-Dixon, *Environment, Scarcity, and Violence* (1999).

3 Lawrence Hamilton & Linda McMillan, *Guidelines for Planning and Managing Mountain Protected Areas* 20 (IUCN 2004).

Political borders are an anthropological creation that perhaps long ago began as customarily defined barriers between groups, but today have become fortified lines drawn across geological maps and codified in many national constitutions.⁴ Remember back to a time when tribal families negotiated the sharing of natural spaces for hunting and gathering, developing ancestral connections to customary lands. With the spawning of agriculture and townships, interests and practices sought to politicize customary divides. Landscapes became increasingly fragmented according to individual or property interests, fortifying the chasm between “us” and “them.” In these natal times of modern civilization, it was desirous to more clearly demarcate such lines and so we find archaeological evidence of the first fences. Historically, these were simple devices, built with mostly natural materials (typically wood), but these days we see communities pouring billions of dollars (USD) through their governments into militarized steel barriers multiple meters high. The world many of us live in today revolves around these very divides; it is the skeleton by which globalization is mechanized.

Once a loose customary and political construct, political borders have grown in recognition; they are an assumptively valid basis upon which to structure relations between peoples. The 1648 Treaty of Westphalia, which sought to return peace to much of Europe, is said to be the introduction of a legal codification of the concept of nation-states ruling over sovereign territories with clear borders.⁵ This model was imposed upon the colonial territories of post-Westphalia European nations, an influence that has led to countless border disputes during decolonization and continues to be blamed for tribal conflicts that persist to this day.⁶ The post-World War II world order has further coalesced this

4 *E.g.*, Constitución Política de la Republica de Honduras [Cn.][Constitution], tít. I, ch. II, art. 9, Decreto No. 131, 11 January 1982, as amended by Decreto No. 4, 1990 (Hond.) (El territorio de Honduras está comprendido entre los Océanos Atlántico y Pacífico y las repúblicas de: Guatemala, El Salvador y Nicaragua. Sus límites con estas repúblicas son:

1. Con la República de Guatemala los fijados por la sentencia arbitral emitida en Washington, D.C., Estados Unidos de América, el veintitrés de enero de mil novecientos treinta y tres.

2. Con la República de Nicaragua, los establecidos por la Comisión Mixta de Límites hondureño-nicaragüense en los años de mil novecientos y mil novecientos uno, según descripciones de la primera sección de la línea divisoria, que figura en el acta segunda de doce de junio de mil novecientos y en las posteriores, hasta el Portillo de Teotecacinte y de este lugar hasta el Océano Atlántico conforme al laudo arbitral dictado pro su Majestad el Rey de España, Alfonso XIII, el veintitrés de diciembre de mil novecientos seis cuya validez fue declarada por la Corte Internacional de Justicia en sentencia de dieciocho de noviembre de mil novecientos sesenta.

3. Con la República de El Salvador los establecidos en los Artículos diez y seis y diez y siete del Tratado General de Paz suscrito en Lima, Perú el treinta de octubre de mil novecientos ochenta, cuyos instrumentos de ratificación fueron canjeados en Tegucigalpa, Distrito Central, Honduras, el diez de diciembre de mil novecientos ochenta. En las secciones pendientes de delimitación se estará a lo dispuesto en los artículos aplicables del Tratado de referencia).

5 Peace Treaty between the Holy Roman Emperor and the King of France and their respective Allies [hereinafter Treaty of Westphalia], art. LXIV, LXXVI, XCII (territorial sovereignty), art. LXVII, CXVI (jurisdiction within walls and territories, maritime as frontiers); art. CXVII (citizens and inhabitants subject to Right of Sovereignty of their Masters), Oct. 24, 1648, available at http://avalon.law.yale.edu/17th_century/westphal.asp (last visited Oct. 4, 2009).

6 *See* Declaration on the Granting of Independence to Colonial Countries and Peoples, Dec. 14, 1960, G.A. Res. 1514

concept of nation-states and territorial sovereignty into the very basis upon which a group of peoples may legitimately participate in international relations and fora.⁷ In accordance with the Charter of the United Nations (UN Charter), communities are expected to form nation-states, represented by a government with the power to control all of the populations and resources within its territory at the exclusion of others. Groups that have historically failed to fit this model (e.g., nomadic tribes of Western Sahara) are encouraged to embrace this paradigm and are offered the support of the international community (i.e., the Trusteeship Council of the UN) or neighboring nation-states eager to subsume them into their regimes (e.g., Native Americans in the United States). Membership in the UN, the institutional manifestation of the post-World War II global nation-state paradigm, which has risen from 51 Member States at its inception in 1945 to 192 Member States as of 2006, is evidence that most of the world is falling in line with this world order.

It appears borders are here to stay and their presence is not insignificant. Nation-states that fit neatly into political borders determine the passport to be carried by individuals ordained to be citizens within their jurisdiction. This small booklet that fits in your back pocket dictates systems of governance (e.g., democratic or monarchic), rights and obligations of individuals (as determined by social contract), social services and access to resources, protections and provisions, etc. Much of this is codified in the legal system of each nation, rules of which citizens of another nation, even if just a few feet across the border, cannot be expected to know. It changes the language in which we are educated, the color of the money in our pocketbooks, and the ease with which we move across land and water. Borders shape our very identity. There may be no discernible change in topography or ecology, but the social, political, economic and legal implications to an individual are innumerable and unfortunately, this is not a distinction that other species of Earth's biota are immune to.

Scientists have divided the planet into fourteen major terrestrial biomes, subdivided into 867 ecoregions.⁸ Biomes are defined as “the world's major communities, classified according to the predominant vegetation and characterized by adaptations of organisms to that particular environment.”⁹ Ecoregions are “relatively large units of land containing a distinct assemblage of natural communities and species, with boundaries that approximate the original extent of natural communities prior to major land-use change.”¹⁰ With few exceptions, neither biomes nor ecoregions coincide with the boundaries

(XV), 15 U.N. GAOR, Supp. (No. 16) 66, U.N. Doc. A/4684 (1961), available at <http://www1.umn.edu/humanrts/instree/cldgiccp.htm> (last visited July 15, 2010).; See Myres S. McDougal, *International Law, Power and Policy: A Contemporary Perspective*, 82 Académie de Droit International, Recueil des Cours 133 (1953), reprinted in Reisman, Arsanjani, Wiessner & Westerman, *International Law in Contemporary Perspective* 147, 147 (Foundation Press, 2004).; See Western Sahara, Advisory Opinion, 1975 I.C.J. 12 (Oct. 16) (the ICJ attempts to determine the “ownership” of the territory known as the Western Sahara).

7 E.g., U.N. Charter art. 1, para. 2 (purpose of Charter to develop friendly relations among nations); U.N. Charter art. 2, para 4 (territorial sovereignty); U.N. Charter art. 3-4 (membership of the UN open to states).

8 David M. Olson et al., *Terrestrial Ecoregions of the World: A New Map of Life on Earth*, 51 BioScience 933, 934 (Nov. 2001).

9 N.A. Campbell, *Biology* (4th ed, 1996).

10 David M. Olson et al., *supra* note 8, at 933.

The Need for an Eco-Regional Approach

As people draw lines across Earth's surface, the biosphere and all of its living and non-living components continue to flow through natural systems irreverent of where geopolitical borders ultimately fall. Most of the world's water resources transcend international boundaries,¹¹ just as forests do not naturally stop on one side of a border. Mobile species move back and forth, sometimes even more freely than humans do, granted no physical barrier deters such transgressions. Uninterfered with, this is as Gaia systems are understood to be. This is when some will note that humans are the greatest interference to Earth's systems and why we are now facing multi-front environmental crises, adequate response to which is hindered by political borders – invisible or walled.¹²

The environmental threats facing our planet today are many and they cannot be diffused by any one nation alone. Anthropogenic environmental change, including human-induced climate change, is causing forests to disappear rapidly, water resources to dwindle or deteriorate, homologization of biodiversity and genetic diversity, widespread land degradation, and has pushed our oceans and marine systems into a domino effect of irreversible collapse. All of the goodwill and conservation efforts in one country may be rendered completely irrelevant by the lack of such efforts in a neighboring country. We see this paradigmatically in the situation of multi-State rivers, whereby downstream States are inevitably subjected to the impacts of upstream State uses of the same river. In the Colorado River, we see an example of an upstream State (the U.S.), which has failed to adequately protect a shared water resource and a downstream State (Mexico) left with a hyper-saline phosphorous laden sludge of a water resource. No effort on the part of Mexican citizens to conserve and protect that wastewater will return them a usable river of quantity and quality to support healthy riparian ecosystems. Natural areas in border regions are vulnerable to all of the usual environmental changes, but the impacts are often compounded by the fact that the territory is governed by different political systems.

Borders can also become a source of criminality for transboundary environmental harms. Arising out of jurisdictional complexities and enforcement challenges, we see actors from one country invading another to illegally extract natural resources and then disappearing behind territorial boundaries without implications. Such acts of criminality exist small-scale when residents of San Diego take day trips into Tijuana and catch endangered species of fish protected by both countries and return unnoticed to their homes for a pleasurable seafood dinner; or large-scale when international logging companies deforest tracts of the Congo basin under logging moratoriums in the Democratic Republic of the Congo (DRC) and ship their timber products to consumers all over the world. Similar activities also take place in the form of dumping or pollution and not just extraction. For example, hazardous wastes or electronic waste are all too often improperly treated or disposed of by North Atlantic nations in the so-called “Global South.” In some cases, acts do not become illegal unless an

11 C. Sadoff, T. Greiber, M. Smith & G. Bergkamp, *Share – Managing Water Across Boundaries* 6 (IUCN, 2008).

12 E.g., Convention on Biological Diversity, pmbl, June 5, 1992, 1760 U.N.T.S. 79.

international borderline is involved, as is the case with the U.S. Lacey Act, which strives to prevent trafficking of protected species, much like the Convention on International Trade in Endangered Species (CITES). Despite the overarching moral imperative to do no harm to our neighbors, borders are often a source of criminal activity tied directly to our shared natural resources.

Borders and a Westphalian approach to territorial sovereignty make enforcement against transboundary environmental crimes difficult. Fragmentation of ecosystem management, divided by differing management systems and authorities across borders, hinders holistic response and stewardship. Park rangers fighting to stem poaching may find themselves frustrated at borders that criminals effectively disappear into, but beyond which they have no authority. Customs officials may allow passage of the last specimen of blue-throated macaw (*Ara glaucogularis*) into the hands of a wealthy foreign private collector, for failure to distinguish it from a blue and yellow macaw (*Ara ararauna*). Lack of communication and cooperation between the exporting and importing nations hinder environmental protection across jurisdictions. Efforts by environmental authorities or enforcement officers to confront such challenges repeatedly face the daunting hurdle of State sovereignty argued by those gripping on to the vestiges of a top-down power that relies on a Westphalian right to exclude.

Communities living on international borders suffer from transboundary environmental harms as well as lack of enforcement. In Rwanda, a charcoal production ban intended to stem chainsaw logging for fuel seems to have provided a market opportunity for charcoal produced in the cross-border Kivu region of the DRC. For the forest dependent communities in the Kivus, not to mention the millions who have suffered from on-going violent conflict in the region funded in part by these charcoal sales, the deforestation has been life-threatening. Also of a stifling nature for their cultures and peoples, has been the multiple layers of bureaucracy of different governments that indigenous peoples have been forced to deal with just to protect sacred sites or traditional uses of natural resources. Border-adjacent forest communities are often so disenfranchised or geophysically distant that it is hard for them to seek assistance or access to justice. In my own interviews with subsistence farmers on the border between Honduras and Nicaragua, multiple stories were told of reports made to government officials in Tegucigalpa about the persistence of armed loggers on their private properties, with no offer to provide recourse or preventive measures against recurrences.

The lack of political will to assist these border communities is destructive. There could be no example more relevant for demonstrating the catastrophe of such failure than climate change and the international community's current inability to effectively mitigate the environmental changes it has created and to manage the effects of its actions. In the face of climate change, we must as a global community do better – much better. Periphery communities cannot be left to fend for themselves.

Peace Parks for Transboundary Communities and Ecosystems

Fortunately, as is true of much of the climate change debate, we do not need to look far for answers. Much of what we need, we already have. For over seventy years, peace parks have served as

a model for transboundary conservation that is holistic and cooperative. The theory behind peace parks is based on principles of international and environmental law enshrined in the UN Charter, multilateral environmental agreements, regional conventions and national laws. Transposition of these policies and principles (e.g., international cooperation, peaceful relations between countries, prevention of transboundary harms, sustainable development, and the right to a healthy environment) through peace parks signals compliance with already agreed upon international and environmental obligations and there are many cases of existing peace parks from which we can learn.¹³

The term “peace park” is not commonly known or understood by most people, although it has been the subject of conservation and natural resources management dialogue since at least the early 1920s.¹⁴ Purportedly, the first area to be recommended for transboundary conservation is the Tatras Mountains between what was then Czechoslovakia (now the Czech Republic and Slovakia) and Poland.¹⁵ The Krakow Protocol called for peace parks as part of a border dispute resolution, but it did not take effect until separate national parks were created between 1949 and 1967 in the three countries.¹⁶ By this time, Waterton-Glacier International Peace Park, (Waterton-Glacier) the world's first peace park, had already been declared in 1932 by the governments of the U.S. and Canada to commemorate the two nations' long-standing friendly relations and to institute cooperative management of their shared natural resources. Peace parks now exist in every region of the world, with the newest addition announced May of 2009 in the Gola Forest between Liberia and Sierra Leone, where cooperative forest conservation and a mining moratorium will remind us of the violent conflict fueled by “blood diamonds” and two nations' post-conflict rebuilding towards societies of peace, conservation and sustainable development.¹⁷

Transboundary conservation has been proposed by organizations, such as the International Union for the Conservation of Nature (IUCN), as a progressive approach to strengthen biodiversity conservation, peaceful relations between peoples and as a vehicle for sustainable socio-economic and cultural development.¹⁸ As a form of transboundary conservation, peace parks must simultaneously seek to to achieve conservation of biodiversity and peace objectives, while maintaining a minimum

13 Pablo Flores Velasquez, Pablo Martinez de Anguita, Elaine Hsiao, *La Conservación en las Fronteras: El Ciclo de Proyectos Aplicado a la Creación del Parque Binacional “Padre Fabretto”* (Fundacion Fabretto, May 2008).

14 R.A. Mittermeier, C.F. Kormos, C.F. Mittermeier, P. Robles Gil, T. Sandwith & C. Besançon, *Transboundary Conservation: A New Vision for Protected Areas* 27-28 (CEMEX-Agrupación Sierra Madre-Conservation International 2005).

15 *Id.* at 28; Ginger Smith & Alvin Rosenbaum, *The Case for an Ecotourism Peace Park and Cultural Heritage Corridor in the Korean Demilitarized Zone*, in *Ecotourism: Management and Assessment* 164, 165 (Dimitrios Diamantis ed., 2004); Jim Thorsell & Jeremy Harrison, *Parks that Promote Peace: A Global Inventory of Transfrontier Nature Reserves*, in *Parks on the Borderline: Experience in Transfrontier Conservation* 3, 4 (J.W. Thorsell ed., IUCN 1990).

16 R.A. Mittermeier et al., *supra* note 14 at 28.

17 Environment News Service, *Sierra Leone and Liberia Create Vast Transboundary Peace Park* (May 18, 2009), available at <http://www.ens-newswire.com/ens/may2009/2009-05-18-01.asp> (last visited Oct. 4, 2009).

18 R.A. Mittermeier et al., *supra* note 14 at 27.

level of cooperation (some communication).¹⁹ This description of peace parks is in accordance with the IUCN definitions, which sought to reflect general consensus around the many largely interchangeable terms used to describe such areas (transboundary protected areas for peace and cooperation, parks for peace, etc.). Reports by the IUCN, UNEP, the Peace Parks Foundation, the University for Peace, the World Wildlife Fund (WWF) and others have commented repeatedly on the multifarious benefits of transboundary peace parks, ranging from political (peace-building to conflict resolution) to ecological as well as social (economic and cultural benefits).²⁰

Transboundary Peace Parks in Montane Forest Regions of Political Instability or Insecurity

It is often in times of crisis that a peace park and its many benefits are most needed, but somehow the most difficult to achieve. Just as it took decades for the parks in the Czech Republic, Poland and Slovakia to reach fruition because of continued conflict, peace park processes in regions of political instability, violent conflict or weak governance often struggle to come into being. This could be for lack of political will on the part of those politically responsible, for lack of resources (human or monetary), or because of overwhelming insecurity and institutional failure. Peace parks processes arising post-conflict, such as the European Greenbelt Initiative, which seeks to connect 22 transboundary protected areas along the former Iron Curtain between Warsaw Pact countries and Western Europe, or peace parks created to celebrate long-standing peaceful and friendly relations, such as Waterton-Glacier International Peace Park, are admirable and very much needed, but if peace parks are to achieve what they set out to do (conservation, non-violence conflict resolution, sustainable development, peace-building, etc.), the peace park model must be allowed to take hold in places of instability and insecurity. It is for all of these reasons that this paper seeks to remind us that in these times of economic, environmental, social and political crises, peace parks are a practicable model that should be used to simultaneously confront all of these challenges.

An example is the peace park initiative between Honduras and Nicaragua. The idea to create a peace park between Honduras and Nicaragua grew out of research in the mountainous border region of Choluteca and Madriz, exploring possibilities for sustainable rural development based on mechanisms such as payments for environmental services or certified forestry and non-timber forest product sales. Support, either locally, nationally, regionally or internationally has been thwarted on two occasions. Once due to peaceful and democratic regime change when the Sandanista National Liberation Front (FSLN) won elections in Nicaragua in 2006. Previously, the government had been controlled by its primary opposition party, the Constitutionalist Liberal Party (PLC), so all peace park dialogue initiated with officials under that regime had to be renewed with the new FSLN authorities. Since then, agreements between local mayors and a resolution adopted at the 4th IUCN World Conservation Congress in Barcelona, Spain (2008) have supported efforts in the two countries to formalize a draft

19 *Id.* at 33-34.; T. Sandwith, C. Shine, L. Hamilton & D. Sheppard, *Transboundary Protected Areas for Peace and Cooperation* 2001, at 3 (Best Practice Protected Area Guidelines Series No. 7, IUCN WCPA, 2001).

20 R.A. Mittermeier et al., *supra* note 14.

convention between the Governments to create a transboundary peace park. However, the recent military coup which resulted in the removal of President Zelaya from Honduras in June 2009, has once again stalled the peace park process. Zelaya's first attempt to cross the border of Nicaragua into Honduras took place near the proposed peace park territory and represented the ousted President's first visit to the area (unfortunately, not in the form we had hoped).

Mountainous border regions are a special transboundary biome that can benefit greatly from a peace park framework. As mentioned previously, these mountains often house the headwaters of important water resources. It has often been said that the next world war will be fought over international waters, but thankfully evidence seems to indicate that governments and peoples have tended to come together in agreements to share their water resources.²¹ Mountain ranges are also often characterized by their forest ecosystems. These forests face great threats, such as illegal logging, that are accentuated by the added dimension of being a border region, wherein the border itself becomes the source of invasion, escape and laundering of the natural resource. In such a space, when a transboundary protected area is established, a well-defined territory and legal framework exist for the cross-border cooperation needed to confront multidimensional transboundary environmental threats. However, in situations where a transboundary protected area framework does not already exist and political instability or insecurity make it prohibitively difficult to do so, an alternative must be offered to the local communities who are dependent upon the forests and suffer from political inaction. Thus, this paper looks at the application of peace parks in cross-border montane forests in regions of insecurity, whether it be due to violent conflict, weak governance or political instability.

In such circumstances, it is appropriate to pursue a "patchwork peace park" approach, whereby local officials upon the mandate of the local people invoke their authorities to create municipal parks and then join these parks through agreements between municipalities to share in the management of this "patchwork peace park."²² This would be a protected area created by the people and for the people, very different from the traditional national park paradigm wherein a far-away legislature declares a protected area from which all of its human inhabitants are expelled. If humans and nature are to coexist harmoniously, we must utilize conservation models that include local communities, not isolate them (especially when dealing with already-disenfranchised peoples). Communication between local groups (i.e., neighboring municipalities) with first-hand knowledge of the territory will make collaborative management of the transboundary protected area more inclusive and strengthen community connections to the natural resources that are being protected. People tend to be more closely tied to their local parks; they have greater access to these areas and are more willing to participate more directly in their stewardship.²³ This goodwill should be capitalized upon, particularly

21 Aaron T. Wolf, Annika Kramer, Alexander Carius, & Geoffrey D. Dabelko, *Water Can be a Pathway to Peace, Not War*, 1 Navigating Peace (Woodrow Wilson International Institute for Scholars, July 2006).

22 Municipal parks in this case refers generically to a local conservation area; they should take the location-specific form that is most appropriate. For example, a county park, city park or community-managed forest stand.

23 John Crosby, CAE & Helen Rose, *Parks and Recreation: The Value Proposition*, Parks and Recreation 63 (October 2008), available at <http://www.nrpa.org/operatingratio/>; Jack Harper, Stephen Foreman & Geoffrey Godbey, *The Use*

when assistance from the outside is lacking. Greater involvement in the management of these natural spaces can build local capacity for conservation and sustainable livelihoods (e.g., ecotourism), developing the management frameworks from the bottom up by local actors themselves. This allows for a *de facto* functional transboundary peace park to take root and then one day when the political climate is ripe, there can be national or multinational officiation of the territory as a transboundary peace park.

This paper is made up of three principal sections, the first of which attempts to provide general background on the state of transboundary forests, their communities, and their protection. In Chapter I, we begin with a description of the world's transboundary mountainous forest ecoregions and the communities that depend on them. This section includes an overview of the various vulnerabilities and threats to these ecosystems and their peoples, with a particular focus on illegal logging and climate change. Chapter I highlights some of the challenges that park administrators face in protecting transboundary montane forests. It stresses the significance of transboundary forests and mountains and the need to protect them more effectively and in cooperation with the peoples that depend on them.

The second section discusses peace park as a practicable framework for conservation and sustainable development in frontier regions with human inhabitants. Chapter II introduces transboundary peace parks as a model for participatory management that links forests, governments and communities across borders in a collective effort to confront transboundary forest conservation issues. The theories behind key elements and principles of a peace park are identified in this chapter. Then, in Chapter II is also a comparative examination of three different transboundary peace parks which provide insight into past peace park processes and existing management frameworks. An analysis of the world's first peace park, Waterton-Glacier, introduces us to the many challenges that park administrators face in transboundary conservation, even in times of peace. The second case study explores the Virunga-Bwindi Transfrontier Park (Virunga-Bwindi) between the Democratic Republic of the Congo (DRC), Rwanda and Uganda, to highlight the benefits of cross-border communication and collaborative ranger monitoring in protecting biodiversity and natural resources from the ravages of armed conflict. Virunga-Bwindi is also an effort to integrate local communities in park management in an area where they had previously been expelled. The third case study, Parque Internacional La Amistad between Costa Rica and Panama provides a regional perspective of how border conservation can be used to build regional peace and security. Occasionally references to specific experiences in other protected areas (e.g., the Adirondacks) will be introduced when beneficial to identifying a legal mechanism useful for implementing peace park principles. Chapter III builds on these three case studies and describes an emerging legal framework for peace parks. It describes when peace parks are created, how peace park processes are initiated and undertaken, as well as legal modalities for peace park declarations (per national legislation or multinational agreement) and stewardship.

Following this, section three laments the failures of centralized environmental governance in

and Benefits of Local Government Parks and Recreation Services in Canada and the United States – A Perspective of People with Disabilities (1999).

areas of conflict, weak governance or political instability and strives to provide an alternative solution. Chapter IV notes that climate change and its related effects demand that legal frameworks for protected areas be strengthened, which will require legislative changes. This inevitably triggers a slew of political and administrative hurdles that are especially debilitating in areas plagued by insecurity or problematic governance. In response, Chapter VI proposes an alternative based on local initiatives – a “patchwork peace park” of local parks for local peoples. Field research in the proposed peace park territory between Honduras and Nicaragua, based out of the United Nations Mandated University for Peace, explores the practicalities of implementing the “patchwork peace park” model and discusses next steps for advancing the currently stalled peace park process. Remarks in the Conclusion evaluate the challenges and realities of engaging in transboundary community conservation, with some discourse on the role of the international community in supporting local efforts to take ownership of their natural resources across a shared border in the absence of action on the part of their central governments. Some thoughts on the possibilities and opportunities arising out of the “patchwork peace park” approach and peace parks worldwide conclude this paper.

This leaves us with a workable legal framework with which to approach transboundary conservation in areas of political instability or insecurity that satisfies the call for a bottom-up approach to environmental protection and sustainable development despite the presence of international borders, typically the mark of jurisdictional limits of nation-states ruled by governments that have consolidated their power through the exclusion of external actors in matters within their territorial sovereignty. Only when conservation begins to know no borders (physically and theoretically) will the world become whole again.

CHAPTER I

Transboundary Mountain Forest Ecosystems and Mountain Forest Dependent Communities

“Love the forest. Appreciate the forest. Give thanks that the forest sustains us.”
- Herb Hammond, *Seeing the Forest Among the Trees* (1994)

The world's forests provide lungs for the Earth through photosynthesis and are the home of wondrous biodiversity, most of which are still undiscovered and some of which may one day save the human species from even the most proliferate and cleverest of diseases. Yet, there are few vast expanses of primary forest left; the loss of which is irreplaceable. In every corner of the world, forests are under fire, literally and figuratively, directly and indirectly. It is true that forests are from time to time diminished by natural causes, but the reasons behind most significant losses of forest cover are anthropogenic. Sometimes this is done for the alleged benefit of human beings (e.g., expansion of agricultural production, erasure of enemy cover in wartime, proliferation of the timber industry). However, this claim fails to consider the negative externalities arising from the subsequent damage to natural processes and ecosystem services which forests sustain and upon which we depend.

The same can be said of mountains and yet, mountains tend to be orphaned in the conservation and sustainable development dialogue. Mountains themselves are a constantly changing geological phenomenon shaped by forces deep within the Earth. Perhaps the geologic time and scale of such natural mountain development make it easier for humans to think of them as stable monolithic structures rather than fragile ecoregions vulnerable to destruction. Nevertheless, the mountain top removal that is happening in the Appalachians is proof that our species is capable of not only destroying mountain ecosystems, but also of completely leveling the mountains themselves. A convenient first step in the demolition of a mountain is the denuding of mountainside vegetation, including mountain forests. Somehow though, this link between forests and mountains has escaped broad attention. A literature survey quickly reveals a staggering imbalance in mountain literature as compared to forest literature, with mountains on the losing end.²⁴ It also reveals a general absence of information on the world's mountain forests; studies tend to focus on one or the other. As a result, governance of mountain forests is largely fragmented and fails to consider the added complexities that characterize mountain forests.

The failures of incoherent mountain forest protection is felt more acutely by some of our species than others. By definition, forest dependent mountain communities rely most directly on the well-being of forest mountain ecosystems and their resources for livelihood, subsistence and development. When the relationship between forest community and human community is so interrelated, interdependent and integrated, ecocide may be equivalent to genocide. Forest dependent

²⁴ See Derek Denniston, *High Priorities: Conserving Mountain Ecosystems and Cultures* 11 (Worldwatch Institute, Paper No. 123, 1995).; See also David Smethurst, *Mountain Geography*, 90 *Geographical Review* 35, 35 (2000).

mountain communities are not the only ones who feel the effects – most of the world derives some form of benefit from mountain and forest ecosystems. In consideration of the reported decline in forest productivity and the invaluable benefit of forest and mountain ecosystem services, forests and mountains must be protected simultaneously.

State of the World's Forests

There are many organizations, institutions and groups involved in forest related issues. Some international organizations, such as the United Nations Food and Agriculture Organization (FAO) and the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC) undertake to monitor and map the world's forests, compiling information on its various resources and services. Some are academic institutions, also involved in studying, monitoring and analyzing the resources and trends around forest issues. Government entities are often mandated with the protection, regulation and monitoring of forests and forest resources found within their jurisdiction. Likewise, civil society often forms forest related interest groups. All of these seek to collect information on some aspect of forests, to bring awareness to particular forests issues and perhaps even to change policies or practices related to forest governance. Below is a selective sampling of some of the major institutions and organizations involved in growing our understanding of the world's forests.

Box 1.1 Forest Oversight: Who Monitors the World's Forests?

Below is a selective summary of the main organizations and institutions involved in the monitoring and governance of the world's forests.

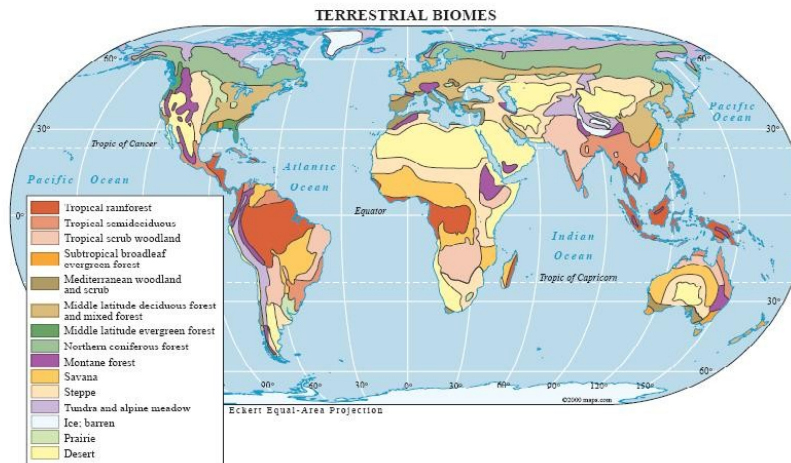
<u>Organization</u>	<u>What they do</u>	<u>Website</u>
International Organizations		
United Nations Food and Agriculture Organization (FAO)	Publishes Global Forest Resources Assessment (every 5 years) Publishes State of the World's Forests (every 2 years)	http://www.fao.org/forestry/en/
United Nations Environment Programme (UNEP) World Conservation Monitoring Centre (WCMC)	Offers information, analysis and capacity building for the conservation, protection and restoration of the world's forests and their biodiversity	http://www.unep-wcmc.org/forest/homepage.htm
International Tropical Timber Organization (ITTO)	Intergovernmental organization promoting the conservation and sustainable management, use and trade of tropical forest resources	http://www.itto.int/
Secretariat of the Convention on Biological Diversity (CBD)	Promotes conservation, sustainable use and benefit-sharing of forest biological diversity	https://www.cbd.int/forest/

	Characterize, analyze and improve global forest classification system, assessment methods, understanding of ecosystem functioning, data and information management	
United Nations Forum on Forests (UNFF)	Facilitates international cooperation and policy on sustainable forest management	http://www.un.org/esa/forests/
Intergovernmental Panel on Climate Change (IPCC) of the United Nations Framework Convention on Climate Change (UNFCCC)	Reports on the impacts of climate change to forests and the role of forests, forest degradation and deforestation in climate change	http://www.ipcc.ch/
United Nations Educational, Scientific and Cultural Organization (UNESCO)	Research, conservation and training for sustainable resources management of tropical forests	http://portal.unesco.org/science/en/ev.php-URL_ID=6423&URL_DO=DO_TOPIC&URL_SECTION=201.html
International Union for the Conservation of Nature (IUCN)	Influence, encourage and assist societies to conserve forest biological diversity and landscapes through thematic programs in forest law and governance, landscape restoration, poverty reduction, climate change, resources and markets, and securing rights to forest resources	http://www.iucn.org/about/work/programmes/forest/
National Forest Ministries		
United States Forest Services (USFS)	Manages public lands in national forests and grasslands	http://www.fs.fed.us/
Canadian Forest Service (CFS)	Promotes the sustainable development of Canada's forests and the competitiveness of the Canadian forest sector	http://cfs.nrcan.gc.ca
Uganda National Forestry Authority (NFA)	Manages Central Forest Reserves and supplies forestry-related products and services to government, local communities and the private sector	http://www.nfa.org.ug/
Rwanda Ministry of Lands Environment, Forestry, Water and Mines (MINERENA)	Formulates policy and law relating to protection of the Environment and Lands	http://www.minerena.gov.rw/ http://www.minela.gov.rw/
Democratic Republic of Congo Ministry of Environment, Nature Conservation and Tourism	Responsible for the sustainable management of forests in accordance with the law	http://www.mecnt.cd/
Administración Forestal de Estado - Corporación Hondureña de	Management and regulation of Honduran forests and natural resources	http://www.cohdefor.hn/

Desarrollo Forestal (AFE-COHDEFOR) (State Forestry Administration – Honduran Corporation of Forestry Development)		
Nicaragua Ministerio del Ambiente y Recursos Naturales (MARENA) (Ministry of the Environment and Natural Resources)	Management and conservation of protected areas and natural resources	http://www.marena.gob.ni/
Costa Rica Ministerio de Ambiente, Energía y Telecomunicaciones (MINAET) (Ministry of the Environment, Energy and Telecommunications)	Management, conservation and sustainable development of environmental goods, services, and natural resources	http://www.minae.go.cr/
Research Institutions		
International Forestry Resources and Institutions (IFRI)	Examines how governance arrangements affect forests and the people who depend on them	http://sitemaker.umich.edu/ifri/home
Center for International Forestry Research (CIFOR)	Researches governance, poverty and environmental issues to shape policy and improve the management and use of forests in less-developed countries	http://www.cifor.cgiar.org/
World Resources Institute (WRI)	Forest Landscapes Initiative seeks to protect intact forest landscapes, manage working forests more effectively, and restore deforested lands by influencing policies and building capacity Global Forest Watch monitors and maps forests	http://www.wri.org/ http://www.wri.org/project/global-forest-watch
Chatham House Energy, Environment and Development Programme (EEDP)	Promotes control of illegal logging and international trade in illegally logged timber	http://www.chathamhouse.org.uk/research/eedp/
Rights and Resources Initiative (RRI)	Research and development to support pro-poor forest tenure, policy and market reforms	http://www.rightsandresources.org/
International Union of Forest Research Organizations (IUFRO)	Promotes global cooperation in forest-related research and enhances the understanding of the ecological, economic and social aspects of forests and trees	http://www.iufro.org/

Yale School of Forestry and Environmental Sciences – Forest Dialogue	Promotes dialogue among businesses, social and environmental groups, and private forest owners on key forest management issues	http://research.yale.edu/gisf/tfd/
International Institute of Sustainable Development (IISD) World Commission on Forest Sustainable Development (WCFS)	Produced a report based on regional hearings conducted according to Brundtland Commission lines to increase awareness of forest issues, broaden consensus on data, science and policy aspects of forestry conservation and management, and seek policy reforms	http://www.iisd.org/wcfsd/
Non-governmental Organizations (NGOs)		
Rainforest Alliance	TREES program focuses on (T)RAINING, (E)XTENSION, (E)NTERPRISES and (S)OURCING activities for sustainable harvesting and production of forest products Smartwood certification and Verification (e.g., Forest Stewardship Council, FSC)	http://www.rainforest-alliance.org
The Nature Conservancy (TNC)	Works to protect core forest reserves and to ensure the responsible management of “working forests” by combating illegal logging; promoting sustainable forest trade; securing conservation financing; protecting, restoring and managing forests; and advocating supportive policies	http://www.nature.org/initiatives/forests/
Greenpeace	Acts to change attitudes and behavior and to promote peace by protecting and conserving the world's ancient forests	http://www.greenpeace.org/international/campaigns/forests
Forest Peoples Programme (FPP)	Supports forest peoples to secure and sustainably manage their forests, lands and livelihoods	http://www.forestpeoples.org/
Conservation International (CI)	Protect forests to save species and as a first response to climate change	http://www.conservation.org/learn/climate/forests/Pages/overview.aspx
Environmental Investigation Agency (EIA)	Provides information on forest crimes	http://www.eia-international.org/

Figure 1.1: Terrestrial Biomes of the World²⁵



Forests compose some of the major terrestrial biomes of the world. In *Forests Forever*, John Berger defines a forest as “a totality of interdependent organisms and their interrelationships, along with the places where they exist, the physical structures that support them, and the chemical compounds they use and exchange.”²⁶ A forest may be identified by its most prevalent arboreal species (e.g., pine-oak forest), but Berger is careful to note that a forest is a plexus, made up of so much more than just an aggregation of trees.²⁷ It is constituted of complex ecosystems that include the relations between “soil, insects and other invertebrates, birds, mammals, amphibians, reptiles, herbs, grass, shrubs, mosses, lichens, bacteria, fungi, and viruses,” as well as all of the abiological components (gases, winds, minerals, etc.) that are inextricably linked to each of these biological components.²⁸ Forests grow, they respire, they transform energy and affect climates, and from our beginnings their evolution has been intertwined with ours.²⁹

²⁵ Nicholas Short, *Vegetation Applications - Agriculture, Forestry, and Ecology*, in Remote Sensing Tutorial (NASA Reference Publication 1078, 1982), available at <http://rst.gsfc.nasa.gov/>.

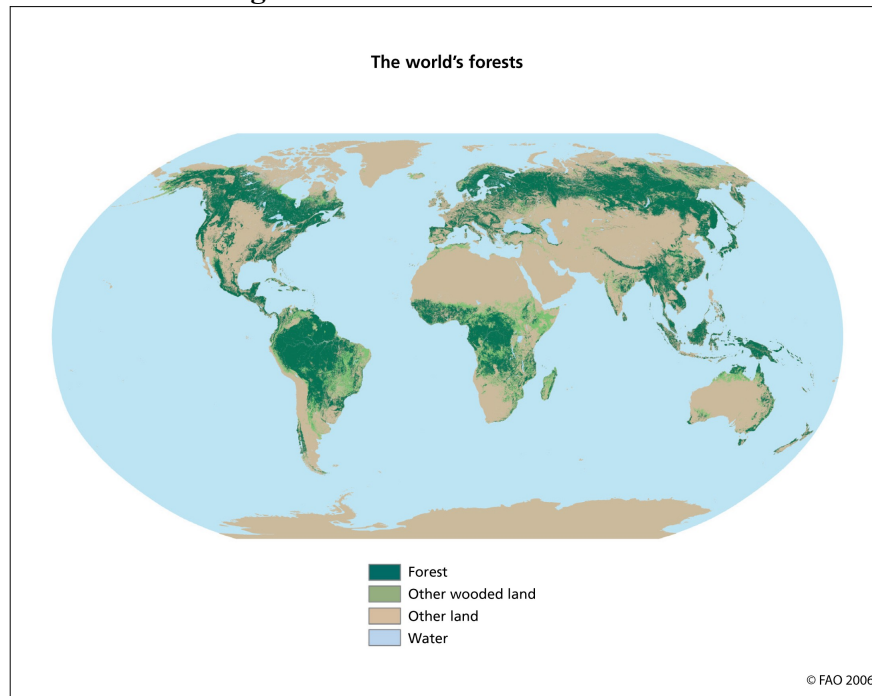
²⁶ John Berger, *Forests Forever: Their Ecology, Restoration, and Protection* 11 (2008).

²⁷ *Id.* at 12.

²⁸ *Id.*

²⁹ A study by anthropologist Stanley Ambrose indicates that the first bipedal hominids lived in wooded areas when they evolved to walk on two legs. ScienceDaily, *Early Hominid First Walked on Two Legs in the Woods* (Oct. 8, 2009), <http://www.sciencedaily.com/releases/2009/10/091008113341.htm#>.

Figure 1.2: The World's Forests³⁰



Forests of various types cover nearly one-third (30.3%) of terrestrial land-mass³¹ and provide habitat for two-thirds of all terrestrial species, but these numbers are diminishing.³² The most recent Global Forest Resources Assessment (GFRA 2005) published by the Food and Agriculture Organization of the United Nations (FAO) reveals that there is less than four billion hectares of forest on this Earth.³³ This means that we have more than decimated the planet's forests (removing one for every ten) and in fact, have nearly halved them in size.³⁴ Essentially, the human species is deforesting approximately 13 million hectares a year³⁵ (or an area the size of a U.S. professional football field

30 Food and Agriculture Organization of the United Nations [FAO], *Global Forest Resources Assessment: Progress Towards Sustainable Forest Management 2005*, at 15 (2006) [hereinafter 2005 Global Forest Resources Assessment], available at <http://www.fao.org/forestry/fra/fra2005/en/>.

31 *Id.* at 12.

32 FAO, *State of the World's Forests 2005*, at 77 (2006) [hereinafter 2005 State of the World's Forests], available at <http://www.fao.org/forestry/site/fra2005/en> (last visited Oct. 17, 2009).

33 *Id.* at 12, 115.

34 Dirk Bryant, Daniel Nielson & Laura Tangle, *The Last Frontier Forests: Ecosystems and Economies on the Edge 2* (World Resources Institute, 1997), available at <http://www.wri.org/publication/last-frontier-forests> (last visited Oct. 17 2009).

35 2005 Global Forest Resources Assessment, *supra* note 29, at 13.

every second) and there is little to indicate that this rate is slowing.³⁶ It might be slightly encouraging to know that some deforestation is offset in part through afforestation and restoration efforts, making net forest loss approximately 7.3 million hectares a year (more or less an area the size of Panama or Sierra Leone).³⁷

The loss of the primary forests that make up more than one-third of currently existing forests (36%) is significant (approximately 6 million hectares a year since 1990).³⁸ Primary forests are “forests of native species, in which there are no clearly visible indications of human activity and ecological processes are not significantly disturbed.”³⁹ The influence of indigenous peoples or small communities does not necessarily strip a forest of its *primary* or *old-growth* title, as their presence may be considered part of nature and their impact on forest ecosystems is diminutive.⁴⁰ It is important to highlight the loss of primary or old-growth forest loss within the greater context of decreasing forest coverage because of these forests' greater capacity to support biodiversity, human communities and to sequester carbon. However, the FAO's GFRA 2005 numbers do not account for the loss of primary forests or primary forest degradation. By nature of the definition of primary forests, at best, the loss of primary forests can only be replaced by secondary forest.

The term primary forest, as used by FAO, is generally synonymous with other commonly used terms, such as *ancient forest*, *old-growth forest*, *virgin forest*, *primeval forest*, *ancient woodland* and *frontier forest*. All of these words refer to the principal concept that such forests have been allowed to follow natural successions of growth and development with little to no interference by human beings. Some nuances in these terms can be identified. For example, *old-growth* forest has been defined by David Middleton as “a structurally complex forest, hundreds of years old, that has not been directly altered by humans.”⁴¹ The relevant term is “structurally complex,” which requires: (1) presence of multi-level forest canopy, (2) relatively large, old living trees (as determined by the location and species), (3) dead standing trees or snags, and (4) downed trees, and generally also exhibits a variety of tree sizes and age, as well as breaks in the canopy.⁴² It does not, however, necessitate that these forests have never been felled in the past and are thus the product of regeneration, or in other words very old *second-growth* forests.⁴³ In some places, where primary forest is nearly non-existent, old secondary-growths have in fact been called old-growth forests (e.g., parts of Eastern U.S.).⁴⁴ *Ancient forest*,

36 Greenpeace, *Illegal Logging*, 2008, <http://www.greenpeace.org/usa/campaigns/forests/forests-worldwide/illegal-logging?page=2#>.

37 FAO, *supra* note 29, at 13.

38 FAO, *supra* note 29, at 26.

39 *Id.*

40 John Berger, *supra* note 25, at 28 (2008); Dirk, Nielson & Tangley, *supra* note 33, at 14.

41 David Middleton, *Ancient Forests: A Celebration of North America's Old Growth Forests* (1992).; John Berger, *supra* note 25, at 27.

42 John Berger, *supra* note 25, at 28.

43 These are also referred to as “modified natural forests” - “forests of naturally regenerated native species in which there are clearly visible indications of human activity.”; FAO, *supra* note 29, at 13.

44 *Id.* at 29.

however, because of its explicit reference to a different time-scale (many hundreds or thousands of years old) is more interchangeable with the term *primary forest* (as is the case with *virgin forest*, *primeval forest* and *ancient woodland*). *Frontier forest* are also differentially defined, as “large intact natural forest ecosystems,” which “are – on the whole – relatively undisturbed and big enough to maintain all of their biodiversity, including viable populations of the wide-ranging species associated with each forest type.”⁴⁵ Size, in this case, is the potentially differentiating requisite factor. In my thesis, I will use the terms *primary forest* and *secondary forest* to differentiate between those which remain in their natural state and those which have been altered by humans.

Primary forests are critically important and their conservation should be prioritized. The key factors to derive from all of these loosely synonymous terms are: (1) these forests have been evolving and developing diverse characteristics in response to natural evolutionary processes that make them more adaptable to future environmental changes, (2) these forests represent ecosystems in their most mature and stable state, and (3) the lack of human interference allows ecosystem processes to function undamaged. Already, 76 countries have lost all of their frontier forests and most of what is left has been deemed threatened (where ongoing or planned human activities will eventually degrade the forest ecosystem).⁴⁶ In places where primary forest has been converted to second-growth forest, these areas should be protected and managed so as to foster the natural re-development of old-growth characteristics.⁴⁷ This will strengthen forest resilience and thereby increase the viability of all of its dependent life forms. It also promotes the return or preservation of frontier forests, which are required to support a broad array of biological and genetic diversity. The benefits of doing so are multiple.

Value of forests

The resources and ecosystem services that forests provide help to sustain all life on Earth. We use forests for raw materials to make a multitude of timber and non-timber products. Some forest components enter world markets directly as finished products. All of these forest products form part of the natural resource base that drives globalization, trade and economic development. Forests also provide numerous other services that we have only recently begun to attempt to quantify in economic terms. These ecosystem services range from oxygen production, carbon sequestration, protection of water purity and quantity to the feeding of aquatic food webs. Additionally, forests also influence weather and local and global climates; a function which is being increasingly noticed as the human species confronts global climate change. Another service provided by forests is their capacity to promote biological diversity. Efforts to put a monetary value on ecosystem services provided by forests is complex and difficult. Nevertheless, we must recognize that all of these functions are important and play a critical role in supporting the quality of life on Earth.

There is also always the elusively non-quantifiable intrinsic value of forests. Although this is

⁴⁵ Bryant, Nielson & Tangley, *supra* note 33, at 12.

⁴⁶ *Id.* at 12, 19.

⁴⁷ *See id.* at 19.

said to be subjective (beauty is in the eye of the beholder), there is something about the presence of forests and wooded areas that humans seem to appreciate. For example, the fact that property prices, all other things being equal, are higher in places near woodland or forest than in areas not in proximity to forests, is indicative of our acknowledgment of this value.⁴⁸ In a way, it may even be indicative of an economically quantifiable value of human appreciation for the presence of forest based on the difference in property values. However, there are those who believe that the worst thing you can do to the environment is put a dollar value to it. Much of the discussion below will show that despite attempts to put tangible figures to the value of the forests, there is much that cannot be quantified. It can only be noted that forests are intrinsically invaluable.

Direct economic value (timber, non-timber forest products)

Human uses of natural forests (as opposed to managed forests, such as monoculture forest plantations of introduced species whose sole purpose is timber production) are wide-ranging and evidenced in our daily lives. They can be distinguished between timber forest products and non-timber forest products. Other non-timber goods and services that can be derived from forests are genetic information or recreation and passive uses. The amount of monetary value that humans have been extracting from forests and forest products is phenomenal. World trade in timber products alone is calculated to be approximately \$120 billion USD per year.⁴⁹ Timber products are essentially those derived from tree harvesting. With woods extracted from forests we produce paper, furniture, mulch, musical instruments, charcoal, firewood, tea, etc. Estimates of the dollar-value of non-timber forest services has ranged from just a few dollars to nearly \$800 per hectare.⁵⁰ Non-timber forest products are extractive products that come from sources other than wood. These include the taking of wildlife or tree products, such as honey, seeds, berries, latex and gum.⁵¹ From these other forest resources we create “adhesives, waxes, turpentine, polymers, gunpowder, medicinal herbs, perfumes, sachets” and more. The pharmaceutical and health industry has been extremely lucrative in extracting economic benefit from biological and genetic resources found only in forests. It is also known that some 1.75 million different organisms live in forests and it is believed that there are many more yet to be

48 Secretariat of the Convention on Biological Diversity [CBD Secretariat], Technical Series No. 4, *The Value of Forest Ecosystems* 10 (2001).

49 *Id.* at 11.

50 Unfortunately, there are many reasons for the wide-ranging valuation of non-timber economic value for forests, making even these figures largely contestable. Studies reviewed by the Secretariat of the Convention on Biological Diversity attempted to find consensus on such a value, but ultimately determined that many of these studies were based on inconsistent definitions of non-timber forest products (the list of ecosystem services evaluated vary greatly) and what was being measured (e.g., potential goods, geographic range of study, etc.). *Id.* at 12-16; See also A. Chiabai, C.M. Travisi, H. Ding, A. Markandya & P.A.L.D. Nunes, *Economic Valuation of Forest Ecosystem Services: Methodology and Monetary Estimates* 3 (Fondazione Eni Enrico Mattei 2009) (regarding lack of consistent and comprehensive methodologies of evaluating of forest ecosystem services).

51 CBD Secretariat, *supra* note 47, at 12.

discovered.⁵² Recreation or passive uses of forests also form a multi-billion dollar global industry. In some parts of the world, it is the main driver of national economies and development (e.g., Costa Rica).

Indirect economic value (ecosystem services)

Ecosystem services are the processes and functions that natural forests perform and from which we benefit. Forest ecosystem services include regulation of local and global climate, enhancement of soil retention and quality, protection of watersheds, regulation of the hydrological cycle and water quality, amelioration of water and weather events, facilitation of pollination, storage of genetic information and provision of aesthetic landscapes and habitat for biological diversity.⁵³ A calculation of global ecosystem services in the year 2000 alone by Boumans et al., utilizing a methodology called GUMBO, resulted in an estimate of the value to be around 4.5 times the value of Gross World Product, or \$180 trillion USD.⁵⁴ Some say that we are mostly benefiting from this for free,⁵⁵ but that claim fails to notice that not all payments are made in the form of money. When forest ecosystems lose their functionality, we pay through losses in our quality of life, health and the resource base which sustains our development. Here, discussion of two examples – biodiversity and carbon-sequestration – are further elaborated.

The value of forests includes the value of all of the biological diversity present within the forest system. An important difference must be noted here regarding biodiversity, which we are speaking about now, and biological resources, which we mentioned earlier in the context of non-timber forest products. Biological diversity is all of the biological resources (the existing species), the roles they perform and the genetic resources which they contain.⁵⁶ It is essential for the continued adaptation of species to environmental change, their reproduction and evolution, as well as the ecosystem functions that they provide. The Secretariat of the Convention on Biological Diversity (CBD Secretariat) has highlighted and referred to this distinction as the “value of *information* and *insurance*.”⁵⁷ The *information* is all of the evolutionary and genetic information that existing biological resources contain and the *insurance* is the diversity of characteristics in this information (as the result of masterful evolution and co-evolution) that makes them resilient to natural changes (not including human intervention).⁵⁸ The strength of forest biological diversity helps to ensure that humans will continue to benefit from forest goods and services for generations to come.

52 *Id.* at 1.; D. Hawksworth & M. Kalin-Arroyo, *Magnitude and Distribution of Biodiversity* 107-192 (V. Heywood ed., Cambridge University Press, 1995); N. Stork, *The Magnitude of Global Biodiversity and Its Decline*, in *The Living Planet in Crisis: Biodiversity Science and Policy* 3-32 (J. Cracraft & F. Grifo eds., Columbia University Press, 1999).

53 Chiabai et al., *supra* note 49, at 4; CBD Secretariat, *supra* note 47, at 11.

54 Roelof Boumans et al., *Modeling the Dynamics of the Integrated Earth System and the Value of Global Ecosystem Services Using the GUMBO Model*, 41 *Ecological Economics* 529, 556 (2002).

55 E.g., Geoffrey Heal, *Valuing Ecosystem Services*, 3 *Ecosystems* 24 (2000).

56 2005 Global Forest Resources Assessment, *supra* note 29, at 37.

57 CBD Secretariat, *supra* note 47, at 16.

58 *Id.*

In a world of climate change, one of the most important ecosystem services of forests is its ability to sequester carbon. FAO estimates that the world's forests are a carbon sink for approximately 283 gigatonnes (Gt) of carbon in the form of biomass.⁵⁹ The amount of carbon stored in forest biomass, soil, litter and dead wood overall (638 Gt in 2005)⁶⁰ is more than the amount of carbon in the atmosphere (379 Gt in 2005).⁶¹ However, deforestation and forest loss drastically diminish the amount of forest biomass, causing a loss of carbon sequestration capacity of around 1.1 Gt per year.⁶² It is a motivating factor behind the development of a mechanism for “reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries,” or the infamous REDD-plus.⁶³ If a successful mechanism manages to emerge from the contentious debates of the global climate change negotiations, the trend of greenhouse gas emissions may be mitigated in part through the protection of carbon-sequestering forests. With business as usual driving global greenhouse gas emissions, including carbon dioxide, above levels which scientists consider to be “safe” (350ppm), the ability of forests to mitigate such emissions is critical.⁶⁴

Holistic forest protection

The natural resources, ecosystem services and intrinsic value that forest provide are best protected holistically. The various valuations of forest benefits to human beings above illustrate the fragmented and disjunct ways in which human beings deal with forest issues. Forests are commodified and different uses are given different values, thus prioritizing some benefits over others. However, a forest can only offer the totality of goods and services that it provides in its entirety, as the holistic complex system that Berger and Middleton described.

Large-scale conservation of forests in tracts large enough to ensure their viability and the viability of their dependent species is critical. Fragmentation of forests diminishes their capacity to sustain wildlife and their resilience to environmental changes.⁶⁵ This may become increasingly relevant as species are compelled to move to new and more hospitable habitats as theirs are altered by the

59 2005 Global Forest Resources Assessment, *supra* note 29, at 14.

60 *Id.*

61 Bangkok Metropolitan Administration [BMA], Green Leaf Foundation [GLF] & United Nations Environment Programme [UNEP], *Bangkok Assessment Report on Climate Change 2009*, at 36 (BMA, GLF & UNEP, 2009).

62 *Id.*

63 Conference of the Parties to the United Nations Framework Convention on Climate Change [UNFCCC COP-13], Dec. 3-15, 2007, *Report of the Conference of the Parties on its Thirteenth Session, Held in Bali from 3 to 15 December 2007 Addendum Part Two: Action Taken by the Conference of the Parties at its Thirteenth Session* [hereinafter Bali Action Plan], 10, FCCC/CP/2007/6/Add.1 (Mar. 14, 2008).

64 James Hansen et al., *Target Atmospheric CO₂: Where Should Humanity Aim?*, 2 *Open Atmos. Sci. J.* 217 (2008), available at <http://arxiv.org/abs/0804.1126> (last visited Oct. 20, 2009).

65 Larry Harris, *The Fragmented Forest: Island Biogeography Theory and the Preservation of Biotic Diversity* 72-84 (The University of Chicago Press, 1984); Wilson & Willis (1975).

impacts of climate change.⁶⁶ If habitats are discontinuous, sparse and degraded, species may not be able to make the necessary migrations or transitions to adapt to climate change. This is why eight Central American nations are collaborating to create and implement the Mesoamerican Biological Corridor, a network of protected areas and buffer zones, to prevent loss of biological diversity and ecosystems and to fortify resilience to environmental changes.⁶⁷ Large-scale landscape conservation through biological corridors is needed for protection of forests at scale that will ensure sustainability of forest goods and services for generations to come and resilience to climate change.⁶⁸

Mountains and Forests

Mountains are a lesser understood ecoregion of the world. Nevertheless, there are some organizations and institutions involved in mountain research, protection and governance. Some of these organizations are similarly involved in forest issues, but few seem to address these two in an integrated manner, despite the fact that these two ecoregions often overlap. From the Box below, it can be noted that there are significantly fewer organizations involved in mountain issues and it is extremely rare that an entirely separate government entity is created explicitly for mountain protection, regulation or development.

Box 1.2 Mountain Oversight: Who Monitors the World's Mountains?

Below is a selective summary of the main organizations and institutions involved in the monitoring and governance of the world's mountains.

<u>Organization</u>	<u>What they do</u>	<u>Website</u>
International Institutions		
FAO	Supporting sustainable development of mountain people and mountain environments through field programs, normative work and direct country support	http://www.fao.org/mnts
UNEP-WCMC	Monitoring and information reporting on scientific, ecological and social aspects of mountains	http://www.unep-wcmc.org/habitats/mountains/

66 UNEP Ad Hoc Technical Expert Group on Biodiversity and Climate Change of the Convention on Biological Diversity, *Interlinkages Between Biological Diversity and Climate Change and Advice on the Integration of Biodiversity Considerations Into the Implementation of the United Nations Framework Convention on Climate Change and its Kyoto Protocol*, UNEP/CBD/SBSTTA/9/11 (Nov. 10, 2003).

67 Comisión Nacional para el Conocimiento y Uso de la Biodiversidad [CONABIO], *Manual Operativo: Corredor Biológico Mesoamericano* 4 (2006).

68 Comisión Centroamericana de Ambiente y Desarrollo [CCAD], *Mesoamerican Biological Corridor: A Platform for Sustainable Development* 13-14 (2002).

Bishkek Global Mountain Summit	Summit held in Kyrgyzstan in 2002 to discuss issues relating to improving the lives of mountain people and safeguarding mountain ecosystems and watersheds	http://www.globalmountainsummit.org/
UNESCO	Sustainable mountain resources management through research, conservation and information sharing Monitoring of global change in mountain biospheres	http://portal.unesco.org/science/en/ev.php-URL_ID=6804&URL_DO=DO_TOPIC&URL_SECTION=201.html
IUCN-World Commission on Protected Areas (WCPA)	Develops workshops and best practices regarding connectivity and transboundary conservation, as well as sustainable development of mountain biomes Commission on Mountain Ecosystems	http://protectmountains.org/ http://www.mountains-wcpa.org/index.htm http://www.iucn.org/about/union/commissions/cem/cem_work/tg_me/
Secretariat of the Convention on Biological Diversity (CBD)	Global Mountain Biodiversity Assessment (GMBA)	http://gmba.unibas.ch/
Regional Institutions		
Commission Internationale pour la Protection des Alpes (CIPRA)	Support sustainable development in the Alps	http://www.cipra.org/en
International Centre for Integrated Mountain Development (ICIMOD)	Regional knowledge development and learning center serving eight regional member States of the Hindu Kush-Himalayas (Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan)	http://www.icimod.org/
Consortium for the Sustainable Development of the Andean Ecoregion (CONDESAN)	Sustainable development in the Andean ecoregion	http://condesan.org/
National Institutions		
The Banff Centre	North American hub of the Mountain Partnership and organizer of mountain culture and environment programs in Canada	http://www.banffcentre.ca/mountainculture/
Research Institutions		
Mountain Forum	Network supporting information-sharing, capacity-building, mutual support and advocacy for sustainable	http://www.mtnforum.org/

	mountain development	
Mountain Partnership	Member network that provides an information clearing house and facilitates joint initiatives based on recommendations derived from the 2002 World Summit for Sustainable Development	http://www.mountainpartnership.org/
Center for Development and Environment (CDE)	Mountain Agenda focuses on institutional collaboration and networking to foster research, development partnerships and policy support in mountain areas Publishes <i>Mountain Research and Development</i> journal	http://www.cde.unibe.ch/Research/MA_Re.asp
Mountain Research and Development	Promotes research on and sustainable development approaches to mountain ecoregions and their surrounding lowlands	http://www.mrd-journal.org/
<u>Universität für Bodenkultur Wien (BOKU) Mountain Forestry Program</u>	Promotes sustainable, science-based management of forests and woodlands in mountain areas, while considering specific ecological, ethical, technical, social, economical and political conditions of complex mountain systems	http://www.boku.ac.at/mf.html
Perth College Centre for Mountain Studies	Research with a focus on mountain environments and the people who depend on them Facilitates Royal Geographical Society's Mountain Research Group	http://www.perth.ac.uk/specialistcentres/cms/Pages/default.aspx http://www.rgs.org
Chengdu Institute of Mountain Hazards and Environment, Chinese Academy of Sciences (CAS) and the United Nations University (UNU)	Publishes <i>Journal of Mountain Science</i>	http://jms.imde.ac.cn
Institut de la Montagne de l'Université de Savoie	Interdisciplinary mountain research to raise public awareness and inform public policies Development of a Center of Mountain Resources	http://www.institut-montagne.org/
Non-governmental Organisations (NGOs)		
Mountain Institute	Support economic development and	http://www.mountain.org/

	traditional cultures of mountain peoples	
Royal Society for the Protection of Birds (RSPB)	Protection of upland nature reserves Monitoring bird ecology in uplands	http://www.rspb.org.uk/ourwork/conservation/projects/uplands/index.asp

Despite the lack of attention to highland areas, mountains are a critically important ecoregion. These geological formations are primarily defined according to (1) their elevation, which depending on their latitude is at least 300-1000 meters above sea-level,⁶⁹ and (2) steepness of slope, generally at least 2° over 25 km.⁷⁰ They can also be categorized according to their volume, (relative) relief, spacing and continuity.⁷¹ Mountains can be singular isolated features or one of a series of features in a mountain range (a single ridge), a mountain chain (major linear features that continue for hundreds to thousands of miles), a mountain mass (a group of irregularly shaped mountains exhibiting no linear trend) or a mountain system (complex continent-spanning features that often consist of a combination of the aforementioned mountain groupings).⁷² Altogether, mountains cover one-fifth of the world's terrestrial surfaces (at least 30 million km²).⁷³

Figure 1.3: Mountains of the World⁷⁴

69 The UNEP World Conservation Monitoring Centre [UNEP WCMC] follows a lower limit of 300 meters, while a lower limit of 1,000 meters has been used for tropical regions near the equator. V. Kapos, J. Rhind, M. Edwards, M.F. Price & C. Ravilious, *Developing a Map of the World's Mountain Forests*, in *Forests in Sustainable mountain Development: A State-of-Knowledge Report for 2000*, at 4-9 (Martin Price & Nathalie Butt eds., CABI, 2000).

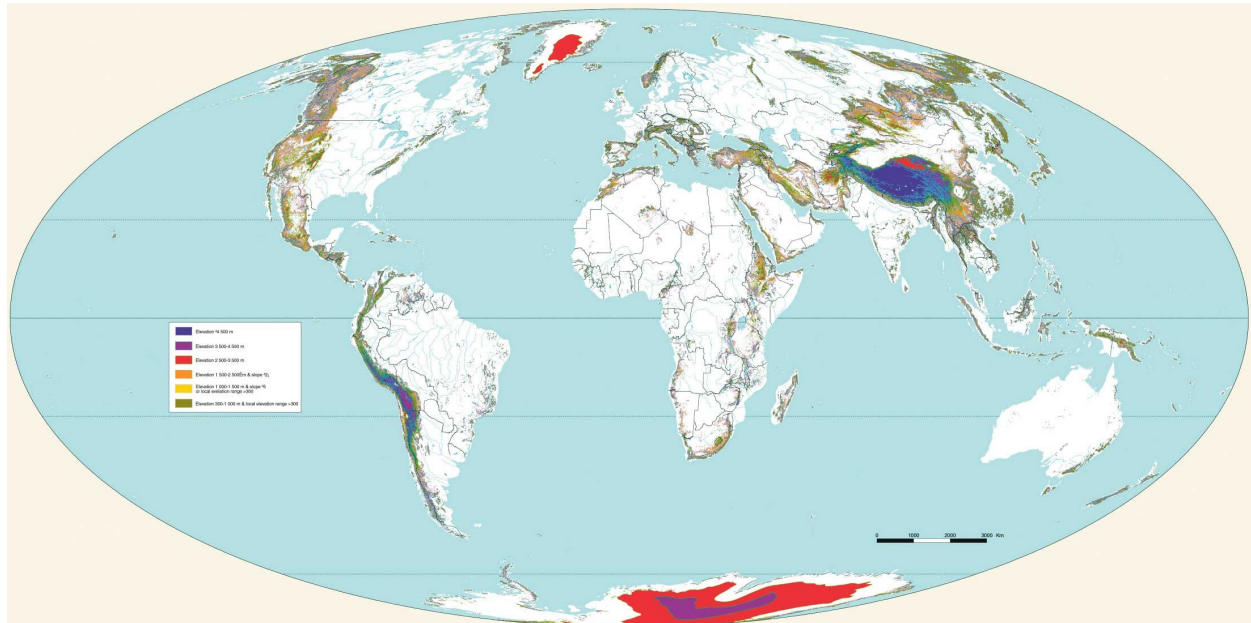
70 C. Korner & M. Ohsawa et al., *Mountain Systems*, in *Ecosystems and Human Well-Being: Current State and Trends* 681, 683 (R. Hassan, R. Scholes & N. Ash eds., Island Press, 2005).

71 John Gerrard, *Mountain Environments: An Examination of the Physical Geography of Mountains* 3 (1990).

72 *Id.* at 6-7.

73 Denniston, *supra* note 23, at 5, 7.

74 Martin F. Price & Bruno Messerli, *Fostering Sustainable Mountain Development: From Rio to the International Year of Mountains, and Beyond*, 53 *Unasylva* 6, 10-11 (2002).



The characteristics which define mountains also define their ecosystems and their extreme vulnerability to environmental change. As Derek Denniston notes in a Worldwatch Institute Report on mountain ecosystems and cultures, “one of the most defining characteristics of mountains is that the rise in elevation is sufficient to produce 'altitudinal zonation' – elevation belts (or zones) of climates, soils and vegetation.”⁷⁵ The microclimates that exist in mountain systems stretch across the gambit, exhibiting dramatic climactic shifts in relatively short distances. It is reported that for a mere 100m change in elevation, the climactic variation can be equated to that which you might observe in a 100km change in latitude.⁷⁶ These extreme microclimates also host a wide variety of microhabitats that support endemic species, many of which are threatened with extinction.⁷⁷ Many endemic mountain species have evolved to exist in a very specific location with a very specific climate; even the slightest change can be disastrous to their viability.⁷⁸ The vertical nature of mountains provides for broad biological diversity, but it also inhibits the recovery of degraded ecosystems. High altitudes and colder climates slow ecosystem growth, while drastic gradients in mountain terrain and/or climates make it difficult or impossible for species to move in order to adapt to environmental change.⁷⁹

Forests are a prime example of a complex ecoregion that is sensitive to environmental changes

⁷⁵ Denniston, *supra* note 23, at 12.; David Smethurst, *supra* note 23, at 39.

⁷⁶ Denniston, *supra* note 23, at 13.

⁷⁷ *Id.* at 15.

⁷⁸ *Id.* at 42-44.

⁷⁹ *Id.*

in mountain systems. A global mapping study by Kapos et al., based on GIS overlays of mountain data and forest data, revealed that nearly 9.1 million km² or 28% of the world's forest cover is found on mountains.⁸⁰

Box 1.3 Areas of different forest types occurring in each mountain class (Km2)⁸¹

	Class 6 ≥ 4500m	Class 5 3500- 4500m	Class 4 2500-3500m	Class 3 1500-2500m & slope ≥ 2°	Class 2 1000-1500m & slope ≥ 5° or local elevation range >300	Class 1 300-1000m & local elevation range >300	TOTAL
Tropical (& subtropical) moist forests	19,359	83,597	139,607	399,656	482,061	1,197,610	2,321,890
Tropical (& subtropical) dry forests	183	15,054	35,293	50,565	107,267	343,390	551,752
Temperate and boreal deciduous needleleaf forests			151,809	547,984	788,684	1,377,105	2,890,544
Temperate and boreal evergreen needleleaf forests	2,008	22,954	1,241	76,209	313,908	985,600	1,376,958
Temperate and boreal deciduous broadleaf and mixed forests	1,713	19,832	122,858	476,865	441,055	1,275,723	2,338,046
TOTAL	23,263	141,437	450,808	1,551,279	2,132,975	5,179,428	9,479,190

80 *Id.* at 8.; The UN FAO reports slightly lower numbers of just below 8.2 million km² or 24.7% of the world's forest cover found on mountains, *See* Korner & Ohsawa, *supra* note 69, at 687, *citing* 2005 State of the World's Forests, *supra* note 30.; UNEP WCMC has placed this number at 23%, *See* UNEP World Conservation Monitoring Centre [WCMC], *Mountain Watch* 25 (2002).

81 UNEP WCMC, *Mountains and Mountain Forests: Global Statistical Summary* (2009), <http://www.unep-wcmc.org/habitats/mountains/statistics.htm>.

Of these identified mountain forests, more than 4 million km² are coniferous needle-leaved forest and approximately 2 million km² are moist tropical forests.⁸² Although there is only half as much tropical mountain forest, they are representative conservation hotspots. Tropical forests face higher instances of deforestation and exhibit higher instances of biological diversity. The much threatened tropical montane cloud forests are exemplary of the rarity and vulnerability of tropical montane forests.⁸³

When faced with human pressures at the base of and around mountain areas, forests as with other biota, may experience “ecological squeeze” as they are pushed further into and up mountains. However, trees only grow on mountains in the montane belt, defined as the “lower mountain limit to the upper thermal limit of forest.”⁸⁴ The upper-limit, commonly known as the timberline, can occur at 500 meters on mountains at higher latitudes, or be as high as 5000 meters on mountains closer to the equator.⁸⁵ Even slight environmental changes, such as a 2°C rise in annual mean temperature could turn a montane forest ecosystem into desert.⁸⁶ Mountains and their forests often serve as a refuge for species threatened by human communities and development, making the preservation of these sanctuaries particularly relevant in a climate change world.

Mountain forests are the natural stewards of mountain watersheds and home of many threatened endemic species. In Eastern Malaysia, the montane forests of Mount Kinabalu house at least 1,000 species of orchids and 600 species of fern; not to mention, two-thirds of the island's endemic mammals are found in these mountain forests.⁸⁷ The hydrological resources that flow through mountain forest ecoregions is important to the survival of these species and to the forest habitat themselves. The loss of forest cover on mountains inhibits it from providing one of its most critical environmental services – the supply and storage of water.⁸⁸ Tropical montane cloud forests, for example, depend on water extracted from clouds and fog, which they then feed into tributaries and streams. Tropical montane cloud forests can harvest an additional 15-20% of ordinary rainfall (sometimes as much as even 50-60% depending on exposure) because of their high altitude, which puts them in direct contact with clouds and fog.⁸⁹ Anthropogenic climate change is now shifting cloud patterns and causing tropical montane forests to lose moisture. In Costa Rica, the after-effect to the Monteverde Cloud Forest Reserve has been the disappearance of at least 20 different species of frogs and toads.⁹⁰ Deforestation

82 *Id.*

83 International Union for the Conservation of Nature [IUCN] & World Wildlife Fund [WWF], *Tropical Montane Cloud Forests: Time for Action* (2000).

84 Korner & Ohsawa, *supra* note 69, at 684.

85 Kapos et al., *supra* note 68, at 5.

86 E.g. Denniston, *supra* note 23, at 43 (a 2°C increase in annual average temperature “would cause most of the [Tibetan Plateau's] current ecosystems to disappear and, in the central and northern sections, to be replaced with desert”).

87 *Id.* at 10.

88 M.F. Price & B. Messerli, *Fostering Sustainable Mountain Development: From Rio to the International Year of Mountains, and Beyond*, 53 *Unasylva* 6, 12 (2002).

89 IUCN & WWF, *supra* note 82, at 8.

90 *Id.* at 12.

can create a similar effect in altering cloud formations, plus it diminishes the number of trees available to capture the moisture that is left in the atmosphere.⁹¹ Environmental change or degradation to mountain forests threatens the mountains and forests themselves, as well as the life that depends on them for survival.

Mountain Forest Dependent Peoples

There is currently little examination of who mountain dependent peoples might be, where they live and the nature of their dependency. If studies of forest dependent peoples seem few and inconsistent, studies of mountain peoples are even more illusory. There doesn't seem to be a parallel definition of mountain dependent peoples, as compared to forest dependent peoples. The term, "mountain people," seems to refer to inhabitants of mountain ecoregions, which fails to consider levels of dependency upon mountain resources. Even the 2003 Quito Declaration Charter for World Mountain People does not define who "we," the mountain people are.⁹² The International Year of Mountains 2002 championed an all-inclusive approach, touting the motto, "We are all mountain peoples," in hopes of raising awareness and political support for mountain issues. Although the statement is true in many senses, it does not help the global community identify mountain forest dependent peoples, understand their issues, or more coherently address the vulnerabilities and challenges they face in protecting their environment, livelihoods and cultures. Needless to say, there is not any more consensus on what a definition of mountain dependent peoples might look like, and how one might go about quantifying such peoples, than there is with forest dependent peoples.

Mountain forest peoples are the communities who live directly in mountain forests and depend very much upon mountain forest resources for subsistence, livelihood and development (social, economic and cultural). Unfortunately, there is little information on mountain forest peoples specifically; rather, studies have tended to segregate the two classifications – forest peoples and mountain peoples. There are various categories into which people might be classified as "forest dependent peoples," but the one of most interest to us here refers to the people (i.e., farmers, artisans, traders and landless peasants) living in or near forests who obtain most of their livelihood from the forest.⁹³ This is because the nature of their dependency on forests, for the reasons stated above, is much stronger and more direct than say, urban dwellers with non-forest dependent livelihoods.⁹⁴ In extending that definition, "mountain dependent peoples" can thereby be understood as people who live in or near mountains who obtain most of their livelihood from the mountain. Similarly, "mountain forest dependent peoples" can be defined as those people who live in or near mountain forests and who obtain most of their livelihood from the mountain forest.

91 *Id.* at 13.

92 Quito Declaration Charter for World Mountain People (Association des Populations des Montagnes du Monde, Sept. 4, 2003), available at <http://www.mountainpeople.org/en/histoire/charte.php> (last visited Nov. 4, 2009).

93 Calibre Consultanats, *Numbers of Forest Dependent People: A Feasibility Study* 25, 39 (2000)

94 *See also id.*

There is a great need for definitive anthropological or socio-economic/socio-ecological assessments of mountain forest dependent peoples.⁹⁵ It is indeterminate how many forest dependent peoples are also mountain peoples (or vice versa) and to what extent they depend upon mountain forests specifically. A study estimates that there are at least 12 million indigenous forest peoples composed of around 1,400 different ethnic groups, but this is based on a limited study area meaning that the global figure is much larger.⁹⁶ A UN FAO study of mountain populations based on year 2000 data asserted that there are some 720 million people (12% of the world population) living in mountain areas, with 90% of them living in developing or transition nations.⁹⁷ They consider 245 million of these to be vulnerable rural mountain people – those who live in rural mountain areas of developing or transition States where cereal production is less than 200 kg per person and the bovine density index is low to medium (in other words, rural mountain people vulnerable to food insecurity).⁹⁸ Unfortunately, this definition of “vulnerable rural mountain people” does not coincide with the number of mountain forest dependent people, which would help us in characterizing the relationship between mountain forests and human communities. When mountain forest dependent peoples cannot be described with some clarity or completeness, it is no wonder that mountain forest and mountain forest community issues are slipping under the radar.

The FAO uses the same mountain classifications (Class 1 through 6) defined by the United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC), which are distinguished primarily according to elevation and slope.⁹⁹ Based on census data from the year 2000, the FAO undertook a GIS assessment of where mountain populations live and published its figures in a working paper entitled, “Towards a GIS-Based Analysis of Mountain Environments and Populations.” In its study, the FAO identified primary land uses of mountain areas according to the six classes and population figures in rural mountain areas of developing and transition countries.¹⁰⁰ Using selected information from the table “Rural mountain population in developing and transition countries, by land use category and mountain area class,” it is possible to extract numerical figures for the number of rural mountain people in developing and transition countries according to forest related land use categories and mountain area class. Forest related land use categories are land use categories listed in the FAO data table that include some form of forest use. A listing and summation of the population figures from those selected forest categories arranged by mountain class results in the following table:

**Table 1.1: Rural Mountain Population in Developing and Transition Countries
by Land Use Category and Mountain Area Class**

95 H. Kreutzmann & C. Stadel, *Mountain Peoples*, in *Forests in Sustainable Mountain Development: A State of Knowledge Report for 2000*, at 85, 88-89 (Martin F. Price & Nathalie Butt eds., CABI, 2000).

96 Calibre Consultants, *supra* note 92, at 21.

97 Barbara Huddleston, Ergin Ataman & Luca Fe d'Ostiani, *Towards a GIS-Based Analysis of Mountain Environments and Populations* 4 (FAO, Working Paper No. 10, 2003).

98 *Id.* at 22.

99 *Id.* at 2.

100 *Id.* at 11 tbl. 6.c.

<u>Mountain area class</u>	<u>Grazing land with some cropland, closed forest and barren land</u>	<u>Mainly closed forest</u>	<u>Mixed use: closed forest, grazing land and cropland</u>	<u>Total</u>
Number of People (in thousands)				
Class 6 (above 4,500m)	1,387	0	0	1,387
Class 5 (3,500-4,000m)	6,683	40	40	6,763
Class 4 (2,500-3,500m)	21,521	1,672	1,264	24,457
Class 3 (1,500-2,500m)	67,491	8,489	9,013	84,993
Class 2 (1,000-1,500m)	49,563	10,599	10,894	71,056
Class 1 (300-1,000m)	106,691	29,449	21,001	157,141
Total Population	253,336	50,249	42,212	345,797
Percent (%)				
Population by land use category as share of total	52	10	9	7

The table above indicates that there are potentially at least 346 million rural mountain people in developing and transition States occupying mountain forest lands. Please note, however, that this figure does not purport to be definitive as the author is well aware of its deficiencies and understands that this determination is neither comprehensive nor recent (census as well as forest data is derived from the Global Forest Resources Assessment 2000 and global censuses from 2000). For example, the table above does not account for the land use category “Protected Area” as used by the FAO in its assessment, primarily because there is no assertion made by the FAO that the protected areas it includes in its GIS study have forest coverage or the amount of forest coverage. A protected area may have been set aside for many other reasons (landscape preservation, watershed conservation, etc.) unrelated to whether or not there is forest cover. Nevertheless, it is likely that populated forest areas do exist within that category making the figure of 346 million an underestimate. In providing for a protected area category, however, the FAO also fails to mention how much of the protected areas are multiple use protected areas (IUCN Category 6) with forests within which human activities are allowed. Also, in

identifying closed forest¹⁰¹ as the relevant forest related land use category for the author's figure, there are definitional issues as to what a closed forest land use is (for example, whether it is productive or unproductive).¹⁰² It also excludes populations in areas of open forest and land uses within those open forests.¹⁰³ In its assessment, the FAO accounts for all rural land areas through the five categories, which are designed primarily to understand agricultural land uses and the issue of food security in mountain areas, not to evaluate forest dependency of mountain peoples. Unfortunately, this limits the utility of the figures derived in the table above, so that they may merely serve as a possible indicator that there is a significant number of humans in developing and transition countries who are dependent on mountain forests. However, this shortcoming is indicative of the gaping lack of information on mountain forest communities and their relationship to these vulnerable ecoregions and presents an opportunity for further study.

Mountain forest dependent communities are physically isolated from the rest of their countryside and all too often politically marginalized and economically disenfranchised.¹⁰⁴ Mountain forest communities tend to be composed of ethnic minorities that are “poorly represented in the centres of political or commercial power where much of their fate is determined.”¹⁰⁵ They represent a broad a range of cultural diversity with distinct identities and evolved systems of “traditional ecological knowledge.”¹⁰⁶ Of course, not all mountain people are the same, but most mountain peoples do share one thing in common – poverty.¹⁰⁷ To make matters worse, their resources and lands are often exploited by outsiders who do not share the same traditions or respect for customary land rights (typically, communal) and return little economic benefit back to the local communities.¹⁰⁸ Even development presumed to bring positive benefits to a local community, such as road construction, can have negative impacts on mountain communities.¹⁰⁹ Roads fragment forest ecosystems and facilitate deforestation and other overexploitation of natural resources that degrade natural environments.¹¹⁰ They also bring in new populations that exert additional pressures on natural resources and augment

101The FAO defines closed forest as “Land covered by trees with a canopy cover of more than 40 percent and height exceeding 5 m. Includes natural forests and forest plantations.” UN FAO, *Global Forest Resources Assessment 2000*, at 324 (FAO, Forestry Paper 140, 2001).

102Unproductive forest is that which is physically or legally unavailable for wood production and it includes forest which has been set aside as a protected area. *Id.* at 52.

103The FAO defines open forest as “Land covered by trees with a canopy cover between 10 and 40 percent and height exceeding 5 m. ... Includes natural forests and forest plantations.” *Id.*; See Huddleston, Ataman & Fe d'Ostiani, *supra* note 96, at 10-12, 25.

104Douglas McGuire, *Poverty in Mountain Areas*, in *Conservation and Sustainable Development in Mountain Areas* (Martin F. Price ed., IUCN, 2004).

105Derek Denniston, *People and Mountains 2* (1996), in *People and the Planet: People and Mountains, Pinnacles of Diversity*, 5 *People and the Planet* np.

106UNEP WCMC, *supra* note 79, at 20.

107Derek Denniston, *supra* note 104, at 3.

108*Id.*

109See UNEP WCMC, *supra* note 79, at 52.; See also Derek Denniston, *supra* note 104, at 3.

110Derek Denniston, *supra* note 104, at 4.

problems of pollution or social conflict. For example, effects of mountain forest degradation resulting from unsustainable development, such as diminished hydrological services, are causing tensions between upstream and downstream users over access to water resources.¹¹¹ This type of unsustainable development and conflict can be perceived as collateral to the centralized governance of mountain forest ecoregions, dominated by lowland interests.

Marginalized poor communities living in mountain forests are dependent upon the natural resources and services which these ecoregions provide. Many mountain communities have historically sustained themselves through subsistence agriculture, a land use which is not the most efficient for sloped terrain with poor soil quality and shallow top soil.¹¹² The FAO's denomination of such a large portion of mountain peoples as "vulnerable" to hunger supports the fact that mountain ecoregions are generally not prime for agriculture. Other traditional livelihoods common to mountains areas are pastoralism and uses of forest resources (e.g., timber and fuel).¹¹³ However, this does not mean that the only means of livelihood are cutting trees and clearing land. Non-timber forest products (NTFPs) are extremely important for local communities.¹¹⁴ This is perhaps even more true for the rural poor of the world's mountain forests. A study by Kant et al., indicates that "the value of NTFPs is inversely correlated with GNP, suggesting that NTFPs are...an 'inferior' product" (a product whereby the demand goes down as income rises).¹¹⁵ In other words, the value of non-timber forest products is most important for the poorest communities. Poverty makes the link to forest dependency stronger. Today, mountain livelihoods can be derived from other forms of extraction (i.e., mining), as well as tourism and recreation.¹¹⁶ In the near future, these communities may be able to benefit from payments for environmental services, particularly for watershed and forest conservation.

The possible 346 million people who live in mountain forests are not the only ones who are dependent upon or benefit from these vulnerable ecoregions. One-fifth of the world's human population (some 1.2 billion people) live on or at the base of mountains.¹¹⁷ In addition, some two billion people depend on mountains for food, hydroelectricity, wood and minerals, while half the world depends on mountain watersheds for their hydrological resources.¹¹⁸ When we consider how much of the world's population benefits from forest goods and services, it could reasonably be said that, "We are all mountain forest people."

Threats to mountain forests and the communities that depend on them

111Nikhat Sattar, *Himal Initiative for Landscape Management, in Conservation and Sustainable Development in Mountain Areas* (Martin F. Price ed., IUCN, 2004).

112See Huddleston, Ataman & Fe d'Ostiani, *supra* note 96.

113UNEP WCMC, *supra* note 79, at 17.

114CBD Secretariat, *supra* note 47, at 13.

115*Id.*, citing S. Kant, J. Nautiyal & R. Berry, *Forests and Economic Welfare*, 2 *Journal of Economic Studies* 23, 31-43 (1996).

116UNEP WCMC, *supra* note 79, at 17.

117Denniston, *supra* note 23, at 5, 7.; Korner & Ohsawa, *supra* note 69, at 683.

118Denniston, *supra* note 23, at 5, 7.

The cultures and environments of mountain forest peoples are threatened and in some cases, endangered. In fact, some 28% of the world's endangered languages exist only in mountain regions.¹¹⁹ A study of endangered languages by the Living Tongues Institute of Endangered Languages indicates that areas of disappearing languages tend to exhibit overlapping geographical instances with areas of endangered biodiversity.¹²⁰ The greatest threats to mountain forest ecoregions are land cover change and climate change.¹²¹ Of the first of these, there are primarily two causes – natural disasters and deforestation. Although we cannot control the storms or natural events themselves, we do have some control over the processes that aggravate them. The Intergovernmental Panel on Climate Change under the United Nations Framework Convention on Climate Change in its most recent scientific assessment reported that anthropogenically induced climate change is likely to increase the severity and frequency of natural disasters.¹²² Climate change is also in and of itself, one of the greatest threats to mountain forest environments. A third anthropological threat to mountain forests is violent conflict, which in turn can be perpetuated or exacerbated by deforestation and climate change.

Deforestation is the clearing of forests by people in order to convert forested land to other uses, such as human development or agriculture.¹²³ When deforested lands are incapable of or not allowed to regenerate as forests, they are considered to be converted and re-classified according to their new land use. Numerical changes in the rate of forest conversion is only being ameliorated by growth in afforestation and regeneration efforts.¹²⁴ Deforestation itself is not actually decreasing. It is also interesting to note that deforestation trends indicate a decrease in natural forests, while forest plantations are increasing.¹²⁵ In other words, we are cutting down our primary and old-growth forests and replacing them with inequivalent substitutes.¹²⁶ Deforestation is the result of a variety of occurrences ranging from legal and illegal logging (whether by clearcutting, high-grading or conversion of natural forests to tree plantations), erosion of topsoil, desertification, acid rain, diversion and damming waterways, destruction or degradation of wetlands, removal of native grasslands, introduction of invasive species and the collapse of fisheries.¹²⁷ Loss of forest cover in mountain areas

119UNEP WCMC, *supra* note 79, at 21.

120Gregory D.S. Anderson & K. David Harrison, *Language Hotspots: Linking Language Extinction, Biodiversity and the Human Knowledge Base* (Living Tongues Institute for Endangered Languages, Occasional Papers Series No. 1, 2006).

121See UNEP WCMC, *supra* note 79.

122Intergovernmental Panel on Climate Change [IPCC], *Fourth Assessment Report, Climate Change 2007: Synthesis Report, Summary for Policymakers*, IPCC Doc. AR4 SYR Summary for Policymakers (November 17, 2007), available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf (last visited Oct. 31, 2009).

123 2005 Global Forest Resources Assessment, *supra* note 29, at 18.

124 *Id.*

125 *Id.* at 26.

126 See Berger, *supra* note 25, at 39, 152-153 (second-, third-, and fourth-growth forests in the U.S. are significantly inferior in terms of biodiversity, volume and size when compared to old-growth forests; forest plantations may be more productive in producing wood timber, but it is inferior in terms of biodiversity, protecting and purifying water, protecting against erosion and nutrient soil capacity as compared with real forests).

127*Id.* at 156.

is especially harmful. As mentioned earlier, forests contribute to local, regional and international climate. The loss of mountain forests could alter mountain microclimates and in turn trigger a series of domino effects upon the highly climate-sensitive zonations of mountain ecology. Such changes can alter and degrade mountain watersheds and tributaries. It also destabilizes steep mountainsides prone to landslides, avalanches and erosion and minimizes their resilience to natural disasters and storms.¹²⁸ Furthermore, deforestation accounts for one-fourth of the world's anthropogenic carbon dioxide emissions, making it a significant contributor to climate change.¹²⁹

Climate change is a cross-cutting threat to mountain forests and their peoples. Boreal forests are highly vulnerable to climate change and as indicated in the figures above, they account for the majority of mountain forest (more than 6.6 million km² or approximately 70% of mountain forests). Overall, the IPCC's climate models indicate substantial losses of forest in boreal and tropical forests, including in mountain areas. Tropical forests are predicted to suffer the greatest species loss, further emphasizing the exigent nature of tropical biodiversity hotspots protection.¹³⁰ Due to their high altitude, warming of average global surface temperatures are accentuated in mountain areas.¹³¹ Mountain forests specifically are expected to lose greatly from ecological squeeze, "increasingly encroached upon from adjacent lowlands, while simultaneously losing high-altitude habitats due to warming."¹³² One of the most determinant factors to the survival of mountain forests will be climate change's impact on its hydrological systems. Other factors are shifting natural ranges of harmful pathogens and insects, increasing wildfire size and frequency and difficulty migrating because of habitat fragmentation.¹³³ All of these effects will compound with deforestation, degradation, fragmentation, contamination and development which already threaten mountain forests.

A political map of world conflicts would highlight the fact that most of the world's major armed conflicts are fought in mountain areas. According to Derek Denniston, "[i]n 1993, of 34 major armed conflicts taking place in 28 countries, 22 took place primarily in mountains, and another 8 included such areas."¹³⁴ In an effort to identify some commonalities in mountain conflicts around the world, which arise out of very site-specific circumstances, Frederick Starr highlighted poverty, lack of political representation and participation, extraction of mountain resources to little or no benefit to mountain communities, and the subsequent radical psychology of victimization and militarized top-

128 *Id.* at 121.

129 A. Fischlin et al., *Ecosystems, Their Properties, Goods, and Services* 211, in *Climate Change 2007: Impacts, Adaptation and Vulnerability, Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (M.L. Parry et al. eds., Cambridge University Press, 2007).

130 *Id.* at 228, 232.

131 M. Iyengararasan, L. Tianchi, S. Shrestha, P.K. Mool, M. Yoshino & T. Watanabe, *The Challenges of Mountain Environments: Water, Natural Resources, Hazards, Desertification, and the Implications of Climate Change* 21, in *Key Issues for Mountain Areas* (Martin F. Price, Libor Jansky & Andrei A. Iatsenia eds., United Nations University, 2004).; See also *id.* at 232.

132 A. Fischlin et al., *supra* note 128, at 228.

133 *Id.* at 228-230, 232-233.

134 Denniston, *supra* note 104, at 3.

down control as key ingredients to the complete social and economic breakdown, lawlessness and violence of mountain conflicts.¹³⁵ Starr notes that most conflicts are initially local, between wealthier residents and poorer residents or between nearby ethnic groups, but these can escalate all the way to full international conflict with international military involvement and widespread criminality.¹³⁶ Since many mountains lie on State boundaries, they tend to be seen as areas of national security; perhaps this explains the militarized clamp down that often occurs when local conflicts erupt.¹³⁷

The presence of forests in marginalized mountain areas can further exacerbate conflicts. Sometimes deforestation is used as a tool of warfare (e.g., Agent Orange used to defoliate the tropical forests of Vietnam or scorched-earth tactics in Kosovo) and even genocide of forest dependent marginalized communities (e.g., the near cultural extinction of the Ache tribes due to deforestation of their traditional lands in Paraguay or the scorched-earth policies practiced by the Guatemalan government against indigenous Mayan populations).¹³⁸ At times deforestation is used to finance the conflict (i.e., conflict timber in the Democratic Republic of Congo or DRC).¹³⁹ In the DRC, profits from illegal logging and the charcoal trade are used to buy arms and supplies required to sustain violent conflict and human rights abuses.¹⁴⁰ All too often, illegal logging routes coincide with pathways used for illegal trafficking of drugs, arms, wildlife and humans. The pervasiveness of such criminal activities contributes to the ranking of environmental crimes as high priorities by both the U.S. Government in its “International Crime Threat Assessment” and INTERPOL.¹⁴¹

135 Frederick Starr, *Conflict and Peace in Mountain Societies* 169, in *Key Issues for Mountain Areas* (Martin F. Price, Libor Jansky & Andrei A. Iatsenia eds., United Nations University, 2004).

136 *Id.* at 173-176.

137 *Id.* at 172, 175.

138 Peter Sharp, *Prospects for Environmental Liability in the International Criminal Court*, 18 Va. Env'tl. L.J. 217, 234 (1999).

139 See Steven Price, Deanna Donovan & Wil de Jong, *Confronting Conflict Timber*, in *V World Forests, Extreme Conflict and Tropical Forests* 117, 117 (Wil de Jong, Deanna Donovan & Ken-ichi Abe eds., Springer 2007) (defining conflict timber as “wood that has been traded or taxed at some point in the chain of custody by armed groups, be they rebel factions or state militaries, or by a civilian administration involved in armed conflict to finance hostilities or otherwise perpetuate conflict”); See also Jamie Thomson & Ramzy Kanaan, United States Agency for International Development [USAID], *Conflict Timber: Dimensions of the Problem in Asia and Africa* iii (2004) (identifies two types of “conflict timber” - Type 1: when the harvest or sale of timber finances or sustains conflict and Type 2: when conflict emerges as a “result of competition over timber or other forest resources.” The situation in the Democratic Republic of Congo would be categorized as an example of Type 1 conflict timber); See United Nations Security Council [UNSC], *Final report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo*, U.N. Doc. S/2002/1146 (Oct. 16, 2002), available at <http://www.un.org/News/dh/latest/drcongo.htm> (last visited Nov. 19, 2008).

140 See Jeffrey Gettleman, *Congo Violence Reaches Endangered Mountain Gorillas*, N.Y. Times, Nov. 18, 2008. See also Mark Jenkins, *Who Murdered the Virunga Gorillas*, National Geographic, July 2008, at 34, 58-65.

141 See INTERPOL, *Environmental Crime, Links with Serious and Organized Crime* (2009), available at <http://www.interpol.int/Public/EnvironmentalCrime/Default.asp> (last visited Nov. 8, 2009); United States [U.S.] Government Interagency Working Group, *International Crime Threat Assessment* (2000), available at <http://www.fas.org/irp/threat/pub45270chap2.html#6> (last visited Nov. 8, 2009).

Opportunities for Enhancing Stewardship for Humans and Nature in Mountain Forests

Mountain forests present an interesting and multifaceted challenge for conservationists. They are areas with high instances of endemic biodiversity and fragile climate-attuned ecotone zonations of widely varied ecosystems that provide a range of goods and services upon which human beings depend. This linkage of very little understood sensitive and complex ecoregions with human populations all over the world imposes a series of extremely difficult tensions. Outside demand for mountain forest goods and services introduce some very harmful elements into mountain forest areas. Extractive industries may exceed sustainable harvests with the economic benefits being siphoned away from local communities, leaving them degraded or polluted environments and little to no recourse. Even attempts to institute systems of payments for environmental services may be seen as patronizing attempts at dictating permissible and non-permissible activities of mountain forest peoples on their lands in exchange for what may be perceived as meager compensation. Most importantly, these seemingly parasitic or amensalism relationships emphasize the fact that mountain forest communities are all too often politically insignificant and very much dependent on natural resources that “outside” communities and “their” laws are trying to control. Furthermore, anthropogenic climate change will certainly aggravate the factors that contribute to mountain forest degradation and destruction, while weaving an evermore complicated web of interconnections between local mountain forest peoples and the rest of the world for millennia to come.

The typical response to a multi-dimensional problem with international impacts is top-down State action. Given the interconnected, interrelated, integrated and interdependent nature of the environment, State action may very well rise to the level of global action, resulting in international compacts or agreements imposing predetermined regimes on remote mountain forest peoples. The preferred mode of implementation for international environmental agreements is often through the State, the effect being that national governments are largely responsible for implementation and enforcement. Even assuming that the negotiators or decision-makers in these situations are the most altruistic, benevolent, well-intentioned people on Earth, the question still arises – how can an all-inclusive solution be fashioned for such a sensitive ecoregion and vulnerable peoples when so little is known about them? The ones who know the most about mountain forests and their human communities are mountain forest people themselves. Yet, they are often not represented in national governments and much less, in international fora. The traditional knowledge that they have developed over the years as well as those practices which demonstrate local sustainability should be capitalized upon – why reinvent the wheel? A stewardship regime for mountain forest ecoregions must include not only consultation, but effective participation of mountain forest peoples.

The engagement of local communities in decision-making and governance of their lands and natural resources is an exercise in democracy – direct participation in a system of governance by the peoples and for the peoples. Centralized mountain legislation and policy-making can impose systems

of governance that are not well-suited for the unique complexities of mountain forest ecoregions.¹⁴² Devolved or decentralized governance, on the other hand, supports local communities and their environments. In the East MacDonnell Ranges near Alice Springs, Australia, lands were returned for joint management by the traditional landowners and the Northern Territory's Parks and Wildlife Services. Benefits from this transition are already manifesting, including indigenous participation in activities to prevent wildfires that were damaging their petroglyph cultural heritage.¹⁴³ In the Adirondacks of New York in the U.S., a land preservation regime was instituted that allows local mountain populations to remain in protected wilderness. The communities themselves define priority interests for investing the monies received from taxes for the conservation of their wilderness areas and critical mountain watersheds for downstream populations. Such money has been invested in schools and in a decentralized system based upon the subsidiarity principle, local communities are empowered to make a positive transition to a paradigm of direct democracy.

When it comes to native land stewardship, there are already more than a few movements by mountain, forest and indigenous peoples to confront key issues, such as deforestation and land degradation, climate change, self-governance and community conservation. All around the world, mountain and forest, as well as indigenous communities have gathered in conferences and participated in projects to voice similar concerns and to exchange ideas and experiences. Despite an overabundance of negative externalities associated with globalization, it has undoubtedly brought the advantage of facilitating communication between marginalized communities and the rest of the world, allowing them to bring many of their shared issues to a greater audience. In 2002, representatives of mountain peoples met in Quito to adopt the Quito Declaration, a Charter for World Mountain People, which set forth the basic interests and position of mountain peoples.¹⁴⁴ This Charter proclaimed the value of the history and traditions of mountains and their people, as well as a “rightful place in society” and control of their development – one which is not confined to mere stewardship of the recreation or protected areas of lowland peoples, but one of diverse opportunities and value for all the world and all the future generations of mountain peoples.¹⁴⁵ The representatives of mountain people from forty different countries asserted their desire to organize and to participate in decisions relevant to their lands, whether local or international.¹⁴⁶

Efforts to organize locally have sometimes occurred as a response to outside intervention. In June of 2009, forest peoples of India convened at the National Forum for Forest People’s and Forest Workers and unleashed the Dehradun Declaration of Forest People, a critical proclamation in resistance to the commodification of forests and an assertion of community governance over their forest

¹⁴²Price & Messerli, *supra* note 87, at 16.

¹⁴³Central Land Council, *Parks and Reserves Handed Back* (Dec. 2008), available at http://www.clc.org.au/Media/releases/2009/East_MacDonnell_hand_back.html (last visited Nov. 14, 2009).

¹⁴⁴Quito Declaration, *supra* note 91.

¹⁴⁵*Id.* at para. 1-4.

¹⁴⁶*Id.* at para. 5-6.

resources.¹⁴⁷ Parallel to State Parties meeting in cities to negotiate the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (or any other potential progeny of the UNFCCC), indigenous representatives have been convening an International Indigenous Peoples Forum on Climate Change (IIPFCC) to lay out indigenous policy positions on climate change. In these discussions, it is noted that the indigenous peoples are not the most responsible for the problem, but that their lands and way of life will suffer greatly regardless. While government negotiators have been quibbling over funds and emissions levels, women in the mountain forests of Kenya have been planting trees, creating a Green Belt Movement from Kenya to other parts of Africa, not only sequestering carbon but strengthening mountain forest community resilience to the impacts of climate change. This is reminiscent of the Chipko Movement in the early 1970s, when women in the Indian Himalayas intervened non-violently to protect their local forests from being harvested and planted new trees to prevent erosion and protect water resources.¹⁴⁸ This intervention by mountain forest peoples to stop “outsiders” from extracting their resources is a protectionist action based on the premise that, “ecology is permanent economy.”¹⁴⁹

Mountain forest peoples are very aware of their situations and can offer long tried and true solutions. The traditional knowledge and particular circumstances of mountain forest peoples and their invaluable environments form an area of study that demands greater attention. As D. Jane Pratt notes regarding mountain information, “[t]he most important gap is that such information is neither systematic nor disaggregated spatially.”¹⁵⁰ Information regarding mountain peoples and mountain forest peoples, no less, suffers from the same failures. Statistics are not collected to identify the particular vulnerabilities of mountain forests and their peoples or the efficacy of applying traditional knowledge and practicing local sustainability in sensitive mountain forest ecoregions. This means that the problems of mountain forests and mountain forest communities are not clearly understood, as they are likely lost in a sea of more generalized statistics. This makes it difficult for policies and regulations to be properly developed to address particular mountain forest complexities. In a shift away from this information gap, specific studies of mountain forest ecology and cultures should be undertaken. In this process, the experiences and traditional knowledge of mountain forest people must be incorporated, better understood, supported and then amplified when proven to be locally sustainable. Organizations and institutions involved in forest and mountain oversight (see Boxes above) can facilitate collection and free dissemination of this information, so that mountains and their forests might be better understood by all.

147 Dehradun Declaration of Forest People (June 12, 2009), available at <http://www.wrm.org.uy/countries/India/Dehradun.html> (last visited Nov. 10, 2009).

148 Robert Hart, *Can Life Survive?*, in *Deep Ecology and Anarchism* 7, 8 (Freedom Press, 1997); International Institute for Sustainable Development [IISD], *Chipko Movement, India*, <http://www.iisd.org/50comm/commdb/desc/d07.htm> (last visited Nov. 10, 2009).

149 IISD, *supra* note 147.

150 D. Jane Pratt, *Democratic and Decentralized Institutions for Sustainability in Mountains*, in *Key Issues in Mountain Areas* 149, 154 (Price, Jansky & Iatsenia eds., United Nations University Press, 2004).

CHAPTER II

First Generation Peace Parks: Prologue for the Future

“Conservation is a state of harmony between man and land.”

- Aldo Leopold, *The Land Ethic in A Sand County Almanac* (1949)¹⁵¹

Although experiences with transboundary peace parks around the world is relatively limited, there are elements which can be distilled from existing cases to fashion a model of participatory management for transboundary mountain ecosystems, communities and their governments. The appreciation and sustainable use of nature can be integrated with the social and economic well-being of the people who live within it when based upon a framework for transboundary collaborative conservation. Protected areas are not merely nature sans humanity as it was largely perceived to be at the time of creation of the world's first national park, Yellowstone National Park in the U.S. (1872).¹⁵² Nor is it meant to restrict communities to a life of mere subsistence (the minimum, as of food and shelter, necessary to support life) in perpetuity.¹⁵³ The right to sustainable development demands more.¹⁵⁴

To understand how humans and nature can attain a harmonious relationship, it's necessary to integrate park land sustainable development and peaceful relations with neighboring States. This chapter explores the practice among States or nations that show what has been done to set a precedence for a more systematic application of these practices and secondly, looks to their potential development based on that foundation.

As the UN Commission on Environment and Development (famously known as the Brundtland Commission) noted in its report, “Our Common Future,”:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

¹⁵¹Aldo Leopold, *A Sand County Almanac with Essays on Conservation* 173 (Kenneth Brower & Michael Sewell eds., Oxford University Press, 2001).

¹⁵²Yellowstone National Park, 16 U.S.C.A. §21 (1872).

¹⁵³Merriam-Webster's Dictionary, <http://www.merriam-webster.com/dictionary/subsistence> (last visited Nov. 15, 2009).

¹⁵⁴Protected areas are by definition territories subject to restrictions on development, where development is allowed only insofar as it comports with the biological and cultural resource and ecological conservation goals of the area's designation. Limitations on development can range from no development, or absolute preservation, to sustainable multiple-use extraction, but where activities are allowed, the conservation goals necessarily override. Thus, the usual debate as to whether or not sustainable development is a more politically correct way of saying business as usual, or whether or not it is a good policy to be promoted does not apply equally to this discussion on peace parks. The right to sustainable development in the context of peace parks is better viewed as a right to participate in peace park governance and a right to equal access and benefits sharing.

- the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

The concept of sustainability was elaborated in the Rio Declaration on Environment and Development and its implementation plan, Agenda 21.¹⁵⁵ Agenda 21 and the series of global summits on sustainable development that followed (e.g., the Copenhagen Summit on Social Development in 1993, the Cairo Summit on Population in 1994, the World Summit on Sustainable Development in 2002) set forth a multi-pronged approach to sustainable development that focuses on three pillars: (1) conservation, (2) social development, and (3) economic development.¹⁵⁶ These three pillars are inherently intertwined, integrated, interdependent and interrelated. Conservation itself is a term that encapsulates the preservation, management and protection of ecological as well as cultural resources.¹⁵⁷ Experience tells us that we cannot confront conservation issues without also addressing the underlying factors that threaten its success, such as poverty, economic development and conflict. This thesis seeks to support the implementation and proliferation of peace parks as a practicable process for developing a more harmonious relationship between humans and nature.

The interpretation that wilderness is “an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain,” can be harmful to its long-

¹⁵⁵Salient principles of the Rio Declaration on Environment and Development include the following:

Principle 1: Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Principle 3: The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4: In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Principle 5: All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

Principle 22: Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States shall recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

Rio Declaration on Environment and Development [hereinafter Rio Declaration], June 13, 1992, U.N. Doc. A/CONF.151/26, 31 I.L.M. 874.

¹⁵⁶See David Hunter, James Salzman & Durwood Zaelke, *International Environmental Law and Policy* 200 (Foundation Press 3d ed., 2007).

¹⁵⁷Encarta World English Dictionary (Microsoft Corporation, 1999), cited in Mark Dowie, *Conservation Refugees: The Hundred-Year Conflict Between Global Conservation and Native Peoples* xi (2009) (*Conservation*: con-ser·va·tion n. 1. the preservation, management, and care of natural and cultural resources. 2. the keeping or protecting of something from change, loss, or damage).

established human inhabitants as well as surrounding environs.¹⁵⁸ In Yellowstone, the national military was deployed to execute a campaign of violent expulsion and slaughter of Shoshone and other native tribes in the false name of conservation.¹⁵⁹ Unfortunately, this paradigm for protected areas establishment has been exported and replicated abroad with disastrous effect. Parks were created in Africa by colonial governments to preserve wildlife for gaming purposes, without much concern for native peoples and their relationship to nature, pushing them out of their traditional lands and assuming that they could be easily resettled. In Uganda, thousands of highland forest-dependent Batwa pygmies were exiled subsequent to the creation of Mgahinga and Bwindi Impenetrable National Parks in 1991.¹⁶⁰ As landless forest-dependent peoples, they are now forced to squat in neighboring lands where they are persecuted and cut off from access to the forest resources that previously sustained them. They have not assimilated well into these communities and have struggled to obtain access to livelihoods, lands and resources.¹⁶¹ Similar examples of how governments used conservation as a justification for expelling human communities has occurred on all major human-occupied continents and has been documented by Mark Dowie in “Conservation Refugees.”¹⁶²

Displacement of peoples can augment pressures or tensions in vulnerable natural areas and if pushed to the extreme can result in violent conflict. Parks often displaced local populations, pushing marginalized peoples into already densely populated neighboring communities, where they must compete at a disadvantage for scarce natural resources. Competition and access to scarce natural resources can play a very negative role in conflict between humans. In Uganda, the Batwa have been pushed into some of the most densely populated lands in the world, housing up to 600-700 people per square kilometer.¹⁶³ This is at least twice the population density of Rwanda, which was around 290-422

158National Wilderness Preservation System, 16 U.S.C.A. §1131 (1964).; See Robert L. Amberger, *Living Cultures – Living Parks in Alaska: Considering the Reconnection of Native Peoples to their Cultural Landscapes in Parks and Protected Areas* 94 (Alan Watson & Janet Sproull eds., U.S. Department of Agriculture, Forest Service and Rocky Mountain Research Station, 2003).

159Marcus Colchester, *Beyond “Participation”: Indigenous Peoples, Biological Diversity Conservation and Protected Area Management*, 47 *Unasylva*, March 1996, available at <http://www.fao.org/docrep/w1033E/w1033e08.htm> (last visited Nov. 14, 2009).

160See Penninah Zaninka, *The Impact of (Forest) Nature Conservation on Indigenous Peoples: the Batwa of South-Western Uganda, A Case Study of the Mgahinga and Bwindi Impenetrable Forest Conservation Trust* (2001).; International Work Group for Indigenous Affairs, *The Indigenous World 2009*, at 484-486 (Kathrin Wessendorf ed., IWGIA, 2009).

161A.J. Plumptre, A. Kayitare, H. Rainer, M. Gray, I. Munanura, N. Barakabuya, S. Asuma, M. Sivha & A. Namara, *The Socio-Economic Status of People Living Near Protected Areas in the Central Albertine Rift* 28-29 (Albertine Rift Technical Reports Vol. 4, 2004).

162Two hundred delegates at the International Forum on Indigenous Mapping held in Vancouver, Canada in 2004, signed a declaration stating that “conservation has become the number one threat to indigenous territories.” In 2005, the International Land Coalition highlighted the negative effect of conservation on landless people and later listed the “appropriation of common property for conservation” as one of the top five “threats to common -property regimes.” See Mark Dowie, *Conservation Refugees: The Hundred-Year Conflict Between Global Conservation and Native Peoples* xvii-xviii (2009).

163A. J. Plumptre et al., *supra* note 160, at 9.

people per square kilometer in 1992. An aerial photo of Virunga and Volcanoes National Parks borders in the DRC and Rwanda respectively, indicates quite starkly the effects of high population pressure on natural resources; the forest ends where the protection ends. Densely populated lands coupled with environmental degradation or scarcity is considered by scholars like Thomas Homer-Dixon to be a red flag for environmental security related conflict. Studies by Homer-Dixon and colleagues argue that these are some of the aggravating factors leading to armed conflict (e.g., the violent genocide that devastated Rwanda in 1994).¹⁶⁴ Resettlement-based protected area designation can be completely unsustainable.

Conservation in the twentieth century recognized that conservation at the cost of expelling human communities was not desirable. New models were crafted to allow for indigenous or traditional populations to remain on their lands and to continue some level of sustainable use of the natural resources. In Alaska, Native Americans and their lands are governed by the Alaska National Interest Lands Conservation Act (ANILCA), which is based on this new paradigm.¹⁶⁵ Unfortunately, under ANILCA, Alaskan Natives are still only offered a handful of very limited options. They may opt for one of three income sources: (1) eco-tourism, (2) local hires, or (3) oil and mineral extraction in specified areas.¹⁶⁶ Alternatively, they may opt for a life of subsistence. Given the Secretary or Administrator of the Environmental Protection Agency's (U.S. EPA) short list of narrowly defined permissible subsistence activities and the limited Subsistence Resource Regions where such activities are allowed,¹⁶⁷ it is no wonder the much less restrictive corporate natural resource extraction option appears so attractive even to Alaska Natives who have built and grown their cultures and traditions in close unity with the ecological and seasonal rhythms of their unique Arctic environments.

If a community opts for subsistence, refusing to take part in destructive corporate extractive industries, there are few income sources that might bring in enough revenue to support schools or the cultural and social services that might be expected or provided by a society that believes in fundamental rights to education, human dignity, cultural heritage and self-determination. Native American tribes have been heavily divided by this difficult choice between extractive corporations and regulated subsistence. Their traditional social structures have been tested and in some cases broken down as a result. When peoples' full and equitable participation is not recognized or supported in land conservation and sustainable natural resource management, capitalism and exploitation prevail to destroy lands and cultures.

Communities living in protected areas or fragile environments should have other alternatives to a choice between corporate extraction and environmental degradation or subsistence limited by outside

¹⁶⁴Valerie Percival & Thomas Homer-Dixon, *Environmental Scarcity and Violent Conflict: The Case of Rwanda* 206, in *Ecoviolence: Links Among Environment, Population and Security* (Thomas Homer-Dixon & Jessica Blitt eds., Rowman & Littlefield, 1998).

¹⁶⁵Alaska National Interest Lands Conservation Act, 16 U.S.C.A. §3101 et seq. (1980).

¹⁶⁶*Id.* at §3198, 3148-3150.; Deborah Williams, *ANILCA: A Different Legal Framework for Managing the Extraordinary National Park Units of the Last Frontier*, 74 Denv. U. L. Rev. 859 (1997)

¹⁶⁷Alaska National Interest Lands Conservation Act, 16 U.S.C.A. §3115(a)(3)(A) (1980).

authorities. In the Arctic region, full exercise of indigenous and human rights could be fostered through the revival and implementation of the latent but still ever so relevant Beringian Heritage International Park introduced just after the Cold War in the late 1980s.¹⁶⁸ In an inward looking attempt to deal with domestic Native American land use and natural resource issues, the crafting and adoption of ANILCA failed to consider the long history of cultural exchange, as well as species exchange of migratory species like the porcupine caribou and the polar bear, across the Bering Strait. ANILCA is not sufficiently participatory on two very critical points – (1) the effective and meaningful participation of all Alaska Natives and (2) the transboundary participation of the communities and governments of other Range States of migratory species which characterize the region. Large-range mammals, such as the porcupine caribou and polar bear, are protected under international environmental agreements between the U.S. and its Bering Strait neighbors (Russia and Canada).¹⁶⁹ Formalization and implementation of the Beringia International Park would accord with international environmental principles in these treaties supporting holistic landscape conservation of species and their habitats across their natural range, as well as those found in MEAs like the 1979 Convention on the Conservation of Migratory Species of Wild Animals (CMS).¹⁷⁰ A successful land conservation act in Alaska needs to be much more inclusive and outward-looking.

A peace park offers a multi-use protected area model that integrates protection of both flora and fauna, as well as the human populations that co-exist within them, throughout their habitat. The simultaneous objectives of peace parks – conservation and cooperation – provide a vision of harmonious integration of peoples and nature. Once a transboundary peace park is identified, stakeholders can elaborate environmental management schemes based on their traditional knowledge and local sustainability practices to achieve preservation, regeneration, restoration and conservation of biological and cultural diversity. Peace parks also require an alternative to violent conflict and promote more civilized non-violent dispute resolution processes. It is incumbent that environmental stewardship seek pacific methods of collaborative dispute resolution for conflict of all kinds, because as Principle 25 of the Rio Declaration poignantly stresses: “Peace, development and environmental

¹⁶⁸See R.A. Mittermeier et al., *supra* note 14, at 45-46 (the idea for the park arose out of discussions on “Conservation and Management of Natural and Cultural Heritage” between the U.S. and Soviet Union under the auspices of an environmental working group. The idea was introduced to local communities in both northwestern Alaska and the Chukotka Peninsula of Russia in 1989 and in 1990, the two presidents (Bush and Gorbachev) announced the creation of an international park across the Bering Strait. The international park was never actually implemented, but the two countries continue to build cross-cultural and cross-border ties through their Shared Beringia Heritage Program).; See also IUCN, Bering Land Bridge World Heritage Site, USSR and Russia (IUCN, General Assembly Recommendation 17.57, 1988)(Recommendation adopted by the General Assembly of the IUCN supporting designation of bi-national parks and reserves to support coordinated management of unique resources and possible international recognition as a World Heritage Site).

¹⁶⁹Agreement Between the Government of Canada and the Government of The United States of America on the Conservation of the Porcupine Caribou Herd, U.S.-Can., July 17, 1987, 27 I.L.M. 273.; Agreement on the Conservation of Polar Bears, Nov. 15, 1973, 13 I.L.M. 13.

¹⁷⁰Convention on the Conservation of Migratory Species of Wild Animals [hereinafter Convention on Migratory Species], art. II-III, June 23, 1979, 1651 U.N.T.S. 333.

protection are interdependent and indivisible.”¹⁷¹

The peace park model is particularly applicable to mountain forest regions. It is critical that sufficient mountain forest coverage is protected to serve as corridors and sanctuaries for biological and cultural diversity in mountain forests, particularly for the purposes of climate change resilience and adaptation. Such large-scale conservation necessitates regional cooperation across borders. By creating transboundary peace parks in mountain forest ecoregions, we demarcate clearly defined priority areas for nature conservation, which will require extensive studies and on-going monitoring and reporting. Such exercises could contribute significantly to the current gaping absence of information on these ecoregions and their communities. Furthermore, mountain forest areas linked to violent conflict would benefit especially from the mandate for pacific conflict resolution. Encouraging participating States (those sharing a transboundary peace park) to collaborate in their border security or law enforcement activities in the peace park territory could help to mitigate border disputes that would threaten the protected mountain forests, as well as better safeguard these areas from any violent conflict that does arise.¹⁷²

The three peace parks selected for case study in this chapter provide examples from North America, Central America and Central Africa of tangible elaborations upon general peace park concepts. The case studies provide an overview of the history, establishment and basic management framework for three existing peace parks: (1) Waterton-Glacier International Peace Park between Canada and the U.S., (2) The Central Albertine Rift Transfrontier Protected Area Network between the Democratic Republic of Congo, Rwanda and Uganda, and (3) Parque Internacional La Amistad between Costa Rica and Panama. These particular peace parks were chosen to demonstrate certain commonalities, as well as unique differences. Firstly, the case studies were limited to transboundary mountain forest ecoregions that exhibit comparable biological, geological and hydrological characteristics. Then they were selected for the lessons they can provide a global community tending towards expanding networks of transboundary protected areas for peace and collaboration. The three peace parks were established in different periods of peace or conflict, are managed differently and have involved civil society, NGOs and the international community to varying degrees. In studying the history and legal frameworks of these three parks, we can better understand the experiences of peace park concepts in practice and thus, strive towards a universal definition of peace parks and best practices for their establishment and management.

¹⁷¹ Rio Declaration, *supra* note 154.; Also of note are Principles 24 and 26 of the Rio Declaration, provided below:

Principle 24: Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

Principle 26: States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

¹⁷²Leo Braack, Trevor Sandwith, David Peddle & Thomas Petermann, *Security Considerations in the Planning and Management of Transboundary Conservation Areas* (IUCN, 2006).

Transboundary peace parks (TBPPs) have been referred to under a variety of different names. First of all, the terms transboundary and transfrontier are often used interchangeably. Transboundary (or transfrontier) does not have to cross international boundaries, it is sufficient that it cross “neighbouring sub-national jurisdictions, including autonomous regions or provinces.”¹⁷³ Sometimes the presence of an international border is specifically implicated by the use of terms such as international or binational (if between two States). There are times when no qualifier is used at all. However, this can be confusing as some non-transboundary peace parks have been established for purely symbolic reasons to communicate an aspiration for peace. These have little, if anything, to do with conservation of biodiversity or environmental peace-building through cooperation. For example, the Hiroshima Memorial Peace Park, created to memorialize the nuclear attacks on Japan in 1945. Although the symbolic message of such peace parks is indeed important, this thesis focuses on peace parks as a model of transboundary conservation. Thus, any reference to peace parks made here indicates only those with transboundary and ecological elements. The IUCN, which focuses on peace parks with a transboundary component, refers to peace parks as transboundary protected areas (TBPAs) for peace and co-operation.¹⁷⁴ TBPAs (whether designated for peace or not) in this context are also referred to as transboundary conservation areas (TBCAs) or transfrontier conservation areas (TFCAs).

Box 2.1 Peace Park Nomenclature

A list of terminology commonly used when referring to transboundary peace parks.

International peace park
Binational peace park
Transboundary peace park (TBPP)
Transfrontier peace park (TFPP)
Transboundary protected area (TBPA) for peace and cooperation
Transfrontier protected area (TFPA) for peace and cooperation
Transboundary conservation area (TBCA)
Transfrontier conservation area (TFCA)
Park for Peace
International Park for Peace

Despite the potential distraction of inconsistent terminology describing transboundary peace parks, there seems to be emerging consensus regarding its definition. In 1997, the IUCN began a Parks for Peace initiative that sought to promote international cooperative conservation in order to address the

¹⁷³ Sandwith et al., *supra* note 19, at 3.

¹⁷⁴ *See id.*

interrelated challenges of holistic protection of flora and fauna, conflict prevention, resolution and post-conflict reconciliation, as well as sustainable regional development.¹⁷⁵ Through this process, its Transboundary Protected Areas Task Force has posited a working definition for peace parks that represents the emergence of a consensus definition.¹⁷⁶

Parks for Peace are transboundary protected areas that are formally dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and to the promotion of peace and co-operation.¹⁷⁷

Thus, peace parks as understood by the IUCN are a sub-category or type of TBPA. A TBPA, as defined by the IUCN, is:

An area of land and/or sea that straddles one or more boundaries between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limits of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed co-operatively through legal or other effective means.¹⁷⁸

This description of TBPAs integrates an explanation of what constitutes a transboundary area with the IUCN definition of a protected area (PA):

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.¹⁷⁹

In sum, peace parks are a protected area classification that integrates peace and cooperative management of ecosystems or natural and cultural resources across jurisdictional boundaries. They are unique in that they emphasize “a clear biodiversity objective, a clear peace objective, *and* co-operation between at least two countries or sub-national jurisdiction.”¹⁸⁰

Box 2.2 Elements of a Peace Park

¹⁷⁵ *Id.* at 1.

¹⁷⁶ *Id.* at 2.

¹⁷⁷ *Id.* at 3.

¹⁷⁸ Sandwith et al., *supra* note 19 at 3.

¹⁷⁹ IUCN, *Guidelines for Applying Protected Area Categories* 8 (Niger Dudley ed., IUCN 2008).

¹⁸⁰ *Id.* at 4.

Transboundary peace park = PA + TB + Peace and Cooperation

PA = Protected Area

TB = Transboundary

A few other institutions have contributed definitional elements towards a greater understanding of peace parks. Gerardo Budowski of the United Nations Affiliated University for Peace has argued for the recognition of peace parks “because they were well-known scenes of past conflicts.”¹⁸¹ He has argued that a peace park need not be transboundary and that instead, its recognition as such should be based on the territory's “significant conflictive past.”¹⁸² On this basis, peace parks can be established solely for symbolic purposes. The Peace Parks Foundation in South Africa has also opted to use a less restrictive definition of peace parks. In fact, the Peace Parks Foundation typically uses the term transfrontier conservation area (TFCA) interchangeably with peace park.¹⁸³ Its meaning is defined in the South African Development Community's (SADC) 1999 Protocol on Wildlife Conservation and Law Enforcement as:

"Transfrontier conservation area" means the area or the component of a large ecological region that straddles the boundaries of two or more countries, encompassing one or more protected areas, as well as multiple resources use areas.¹⁸⁴

The Peace Parks Foundation has not felt a need to distinguish a TFCA from one which has an explicit peace and cooperation mandate because in its experience these have been inherent components of transboundary conservation in the region.¹⁸⁵

A call to supplement the IUCN's 2001 definition of peace parks was present in the 2003 World Parks Congress in Durban, South Africa.¹⁸⁶ There, organizations such as the World Wildlife Fund, The Nature Conservancy and the International Tropical Timber Organization (ITTO), argued for a broader understanding of transboundary peace parks by noting that not all PAs that could benefit from transboundary collaborative management abut borders or are adjoining.¹⁸⁷ The IUCN responded to their concern by collaborating with these organizations and others in a series of workshops that has helped to further build upon the definition of peace parks. For example, five types of TBPAs were

181 Gerardo Budowski, *Peace Through Parks*, 14 *Our Planet* 30, 30 (UNEP,).

182 Gerardo Budowski, Emeritus Professor, United Nations University for Peace, Personal Communication, *quoted in* Sandwith et al., *supra* note 19, at 3.

183 Peace Parks Foundation, *What are Peace Parks/TFCAs?* (2008), http://www.peaceparks.org/Content_1020000000_Peace+Parks.htm.

184 South African Development Community Protocol on Wildlife Conservation and Law Enforcement, Aug. 18, 1999, available at www.internationalwildlifelaw.org/SADCProtocol.pdf (last visited July 16, 2010).

185 Mittermeier et al., *supra* note 14, at 36.

186 Saleem Ali, *Introduction: A Natural Connection between Ecology and Peace?*, in *Peace Parks: Conservation and Conflict Resolution* 1, 7 (Saleem Ali ed., Massachusetts Institute of Technology, 2007).

187 Mittermeier et al., *supra* note 14, at 34-36.

identified by the IUCN and ITTO during a jointly organized workshop on “Increasing the Effectiveness of TBCAs in Tropical Forests” held in Ubon Ratchathani, Thailand in February 2003.¹⁸⁸ These are listed in a Global Transboundary Protected Areas Network¹⁸⁹ guidance on TBPA typology.¹⁹⁰

- Two or more contiguous protected areas across a national boundary;
- A cluster of protected areas and the intervening land (buffer zones);
- A cluster of separated protected areas without intervening land: protected areas that are geographically separated but share common ecology or problems, and usually have some interchange between species;
- A trans-border area including proposed protected areas: protected areas in one country or region, with the hope of extending protection across the border, but without any formal agreement (considered to be a transitional arrangement);
- A protected area in one country aided by sympathetic land use over the border.

Any one of the above formulations would satisfy the IUCN's definition of a peace park so long as it maintains the objectives of conservation and peace within a transboundary cooperatively managed natural area. The clarifications above of different kinds of transboundary conservation initiatives and peace parks does not change the previous IUCN definition of a peace park, it merely elaborates on the typology of TBPAs that could potentially be categorized as a peace park.

In a 2005 publication, “Transboundary Conservation: A New Vision for Protected Areas,” co-authored by members of the IUCN Transboundary Protected Areas Task Force, the authors noted that peace parks are a type of transboundary conservation initiative with “the explicit objective of securing or maintaining peace during and after armed conflict, or of commemorating past warfare.”¹⁹¹ Furthermore, they acknowledged that transboundary conservation initiatives could be manifested in a variety of forms:

1. **Transboundary Protected Areas (TBPAs):** protected areas that adjoin across an international boundary, and that involve cooperative management;
2. **Transboundary Conservation (and Development) Areas (TBCAs):** protected areas may be, but are not necessarily, a feature of the regional landscape, but where conservation and sustainable development goals have been asserted within a framework of cooperative management;

¹⁸⁸Nigel Dudley, *A Typology of Transboundary Protected Areas: Different Approaches for Different Needs* (IUCN, 2007), available at http://www.tbpa.net/issues_04.htm (last visited Dec. 6, 2009).

¹⁸⁹The Global Transboundary Protected Areas Network is an IUCN WCPA coordinated online clearinghouse providing databases on TBPAs around the world and TBPA related publications, <http://www.tbpa.net/index.html>.

¹⁹⁰Nigel Dudley, *supra* note 187.

¹⁹¹Mittermeier et al., *supra* note 14, at 36.

3. **Transboundary Migratory Corridors:** situations in which the habitat needs of species require the persistence of areas in several countries;
4. **Transboundary World Heritage Site:** where protected areas on either side of an international boundary fall collectively into the designation of the area as a World Heritage Site;
5. **Transboundary Biosphere Reserve:** where areas on either side of an international boundary fall within a biosphere reserve designation under UNESCO's Man and the Biosphere Programme.¹⁹²

Enumeration of the various TBPA typology listed above seems to reflect acceptance and recognition of transboundary conservation in all of its colors and forms, from *de facto* to *de jure*. This is important to note now as it will be discussed further in Chapter IV on the Patchwork Peace Park Model.

Objectives and benefits of a peace park

Over the years, efforts to better define what transboundary peace parks are have directly correlated with our growing understanding of the need for and benefits of establishing peace parks around the world. The reasons underlying peace parks are essentially as their three main objectives or elements (conservation, peace and cooperation) imply: (1) to provide the best possible physical circumstances for conservation of biological diversity based on a more holistic ecoregional or landscape approach, (2) to coordinate management efforts across the protected area(s) and relevant buffer zones so that they are most effective, and (3) to build relations across borders, to support peaceful resolution of conflicts and to prevent violent conflict, to mitigate the harmful impacts of conflict on the environment, and to provide an opportunity for post-conflict environmental peacebuilding. Experience indicates that these three elements are interrelated, interdependent and more easily achieved when integrated.

Conservation of biological diversity is best guaranteed when it is based on an ecoregional or landscape approach. Habitat size is very much directly correlated with nature's ability to support healthy populations of flora and fauna, ensuring species viability and genetic diversity for generations to come.¹⁹³ Some species, particularly large mammals,¹⁹⁴ require large ranges of habitat and are more likely to become threatened, endangered or extinct when their range habitat is destroyed, degraded or fragmented by the impacts of human communities.¹⁹⁵ Sustainable extraction of natural resources and

¹⁹²*Id.*

¹⁹³Ana S. L. Rodrigues & Kevin J. Gaston, *How Large do Reserve Networks Need to Be?*, 4 Ecology Letters 602 (2001).; W. D. Newmark, *Extinction of Mammal Populations in Western North American National Parks*, 9 Conservation Biology 512 (1995).

¹⁹⁴E.g., Eric W. Sanderson et al., *The Ecological Future of the North American Bison: Conceiving Long-Term, Large-Scale Conservation of Wildlife*, 22 Conservation Biology 252 (2008).

¹⁹⁵S.A. Parks and A. H. Harcourt, *Reserve Size, Local Human Density, and Mammalian Extinctions in U.S. Protected*

full enjoyment of ecosystem services requires sufficiently large protected areas.¹⁹⁶ Larger-scale conservation also provides the benefit of allowing for greater resilience to environmental degradation (whether natural or anthropogenic).¹⁹⁷ The adaptability of biological diversity and ecosystems is incredibly important when considering the impacts of climate change upon all living systems. In order to allow opportunity for the most optimistic of scenarios, whereby we manage to protect biodiversity, continue to extract natural resources and adapt to climate change, we must begin to see conservation of ecosystems at a landscape or ecoregional level.¹⁹⁸

Holistic conservation through transboundary protected areas must be coupled with a participatory and adaptive co-management regime.¹⁹⁹ Protected area governance is more effective when processes involve meaningful participation.²⁰⁰ If the process for developing management frameworks is not sufficiently participatory, the resulting rules codified in the management plan may have less authority or acceptance by marginalized stakeholders, which may provoke human-protected area conflicts.²⁰¹ Effective conservation requires the harmonization of human activities with protected area objectives on two levels: (1) within the protected area, as well as (2) bordering and outside of the protected area. Human communities inhabiting a protected area must not hinder or violate the goals of the protected area (e.g., poaching, illegal and/or unsustainable natural resource extraction, land conversion). Likewise, human communities living near or outside of protected areas must refrain from participating in activities that undermine protections within the protected area (e.g., trafficking of natural resources, perpetuating anthropogenic climate change). Permissible and proscribed activities may be governed by a framework of rules and regulations crafted into a protected area management plan.²⁰² It is important that the participation of communities in environmental stewardship inside and

Areas, 16 Conservation Biology 800 (2002)(extinction of mammalian species more likely in U.S. protected areas surrounded by higher human population densities).

196See Carlos A. Peres, *Why We Need Megareserves in Amazonia*, 19 Conservation Biology 728 (2005).; Carlos A. Peres, *Synergistic Effects of Subsistence Hunting and Habitat Fragmentation on Amazonian Forest Vertebrates*, 15 Conservation Biology 1490 (2001).

197Luigi Maiorano, Alessandra Falcucci & Luigi Boitani, *Size-Dependent Resistance of Protected Areas to Land-Use Change*, 275 Proc. R. Soc. B 1297 (2008).; A. Bruner, R. E. Gullison, R. E. Rice, & G. A. B. da Fonseca, *Effectiveness of Parks in Protecting Tropical Biodiversity*, 291 Science 125 (2001).

198See Graham Bennett & Piet Wit, *The Development and Application of Ecological Networks: A Review of Proposals, Plans and Programmes* (Advice and Research for Development and Environment [AIDEnvironment] & IUCN, 2001).

199E.g. Charles Curtin, *Integrating Landscape and Ecosystems Approaches through Science-Based Collaborative Conservation*, 21 Conservation Biology 1117 (2007).

200Id.

201UN Development Programme [UNDP], UNEP, World Bank & World Resources Institute, *World Resources 2002-2004: Decisions for the Earth: Balance, Voice and Power* 29 (WRI 2003).

202If the management plan is still in its nascent stages and is vague on prescribing specific activities or mandating particular conservation principles, or the protected area is relatively new and a management plan does not yet exist, the legal form establishing the protected area or TBPA should at the very least identify the relevant entity/entities and their authority to set such rules and regulations within the protected area, requiring them to promulgate the necessary rules and regulations by a set date. In the meantime, activities within the protected area should be required to broadly conform with the objectives enumerated for protecting the area.

surrounding protected areas is on-going and adaptive to fluctuating circumstances.²⁰³ This can help to ensure the protected area's resilience to environmental change (including climate change) and social dynamics (including conflict).²⁰⁴ Just as nature evolves, so must environmental stewardship regimes.

Mandating peace and non-violent conflict resolution in transboundary conservation can strengthen the resilience of nature to conflict. Peace parks promote a culture of peace and non-violent conflict resolution that can head off violent conflicts in the first instance. However, should conflicts arise, a proper management regime can be better prepared to mitigate the impacts of war or the role of the environment in aggravating conflicts. Peace parks can also be integrated into the peace-making process, increasing the chances for a durable and just peace and thereby protecting the protected area from relapses back into conflict. The peace objective of a peace park demonstrates the interrelated and interdependent nature of the all three peace park objectives.

First and foremost, a peace park mandates peaceful and non-violent resolution of conflicts within its boundaries. A 2009 UNEP report highlights three scenarios in which natural resources contribute to the outbreak of conflict²⁰⁵ and notes that the commonality shared by all three is the “inability of weak states to resolve resource-based tensions peacefully and equitably.”²⁰⁶ This makes the environmental peacebuilding capacity developed through peace parks particularly relevant. In order to optimize the peacebuilding potential of collaborative conservation in TBPA, the IUCN in its Good Practice Guidelines for TBPA for peace and cooperation call for early engagement of communities²⁰⁷ to discuss any possible conflicts²⁰⁸ and facilitate conflict resolution,²⁰⁹ supporting activities which may have a healing effect for communities who have suffered from armed conflict²¹⁰ or

203Grazia Borrini-Feyerabend, Jim Johnston & Diane Pansky, *Governance of Protected Areas*, in Michael Lockwood, Graeme L. Worboys & Ashish Kothari, *Protected Areas Management: A Global Guide* 116, 144 (Lockwood, Worboys & Kothari eds., Earthscan, 2006).

204Id.

205Natural resource driven conflicts can arise: (1) “over the fair apportioning of wealth derived from 'high value' extractive resources” combined with acute poverty or lack of alternative livelihoods; (2) “over the direct use of scarce resources” oftentimes aggravated by demographic factors and natural disasters; or (3) when economies are “dependent on the export of a narrow set of primary commodities” and governments tend to be politically fragile and removed from the needs of their constituents (i.e., the “resource curse”). UNEP, *From Conflict to Peacebuilding: The Role of Natural Resources and the Environment* 8-11(Silja Halle ed., 2009).

206Id. at 11.

207Sandwith et al., *supra* note 19, at 20 (3.2.1 Engage early in discussions with indigenous peoples and local communities inhabiting all jurisdictional zones of the TBPA, or using their resources).

208Id. (3.2.4 Identify as soon as possible any actual or potential disputes among the communities in the different jurisdictions, as well as between them and conservation objectives).

209Id. (3.2.4 Support and facilitate conflict management processes whenever necessary. 3.2.6 Strive to achieve support from decision-makers in all jurisdictions concerned, for prompt and lasting solutions to any dispute. It is important to ensure that relevant international and regional human rights and environmental standards should be complied with, as this may facilitate the resolution of disputes).

210Id. (3.2.13 Support activities that could have a healing effect on the relationships between communities which have suffered from armed conflict in the past).

which build trust and partnership between communities.²¹¹ Engaging in these practices encourages communities to resolve their resource based tensions in collaborative ways that can prevent an extreme resort to violence.

Strong civil organizations directly participating in collaborative conservation make the protected area and the communities themselves more resilient to armed conflict. In Nepal, when the Maoist insurgency between 1996-2006 wreaked havoc on its mountain forests and protected areas,²¹² interestingly, some places managed to survive Maoist takeovers and exploitation, with a few even continuing to hold regular meetings.²¹³ These community managed protected areas or forests governed by community forestry groups have been studied by Nabin Baral in his doctoral dissertation, which reveals an important correlation between social, human and natural capital and community as well as protected area resilience against the insurgency.²¹⁴ Community management groups with long-standing relationships had built the trust and experiences needed to collaboratively confront conflict related threats to their natural resources. Thus the peacebuilding and conflict resilience capacity of a peace park is very much related to the nature and presence of cooperation between stakeholders.

A co-management framework for a peace park can also foster collaboration in border security between security personnel, law enforcement officers and protected area authorities on either sides of the border(s). The presence of a peace park is likely to bring additional activity (e.g., commercial, recreational) to a border area, which governments see as a national security zone. Early consideration of transboundary threats and weak-points by protected area managers along with security and law enforcement personnel can ensure that the “opening” of a protected area border area does not become maliciously exploited.²¹⁵ Joint task forces can set guidelines and protocols, as well as facilitate security responses that ensure effective conservation, particularly when conflicts do arise.²¹⁶ This can include facilitating communication to stem illicit exploitation or abuse of natural resources in armed conflict²¹⁷ and training security, police and protected area personnel on international law regarding the environment in conflict.²¹⁸ Task forces should consult local community members early on. Mobile,

211^{*Id.*} (3.2.12 Implement activities that further understanding and co-operation among the communities concerned, such as cultural events, market days and joint projects.)

212Nabin Bharal & Joel T. Heinen, *The Maoist People's War and Conservation in Nepal*, 24 *Politics and the Life Sciences* 2 (2006).

213Nabin Bharal, *Institutional Resilience of Community-based Conservation to the Maoist Insurgency in Nepal* 3 (Nov. 2, 2009) (unpublished Ph.D. dissertation, Virginia Polytech Institute and State University) (on file with author).

214^{*Id.*} at 67-72.

215See Braack et al., *supra* note 171.

216See *Id.*

217^{*Id.*}; Geoffrey D. Dabelko, *From Threat to Opportunity: Exploiting Environmental Pathways to Peace* 3-4 (2006).

218Training on the norms and principles governing protection of the environment during armed conflict should include at a minimum relevant sections of Protocols I and III of the Geneva Conventions, ENMOD and the ICRC Guidelines on Military Manuals. As security personnel around the world adopt these guidelines into their national manuals, instructions or rules of engagement, these principles and norms will set the bar as a minimal level of objective knowledge of the potential widespread, long-term and severe effects of certain acts committed against the environment in times of conflict (e.g., use of incendiary bombs in forest areas). Mark A. Drumbl, *Waging War Against the World:*

indigenous or traditional populations living on or near borders may have historically passed freely across the border, making the sudden appearance of armed forces that prevent them from habitual movements unwelcome and threatening. However, in providing for the appropriate freedom of movement, border security must be able to distinguish between these mobile communities and wildlife traffickers, for instance. Training local peoples in security and monitoring procedures can assist in this process and strengthen law enforcement against transboundary crimes; local people can usually recognize their own and they can contribute valuable on the ground monitoring and reporting of illicit activities.²¹⁹ Local capacity-building can also better prepare communities for emergency responses arising out of conflict or natural disaster.²²⁰ This is also important for climate change adaptation.²²¹

Transboundary collaborative conservation can also play a significant role in peacemaking processes, particularly in ensuring that peace negotiations do indeed bring about just peace. With evermore cruel and destructive innovations in the technology of modern warfare, the environmental aftermath of violent conflict can easily meet *jus in bellum* thresholds as widespread, long-lasting and severe.²²² Just peace²²³ demands consideration and reparation for the environmental consequences of conflict and neutralization of any roles that natural resources or the environment played in the outbreak or life of the conflict.²²⁴ Conflicts related to natural resources are two times as likely to relapse into conflict again within five years.²²⁵ Nevertheless, peace agreements fail to include natural resource and environmental matters in three-quarters of the natural-resource affiliated conflicts between 1946 and 2006.²²⁶ A peace park provides a framework and a forum for diffusing this grave shortcoming, giving the environment a chance at peace and renewal.

The Need to Move from War Crimes to Environmental Crimes, 22 Fordham Int'l L.J. 122, 131-132 (1998).

219World Resources Institute [WRI], *Workshop on Promoting Transparency in the Forest Sector: Best Practices for Detecting Illegal and Destructive Commercial Logging* 3, 5-6 (WRI Summary Workshop Report, 2002).

220UN International Strategy for Disaster Reduction & UNDP Special Unit for South-South Cooperation, *Building Disaster Resilient Communities: Good Practices and Lessons Learned* (2007).

221Geoff O'Brien, Phil O'Keefe, Joanne Rose & Ben Wisner, *Climate Change and Disaster Management*, 30 Disasters 64 (2006).

222Protocol Additional to the Geneva Conventions of 12 August 1949 [hereinafter Protocol I], and Relating to the Protection of Victims of International Armed Conflicts, art. 35(3), June 8, 1977, 16 I.L.M. 1391, U.N. Doc. A/32/144 (1977)(prohibiting employment of "methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment"); United Nations: Rome Statute of the International Criminal Court, art. 8(2)(b)(iv), July 17, 1998, U.N. Doc. No. A/Conf. 183/9, 37 I.L.M. 999 (hereinafter Rome Statute)(prohibiting as a War Crime, "intentionally [launching] an attack in the knowledge that such attack will cause...widespread, long-term and severe damage to the natural environment").

223See Pierre Allan & Alexis Keller, *What is a Just Peace?* (Allan & Keller eds., Oxford University Press, 2nd ed., 2008).

224UNEP, *supra* note 204, at 19,

225*Id.* at 11, 19.

226*Id.*, citing H. Binningsbø & S. A. Rustad, *Resource Conflicts, Resource Management and Post-Conflict Peace* (PRIO Working Paper, Uppsala University & International Peace Research Institute, 2008) (only 26 of 137 peace negotiations for natural resource related conflicts between 1946-2006 included some form of natural resource management).

Additionally, when the tri-prong objectives of a peace park are maintained, local communities in or around the park may enjoy a series of socio-economic benefits. Social benefits of an effective peace park can be economic and socio-political. Economic benefits range from attracting development assistance (i.e., funding from donor organizations or governments) to development of ecotourism that provides for sustainable socio-economic development, or even the cheap and/or free enjoyment of ecosystem services. Politically or socially, involvement in peace park management can bring improvements in environmental governance and strengthen societies in the exercise and practice of direct democracy.

The benefits of peace and healthy environments (providing a sustainable source of natural resources and ecosystem services) can be significant for socio-economic development. Peace and stability make for safer and surer investment environments, at least in the minds of those who matter, investors with money. Doing business in conflict zones is costly, complicated and not for everyone. Without active investment and commerce, economies in conflict areas deteriorate further and socio-economic situations worsened. From a few experiences with the use of economic sanctions on nation-states violating international norms, it can be highlighted that it is often the fundamental rights of the most vulnerable and marginalized peoples who suffer the most from economic disruptions and not the misbehaving elites in control of the situation.²²⁷ In times of peace and security, however, development aid and investment can be safely encouraged to return to an area. Investing in sustainable development during post-conflict peacebuilding has even been perceived as a factor which may help to retain lasting peace.²²⁸ Investments in industries like ecotourism may promote peace,²²⁹ but they also require peace.²³⁰ Tourists do not typically enjoy being in the midst of violent cross-fire and investors do not want to risk losses on their investments. The stability of the peace park is important to the success of ecotourism just as the success of ecotourism is important to the financial sustainability of the peace park.

Conservation, economic development and peace are better achieved together; one should not be promoted at the cost of another. Costa Rica has been exemplary in demonstrating such benefits. In the 1970s and 1980s when its neighbors found themselves manipulated and torn apart from the inside by civil and international wars, Costa Rica demilitarized and opted instead to invest in peace and education, reforming its environment and development policies to completely reverse negative trends in deforestation. Its reputation as a place of security and natural beauty brings flocks of newlywed

²²⁷See Michael P. Malloy, *Economic Sanctions and Human Rights: A Delicate Balance*, 3 No. 1 Hum. Rts. Brief 12 (1995).; E.g. The Office of the High Commissioner for Human Rights, *The Human Rights Impact of Economic Sanctions in Iraq, Background Paper for the Meeting of the Executive Committee on Humanitarian Affairs* (Sept. 5, 2000), available at www.casi.org.uk/info/undocs/sanct31.pdf (last visited July 26, 2010).

²²⁸UNEP, *supra* note 204, at 22, 28-29.

²²⁹Nikolas J. Strong-Cvetich & Jason Scorse, *Ecotourism in Post-Conflict: A New Tool for Reconciliation?* (2007).

²³⁰E.g. Yakobo Moyini & Berina Uwimbabazi, *Analysis of the Economic Significance of Gorilla Tourism in Uganda* 32 (International Gorilla Conservation Programme, 2000) (tourism development originally planned in Uganda near its borders with the Democratic Republic of Congo and Rwanda had to be shifted northwards to Bwindi Impenetrable National Park because of conflict on the Rwandan border).

couples and eager tourists from all over the world to soak in natural hot springs, sleep in treehouses, watch birds by day and erupting volcanoes by night, sometimes even planting trees and patrolling sea turtle nesting beaches. Ecotourism has become Costa Rica's most profitable industry. Neighboring countries now seek to replicate this model and promote investment in the protection of their natural spaces so as to eradicate poverty across their communities.

Strengthening environmental governance in and around a protected area can bring greater transparency and accountability (particularly regarding law enforcement and governance) as well as capacity-building and empowerment of local peoples in a manner that strengthens democracy and decentralization (or subsidiarity).²³¹ However, a productive balance must be reached in co-management endeavors – one which inspires communities to participate in and benefit directly from the protection of their natural environments for generations to come without solidifying harmful status quos perpetuating existing inequities that are unfavorable to land conservation.²³² Opportunity and fora should be provided by local and other relevant authorities to disenfranchised peoples so that their voices might be heard and concerns acted upon. All peoples must be fully informed and equipped in order to offer more meaningful input, this is a fundamental tenet of democracy. With greater participation comes greater transparency (which in itself can discourage many harmful practices within the protected area) and thus greater accountability (for invidious practices that continue despite). Transparency and accountability can also ensure that the economic benefits of protected areas are shared more equitably and not merely concentrated in the hands of a few outside investors or a minority of powerful elites.

All of these social benefits will in turn have positive effects upon the peace park itself. Poverty and limited options for sustainable rural development have been noted to foster harmful environmental practices, such as land conversion and illegal extraction of natural resources. Marginalization or disempowerment of peoples can be sources of conflict between humans, as well as humans and protected areas. Conversely, poverty eradication and capacity building of disenfranchised peoples could prevent or reverse harmful practices and impacts, allowing local communities to play a much more positive role in transboundary conservation. An adaptive approach to collaboration and stewardship can ensure a long-lasting and equitable peace. As Allan and Keller would note, “Just Peace needs to be maintained.”²³³

Towards a legal framework: case studies

The advent of peace parks around the world has been a welcome affirmation that conservation, sustainable development and peace theories can be turned into on-the-ground practice. Participation in

²³¹See Jesse C. Ribot, *Building Local Democracy through Natural Resource Interventions: An Environmentalist's Responsibility* (WRI 2008).

²³²M. Nils Peterson, Markus J. Peterson & Tarla Rai Peterson, *Conservation and the Myth of Consensus*, 19 *Conservation Biology* 762 (2005).

²³³Allan & Keller, *supra* note 222, at viii.

the creation of peace parks has been wide and diverse, ranging from the initiatives of local individuals and small-scale civil society organizers to multinational NGOs and Heads of State or Government. Each peace park has been crafted to suit the needs and circumstances of the environment and people it seeks to protect. Each, with a unique story and different lessons to be shared. Here, we briefly survey three different TBPA's for peace and cooperation: Waterton-Glacier International Peace Park (the first peace park in the world), the Greater Virunga Transboundary Collaboration (a TBPA that seeks conservation, sustainable development and peace despite on-going armed conflict), and Costa Rica and Panama's Parque Internacional La Amistad.

Waterton-Glacier International Peace Park is the world's first official peace park. It is a pioneer example of a transboundary protected area created to celebrate longstanding peace between two nations and thus, one of the oldest peace parks with a long history of management experiences. The Central African case study in The Central Albertine Rift Transfrontier Protected Area Network provides a very different experience. There, civil unrest, war and large-scale human displacement make the peace-building process truly challenging. Memories of war are still raw and new, especially when compared to the 120 years of peace that Canada and the U.S. shared after the war of 1812 and the celebration of Waterton-Glacier International Peace Park. Nevertheless, the cooperation that occurred across the borders in Central Africa to protect human and wildlife is heroic and it is relationships such as those that must be built upon as these nations strive to put aside tensions and distrust towards a future of just peace and friendly relations. Parque Internacional La Amistad provides an interesting case study because both Costa Rica and Panama had put aside their arms and abandoned military systems, choosing to promote conservation, education and peaceful border relations in a time when insecurity and violence plagued their northern neighbors. There is an agreed legal framework that exists between the two governments to facilitate holistic conservation of the Talamanca mountain forests, but there remains want for greater collaboration and more integrated management.

Although peace parks can be found in various ecoregions of the world, terrestrial and marine, all three of the case studies examined here are located in mountain forest areas. Mountains are often the geological marker of international or sub-national boundaries, the battlegrounds of armed conflict and the home of marginalized communities, while forests provide a source of natural resources which can incite conflict, fund and prolong conflict, or alternative, build peace. For these reasons, mountain forests provide an optimal locus for the transboundary peace park model.²³⁴ In fact, transboundary mountains were a driving force behind the IUCN's "Parks for Peace" programme, which has developed publications and best practice guidelines for transboundary protected areas for peace and cooperation.

²³⁵ When communities come together across their national or sub-national divides to cooperatively protect fragile mountain forest ecoregions and their ecosystems against anthropogenically induced environmental change and the deconstructive effects of armed conflict, they will have a much better chance at sustainable development. A transboundary collaborative governance framework would support many efforts by local forest dependent communities themselves to address various

²³⁴Martin F. Price, *Conservation and Sustainable Development in Mountain Areas* 8 (IUCN, 2004).

²³⁵*Id.*

environmental challenges that confront their lands. The more homegrown or bottom-up that efforts to protect transboundary environments are, the less they might be perceived as outside meddling and thus a source of tension or conflict.

This section will provide a brief overview of the history of these parks, the objectives they set out to achieve and the legal framework which enshrines its fundamental principles, provides a mandate to its stewards and gives them the legal tools to achieve their goals. These experiences and others provide different examples of how peace parks may be created and managed, a useful introduction to the next Chapter on legal frameworks for the establishment and collaborative stewardship of transboundary peace parks.

Waterton-Glacier International Peace Park (Canada/US)

The world's first peace park, Waterton-Glacier International Peace Park (WGIPP), was created in 1932 to join Waterton National Park in Canada with Glacier National Park in the U.S., protecting a 4,320 km² area spanning part of the North Central Rockies Forests Ecoregion.²³⁶ This little piece of the Continental Divide, known to Blackfeet (or Blackfoot in Canada) natives as the “Backbone of the World,” is a geological mosaic of all rock types and the birthplace of waters, or the “apex of three oceans,”²³⁷ flowing as far as the Hudson Bay, Pacific Ocean and the Gulf of Mexico.²³⁸ Here, vegetative worlds collide to offer a range of vascular plant diversity as broad as the Serengeti or temperate rainforests of the American North West, in much less space.²³⁹ WGIPP is the northernmost limit of Southern Rockies alpine plants, the southernmost limit of northern arctic and boreal plants, as well as the easternmost limit of Pacific plants²⁴⁰ and one of only 37 biodiversity hotspots in the world.

It has been ordained “the most important area for the full range of native North American carnivores,”²⁴¹ including the grizzly bear. Although proudly brandished across every California state flag, the grizzly bear has not domiciled there for decades and in the U.S. has been pushed northward almost entirely into Canada, found only in corridor regions between Yellowstone and the border.²⁴² Laden with other representative charismatic megafauna, such as wolves, cougars, lynxes, black bears, bighorn sheep, moose and elk, WGIPP forms the Crown of the Continent, part of a greater ecological corridor familiarly termed Y2Y (Yellowstone to Yukon Conservation Initiative).²⁴³ This corridor recognizes the need for large range spaces that can support viable populations of large mammals or

²³⁶Mittermeier et al., *supra* note 14, at 71-82.

²³⁷National Parks Service, U.S. Department of Interior, *Final General Management Plan and Environmental Impact Statement Volume I*, at 3 (1999).

²³⁸*Id.* at 71.

²³⁹*Id.* at 75.

²⁴⁰*Id.*; R.A. Mittermeier, C.G. Mittermeier, P. Robles Gil, J. Pilgrim, G.A.B. Da Fonseca, T. Brooks & W. Konstant, *Wilderness: Earth's Last Wild Places*, (2003).

²⁴¹Mittermeier et al., *supra* note 14, at 71.

²⁴²*Id.* at 78.

²⁴³Charles C. Chester, *Conservation Across Borders: Biodiversity in an Interdependent World* 139-140 (2006).

even just to serve as a critical through-way for birds migrating along the North American flyway.²⁴⁴

The fight to keep this favored campground of the Blackfoot and Ktunaxa peoples as an ecological haven for future generations of all peoples to enjoy has been difficult and is on-going. During the 18th and 19th century, this region was tainted by illegal and/or unjust appropriations of native lands so that a relentless free-for-all of natural resource extraction could strip beaver pelts, murder the last of the bison, despoil minerals and poison waterways.²⁴⁵ By the turn of the century, the railroads could efficiently bring people in and resources out. In another half century, underground coal mines would evolve to become large open pits, removing mountain tops entirely. Extraction, highway expansion, land conversion, commercial and residential development, clear-cutting and invasive species continue to threaten the peace park and bordering areas to this day.²⁴⁶ Unprecedentedly, this year, a joint team of international scientists entered the peace park specifically to assess the endangerment posed by climate change to WGIPP and possible adaptation measures. Of 326 national parks surveyed in the U.S. by the U.S. National Park Service in 1980, Glacier National Park listed as fourth most threatened.²⁴⁷ The team of international scientists investigating WGIPP may similarly find the peace park to be worth listing as World Heritage in Danger.²⁴⁸

Despite the dangers that seem to loom around every bend, WGIPP is a mountain forest biodiversity hotspot of international importance that enjoys a protective legal framework crafted through decades of collaborative conservation efforts. In Canada, frontiersman John George “Kootenai” Brown and rancher F.W. Godsal, inspired by their explorations of the Waterton Lakes region (1857-1860 Palliser Expedition) lobbied government legislators to establish Kootenay Lakes Forest Park.²⁴⁹ This was later expanded in 1895 to Waterton Lakes National Park, protecting natural

244See *id.*; Mittermeier et al., *supra* note 14, at 75.

245See Mittermeier et al., *supra* note 14, at 72-82.; See also National Parks Conservation Association [NPCA], *State of the Parks: A Resource Assessment: Waterton-Glacier International Peace Park* 1-2 (Deanne Kloepper ed., 2002), citing Office of Science and Technology, U.S. National Park Service [U.S. NPS], *State of the Parks Report, 1980* (1980) (threats to U.S. National Parks, including Glacier National Park), also citing Panel on the Ecological Integrity of Canada's National Parks, Parks Canada, “Unimpaired for Future Generations”: *A Definition of Ecological Integrity* (2000) (threats to Canadian National Parks, including Waterton National Park).

246United Nations Educational, Scientific and Cultural Organization [UNESCO], World Heritage Comm., 33rd Sess., *Item 7-B of the Provisional Agenda: State of Conservation of World Heritage Properties Inscribed on the World Heritage List*, N354 rev, WHC-09/33.COM/7B (May 11, 2008), available at <http://whc.unesco.org/en/sessions/33COM/> (last visited Dec. 15, 2009).; UNESCO, World Heritage Comm., 33rd Sess., *Report of Decisions of the 33rd Session of the World Heritage Committee (Seville, 2009)*, 33 COM 7B.22, WHC-09/33.COM/20 (July 20, 2009), available at <http://whc.unesco.org/en/sessions/33COM/> (last visited Dec. 15, 2009).

247NPCA, *supra* note 244, at 1, citing U.S. NPS, *supra* note 244.

248Convention Concerning the Protection of the World Cultural and Natural Heritage, art. 11(4)-(7), Nov. 16, 1972, 11 I.L.M. 1358 [hereinafter World Heritage Convention].; See Erica Thorson, Anna D. Stasch, Christopher Scott, Keith Gibel, & Kim McCoy, *Petition to the World Heritage Committee Requesting Inclusion of Waterton-Glacier International Peace Park on the List of World Heritage in Danger as a Result of Climate Change and for Protective Measures and Actions* (International Environmental Law Project of Lewis & Clark Law School, 2006).

249Mittermeier et al., *supra* note 14, at 72.

and cultural heritage.²⁵⁰ South of the border, a similar movement was spearheaded by George Bird Grinnell, founder of the Boone and Crockett Club and editor of *Forest and Stream*, who wrote often of the “Crown of the Continent” and the Blackfeet.²⁵¹ He called repeatedly for protection of the Montana glaciers, lakes and wildlife. In 1900, the area was made a Forest Preserve.²⁵² Supported by railroad tycoon James Hill, Grinnell's calls for stronger protection against the natural resources extraction that was devastating the landscape were rewarded by Congress and in 1910, Glacier National Park was established.²⁵³

The two parks share a history of cooperation in conservation activities across the border. Just as the Kootenai and Blackfeet natives had passed between mountains from one side of the border to the other, rangers charged with the protection of Waterton Lakes National Park (Parks Canada) and Glacier National Park (U.S. National Park Service) often trekked around the lake and collaborated on bear and predator management policies or fire prevention policies, sharing their scientific findings and telling each others' stories during park interpretation sessions.²⁵⁴

Together, Kootenai Brown, who at this point had been designated first superintendent of Waterton Lakes National Park, and U.S. ranger Henry “Death on the Trail” Reynolds, began suggesting that the two parks should be joined as one.²⁵⁵ They were supported by petitions from the Rotary International chapters in both Alberta and Montana, who at their premier annual goodwill meeting in 1931 unanimously approved a resolution on the establishment of an International Peace Park.²⁵⁶ In response to the invigorated petitioning of local authorities that followed the rotary declaration, legislatures in Canada and the U.S. passed the appropriate legislation to officially create WGIPP in the summer of 1932.²⁵⁷ Celebrating over one-hundred years of peace and friendly relations along the world's longest undefended border (5,525 miles/8,892 km), President Herbert Hoover and Prime Minister R.B. Bennett officially dedicated WGIPP on June 18, 1932, pioneering the peace park model for all the world to see.²⁵⁸

Establishment of Waterton-Glacier International Peace Park

250Id.; Rotary International, *It Began as a Bold Idea: Where No Boundary Could Be Seen, No Boundary Should Be...*, at 7 (n.d.), available at www.nps.gov/glac/pdf/rotary_web.pdf (last visited Dec. 15, 2009).

251Mittermeier et al., *supra* note 14, at 72.

252U.S. NPS, *A Brief History of Glacier* (2006), available at <http://www.nps.gov/glac/historyculture/index.htm> (last visited Dec. 15, 2009).

253Glacier National Park, 16 U.S.C.A. §161 (1910).

254U.S. NPS, *Glacier Teacher's Guide: Introduction* (2007), <http://www.nps.gov/glac/forteachers/wgipp-teacher-guide.htm>.

255U.S. NPS, Waterton-Glacier International Peace Park 1 (NPS Background Paper, n.d.), available at www.peaceparks2007.org/documents/wgipp.pdf (last visited Dec. 15, 2009).

256Letter from Arthur E. Demaray, Acting Associate Director, National Park Service, to E. T. Scoyen, Superintendent of Glacier National Park, National Park Service (Jan. 12, 1932) (on file with U.S. National Park Service).

257Part of Waterton-Glacier International Peace Park, 16 U.S.C.A. §161(a) (May 2, 1932).

258U.S. NPS, *The Waterton-Glacier International Peace Park: 1932-1975: Symbol and/or Reality?* (n.d.), on file with U.S. National Park Service.; Waterton Resource Guide, *Waterton-Glacier International Peace Park* 2 (n.d.).

Intentions to declare a transboundary peace park linking Waterton Lakes National Park and Glacier National Park as WGIPP were first solidified in a resolution proposed by Rev. Canon S. H. Middleton of Cardston at the first annual good-will meeting of Rotary Club members from Cardston, Lethbridge, Calgary, Alberta, Estevan Saskatchewan, Great Falls, Kalispell and Missoula Montana on July 4th, 1931. Reverend Canon Middleton's motion was seconded by Harry B. Mitchell of Great Falls and supported unanimously by the hundred Rotarians gathered at the Prince Wales Hotel in Waterton Lakes National Park.

Rotary Club Resolution Supporting the International Peace Park

“Whereas one hundred members of the Rotary Clubs, representing the cities of Cardston, Lethbridge and Calgary of Alberta; Great Falls, Kalispell and Missoula of Montana, and Estevan, Saskatchewan, are assembled together attending an international meeting at the Water Lakes National Park;

And Whereas, it has been decided that a similar annual meeting be held alternately at Glacier Park, Montana, and Waterton National Park, Alberta;

Therefore, Be It Resolved, that the proper authorities be petitioned to commence negotiations to establish the two parks indicated as a permanent International Peace Park, which shall be definitely set aside for laudable purpose.

Pledging our loyalty and allegiance to foster all international relationships.”²⁵⁹

Pursuant to passage of the Rotary Club resolution above, negotiations between Rotarians and local officials (namely Brig. General J.S. Stewart of Alberta and Hon. Scott Leavitt in Montana) were undertaken and in 1932. Subsequently, Bills were presented to the U.S. Federal Government in Washington D.C. and the Dominion Government in Ottawa for the inclusion of Glacier National Park and Waterton Lakes National Park in the transboundary peace park, Waterton-Glacier International Peace Park.²⁶⁰

The declaration of WGIPP is not officially celebrated in any agreements between the two nations, but rather is codified by two independent pieces of legislation passed by the Parliament of Canada and the U.S. Congress.²⁶¹ The “Act For establishment of the Waterton-Glacier International Peace Park,” was first approved by the U.S. Congress on May 2nd, 1932 and then followed by a

²⁵⁹Rotary International Peace Park History, on file with U.S. National Park Service.

²⁶⁰*Id.*; H.R. 4752, 72nd Cong. (1932).; Bill 97, 17th Parl. (1932).

²⁶¹An Act Respecting the Waterton-Glacier International Peace Park, May 24, 1932, 22-23 George (Can.); Part of Waterton-Glacier International Peace Park, 16 U.S.C.A. §161(a) (May 2, 1932).

Proclamation by President Herbert Hoover on June 30th, 1932.²⁶² Shortly after Congressional approval of the Act establishing WGIPP in the U.S., the Canadian Parliament passed its own legislation, Bill 79, "An Act respecting the Waterton-Glacier International Peace Park," on May 24th, 1932, thus recognizing Waterton Lakes National Park as part of the unitary WGIPP. Both Acts of legislature reaffirm the protected area status of the two national parks and then declare their respective protected area to be a part of the WGIPP, created for the purpose of "commemorating the long-existing relationship of peace and good will existing between the people and Governments of Canada and the United States."²⁶³ Each national park remains under the jurisdiction of the administering authority – Parks Canada or the U.S. National Park Service.

On June 18th, 1932, some two thousand people convened to celebrate a dedication ceremony at Glacier National Park in Montana. At this ceremony, President Herbert Hoover stated, "Dedication of the Waterton Glacier International Park is a further gesture of the goodwill that has so long blessed our relations with our Canadian neighbours and I am gratified by the hope and faith that it will forever be an appropriate symbol of permanent peace and friendship." Prime Minister R. B. Bennett of Canada responded in writing

"I send sincere congratulations and good wishes on the occasion of the dedication. The relations between Canada and the United States has so long been characterized not only by that peace which is the foundation of our two democracies but by mutual respect and friendship. It is my earnest hope that this great International Peace Park, stretching across our common frontier and in which citizens of both our countries may seek recreation, may forever remain a permanent memorial of all that neighbourly relations should be between adjoining nations."

On July 4th, 1936, dedication of WGIPP was also celebrated on the Canadian side in Waterton National Park.²⁶⁴

Management of Waterton-Glacier International Peace Park

Administration of WGIPP is largely divided between the two territorial sovereignties with cooperation amongst the park authorities regarding certain activities. There exists between the two parks authorities, the National Park Service of the Department of the Interior of the United States of America and Parks Canada of the Department of Canadian Heritage of the Government of Canada, a

²⁶²Waterton-Glacier International Peace Park, By the President of the United States: A Proclamation, Pres. Proc. No. 2003, 47 Stat. 2519 (June 30, 1932).

²⁶³*Id.* at §1.

²⁶⁴U.S. NPS, General Management Plan: Glacier National Park (1999) [hereinafter Glacier NP Management Plan]; Parks Canada, Waterton Lakes National Park of Canada Management Plan 114 (2000) [hereinafter Waterton NP Management Plan].

Memorandum of Understanding governing “Cooperation in Management, Research, Protection, Conservation, and Presentation of National Parks and National Historic Sites” [hereinafter Waterton-Glacier MOU].²⁶⁵ The purpose of the Waterton-Glacier MOU is to design a “framework for cooperation and coordination between the Participants concerning the commemoration, conservation, an presentation of natural and cultural heritage sites.”²⁶⁶ The Waterton-Glacier MOU creates an Intergovernmental Committee that discusses joint projects, areas of high priority for cooperation and collaboration, and issues between the Participants (the U.S. National Park Service and Parks Canada).²⁶⁷ The Intergovernmental Committee is co-chaired by a representative from each park authority, the Director of the U.S. National Park Service and the Assistant Deputy Minister of Parks Canada, and meets periodically in alternating locations.²⁶⁸

Areas in which the two national park authorities cooperate under the Waterton-Glacier MOU typically concern information exchange and interpretation, capacity-building, planning, research and conservation activities within WGIPP.²⁶⁹ Park authorities share technical and professional information or sometimes also personnel and experts. They participate in seminars, conferences, training courses and workshops together, as well as international conventions and organizations (e.g., the World Heritage Convention, the IUCN, the Crown Manager's Partnership, etc.).²⁷⁰ Transboundary cooperation also includes collaboration regarding concessions management, border security and control, emergency or search and rescue response, wildland fire management, natural resources protection, habitat restoration, wildlife monitoring, joint event planning and hikes.²⁷¹ Each year there are two joint manager meetings, one joint ranger staff meeting and a series of hikes led by the park superintendents or rangers (e.g., Annual Superintendent's Hike, International Peace Park Hike and the annual Hands Across the Border hike).²⁷² As of 1935, there have also been annual meetings between Rotarians on both sides of the border, with the Assembly meeting each year in alternating countries.²⁷³

Despite the many cooperative activities, each park within WGIPP boasts its own management plan, developed and approved in accordance with the laws of its own jurisdiction.²⁷⁴ Each management

²⁶⁵Memorandum of Understanding between the National Park Service of the Department of the Interior of the United States of America and Parks Canada of the Department of Canadian Heritage of the Government of Canada on Cooperation in Management, Research, Protection, Conservation, and Presentation of National Parks and National Historic Sites, U.S.-Can., May 20, 1998 [hereinafter U.S. NPS & Parks Canada MOU], *in* Sandwith et al., *supra* note 19, at 85, 85-89.

²⁶⁶*Id.* at art. I.

²⁶⁷*Id.* at art. II.

²⁶⁸*Id.* at art. II(1).

²⁶⁹*Id.* at art. III(1).

²⁷⁰*Id.*

²⁷¹Wendy Ross, U.S. NPS, *Waterton-Glacier International Peace Park Cooperative Activities* 1 (2010) (on file with author).

²⁷²*Id.*

²⁷³Rotary International, Presentation at the 77th Anniversary Assembly: Waterton-Glacier International Peace Park (Sept. 25-27, 2009).

²⁷⁴Glacier NP Management Plan, *supra* note 263.; Waterton NP Management Plan, *supra* note 263.

plan is elaborated with the consultation of the public, as well as with the advice of park authorities on the other side of the international border.²⁷⁵ Administration of Glacier National Park is divided into six geographic areas (Many Glacier, Goat Haunt-Belly River, the Going-to-the-Sun Road corridor, Two Medicine, Middle Fork, and North Fork) and four management zones (visitor service zone, day use zone, rustic zone, and backcountry zone) with varying visitor accessibility and infrastructure development.²⁷⁶ Waterton Lakes National Park is also divided into various management areas, or Landscape Management Units (LMUs). An underlying purpose of LMUs is to support grizzly bears, so each LMU is approximately the size of a female grizzly's home range and is classified according to its usefulness as grizzly habitat.²⁷⁸ Waterton Lakes National Park is also classified according to zones: (I) Special Preservation, (II) Wilderness, (III) Natural Environment, (IV) Recreation and (V) Park Services.²⁷⁹ At times, park administrators collaborate with other agencies and across borders in other inter-agency committees and/or resource management plans (e.g., the Flathead Basin Commission, the Interagency Grizzly Bear Committee, and the Montana Bald Eagle Working Group or the Northern Continental Divide Grizzly Bear Ecosystem Management Plan and the Montana Smoke Management Plan).²⁸⁰ However, there is currently no management plan for the greater WGIPP as a whole.

In WGIPP, there is some collaboration with the indigenous tribes, but little co-management across the various stakeholder groups outside of traditional park authorities. In Glacier National Park, park officers work with tribal officials on matters specific to tribal and park lands (e.g., wildlife management, livestock trespass and joint preservation of historic and cultural landmarks).²⁸¹ This includes discussion of the treaty of 1895, pursuant to which much of the eastern half of Glacier National Park (previously part of the Blackfeet Indian Reservation, which is only a fraction of their historic territories) was ceded by the Blackfeet to the U.S. Government.²⁸² Such conversation should be broadened to include other historic land inhabitants, such as the Pikuni (Blackfeet, Blood), Cree, Kootenai, Gros Ventre, Stony (Assiniboine), Crow, Pend Orielle, and Salish.²⁸³ Parks Canada also consults First Nations peoples in its efforts to better protect historical and cultural heritage and they collaborate with First Nations peoples to inventory heritage sites and travel corridors.²⁸⁴ They also support public participation in planning, development and research.²⁸⁵ Generally speaking, however, management of WGIPP is divide between two national park authorities and involves limited collaboration with other PA stakeholders.

²⁷⁵Wendy Ross, *supra* note 270.

²⁷⁶Glacier NP Management Plan, *supra* note 263.; Waterton NP Management Plan, *supra* note 263, at 23.

²⁷⁷Waterton NP Management Plan, *supra* note 263, at 33.

²⁷⁸*Id.* at 34.

²⁷⁹*Id.* at 56.

²⁸⁰Glacier NP Management Plan, *supra* note 263, at 80.; Waterton NP Management Plan, *supra* note 263, at 13.

²⁸¹Glacier NP Management Plan, *supra* note 263, at 81.

²⁸²*Id.*

²⁸³*Id.* at 146.

²⁸⁴Waterton NP Management Plan, *supra* note 263, at 25.

²⁸⁵*Id.* at 45.

Efforts are being made to better coordinate activities in areas surrounding WGIPP. More strategic land use planning is being promoted in territories where human activities might impact the transboundary peace park and although they do not have direct authority, park authorities, when invited, contribute to local planning efforts at the state, county and tribal levels.²⁸⁶ Resource (i.e., timber, oil and gas) extraction prescriptions in Flathead National Forest and Lewis and Clark National Forest help to maintain viewsheds and prevent negative impacts that would undermine park values.²⁸⁷ Also, for some time now, there has also been discussion of expanding WGIPP to encompass Flathead Valley in British Columbia, Canada. This would allow for improved habitat connectivity and wildlife conservation.

Waterton-Glacier International Peace Park is at its core, two adjoining protected areas separately declared and separately managed with some cooperation regarding certain transboundary issues. Administration of the park is coordinated to some degree, but not hugely integrated. Furthermore, it does not contemplate a multi-stakeholder collaborative management process that transcends divides. Even efforts to prevent border clearing (a tactic used for border security purposes) inside of the park have thus far failed, undermining other efforts to maintain the ecological continuity of the transboundary peace park.²⁸⁸

The Central Albertine Rift Transfrontier Protected Area Network (DRC/Rwanda/Uganda)

The Central Albertine Rift is an area of great ecological importance, locally, regionally and internationally. The greater Albertine Rift is in and of itself a unique ecoregion (montane forest),²⁸⁹ with one of the highest numbers of endemic mammals in any global ecoregion²⁹⁰ (at least 34 endemic mammalian species and 12 near-endemic species).²⁹¹ The Albertine Rift spans the northernmost extent of Lake Albert and the southernmost extent of Lake Tanganyika and is composed of the entire rift valley in between.²⁹² Its area transgresses the borders of five nation-states: Burundi, the DRC, Rwanda, Tanzania and Uganda (see Illustration 1). The heart of this, or the Central Albertine Rift, was divided by the 1894 Conference of Berlin between the nation-states of the DRC, Rwanda and Uganda.²⁹³ A

²⁸⁶Glacier NP Management Plan, *supra* note 263, at 83.; Waterton NP Management Plan, *supra* note 263, at 48.

²⁸⁷ Glacier NP Management Plan, *supra* note 263, at 80-81.

²⁸⁸*Id.* at 98.

²⁸⁹Defined as “relatively large units of land containing a distinct assemblage of natural communities and species, with boundaries that approximate the original extent of natural communities prior to major land-use change.” David M. Olson et al., *Terrestrial Ecoregions of the World: A New Map of Life on Earth*, 51 *Bioscience* 933, 933 (2001).

²⁹⁰*Id.* at 936.

²⁹¹R. Kityo, A. J. Plumptre, J. Kerbis Peterhans, J. Pilgrim & D. Moyer, *Section 2: Mammals*, in *The Biodiversity of the Albertine Rift* 23 (Wildlife Conservation Society, Albertine Rift Technical Reports No. 3, 2003).

²⁹²A. J. Plumptre, *Section 1: The Albertine Rift*, in *The Biodiversity of the Albertine Rift* 16 (Wildlife Conservation Society, Albertine Rift Technical Reports No. 3, 2003).

²⁹³Annette Lanjouw et al., *Beyond Boundaries: Transboundary Natural Resource Management for Mountain Gorillas in the Virunga-Bwindi Region* 1, 6 (Biodiversity Support Program, 2001).

2003 biodiversity assessment by the Wildlife Conservation Society (WCS) of the Albertine Rift identified a total of 402 species of mammals (39% of mammals identified in Africa),²⁹⁴ 1,061 species of birds (52% of birds found in Africa),²⁹⁵ 175 species of reptile (14% of reptiles found in Africa),²⁹⁶ 119 species of amphibians (19% of amphibians in Africa),²⁹⁷ at least 117 species of butterflies. Many of these are endemic species²⁹⁸ and some are threatened or IUCN Red List species.²⁹⁹

As is characteristic of transboundary mountain forests, the Central Albertine Rift provides important ecosystem services, especially as a major watersheds contributor and carbon sink, for various populations. The Central Albertine Rift is critical to both the Nile River and Congo River transboundary watersheds.³⁰⁰ Its various types of montane forest systems generate rainfall through evapotranspiration, store water and feed important tributaries and rivers for the human and wildlife populations that live in and around them.³⁰¹ For example, as the headwaters of the Nile River, the Central Albertine Rift is of salient interest to a series of at least 160 million stakeholders from ten different States, from Uganda all the way up to Egypt.³⁰² It also feeds Lake Victoria, Lake Edward, Lake Kivu and Lake Tanganyika of the Great Lakes of Africa.³⁰³ Additionally, these forests are viewed as a globally significant source of carbon sequestration that could potentially provide a substantial income for its peoples.³⁰⁴ Failure to properly steward these forests could conversely contribute

294R. Kityo et al., *supra* note 290.

295C. Kahindo Ngabo1, A. Plumptre, N. E. Baker, I. Owiunji, M. Wilson, C. T. Williams, A. Byaruhanga, M. Languy, M. Herremans, T. Butynski & D.Moyer, *Section 3: Birds, in The Biodiversity of the Albertine Rift* 34 (Wildlife Conservation Society, Albertine Rift Technical Reports No. 3, 2003).

296M. Behangana1, D. Meirte, A.J. Plumptre, K. Howell & H. Hinkel, *Section 4: Reptiles, in The Biodiversity of the Albertine Rift* 43 (Wildlife Conservation Society, Albertine Rift Technical Reports No. 3, 2003).

297M. Behangana, D. Meirte, A.J. Plumptre, K. Howell, S. Stuart, and H. Hinkel, *Section 5: Amphibians, in The Biodiversity of the Albertine Rift* 51 (Wildlife Conservation Society, Albertine Rift Technical Reports No. 3, 2003).

298Thirty-four mammal species are endemic and 12 are near-endemic; 41 bird species are endemic; 16 reptile species are endemic and 3 are near-endemic; 34 amphibian species are endemic and 3 are near-endemic; . See A. J. Plumptre et al., *The Biodiversity of the Albertine Rift* (Wildlife Conservation Society, Albertine Rift Technical Reports No. 3, 2003).

299Thirty-six mammal species are threatened and 89 are IUCN-listed; See *id.*

300The Nile River Basin supports 160 million people in 10 different countries, while the Congo River Basin supports dozens of millions of people. Eric van de Giessen, Institute for Environmental Security, *Charcoal in the Mist: An Overview of Environmental Security Issues and Initiatives in the Central Albertine Rift* 5 (2008), citing P. Kameri-Mbote, *Conflict and Cooperation: Making the Case for Environmental Pathways to Peacebuilding in the Great Lakes Region*, in 12 Environmental Change and Security Program Report (2007).

301Plumptre et al., *supra* note 160, at 9.; See also Jeanna Hyde Hecker, EnviroSense, *Promoting Environmental Security and Poverty Alleviation in Virunga-Bwindi, Great Lakes Africa* 7 (Institute for Environmental Security, 2005).

302Eric van de Giessen, *supra* note 299, at 5.

303*Id.* at 10.

304Richard Hatfield & Delphine Malleret-King, International Gorilla Conservation Programme, *The Economic Value of the Mountain Gorilla Protected Forests (The Virungas and Bwindi Impenetrable National Park* 63-67 (2007).; Glenn K. Bush, *The Economic Value of Albertine Rift Forests: Applications in Policy and Programming* 235-236 (Aug. 2009) (unpublished Ph.D. dissertation, University of Stirling), available at https://dspace.stir.ac.uk/dspace/bitstream/1893/2309/1/BUSH_THESIS_2009_FINAL.pdf (last visited May 20, 2010).

significant amounts of greenhouse gases into the atmosphere.³⁰⁵ All of these water and forest resources are endangered by anthropogenically induced threats such as environmental degradation, armed conflict, fragmented and poor governance, or climate change.³⁰⁶

Human inhabitants of the Central Albertine Rift exhibit a diverse cultural make-up that has not always been appreciated, respected or properly protected. This is one of the most highly populated regions of the world, exhibiting a population density as elevated as 420 to 820 people per square kilometer,³⁰⁷ a figure comparable to or even higher than the population densities characterizing Rwanda prior to the genocide of the 1990s (which some scholars consider to be a contributing factor to its breakdown into violent conflict).³⁰⁸ High instances of economic poverty characterize these populations.³⁰⁹ Local peoples depend largely on subsistence agriculture and forest products for their livelihoods and existence.³¹⁰ Historically, efforts in this region to create protected areas for wildlife conservation have expelled marginalized peoples from ancestral lands (e.g., the removal of 1,700 Batwa pygmies in Bwindi Impenetrable National Park of Uganda), while conflict and poverty continue to destroy ecosystems.³¹¹ Park administrators in the three States have struggled to balance conservation with livelihood uses of forest resources and lands.³¹² There are few buffer zones between the park and human communities; it is no wonder aerial surveillance photos show a stark contrast between protected

305J.G. Canadell, M.R. Raupach & R.A. Houghton, *Anthropogenic CO₂ Emissions in Africa*, 6 *Biogeosciences* 463 (2009), available at www.biogeosciences.net/6/463/2009/ (two main sources of anthropogenic CO₂ emissions in Africa are fossil fuel combustion and land use change, as primarily derived from tropical deforestation); Duncan Brack & Katharina Umpfenbach, Chatham House, *Deforestation and Climate Change*, *The World Today*, Oct. 2009, at 7 (“Deforestation is responsible for roughly one fifth of global carbon emissions, most of it in the tropical forests of the developing world.”); Greenpeace International, *Carving Up the Congo* i (Apr. 2007) (the DRC is the world’s 4th largest forest carbon reservoir, storing 8% of the Earth’s carbon, but estimates of future deforestation estimate that by 2050, the DRC will release up to 34.4 billion tonnes of CO₂ due to forest coverage loss); *See also*, The Commission on Climate and Tropical Forests, *Protecting the Climate Forests: Why Reducing Tropical Deforestation is in America’s Vital National Interest* (2009); *See also*, International Union of Forest Research Organizations [IUFRO], *Making African Forests Fit for Climate Change: A Regional View of Climate-Change Impacts on Forests and People, and Options for Adaptation* 9 (Klein, Buck & Eastaugh eds., 2010).

306Joe Gurrieri, Jason Gritzner & Mike Chaveas, United States Department of Agriculture [USDA] Forest Service, *Virunga-Bwindi Region: Republic of Rwanda, Republic of Uganda, Democratic Republic of Congo* 6-8 (2005).

307African Wildlife Foundation [AWF], Fauna & Flora International [FFI] & World Wildlife Fund [WWF], *International Gorilla Conservation Programme: Programme Profile March 2007* 3 (2007).; In some of the rural areas surrounding the CAR TBPA Network, human populations are said to be as high as 820 people per square kilometer. Jeanna Hyde Hecker, *supra* note 300, at 19.

308Rwanda’s population density was approximately 290 inhabitants per square kilometer, or 3.2 people per hectare in 1993. This figure rises to 422 people per square kilometer when areas such as lakes, national parks and forest reserves, where humans are not permitted to inhabit, are excluded. Valerie Percival & Thomas Homer-Dixon, *Environmental Scarcity and Violent Conflict: The Case of Rwanda* 29 (American Association for the Advancement of Science & the University of Toronto, Occasional Paper, June 1995).

309See Plumptre et al., *supra* note 160, at 9.

310*Id.*

311Mark Dowie, *supra* note 156, at 67.

312AWF, FFI & WWF, *supra* note XXX at 4-5.

areas and denuded mountainsides with clear divisions at park borders.³¹³

Past and ongoing armed conflict in the territory and in the region has been particularly harmful to the ecological communities of the Central Albertine Rift, including its *Homo sapien* inhabitants. Perhaps the most globally infamous “ethnic” conflict in this region is that which has long existed between the so-called Hutus and Tutsis. Without debating the ethnic validity of the Hutus and Tutsis or discussing reasons for the violent conflict which has plagued the individuals who identify with these groups, it can be noted their conflict is very much tied to the borders between the three Central Albertine Rift nations (Rwanda, Uganda and the DRC). Since the late 1950s, perceived differences and violence between the Hutus and the Tutsis caused many Tutsis to cross the Rwandan border into Uganda.³¹⁴ Later on, the 1994 genocide in Rwanda brought many of these Tutsis back into Rwanda and the DRC. Continuation of this “ethnic” conflict in the DRC has forced the migration of large numbers of human beings into neighboring territories and caused the deaths of millions (at least 4.5 million since the 1990-1994 war in Rwanda).³¹⁵ Similarly, the cruel regimes of Milton Obote and Idi Amin in Uganda (1962-1979) has pushed a diaspora into the DRC.³¹⁶ Regional conflict in these and other Great Lakes States has brought an abundance of small arms and light weapons, refugees and armed groups into Central Africa.³¹⁷ Furthermore, natural resources extraction and trafficking (e.g., conflict timber) has been used to fund prolonged armed conflict in and around park territories to detrimental effect.³¹⁸

313Helga Rainer et al., *Regional Conservation in the Virunga-Bwindi Region: The Impact of Transfrontier Collaboration Through the Experiences of the International Gorilla Conservation Programme*, in 17 *Journal of Sustainable Forestry, Transboundary Protected Areas: The Viability of Regional Conservation Strategies* 189, 192 (Goodale et al. eds., 2003).

314Annette Lanjouw, *Building Partnerships in the Face of Political and Armed Crisis*, in 16 *Journal of Sustainable Forestry, War and Tropical Forests: Conservation in Areas of Armed Conflict* 93, 95 (Steven V. Price ed., 2003).; The presence of refugees in the CAR TBPA Network has placed great stress on the natural environment and its resources. E.g., AWF, FFI & WWF, *supra* note 306 at 6 (Some 750,000 refugees fled Rwanda during the 1994 genocide, with tens of thousands of them remaining in the Virunga-Bwindi region. During this time, over 75 square kilometers of park land were completely deforested and numerous animals poached for bushmeat, including mountain gorillas).

315AWF, FFI & WWF, *supra* note 306 at 4 (The Rwandan genocide is attributed for the deaths of up to 1 million people, while the conflict in the DRC is said to have killed more than 3.5 million in just 5 years).

316Annette Lanjouw, *supra* note 313, at 95.

317Jeffrey Boutwell & Michael Klare, *A Scourge of Small Arms*, 282 *Scientific American* 48, 48-53 (June 2000).; Annette Lanjouw, *supra* note 313 at 95.

318“Conflict timber” has been defined as “wood that has been traded or taxed at some point in the chain of custody by armed groups, be they rebel factions or state militaries, or by a civilian administration involved in armed conflict to finance hostilities or otherwise perpetuate conflict.” Steven Price, Deanna Donovan & Wil de Jong, *Confronting Conflict Timber*, in *V World Forests, in Extreme Conflict and Tropical Forests* 117, 117 (Wil de Jong, Deanna Donovan & Ken-ichi Abe eds., Springer 2007).; See Eric van de Giessen, *supra* note 298.; See also Jamie Thomson & Ramzy Kanaan, United States Agency for International Development [USAID], *Conflict Timber: Dimensions of the Problem in Asia and Africa* 16 (2004).; Global Witness, *Same Old Story: A Background Study on Natural Resources in the Democratic Republic of Congo* 35 (June 2004).; UNSC, Final report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo, U.N. Doc. S/2002/1146 (Oct. 16, 2002), available at <http://www.un.org/News/dh/latest/drcongo.htm> (last visited May 21, 2010).; Greenpeace, *Forest Crime File: Danzer Group Involved in Bribery, Illegal Logging, Dealings with Blacklisted Arms Trafficker, and*

Within the Central Albertine Rift, violent conflict has caused the deaths of numerous rangers, civilians and wildlife, while stifling development and aid and undermining park objectives (conservation, development and peace).³¹⁹

Recognizing the severe endangerment of the ecologically and culturally important Central Albertine Rift, actors from the African Wildlife Foundation (AWF), Fauna and Flora International (FFI) and the World Wildlife Fund (WWF) banded together to form the International Gorilla Conservation Programme (IGCP) in 1991.³²⁰ IGCP's principal purpose was to save the last remaining populations of mountain gorillas (*Gorilla beringei beringei*), one of the most endangered apes in the world.³²¹ Their mission was to “empower people to jointly manage a network of transboundary protected areas so that they contribute significantly to sustainable development and protecting the mountain gorilla and its afro-montane habitat.”³²² It has sought to accomplish this goal through multi-stakeholder collaboration across the tri-national region, but works primarily with park authorities (Office Rwandais de Tourisme et des Parcs Nationaux, the Uganda Wildlife Authority and the Institut Congolais pour la Conservation de la Nature) in strengthening institutional capacities and consulting civil society regarding park administration and planning.³²³ With support from the IGCP and other international organizations, park administrators from the Office Rwandais de Tourisme et des Parcs Nationaux (ORTPN), the Uganda Wildlife Authority (UWA) and the Institut Congolais pour la Conservation de la Nature (ICCN) have signed collaborative agreements to integrate management of eight protected areas, collectively known as the Central Albertine Rift Transfrontier Protected Area Network (CAR TFPA Network). The first transboundary strategic management plan was drafted through a rigorous process of public consultation in all three States and approved in 2006, with implementation beginning in 2008.

Establishment of The Central Albertine Rift Transfrontier Protected Area Network

Without adopting the title “peace park” or any other analogous term indicating it as such, the Central Albertine Rift Transfrontier Protected Area Network (CAR TFPA Network) is a peace park. It has been legally protected by the governments of three countries, the Democratic Republic of Congo (DRC), the Republic of Rwanda and the Republic of Uganda, for the express purposes of conservation, cooperation and peace.³²⁴ This is sufficient to qualify it as a peace park under the definition and

Suspected of Forgery (Jan. 2005).

319 Andrew J. Plumptre, *Lessons Learned from On-the-Ground Conservation in Rwanda and the Democratic Republic of Congo*, in 16 *Journal of Sustainable Forestry, War and Tropical Forests: Conservation in Areas of Armed Conflict* 71, 77-82 (Steven V. Price ed., 2003).; Mark Jenkins, *supra* note 139, at 40.

320 Lanjouw et al., *supra* note 292, at xiii.

321 AWF, FFI & WWF, *supra* note 306, at 2.

322 *Id.*

323 *Id.* at 2, 4-5, 7.

324 Trilateral Memorandum of Understanding between the Office Rwandais de Tourisme et des Parcs Nationaux, the Uganda Wildlife Authority and the Institut Congolais pour la Conservation de la Nature, on the Collaborative Conservation of the Central Albertine Rift Transfrontier Protected Area Network [hereinafter CAR TBPA Network]

guidance of the IUCN WCPA publication, “Transboundary Protected Areas for Peace and Co-operation.”³²⁵ The significance of this designation is particularly admirable when viewed within the socio-political circumstances affecting these three nations throughout the on-going peace park process. The CAR TFPA Network was officially declared by the governments of the DRC, Rwanda and Uganda in 2004 to coordinate activities in eight existing protected areas.³²⁶ These include Volcano National Park in the Republic of Rwanda, Mgahinga Gorilla National Park, Bwindi Impenetrable National Park, Queen Elizabeth National Park, Kibale National Park, Semliki National Park and Ruwenzori Mountains National Park in the Republic of Uganda, and the Virunga National Park in the DRC. Since their independence from traditional colonial imperialism, all three territories have experienced extreme violence and civil strife which has spilled back and forth across their shared borders and yet, stewards of nature dared to envision a collective space for conservation and peace. Individually, these parks have come a long way from Pleistocene ecological refuge to colonial hunting grounds to battlefields to transboundary peace park.

Parc National des Virungas (DRC) was the first to be established in 1925.³²⁷ This makes it the oldest national park in Africa.³²⁸ At that time, however, it was known by a different name – Albert National Park. Its name was changed in 1969 to its current form, Parc National des Virungas. Within that time, the park had also grown in size.³²⁹ Encompassing 8,000 square kilometers of low- and high-altitude forests, lava fields, savannas and wetlands, as well as lakes and plains,³³⁰ it was designated a World Heritage Site in 1979.³³¹ Its main conservation objectives were to protect mountain gorillas and other species of flora and fauna for tourism and science.³³² Due to the various pressures of armed conflict and human (re)settlement in the region, its World Heritage status was elevated to “World

MOU], Dem. Rep. Congo-Rwanda-Uganda, Jan. 9, 2004, art. 3(1), available at <http://www.tbpa.net/documents.htm> (last visited July 16, 2010).

325The IUCN WCPA definition of a peace park is “transboundary protected areas that are formally dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and to the promotion of peace and co-operation,” which the CAR TFPA Network satisfies. This definition makes no reference to the explicit reference of the TBPA as a peace park. What qualifies it as a peace park are the stipulated objectives of conservation, peace and cooperation. See Lanjouw et al., *supra* note 292, at 22.

326CAR TBPA Network MOU, *supra* note 323.

327King's Decree, Delvingt, Joly, J & Mankoto (1990), cited in Plumptre et al., *supra* note 160, at 14.

328Patricia Kimeri-Mbote, University of Nairobi School of Law, *Environmental Conflict and Cooperation in the African Great Lakes Region: A Case Study of the Virungas* 13 (Woodrow Wilson International Center for Scholars & UNEP, 2007)

329When first protected, Parc National des Virunga included 20,000 ha. Of mountain forest. Shortly afterwards, it was expanded to include Rwindi Hunting Reserve and some large farms nearby. A decree issued July 9th, 1929, grew the park to a total of 350,000 ha. A series of subsequent decrees further expanded the territory to cover more than 800,000 ha. (issued January 6th, 1939 and November 12th, 1932). Plumptre et al., *supra* note 160, at 15.

330Jose Kalpers, World Wildlife Fund, *Volcanoes Under Siege: Impact of a Decade of Armed Conflict in the Virungas* (Biodiversity Support Program, 2001).

331UNESCO, Oct. 22-26, 1979, *Report of the Rapporteur on the Third Session of the World Heritage Committee*, ¶¶ 45-46, CC-7/CONF.003-13 (Nov. 30, 1979).

332Plumptre et al., *supra* note 160, at 14.

Heritage Site in Danger” in 1994. Humans living directly in and adjacent to the park have caused great devastation to park lands.³³³ Yet, Parc National des Virungas is vitally important to humans. It contains both Lake Edward and Lake Kivu, which respectively are parts of the Nile River Basin and Congo River Basin.³³⁴ As mentioned previously, these watersheds provide water supplies for millions of people in ten different States.

Contiguously to the south of Parc National des Virungas, in northwestern Rwanda is Parc National des Volcans. It was first protected by order of Governor of Rwanda-Urundi, which was then supported by a decree on August 18, 1927.³³⁵ The goals of its protection were specifically to protect the Virunga Volcanoes (Visoke and Karisimbi Volcanoes) contiguously adjacent to Parc National des Virungas. Two years later, it was declared a protected area and has since then, also been designated a UNESCO Biosphere Reserve. Despite its legal protection, between 1958 and 1979, Parc National des Volcans lost more than half of its terrain to human encroachment.³³⁶ In 1960, it was divided into two geopolitical administrative territories – Parc National des Virungas in the north and Parc National des Volcans in the south – reflecting the independence of the DRC and Rwanda.³³⁷ During the Rwandan Genocide (primarily 1991-1994), these montane forests were infiltrated by armed troops (both the Rwandan Patriotic Front and the Rwandan Armed Forces), who laid down hundreds of mines and cleared paths for access and security controls (i.e., to allow for easier surveillance and to minimize risk of ambush).³³⁸ Shortly afterward, in 1996, the massive displacement caused by the Rwandan Genocide, a Commission of the Ministry of Rehabilitation and Social Integration listed Parc National des Volcans for settlement and integration of refugees and internally displaced peoples (IDPs).³³⁹ Such large-scale settlement of transient peoples with resource-demands has declined severely the coverage of protected montane forest in Parc National des Volcans to a mere 125 square kilometers.³⁴⁰

Bwindi Impenetrable National Park can be found in southwestern Uganda on the edge of the Western Rift Valley and the international boundary line shared with the DRC. It incorporates the natural ranges of some 300 mountain gorillas (*Gorilla beringei beringei*), which can be found in some of the highest parts of the Kigezi Highlands, into its 330.8 square kilometers of protected forest.³⁴¹ It was first set aside by the colonial government in 1932 as a Forest Reserve, and then also as a Game

333Patricia Kameri-Mbote, *supra* note 327, at 17-18 (over one million people live within just a few kilometers of the national park, over 90% of which are subsistence farmers and pastoralists); *Id.* at 22 (reports in May-June 2004 observed “extensive habitat destruction and land conversion” from forest to agricultural and pastoral uses).

334Eric van de Giessen, Institute for Environmental Security, *Peace Park Amid Violence?: A Report on Environmental Security in the Virunga-Bwindi Region* 15 (July 2005).

335Plumptre et al., *supra* note 160, at 14.14.

336Patricia Kameri-Mbote, *supra* note 327, at 22.; Jose Kalpers, *supra* note 329.; Plumptre et al., *supra* note 160, at 14.(328 square kilometers were reduced to 165 square kilometers between 1958 and 1973).

337Plumptre et al., *supra* note 160, at 14.

338*Id.* at 23-24.; Jose Kalpers, *supra* note 329.; Eric van de Giessen, *supra* note 333, at 18.

339*Id.*

340Eric van de Giessen, *supra* note 333, at 15.

341Plumptre et al., *supra* note 160, at 12.

Sanctuary in 1961.³⁴² This meant that Bwindi was jointly managed by the forest and game departments of Uganda. In 1991, Bwindi was promoted to National Park status and gazetted in 1992 so as to better protect “Uganda's most rare and unique flora and fauna.”³⁴³ Two short years later, it was designated a World Heritage Site (1994). However, due to a variety of human pressures, it is now also considered a “World Heritage Site in Danger,” by UNESCO and the IUCN.

Separated by a strip of cultivated farmland from Bwindi Impenetrable National Park is Mgahinga Gorilla National Park, also located in Uganda.³⁴⁴ Mgahinga Gorilla National Park shares a border with both the DRC and Rwanda. This means that it is also abutting Parc National des Virunga in the DRC and Parc National des Volcans in Rwanda. Together, these three parks cover 434 square kilometers of volcanoes (Mt. Muhabura, Mt. Gahinga and Mt. Sabyinyo) and mountain forest gorilla habitat known as the Virunga Volcanoes.³⁴⁵ Mgahinga Gorilla National Park was first protected in 1930 by the colonial government as a Gorilla Sanctuary. In 1941, game and forest reserve protections were added to this designation and in 1991, it was officially gazetted as a National Park.³⁴⁶ When the park's 33.7 square kilometers were set aside for the protection of rare endemic species, Mgahinga was well-settled by tribes, such as the Batwa, who were moved in exchange for compensation provided by USAID.³⁴⁷ Park administrators are now considering how to best ensure that the forest and its natural resources benefit these and other communities living around the protected area.³⁴⁸

Also located in the Republic of Uganda are Queen Elizabeth National Park, Kibale National Park, Semuliki National Park and Rwenzori Mountains National Park. Queen Elizabeth National Park was gazetted in 1952, two years after a visit by Queen Elizabeth II of England.³⁴⁹ It occupies 1,978 square kilometers of elephant corridor that also passes through the DRC's Parc National des Virungas. Kibale National Park was declared in and is composed of 776 square kilometers of primate habitat (housing 13 different species).³⁵⁰ Semliki National Park is one of the newest of Uganda's national parks. Gazetted in 1993, it covers 220 square kilometers of Ituri forest and floodplains.³⁵¹ Rwenzori Mountains National Park contains the Mountains of the Moon, the highest mountain range in Africa,

342Plumptre et al., *supra* note 160, at 13.

343Statutory Instrument 3 of 1992, *cited in id.*

344Plumptre et al., *supra* note 149, at 12.

345Statutory Instrument 27 of 1991, amended by Statutory Instrument 3 of 1992, *cited in id.* at 13-14.

346Lanjouw et al., *supra* note 292, at 20.; A. Vedder & W. Weber, *Living with Wildlife: Wildlife Resource management with Local Participation in Africa* (A. Kiss ed., World Bank Technical Paper No. 130, 1990).

347A.J. Plumptre et al., *supra* note 160, at 14 (more than 2,400 people were evicted from Mgahinga National Park in 1992).; Jose Kalpers, *supra* note 329.

348See Uganda Wildlife Authority, Bwindi Impenetrable National Park Mgahinga Gorilla National Park (Bwindi/Mgahinga Conservation Area) General Management Plan July 2001-June 2011 (July 2001).

349Uganda Wildlife Authority, *Queen Elizabeth National Park (QENP)* (2010), <http://www.uwa.or.ug/queen.html> (last visited May 22, 2010).

350Uganda Wildlife Authority, *Kibale National Park* (2010), <http://www.uwa.or.ug/kibale.html> (last visited May 22, 2010).

351Uganda Wildlife Authority, *Semuliki National Park* (2010), <http://www.uwa.or.ug/semlikinat.html> (last visited May 22, 2010).

second only to individual peaks, Mount Kenya and Kilimanjaro.³⁵² This range was originally protected in 1941 as a Forest Reserve, despite calls to protect it as a National Park.³⁵³ These requests were finally answered in 1989, when along with Bwindi Impenetrable National Park and Mgahinga Gorillas National Park, Rwenzori Mountains National Park was gazetted.³⁵⁴ By 1991, it was officially a National Park with 996 square kilometers high mountain forests. The Wildlife Conservation Society has been particularly active in these national parks, working with UWA and ICCN to address transboundary environmental issues, such as wildlife poaching and natural resources trafficking.³⁵⁵ Since these areas have experienced less instances of violence, they have become an important refuge for species fleeing the effects of heavy cross-border poaching and conflict.³⁵⁶

Protected areas authorities, ICCN, ORTPN and UWA, were first brought together in Rwanda in 1979 under an initiative of the African Wildlife Foundation (AWF), Flora and Fauna International (FFI) and the World Wildlife Fund (WWF), called the Mountain Gorilla Project.³⁵⁷ Driven largely by gorilla and habitat conservation for purposes of developing inter-State ecotourism, ad hoc bilateral commissions were organized between the DRC, Rwanda and Uganda.³⁵⁸ In 1989, the first Afromontane Forest Conference/Seminar was held in Cyangugu, Rwanda.³⁵⁹ This was followed by other regional conferences, which brought together actors who would play a role in the regional integration of the Central Albertine Rift. Regular collaboration between stakeholders was still missing at this time, as most of these conferences were organized ad hoc and had little follow-up or continuity. Participants in the Mountain Gorilla Project responded to this by expanding their program from Rwanda to cover the entire Central Albertine Rift and reinvented themselves as the International Gorilla Conservation Programme at a stakeholder meeting in early 1991.³⁶⁰

The meeting between representatives of the nascent IGCP and three protected areas authorities (ICCN, ORTPN and UWA) advanced a partnership for the conservation of mountain gorillas and their habitats. It was agreed by the three governments and their protected areas authorities that IGCP would appropriately empowered to facilitate a regional collaborative framework for accomplishing shared goals.³⁶¹ IGCP has since supported formal and informal collaboration between stakeholders (although

352Uganda Wildlife Authority, *Rwenzori Mountains National Park* (2010), <http://www.uwa.or.ug/rwenzori.html> (last visited May 22, 2010).

353The Encyclopedia of Earth, United Nations Environment Programme-World Conservation Monitoring Centre, *Rwenzori Mountains National Park, Uganda* (July 1, 2009), http://www.eoearth.org/article/Rwenzori_Mountains_National_Park_Uganda (last visited May 22, 2010).

354Id.

355Patricia Kimeri-Mbote, *supra* note 327, at 27.

356Id. at 27-28.

357Lanjouw et al., *supra* note 292, at 20.

358Lanjouw et al., *supra* note 292.

359Id.

360Id. at 21.

361Id. at 22.; Patricia Kimeri-Mbote, *supra* note 327, at 26.

primarily working with protected area officials) at all levels (from the field to high political arenas).³⁶² Through participation in joint surveillance missions, biodiversity monitoring and joint meetings, staff members of the various park authorities have strengthened their relationships, thereby inspiring even more extensive collaboration.³⁶³ It should be stressed here that the park authorities and IGCP managed to operate in extreme conditions of violent conflict and while diplomatic relations between their governments were tensely strained.³⁶⁴ The only formal arrangements at that time were between the DRC and Rwanda for purposes of “bilateral meetings between representatives of the two countries; cross-visits by rangers and field personnel; and, from November 1993 to April 1994, organized joint patrols.”³⁶⁵

With time, these admirable feats by ORTPN, UWA, ICCN and IGCP were recognized in high level political agreements.³⁶⁶ The first of these is the “Trilateral Memorandum of Understanding Between the Office Rwandais de Tourise et es Parcs Nationaux, the Uganda Wildlife Authority and the Institut Congolais pour la Conservation de la Nature on the Collaborative Conservation of the Central Albertine Rift Transfrontier Protected Area Network” [hereinafter referred to as the 2004 CAR TFPA Network MOU], signed on January 9th of 2004. This agreement recognizes Mgahinga Gorilla, Bwindi Impenetrable, Queen Elizabeth, Kibali, Semliki and Ruwenzori National Parks of Uganda, Virunga National Park of the DRC and Volcanoes National Park in Rwanda, as component parts of a greater transboundary PA network.³⁶⁷ By providing legal support to the collaborative efforts of the PA authorities, rangers, local communities and NGOs, the governments of these three countries formally recognized the validity of their activities and provided a basis for the further integration of parks administration.³⁶⁸

Just two years later, the “Tripartite Declaration on the Transboundary Natural Resources Management of the Transfrontier Protected Area Network of the Central Albertine Rift” [hereinafter referred to as the Goma Declaration] was signed by the ministers in charge of the three protected areas authorities – the Minister for Environment, Natural Conservation and Tourism of the DRC, the Minister of State for Lands, Environment, Forests, Water and Mining in Rwanda, and the Minister of State for Environment of Uganda.³⁶⁹ The Goma Declaration was a joint initiative with the Ministry of Environment of Spain and UNESCO that created the Central Albertine Rift Transboundary Biosphere Initiative (CAR Biosphere Initiative). The purpose of the CAR Biosphere Initiative was to facilitate the

³⁶²*Id.* at 27.

³⁶³*Id.* at 27.

³⁶⁴Between 1990 and 1994, the border between Rwanda and Uganda was closed, but protected areas managers continued to communicate via IGCP, other conservation partners or even at international meetings. Jose Kalpers, *supra* note 329.

³⁶⁵*Id.*

³⁶⁶Patricia Kameri-Mbote, *supra* note 327, at 36.

³⁶⁷CAR TBPA Network MOU, *supra* note 323, at art. 1.

³⁶⁸Regional collaboration was occurring in practice since at least 1991 when the IGCP was created, but their activities were not formally recognized until the 2004 CAR TBPA Network MOU. AWF, FFI & WWF, *supra* note 306 at 4.

³⁶⁹The Tripartite Ministerial Declaration on the Central Albertine Rift Transboundary Biosphere Initiative, Dem. Rep. Congo-Rwanda-Uganda, Oct. 2005.

sharing of information and experiences from other transboundary protected areas and biosphere reserves, so as to “ensure the conservation of the unique biodiversity of the region while promoting the socio-economic and cultural well being of human communities in the region.”³⁷⁰ Effectively, the Goma Declaration expands regional collaboration to include international actors and recognizes the TBPA as a site of global importance.³⁷¹

It is expected that a broad spectrum of stakeholders, including local communities and other government agencies, NGOs, Community Based Organizations (CBOs), the private sector and the international community, will participate in park stewardship.³⁷² Given the density of human settlement all the way up to the CAR TFPA Network's park borders, a robust practice of collaborative local stewardship is both necessary and practical. Historically, local communities have interacted across the borders (and not just as a result of conflict displacement). Humans in this region are known to cross borders for trade, visits to sacred sites, grazing of their animals on common rangelands and mate selection (transboundary marriages are not uncommon in this area).³⁷³ Cross-border collaborative stewardship of a shared ecoregion is a natural extension of these relations. Unfortunately, however, national environmental legal systems in these three nations has not always facilitated a process of participatory management in protected areas.³⁷⁴ This is especially true in the DRC and Rwanda, where national laws do not support civic participation in environmental matters.³⁷⁵ Despite this weakness, elaboration of the transboundary management plan for the CAR TFPA Network has undertaken a stakeholder consultation process and hopefully its implementation will only grow this spirit of civic stewardship.³⁷⁶

Management of The Central Albertine Rift Transfrontier Protected Area Network

Park management in Virunga-Bwindi has often been difficult and dangerous, highlighting the need for regional stakeholder (i.e., authorities, rangers, communities and NGOs) cooperation towards just peace. Previously, administration of the Central Albertine Rift was largely divided between the three protected area authorities, who were each acting in accord with their own national laws and policies, as well as under separate management plans.³⁷⁷ Challenged by threats such as climate change, environmental crimes and degradation, that know no borders and aggravate socio-economic, political and environmental concerns, park managers felt the need to structure a more comprehensive stewardship framework. In developing a transboundary management plan for the CAR TFPA Network,

³⁷⁰*Id.* at para. 4.

³⁷¹Transboundary Core Secretariat, *Ten Year Transboundary Strategic Plan: Central Albertine Rift Transboundary Protected Area Network 2-3* (Final Version, Feb. 28, 2006) [hereinafter CAR TBPA Strategic Plan].

³⁷²*Id.* at x.; Patricia Kamari-Mbote, *supra* note 327, at 38.

³⁷³Patricia Kamari-Mbote, *supra* note 327, at 25.

³⁷⁴Lanjouw et al., *supra* note 292, at 15.

³⁷⁵*Id.*

³⁷⁶AWF, FFI & WWF, *supra* note 306 at 4.

³⁷⁷*Id.* at 3.

park authorities sought an integrated and participatory approach that incorporates civil society and the global community in the protection of this sensitive ecoregion.

The 2004 CAR TBPA Network MOU set the stage for creation of a Transfrontier Core Secretariat³⁷⁸ and development of a Transboundary Strategic Plan that applies to the entire transboundary peace park.³⁷⁹ The Transfrontier Core Secretariat as established under this agreement is made up of: (1) Executive Directors of the three protected areas authorities, ICCN, ORTPN and UWA, (2) a Technical Associate as elected by each of the Executive Directors, and (3) a representative of the International Gorilla Conservation Programme (IGCP).³⁸⁰ Transfrontier Core Secretariat decisions are adopted by consensus at its meetings, which take place at least once a year (generally twice).³⁸¹ IGCP was designated facilitator of the transboundary process involved in creation of the Transfrontier Core Secretariat and its Transboundary Strategic Plan,³⁸² but representatives of each of the three parks authorities may also be held responsible for implementation of the objectives and mandates of the 2004 CAR TBPA Network MOU.³⁸³ Quarterly meetings of the IGCP are held for purposes of regional and operational planning, while annual meetings are held to discuss yearly program-wide planning.³⁸⁴

In accord with the 2004 CAR TBPA Network MOU, the ICCN, ORTPN and UWA collaborate through the Transfrontier Core Secretariat on a variety of issues relating to the transboundary objectives of the MOU for the CAR TFPA Network. This includes cooperative research and monitoring, exchanges of ideas, resources, experiences and information and joint elaboration of proposals, park guidance and best practices.³⁸⁵ Most importantly, all of these activities are to contribute towards integrated landscape-level ecosystem protected area planning and management for cooperative conservation of biodiversity and natural as well as cultural heritage, and a “common vision for transboundary collaboration” that contributes to peace and the reduction of poverty.³⁸⁶ The “Framework for Conservation in the Albertine Rift 2004-2030” offers an illustration of this “common vision” and is the overarching guideline for collaborative conservation and development in the region.

³⁸⁷

In 2006, authorities signed a transboundary strategic plan to outline a legal and administrative framework for multi-stakeholder collaboration for conservation, development and peace. The Ten-Year Transboundary Strategic Plan for the CAR TFPA Network was developed out of a 5-year process led

³⁷⁸CAR TBPA Network MOU, *supra* note 323 at art. 4(1).

³⁷⁹*Id.* at art. 1 & 4(1).

³⁸⁰*Id.* at art. 4(3).

³⁸¹*Id.* at art. 5(3).; CAR TBPA Strategic Plan, *supra* note 370, at 15.

³⁸²*Id.* at art. 4(2).; AWF, FFI & WWF, *supra* note 306 at 4.

³⁸³CAR TBPA Network MOU, *supra* note 323 at art. 8.

³⁸⁴AWF, FFI & WWF, *supra* note 306 at 7.

³⁸⁵CAR TBPA Network MOU, *supra* note 323, at art. 3(1) & art. 5(1).

³⁸⁶CAR TBPA Network MOU, *supra* note 323, at art. 3(1).

³⁸⁷Framework for Conservation in the Albertine Rift 2004-2030, *cited in* CAR TBPA Strategic Plan, *supra* note 370, at viii, 3.

by a Core Planning Team of the Transboundary Core Secretariat.³⁸⁸ A SWOT analysis was conducted with participation by stakeholders through questionnaires and workshops to identify priority objectives, strategies, progress indicators and monitoring methodologies.³⁸⁹ The Plan is based on a medium-term 30-year vision - “The Central Albertine Rift Transfrontier PA Network together with the surrounding Landscape conserved sustainably.”³⁹⁰ Its long term goal is to achieve “Sustainable Conservation of the CAR Biodiversity for Long Term Socio-Economic Development through Strategic Transboundary Collaborative Management.”³⁹¹ So as to provide for implementation of the Plan, a Transboundary Inter-Ministerial Board, the Transboundary Core Secretariat, Technical Committees (for Research, Tourism, Community Conservation and Enterprise, as well as Security and Law Enforcement) and a Regional Forum are named as part of a decision-making structure.³⁹²

The Transboundary Inter-Ministerial Board is composed of “representatives from the ministries responsible for environment, wildlife, forestry, lands, water, tourism and foreign affairs in the three countries.” They are essentially the political arm of the decision-making structure, providing political oversight and ensuring government buy-in and formalization of transboundary collaboration, regional policies or guidelines and harmonization of relevant national policies.³⁹³ The Transboundary Core Secretariat's mandate is still largely governed by the 2004 CAR TFPA Network MOU, but the Transboundary Strategic Plan offers some further elaborations. Under the Plan, they are charged with harmonization of wildlife conservation, development of transboundary natural resource management strategies, planning, monitoring, evaluation and securing stable financing for the CAR TFPA Network.³⁹⁴ Each of the four Technical Committees are made up of 9 members: one representative of the ICCN, ORTPN and UWA, plus six other representatives (with no more than 2 from each country).³⁹⁵ These six members may be drawn from experts and specialists of transboundary institutions, such as INGOs.³⁹⁶ Members are selected by the Transboundary Core Secretariat.³⁹⁷ Each Technical Committee is chaired by one of the three protected area authorities on an annual rotating basis and they are responsible for technical reviews and advice.³⁹⁸ The Regional Transboundary Forum is an annual gathering of stakeholders, who are chosen by the Transboundary Core Secretariat, to provide ideas and feedback on implementation of the Plan and updates on their own projects and activities.³⁹⁹ Although Plan implementation will involve stakeholder collaboration, responsibilities lie ultimately with the protected

388*Id.* at viii, x.

389*Id.* at 4.

390*Id.* at 6.

391*Id.* at xiii, 6.

392*Id.* at viii-ix.

393*Id.* at 15.

394*Id.*

395*Id.* at 15-16.

396*Id.*

397*Id.* at 16.

398*Id.*

399*Id.*

Key principles in the stewardship of the CAR TFPA Network are collaboration and flexibility. Population dynamics in the region require a comprehensive and participatory approach to protected areas management in order to mitigate human-protected area conflict and to ensure the greatest possible protection of environmental and human rights. Participatory stewardship also helps protected area authorities to achieve the three-pronged goal of regional collaboration in the CAR TFPA Network – conservation, peace and sustainable development. Flexibility is perhaps a lesser mentioned concept in the legal and management frameworks governing the CAR TFPA Network. However, documented experiences indicate that stewardship of this conflict-ridden sensitive ecoregion requires, at times, ad hoc responses to rapidly changing circumstances. CAR TFPA Network stewards have proven to be innovative and courageous in their efforts to best protect natural environments and their biota despite the extraordinary challenges that they face. The political agreements and the Ten-Year Transboundary Strategic Plan which have emerged from their work validate their relative success and provide a formalized platform for further advancements towards a common vision.

Parque Internacional La Amistad (Costa Rica/Panama)

La Cordillera de Talamanca is an extensive mountain forest range that traverses the Costa Rican and Panamanian border and is part of an even more impressive series of mountain chains, known as the Continental Divide, that links the Rockies to the Andes. At the center of the Continental Divide, the Talamancas serve as an important land bridge, fostering biological and genetic migration and diversity between the two older and larger Americas. This phenomenon is sometimes referred to by paleontologists as the “Great American Biotic Interchange.”⁴⁰¹ It is here, in this mountain forest melange of species and genetic exchange, that Parque Internacional La Amistad (PILA) is situated. Spanning nearly 2,000 square kilometers, PILA exhibits high instances of species endemism (some 20-50% of all endemic species across the various species groups can be found within the borders of PILA).⁴⁰² The biodiversity of PILA is also highly representative of Costa Rican and Panamanian ecology – 80-100% of all flowering plants, non-vascular plants, moss, lichen and orchids; almost 70% of all known fauna; almost 75% of all reptiles and amphibians; and nearly 70% of all bird species of both nations.⁴⁰³ Here, one can witness the largest expanse of cloud forest in Central America, the second most diverse collection of butterfly fauna in the world, the convergence point of 75% of all migrating birds in the

⁴⁰⁰*Id.* at 18.

⁴⁰¹Thomas K. Ankerson, *The Mesoamerican Biological Corridor: The Legal Framework for an Integrated, Regional System of Protected Areas*, 9 J. Envtl. L. & Litig. 499, 506 (1994), citing F.G. Stehli & S.D. Webb, *A Kaleidoscope of Plates, Faunal and Floral Dispersals, and Sea Level Changes, in the Great American Biotic Interchange* 11 (Stehli & Webb eds., 1985).

⁴⁰²Manuel Ramírez, *La Amistad: A Long History of Transboundary Friendship in Central America*, in Mittermeier et al., *supra* note 17, at 159.

⁴⁰³*Id.* at 159-160.

Americas and more than 80% of the Holdridge life zones identified in Costa Rica and Panama.⁴⁰⁴ Charismatic Mesoamerican fauna, such as the tapir, giant anteater, jaguars, howler monkeys, and harpy eagles all prowl the PILA cordillera.⁴⁰⁵

The Talamancas are an important hydrological and climate resource for both Costa Rica and Panama. As part of the Continental Divide, its mountains feed headwaters of rivers flowing into both the Caribbean and Pacific Oceans. Native to the Costa Rican Pacific sector of the Talamanca Mountain Range, PILA Park Administrator, Nelson Elizondo Torres, has observed that communities in the region used to have access to water resources within a kilometer or less of their homes, but today, they depend completely upon Parque Internacional La Amistad for their water supply.⁴⁰⁶ As anthropogenic climate change and populations dynamics continue to shift and alter regional environmental security, protection of PILA as a hydrological resource will be increasingly critical. The abundance of water and altitudinal zonation in the Talamancas are also rhyme and reason for its diversity of forest types. Presenting a spectrum of forest ecosystems (e.g., lowland forests, cloud forests, subalpine meadow/scrub, wet and moist tropical forests, premontane wet forests and lower montane wet forests), PILA and its surrounding vegetation provide an important ecosystem service as a significant carbon sink for the global community.⁴⁰⁷

Despite its importance as a water tower for many communities, PILA is now under the threat of development of no less than 60 hydroelectric projects either in or adjacent to its territory.⁴⁰⁸ The Center for Biological Diversity and a coalition of partner organizations filed a petition to the UNESCO World Heritage Committee in 2007 to have PILA included on the List of World Heritage in Danger due to the multidimensional impacts of various dams on PILA waterways.⁴⁰⁹ In response, a Reactive Monitoring

404Id.

405Id.

406Interview with Nelson Elizondo Torres, Park Administrator of Parque Internacional La Amistad – Costa Rica Pacific Sector, SINAC-MINAET, in Altamira, Costa Rica (Apr. 20, 2010).

407Manuel Ramírez, *supra* note 401, at 160.

408Rafael E. Berrocal R., Fundación para el Desarrollo Integral, Comunitario y Conservación de los Ecosistemas en Panamá [FUNDICCEP], *Los Rostros Detrás de las Hidroeléctricas* (May 26, 2010), <http://www.fundiccep.org/> (last visited May 27, 2010) (17 dams are in construction or already construction, 11 more have been approved and 35 hydroelectric projects are in the process of official review/approval).

409Erica Thorson, Linda Barrera & Jason Gray, Lewis & Clark Law School, *Petition to the World Heritage Committee Requesting Inclusion of Talamanca Range-La Amistad Reserves/La Amistad National Park on the List of World Heritage in Danger* (2007).; William O. McLarney & Maribel Mafla H., *Probable Effects on Aquatic Biodiversity and Ecosystem Function of Four Proposed Hydroelectric Dams in the Changuinola/Teribe Watershed, Bocas del Toro, Panama, with Emphasis on Effects Within the La Amistad World Heritage Site* (2007) (technical paper supporting La Amistad petition).; Jim Barborak, Julio Montes de Oca, Marc Patry & Alberto Salas, IUCN ORMA & UNESCO World Heritage Centre, *Mission Report: Reactive Monitoring Mission to the Talamanca Range La Amistad Reserves/La Amistad National Park – Pila, Costa Rica and Panama* (June 15, 2008).; William O. McLarney, Maribel Mafla H., Ana Maria Arias & Danielle Bouchonnet, *The Threat to Biodiversity and Ecosystem Function in the La Amistad World Heritage Site, Panama and Costa Rica, from Proposed Hydroelectric Dams* (2010) (Follow-up to McLarney & Mafla 2007).

Mission Report was submitted by the IUCN and UNESCO World Heritage Center in 2008 identifying continued threats by dams and other forms of human encroachment (cattle ranching being perhaps one of the most significant).⁴¹⁰ A 2010 follow-up report does not shy away from indicating that there have been no real improvements to the situation when stating that:

“it has become increasingly apparent that, chiefly as a consequence of dam proposals and in direct contravention of one of the stated purposes for declaring the La Amistad National Parks, all of the major watersheds within the World Heritage Site are threatened with multiple species extirpations and consequent secondary effects which stand to grossly alter the character of ecosystems within the Site and the surrounding protected areas and indigenous territories making up the La Amistad Biosphere Reserve.”⁴¹¹

Tension between long-time local community members and representatives or employees of foreign dam companies is becoming an unmitigated problem.⁴¹² On one occasion, we were warned that as a group of foreigners who look very much like scientists, we might be perceived as technicians or consultants of hydroelectric projects and thus as a wise precaution, should be careful when interacting with local people. Such hostility to dam affiliates may be attributed to the environmental degradation and change which these projects have brought to this region and the minimal social benefit which they have returned to the communities who are harmed by such developments. Most of the dam's laborers and employees are not hired locally, so they are housed in temporary mobile homes and bused around on employee-only buses (in sometimes remote and rural areas with little public or private transportation). Many of the communities living near by hydroelectric projects have no electricity in their homes or neighborhood and poverty continues to remain the socio-economic standard.

These developments are occurring in the context of communities, who have become increasingly aware of the potential ecological and social benefits of transboundary conservation and of the harms generated by negative environmental changes. Although they were not initially informed or consulted of the park's designations, they have become increasingly active in the protection of lands bordering PILA. Community organizations in and around PILA have been rallying to protest and prevent the approval and construction of hydroelectric dam projects in their lands, but to little reprieve. Park protection, which began as a government imposed construct, is now being undermined by the government itself (with the aid of foreign companies profiting from such infrastructure and in some cases, foreign governments looking to buy off their greenhouse gas contributions through investments in Clean Development Mechanisms). Many local activists are expressing frustration that they are now

⁴¹⁰Barborak et al., *supra* note 408.

⁴¹¹McLarney et al., *supra* note 408.

⁴¹²See Manuel Ramírez, *supra* note 401, at 163. Interviews with civil society groups and individuals in all sectors (Pacific and Caribbean) of both sides of the Costa Rican and Panamanian border repeatedly reflected strong anti-hydroelectric project sentiments, great frustration at their lack of voice (oftentimes coupled with allegations of corruption) and little hope for alternatives or improvements.

more educated and more organized than before, but that civil action has received less response and less support from their governments.⁴¹³ Recent policy changes in both Costa Rica and Panama to allow for greater civil participation in protected areas governance will need to provide redress for such grievances.

Establishment of Parque Internacional La Amistad

In 1979, the President of Costa Rica, Lic. Rodrigo Carazo Odio, and the President of Panama, Dr. Aristides Royo, left their capitals and met in the border region of La Cordillera de Talamanca.⁴¹⁴ The two men discussed how protection of their shared biological and hydrological resources could contribute to a symbolic celebration of the friendly relations that had long existed between their nations.⁴¹⁵ At this time there was open civil opposition to the proposed construction of an oil pipeline and highway that would greatly change the aesthetic and ecological landscape of the Talamancas.⁴¹⁶ Citizens hoped that the creation of a protected area would halt these developments. On March 3rd of the same year, the two presidents announced their intent to declare an international park in their two territories along that very Cordillera.⁴¹⁷ Following this amiable joint declaration, the Costa Rican Government was the first to take action, declaring La Amistad National Park on February 4th, 1982 by decree.⁴¹⁸ Although the original intent was to declare the two sides of the park simultaneously, the political situation in Panama delayed such action until the issuance of an Executive Decree on September 28th, 1983 setting aside the Panamanian sector of PILA.⁴¹⁹ The Panamanian Government

413Interview with Jorge O. Pitty & Damaris Sanchez, FUNDICCEP, in Cerro Punta, Panama (Apr. 23, 2010) [hereinafter Interviews with Pitty & Sanchez].

414Decreto No. 13324-A, Feb. 4, 1982, Declara Parque Nacional Parque Internacional Amistad, para. 2, La Gaceta [L.G.] Feb. 22, 1982 (Costa Rica) (Que el señor Presidente de la República de Costa Rica, Licenciado Rodrigo Carazo Odio y el Excelentísimo señor Presidente de la República de Panamá, doctor Aristides Royo, se reunieron el 3 de marzo de 1979, en la región fronteriza de la Cordillera de Talamanca, con el objeto de continuar la política de cooperación en el área fronteriza, y como gesto simbólico de las excelentes relaciones de amistad y fraternidad entre los dos pueblos y Gobiernos, ambos dignatarios intercambiaron impresiones sobre el alto valor científico y ecológico de la región, y coincidieron en la necesidad de conservar y preservar la flora y la fauna de la misma, para mantener el equilibrio ecológico y fundamentalmente los recursos hidrológicos del area fronteriza y que, para tal efecto, los dos gobernantes decidieron y firmaron una declaración conjunta para crear el parque internacional de la Amistad: Costa Rica- Panamá, en ambos lados de la frontera).

415Id.

416At that time, an oil pipeline already carried oil between Panama and San Jose, Costa Rica. The new pipeline would have transported oil across the Talamanca Mountain Range (connecting the Atlantic and Pacific), which at that time was being shipped via trucks and cisterns. Interview with Nelson Elizondo Torres, *supra* note 405.

417Executive Decree No. 25 (Sept. 28, 1983), *cited in* IUCN WCMC, *La Amistad International Park and Volcan Baru National Park (Panama) World Heritage Nomination – IUCN Summary* 71 (April 1990).

418Decreto No. 13324-A, *supra* note 413.

419IUCN WCMC, *supra* note 416, at 71 (referencing Executive Decree No. 25 of Sept. 28th, 1983).; Interview with Ing. Lionel Quiroz, Director of Parque Internacional La Amistad – Pacifico, Ing. Benigrio Villamonte, Director of Parque Internacional La Amistad – Caribe and Lic. Harmodio Cerrud, Regional Administrator in David, Panama, Autoridad

also gazetted Volcan Baru National Park on July 13th, 1978 and Palo Seco Protected Forest on November 24th, 1983.⁴²⁰ Finally, on September 6, 1988 a resolution was passed in Panama that consolidated all of these adjacent protected areas into PILA-Panama.⁴²¹ This resolution has the status of an Executive Decree in Panama.⁴²² Together, the two protected areas cover an expansive mountain forest of 406,147 hectares (199,147 hectares in Costa Rica and 207,000 hectares in Panama).⁴²³

Just as the Costa Rican Government took the first steps to legally protect their section of PILA, they were also the first to submit PILA territories within their jurisdiction for international recognition. In 1982, PILA-Costa Rica was declared a biosphere reserve.⁴²⁴ PILA-Costa Rica was nominated for World Heritage Site listing by UNESCO in 1983.⁴²⁵ At this time the World Heritage Bureau noted its request that the Panamanian side of PILA be recognized as well,⁴²⁶ but it was not until 1990 that such submission occurred. In the IUCN's Summary Report to UNESCO in support of World Heritage Nomination of PILA-Panama and Volcan Baru National Park, it was noted that PILA is an international park with indivisible natural and ecological characteristics and should thus be inscribed as one single site.⁴²⁷ One year later, PILA, the "most diverse and largest natural forest remaining in Central America," was recognized as a transboundary World Heritage Site.⁴²⁸

Management of Parque Internacional La Amistad

Administration of PILA is divided between Costa Rica and Panama and then on each side of the border, between the east and west sides of the Talamancas (the Pacific and the Caribbean). For example, within PILA-Costa Rica, there is La Amistad-Caribe and La Amistad-Pacífico; this division is basically the same in Panama. For much of PILA's existence, it has been managed top-down by State

Nacional del Ambiente [ANAM], in David, Panama (Apr. 24, 2010) [hereinafter Interview with Quiroz, Villamonte & Cerrud].

420IUCN WCMC, *supra* note 416, at 71 (Volcan Baru National Park was established by Executive Decree No. 40 on June 24, 1976, but not gazetted per official publication until July 13th, 1978).

421Resolución Directive No. J.D.-0021-88, Sept. 2, 1988, L.G., Sept. 6, 1988 (Pan.).

422Law No. 21 (Dec. 16, 1986).

423Nelson Elizondo Torres, Luís Sánchez Arguedas & Gravin Villegas Rodríguez, Ministerio del Ambiente y Energía, Sistema Nacional de Áreas de Conservación, *Plan de Protección y Control: Parque Internacional La Amistad* 4 (Aug. 2007).; Autoridad Nacional del Ambiente [ANAM], Asociación Nacional para la Conservación de la Naturaleza Consultores Ecológicos Panameños, S.A., *Plan de Manejo Parque Internacional La Amistad: Provincias de Bocas del Toro y Chiriquí* 22 (Mar. 2004).

424IUCN WCMC, *supra* note 416, at 81.

425UNESCO World Heritage Committee, 7th Ord. Sess., at 6, SC/83/CONF.009/8 (Dec. 5-9, 1983).

426*Id.*

427IUCN WCMC, *supra* note 416, at 79 ("Panama and Costa Rica have both declared that Amistad is an international park. In terms of the area's natural resources and ecological characteristics there is no way to separate the two sides. The inscription of the new site should thus be a single one, recognizing that the two countries will cooperate in management).

428IUCN WCMC, *supra* note 416, at 79.; Barborak et al., *supra* note 408, at 7.

protected areas authorities, with little collaboration between the two States or with local communities. In recent years, with the intervention of international environmental NGOs, such as Conservation International and The Nature Conservancy, community capacity building and social organization has been promoted for purposes of participating in regional environmental governance. As civic organizations increasingly work together across the geopolitical border, public administrators are increasingly collaborating in official conservation activities. With continued integration between the civic and public sectors, as well as across geographic sectors, PILA may one day enjoy one comprehensive system of stewardship that transcends all borders.

In Costa Rica, protected areas are managed by the National System of Conservation Areas (El Sistema Nacional de Áreas de Conservación - SINAC), a part of its Ministry of Environment, Energy and Technology (MINAET).⁴²⁹ SINAC divides administration of PILA into two sectors: La Amistad-Caribbean Conservation Area (88% of PILA-Costa Rica) and La Amistad-Pacific Conservation Area (12% of PILA-Costa Rica).⁴³⁰ Creation of the park nearly doubled the size of SINAC's attendant territories, but it did not come with a parallel increase in resources (economic or human).⁴³¹ Today, there are a total of twelve park rangers working in all of PILA-Costa Rica, an area of nearly 200,000 ha. of oftentimes difficult terrain with few footpaths.⁴³² There is one park administrator, currently Nelson Elizondo Torres, who manages all PILA-Costa Rica activities from the Altamira headquarters found within the Pacific Conservation Area.⁴³³ Most of the rangers are located in this region, with just a few on the Caribbean side.⁴³⁴ Divided park management and uneven distribution of resources fragments park protection. In some parts of La Amistad-Caribbean Conservation Area, for instance, there is little oversight or institutional presence, while in other areas of La Amistad-Pacific Conservation Area, park lands are well protected.⁴³⁵

The new management plan for Costa Rica's Pacific sector of PILA that was elaborated in 2006 reflects a few new developments for protected areas administration in Costa Rica. For the first time, PILA's management plan was developed with the collaboration of civil society groups, NGOs, municipalities, provincial leaders and administrators of other protected areas.⁴³⁶ This included the participation of indigenous groups in the Caribbean, which led to the first inclusion of an allowance for traditional indigenous uses in a conservation area management plan. Indigenous groups themselves were allowed to define the written definition of "traditional uses." Indigenous representatives also

429Decreto No. 13324-A, *supra* note 413.

430Jim Barborak, *supra* note 408, at 10.

431Carlos Borge et al., The Nature Conservancy, *Análisis institucional del Parque Internacional La Amistad-Talamanca 2* (2004).

432Interview with Nelson Elizondo Torres, *supra* note 405.

433*Id.*; Carlos Borge et al., *supra* note 430, at 2.

434There are five administrative stations in PILA-Costa Rica. These are Tres Colinas, Potrero Grande, Altamira, Pittier and Valle del Silencio. Torres et al., *supra* note 422, at 4; Carlos Borge et al., *supra* note 430, at 2.; Interview with Nelson Elizondo Torres, *supra* note 405.

435Carlos Borge et al., *supra* note 430, at 3.

436Interview with Nelson Elizondo Torres, *supra* note 405.

defended many of their sacred sites, forcing park administrators to balance issues of absolute preservation with the development of tourism which could bring much needed revenues to the park. The new management plan also reflects the relatively recent policy in Costa Rica that supports more decentralized and collaborative stewardship of protected areas. It recognizes the role of civil society, NGOs and other stakeholders in the conservation of PILA, particularly in buffer zones.⁴³⁷ It is hoped that a diversity of stakeholders will participate in the implementation of the peace park's management plan.⁴³⁸

Administration of PILA in Costa Rica has always been challenging, but it has been arguably even more difficult in Panama. Administration of PILA-Panama is under the jurisdiction of the National Environment Authority (Autoridad Nacional del Ambiente – ANAM).⁴³⁹ Mirroring the Costa Rican system, management of PILA is separated between the Caribbean and Pacific regions.⁴⁴⁰ An institutional analysis of the efficacy of protected areas management in Panama conducted by ANAM, USAID and The Nature Conservancy (TNC) in 2001, revealed generally unfavorable marks for PILA-Panama in the Pacific sector. Social aspects, natural and cultural resources and economic indicators were all considered to be hardly acceptable (poco aceptable), as was general management of PILA-Pacífico.⁴⁴¹ One of the reasons identified was the fragmented administration of PILA into two sectors (Caribbean and Pacific).⁴⁴² PILA-Panama is also hugely understaffed; encompassing a larger terrestrial superficie, it has only one-third the number of forest rangers (four total).⁴⁴³

Implementation of the most recent management plan for PILA-Panama, which was issued in 2004, has been extended until the adoption of a new management plan by resolution.⁴⁴⁴ The management plan applicable in Panama today supports collaborative management involving participation by community groups and indigenous representatives.⁴⁴⁵ Indigenous populations living in the area include the Ngöbe-Bugle, Naso and Bribri.⁴⁴⁶ These groups, along with other community

437Torres et al., *supra* note 422, at 8.

438Identified stakeholders include: neighboring communities, regional hunters, owners of farms inside of PILA, Red QUERCUS (a network of civil society groups in the region), ASVO (the Association of Volunteers that works in various MINAE projects), the Organ of Judicial Investigation, Associations of Indigenous Development in the Buffer Zone of PILA, owners of farms located on the limits of PILA, the Area of Conservation-La Amistad Caribe, personnel from ANAM Chiriqui and Bocas del Toro, the Institute of Agrarian Development, FICACLAP and the Public Forces from the cantons of Buenos Aires and Coto Brus. *Id.* at 11-12.

439Resolución Directive No. J.D.-0021-88, *supra* note 420.

440Interview with Quiroz, Villamonte & Cerrud, *supra* note 418.

441ANAM, *supra* note 422, at 58.

442*Id.* at 58.

443Interview with Nelson Elizondo Torres, *supra* note 405.

444The original management plan was to apply for five years, expiring in 2009. Resolución No. AG-1102-2009, Dec. 14, 2009, *Reestablecer y Prorrogar la Vigencia del Plan de Manejo del Parque Internacional La Amistad*, L.G., Jan. 15, 2010 (Pan.) (extending application of the previous management plan until a new management plan is adopted by resolution and soliciting funds to begin elaboration of a plan in 2010).

445ANAM, *supra* note 422, at iii, 60-64.

446*Id.* at ii.

actors, were identified as important to the development of the management plan.⁴⁴⁷ Although, in reality, elaboration of the management plan involved few civil actors, there has been growing collaboration with civil society groups in park buffer zones.⁴⁴⁸ Co-management of PILA in Panama can take place by formation of management units, committees or new administrative entities,⁴⁴⁹ but in practice has occurred mostly through ANAM programs.⁴⁵⁰ Interviews with PILA's current administrators, Benigrio Villamonte (Director of the Caribbean sector), Lionel Quiroz (Director of the Pacific sector) and Harmodio Cerrud (Regional Administrator), demonstrated intentions of broadening consultation and stakeholder participation in the elaboration and implementation of a new management plan for PILA-Panama.⁴⁵¹

With the support of certain international NGOs, PILA administrators in both Costa Rica and Panama have been able to expand their cooperative activities. External funds have supported joint capacity-building workshops, exchanges between rangers and protected areas authorities, as well as forest fire brigades.⁴⁵² It has also provided the means of developing communication infrastructure across the border. Programs such as Project Darwin have engaged civil society and authorities on both sides of the border in routine participatory monitoring sessions that are revealing previously unknown biological data, as well as locations areas where information is lacking.⁴⁵³ In 2008-2009, TNC funded helicopter surveillance flights by SINAC and ANAM that have helped to inspire a greater sense of unity and a common vision for PILA.⁴⁵⁴ These flights represented the first aerial survey of PILA. They allowed park authorities to see for the first time a comprehensive overview of PILA and many of the narcotrafficking activities that were buried deep within its mountainous forests. Since then, park rangers from SINAC and ANAM have shared in joint patrols, allowing them to share their experiences with various environmental issues and responses.

At the political level, collaboration between the two nations in the PILA area is guided by ministerial agreements.⁴⁵⁵ A convention on Cooperation for Frontier Development between the Governments of Costa Rica and Panama was signed May 3rd of 1992.⁴⁵⁶ More recently, a new accord was formalized between the foreign ministers of Costa Rica and Panama, Roberto Tovar Faja and

447*Id.* at 13-17.

448Interview with Quiroz, Villamonte & Cerrud, *supra* note 418.

449ANAM, *supra* note 422 at 71.

450The administrative is of the view that none of the community groups are currently prepared for more meaningful participation. *Id.*

451*Id.*; Stakeholders or interested parties can include: persons, NGOs or companies with rights over land or natural resources in PILA; local organizations with existing relationships with ANAM; groups with historic or cultural relations to the protected area; communities socially or economically dependent on resources of the protected area. ANAM, *supra* note 422 at 82.

452Interview with Quiroz, Villamonte & Cerrud, *supra* note 418.

453Interview with Nelson Elizondo Torres, *supra* note 405.

454*Id.*

455Interview with Quiroz, Villamonte & Cerrud, *supra* note 418.

456Note No. 32507-RE, Feb. 2, 2005, *Acuerdo de Cooperación para la Administración, Conservación y Gestión Adecuada del Parque Internacional La Amistad*, L.G., Aug. 1, 2005 (Costa Rica).

Samuel Lewis Navarro.⁴⁵⁷ This is codified in note No. 32507-RE of February 2nd, 2005. The Accord of Cooperation for Administration, Conservation and Adequate Management of PILA (hereinafter 2005 PILA Accord of Cooperation) creates a Binational Sectoral Technical Commission (Comisión Técnica Sectorial Binacional – CTSB) that is made up of representatives from both SINAC and ANAM.⁴⁵⁸ The CTSB meets at least two times a year,⁴⁵⁹ typically in May and October.⁴⁶⁰ It delegates much of the responsibilities and duties to the Regional Directors or Regional Administrators of PILA, requiring them to submit regular reports to the CTSB and to produce a Binational Action Plan for international cooperation between the two States.⁴⁶¹

Since 2005, the activities of the CTSB and its participants has grown. It is now composed of: representatives from relevant ministries (e.g., agriculture, health), including the environmental ministries of ANAM and SINAC-MINAE at the national and regional levels, and NGOs such as Conservation International and TNC.⁴⁶² There is also a Binational Subcommission created specifically to address environmental issues regarding PILA.⁴⁶³ Although management plans for PILA are still developed according to the separate administrative sectors, the protected areas authorities have been discussing the possibility of creating a singular management plan to guide all activities within PILA.⁴⁶⁴ There is also a Binational Operative Plan in existence, but it very broad, addressing general issues such as joint patrols and mines.⁴⁶⁵

In addition to State administration of PILA, the peace park is buffered in various parts by indigenous reserves. These are managed independently by the indigenous peoples themselves, sometimes in collaboration with park staff.⁴⁶⁶ In some cases, this separate system of indigenous land management is beneficial to park administration. In Costa Rica, for example, there are less park rangers in the Caribbean sector of the peace park because almost all access to the park is buffered by either Bribri or Cabecar indigenous reserves.⁴⁶⁷ A visitor to PILA-Costa Rica Sector Caribe must pass first through indigenous lands before they can reach PILA.⁴⁶⁸ Thus, PILA-Costa Rica administrators

457Interview with Quiroz, Villamonte & Cerrud, *supra* note 418.

458Note No. DM-388-04, Sept. 16, 2004, *El Ministro de Relaciones Exteriores y Culto de Costa Rica al Excelentísimo Señor Samuel Lewis Navarro Ministro de Relaciones Exteriores de Panamá*, L.G. Aug. 1, 2005 (Costa Rica).

459*Id.*

460Interview with Quiroz, Villamonte & Cerrud, *supra* note 418 (the last meeting was in January 2010 in Cerro Punta, Panama, and another meeting was to be held in May 2010 in Costa Rica).

461Note No. DM-388-04, Sept. 16, 2004, *El Ministro de Relaciones Exteriores y Culto de Costa Rica al Excelentísimo Señor Samuel Lewis Navarro Ministro de Relaciones Exteriores de Panamá*, L.G. Aug. 1, 2005 (Costa Rica).

462Interview with Nelson Elizondo Torres, *supra* note 405.

463*Id.*

464Interview with Quiroz, Villamonte & Cerrud, *supra* note 418.

465*Id.*

466Interview with Roger González, Park Ranger and Coordinator of Community Relations of Parque Internacional La Amistad – Costa Rica Pacific Sector, SINAC-MINAE, in Altamira, Costa Rica (Apr. 21, 2010).; IUCN WCMC, *supra* note 416, at 84.

467Interview with Nelson Elizondo Torres, *supra* note 405.; Interview with Roger González, *supra* note 465.

468*Id.*; Carlos Borge et al., *supra* note 279, at 3.

strategically allow the indigenous peoples to control access and activities in the park's buffer zones, freeing them to divert more economic and human resources to the Pacific sector. In some instances, however, this may frustrate efforts at more coherent park administration. Some indigenous groups have worked alongside park administrators to streamline their land management plans and to develop environmental education programs in their schools.⁴⁶⁹ Other groups have hesitated to deal with park administrators and have rejected any efforts by park administrators to provide capacity-building workshops or to teach their children outside forms of environmental education, despite possible benefits to the communities.⁴⁷⁰

Cooperative stewardship of PILA is essential to its effective conservation. PILA is one of the largest protected areas in all of Central America. However, it is supported by very little institutional infrastructure, lacks consistent financing, and has very few official administrators or park rangers.⁴⁷¹ Much of PILA's conservation success has been attributed to its inaccessibility.⁴⁷² On the Costa Rican side of the peace park, civil society has been taking on a larger and larger role in stewardship activities within the park and in park buffer zones. Red QUERCUS, a network of civil society organizations working on the Pacific side of PILA, has been working very closely with PILA administrators and rangers to conduct a variety of activities. These include joint patrols, participatory biological surveys, forest fire controls and trail maintenance. They also work with civil society groups in Panama, for example Fundiccep, a similar network of community based organizations in the Pacific region of Panama, to organize joint activities (such as PILA's anniversary celebrations, environmental education programs and fairs). Many community activists, representatives of NGOs and park administrators envision broader collaboration with park administrators and each other in the continued work to protect PILA and its neighboring landscape.⁴⁷³

Broad collaboration across shared landscapes for environmental stewardship and peace is a common vision for transboundary conservationists. For decades, the individuals involved in the three case studies examined above have worked towards just such a dream. A global network of peace parks

⁴⁶⁹Interview with Roger González, *supra* note 465.

⁴⁷⁰*Id.*

⁴⁷¹See Carlos Borge et al., *supra* note 430.; Interview with Nelson Elizondo Torres, *supra* note 405.; Interview with Quiroz, Villamonte & Cerrud, *supra* note 418.

⁴⁷²*Id.* at 6.

⁴⁷³Interview with Roger González, *supra* note 465.; Interviews with Yendry Suarez, Red QUERCUS, in Biolley, Costa Rica (Apr. 19-20, 2010).; Interview with representative of Association of Organic Producers of La Amistad [ASOPROLA], in Biolley, Costa Rica (Apr. 19, 2010).; Interview with representatives of Association of Organized Women of Biolley [ASOMOBI], in Biolley, Costa Rica (Apr. 20, 2010).; Interview with Carlos Fuentes and Arturo Pinos, representatives of the Ministry of Agricultural Development [MIDA] and the Association of Coffee Producers [APRE], in Rio Sereno, Panama (Apr. 22, 2010).; Interviews with Pitty & Sanchez, *supra* note 412.; Interview with Minerva, President, Agroecotouristic Association of PILA [ASAELA], in Las Nubes, Panama (Apr. 23, 2010).; Interview with Rosario Pitty, President of Friends of PILA [AMIPILA], in Cerro Punta (Apr. 23, 2010).; Interview with Luis Murillo, Conservation International, in Cerro Punta (Apr. 23, 2010).

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can learn from their experiences and advance the peace park concept worldwide. The next chapter looks at peace park modalities – when they are created, how they can be created, legal frameworks supporting peace parks declaration and management. Then it proposes an alternative methodology to the more common peace park process of agreements at high political levels for establishing a community-based collaboratively managed patchwork peace parks.

– “Perhaps the imminent preserve which broods over it
and is universally felt may best be described as peace.”
Rotary Club on Waterton-Glacier International Peace Park⁴⁷⁴

⁴⁷⁴Letter from Arthur E. Demaray, Acting Associate Director, National Park Service, to E. T. Scoyen, Superintendent of Glacier National Park, National Park Service (Jan. 12, 1932) (on file with U.S. National Park Service).

CHAPTER III

Toward a Legal Framework for Peace Parks

“It began as a bold idea: where no boundary could be seen, no boundary should be...”

– John George 'Kootenai' Brown and Ranger Henry 'Death on the Trail' Reynolds⁴⁷⁵

Typically, a great deal of time and energy is devoted to the transformation of a landscape from a frontier for human development to a place where nature is conserved, and possibly even more so, to a place where peace is observed. In the previous chapter, three of the many examples where this has occurred were surveyed in order to help distill the elements of a peace park and the process for establishing and managing them. Peace parks concern many issues beyond traditional nature conservation. They involve, *inter alia*, human security and well-being, relations between nations and species, international and international environmental law, education and capacity-building, international aid and development, as well as peace and non-violent conflict resolution.⁴⁷⁶ Given the potential complexity of observing each of these interrelated, integrated and indivisible themes, it is important that development of appropriate mechanisms are considered when establishing the foundations of transboundary cooperation when creating a peace park. In this chapter, we explore peace park modalities – when and how they are or can be established and common management frameworks for their stewardship. To conclude, a patchwork peace park is preliminarily introduced as a model of transboundary community conservation that embodies the various peace park principles and best practices identified here.

Peace park modalities

In relations across geopolitical divides, nations may find themselves at a cross-roads of choices that span the entire spectrum of conflict and collaboration. Whatever the circumstances, communities have the choice to come together to mitigate transfrontier tensions in symbiotic cooperation or peaceful conflict resolution. A peace park can provide a natural landscape for conflict containment that cannot be achieved through the isolation and segregation created by walls or through any other fortification of manufactured political divides that only entrench disagreement and conflict. Thus, it is important to understand the conditions in which cooperation ignites and peace parks are created. It is not sufficient to stop there. Peace parks once created are not invulnerable to the risks and dangers of poor governance, environmental change (such as climate change), or the negative impacts of future conflicts. Proper stewardship regimes for peace parks must be framed according to localized needs and interests and in accordance with principles of international law and human rights. Stewardship frameworks should promote a culture of just peace, as well as strengthen park sustainability and resilience to

⁴⁷⁵Rotary International, *supra* note 249.

⁴⁷⁶See Saleem H. Ali et al., *Peace Parks: Conservation and Conflict Resolution* (Saleem H. Ali ed., 2007).

There are a few methods by which a TBPA can be established between countries, with variances usually occurring in the treaty/agreement stage and in the management framework shaped by participating actors. Given the differing reasons for creating peace parks, the circumstances and legal systems of the parties involved, and the ad hoc nature with which most peace parks are created around the world, there has not been an established protocol followed by all, nor do all peace parks enjoy the same protections under an analogous regime. Nevertheless, from the case studies surveyed in the previous chapter and peace park literature, such as the IUCN's Best Practice Guidelines on "Transboundary Protected Areas for Peace and Co-operation," one can extract a few trends in peace park modalities that are useful towards outlining a more universal protocol for transboundary peace parks. This chapter explores such modalities under four categories: (1) when peace parks may be created, (2) how they might be created, (3) legal formulations for peace park agreements and (4) management frameworks for the continuity of a peace park.

When peace parks are created

People have demarcated peace parks around the world for a variety of reasons and at different stages of peace or conflict. There are no limitations to the whens or wheres of peace park development, but when looking at existing peace parks around the world, it is possible to identify certain types of situations which are particularly appropriate for peace park designation. Peace parks have provided an arrangement for border security between two countries, arisen out of peace negotiations, or become part of a post-conflict peacebuilding process. Sometimes peace parks memorialize a history of war and division; sometimes they grow out of hopes of preventing any violent conflict between friendly neighboring nations. Generally speaking, these can be linked to a particular stage of the peace and conflict time lapse consortium. In simplified form, these are: (1) during times of peace, preceding any conflict or after generations of friendly relations; (2) during times of conflict or in resolution of conflict; or (3) post-conflict, during times of peace-building in war-torn communities. Under these circumstances, countries all over the globe have come together to declare international peace parks, strengthening their neighborly and diplomatic relations, staving off armed conflict or jointly memorializing the horrors of past atrocities so that they may never be repeated again.

When nations share critical resources (e.g., transboundary watersheds) they face a decision as to whether or not they should cooperate in preserving and using the resource. Shared resources or landscapes are also known as common-pool resources,⁴⁷⁷ or local and global commons. Garrett Hardin in "The Tragedy of the Commons" forebode abuse of freedom in the commons when he declared that "Freedom in a commons brings ruin to all."⁴⁷⁸ He theorizes that in a limited world, each stakeholder

⁴⁷⁷Common-pool resources can be defined as "natural or man-made resources in which (a) exclusion is non-trivial (but not necessarily impossible) and (b) yield is subtractable." Saleem H. Ali et al., *Peace Parks: Conservation and Conflict Resolution* (Saleem H. Ali ed., 2007).

⁴⁷⁸Garrett Hardin, *The Tragedy of the Commons*, 162 *Science* 1243, 1244 (Dec. 1968), available at

will maximize their own interests only to find that what is good for the goose is not necessarily good for the gander as their selfish actions deplete or destroy resources and environments.⁴⁷⁹ As a remedy, Hardin proposes in Aristotelean fashion the privatization of commons.⁴⁸⁰ This then inherently necessitates an administrative system and a body of rules and principles;⁴⁸¹ Aristotle would call these government and laws and then likely also argue for a strong military - "For a state must have such a military force as will be serviceable against her neighbors, and not merely useful at home."⁴⁸² This would, however, defeat the purposes of engaging in cooperation and a culture of peace as promoted by a peace park. Fortunately, some theorists examining governance of common-pool resources and local or global commons have suggested methods of collective action and noted empirical examples of local users self-organizing to solve tragedies of the commons.⁴⁸³

Mountain forests, like many other transboundary ecoregions, are representative of regional or global commons divided by a geopolitical border. The presence of the border presents a geophysical locus upon which to focus cooperative or conflictive actions by human actors. Game Theory is a mathematical or economic modeling of how decision-makers might act or react across the spectrum of choices between conflict and cooperation when faced with border issues.⁴⁸⁴ The assumption is typically that they are rational and intelligent actors with different interests and information, but aware that they are confronted with a decision-making opportunity that will affect or influence the other.⁴⁸⁵ Based on different hypothetical situations, probabilities are calculated in order to determine preferred actions or inaction.⁴⁸⁶ In a transboundary regime, peace parks are one option of the many that appear across the diversity of possibilities, but given its positive-sum result, should be contemplated more often. Most importantly, it should be mentioned that at any of the differing stages of the peace and conflict

<http://www.sciencemag.org/cgi/content/full/162/3859/1243> (last visited June 7, 2010).

479Id.

480Aristotle, *Politics: Book Two* (350 B.C.E.) (Using three examples, women, children and property, Aristotle argues that there are many difficulties and negative effects to the communalization of these entities and thus they should be privatized), available at <http://classics.mit.edu/Aristotle/politics.2.two.html> (last visited June 7, 2010).; *Id.* at 1245.; Thomas Dietz, Elinor Ostrom & Paul C. Stern, *The Struggle to Govern the Commons*, 302 Science 19, 19 (Dec. 2003).

481Id. at 1245-1246.

482Aristotle, *supra* note 479, at pt. VI.

483Elinor Ostrom, *Crafting Institutions for Self-Governing Irrigation Systems* 111 (1992).; Elinor Ostrom, *Self-Governance of Common-Pool Resources*, in *The New Palgrave Dictionary of Economics and the Law* (P. Newman ed., 1998).; Elinor Ostrom, *Coping With Tragedies of the Commons* 2(1999).; Jean-Marie Baland & Jean-Philippe Platteau, *Halting Degradation of Natural Resources: Is There a Role for Rural Communities?* (UN FAO, 1996).

484This chapter does not seek to divulge in any game theory analyses or to digress into debates as to its comprehensiveness by promoting it as a superior modeling theory for decision-making analysis, but merely opts to present it as a theory sometimes used by social scientists in understanding how States make decisions across shared borders. Martin J. Osborne, Ariel Rubinstein, *A Course in Game Theory* 1 (MIT Press, 1994).; Roger B. Myerson, *Game Theory: Analysis of Conflict* 1 (Harvard University Press, 1997).

485A player is rational if they make "decisions consistently in pursuit of [their] own objectives." A player is intelligent if they know "everything that we know about the game and [they] can make any inferences about the situation that we can make." Roger B. Myerson, *supra* note 483, at 1-2, 4.

486Roger B. Myerson, *supra* note 483.

continuum, States have a choice to engage in cooperation and transboundary conservation.

It must be noted, however, that collective action is not always a default. Some economists have argued that cooperation for greater good does not occur because of a phenomenon known as the Prisoner's Dilemma. Prisoner's Dilemma is a psychological experiment used to explain a choice of non-cooperation in Game Theory.⁴⁸⁷ In the classic Prisoner's Dilemma, there are two characters, each unable to communicate with the other and faced with a decision to either cooperate or defect.⁴⁸⁸ Defection benefits one individually more than cooperation would, but if one defects and the other does not, the one who chooses to cooperate loses more; "the dilemma is that if both defect, both do worse than if both had cooperated."⁴⁸⁹ Cooperation provides the utility-maximizing preference to the cooperate-defect combination. Unfortunately though, each prisoner is confronted with this decision while in isolation of their counterpart and opportunities to form cooperative agreements are lost. Given a choice between maximizing benefits to oneself and collective action sans assurances of any sort by one's cooperative partner tends to statistically skew towards defection on both parts.⁴⁹⁰ Thus, in a controlled world of isolated individuals, game theorists may argue that cooperation is not be the norm and point to evidence of the Prisoner's Dilemma as support (e.g., trade barriers and militarized walls between nations).

Thankfully, other theorists argue that Game Theory hypotheticals are not doomed to a negative-sum fate induced by the Prisoner's Dilemma.⁴⁹¹ The crippling assumption in the Prisoner's Dilemma is that rational players are incapable of interacting, communicating and negotiating mutually beneficial arrangements.⁴⁹² Elinor Ostrom and colleagues have documented empirical studies of small rural communities where decision-making individuals have opportunities to interact and form trust-building relationships.⁴⁹³ In those situations, local actors managed to steward common-pool resources without falling victim to the selfish rationales of commons tragedians. Ostrom et al., claim that effective

487Id.; Robert Axelrod, *The Evolution of Cooperation* 7-10 (2006).

488"In the canonical prisoner's dilemma example, the two men who were the only witnesses to the major crime they committed cannot be convicted of this crime unless at least one of them confesses and implicates the other, but the authorities have the evidence to convict them for another, lesser offence. The police put each man in a separate cell, and privately tell each that, if he does not turn State's evidence and the other does, he will be convicted and given an especially long sentence, but the sentence he receives will not be as severe if he confesses and implicates his partner. Most notably, the authorities make the bargain to each such that the rational strategy for each prisoner is to defect from the criminal partnership by turning State's evidence, irrespective of what each thinks the other will do. Therefore, each rational prisoner confesses, even though both prisoners would have been better off if neither confessed and they had thereby both been spared conviction for the major offence. To put the same point in another way, the criminal partnership does not obtain the collective good, for them, of keeping their participation in the major crime secret." Jean-Marie Baland & Jean-Philippe Platteau, *supra* note 482, at vii-viii.; *See also id.*

489Robert Axelrod, *supra* note 486, at 8.

490Id. at 9.; Jean-Marie Baland & Jean-Philippe Platteau, *supra* note 482, at vii-viii.

491Jean-Marie Baland & Jean-Philippe Platteau, *supra* note 482, at vii-x.

492Id. at viii.

493See Elinor Ostrom, *Coping with Tragedies of the Commons* (1999).

commons governance tends to be characterized by certain attributes.⁴⁹⁴ Selected attributes, such as common understanding and trust and reciprocity, highlight the insufficiencies of the Prisoner's Dilemma to explain players' preference towards cooperation.⁴⁹⁵ In a globalized world, a history of communication and exchange often characterizes border communities. This natural dynamic will support cooperation across the border of defection. Peace parks must take advantage of and build upon these attributes, so that they may similarly serve to incubate conditions, such as trust and cooperation, which facilitate cooperation in commons rather than extreme conflict or violence.

Raul Lejano also takes the traditional economic game theory one step further by positing that a real world dynamic includes Structures of Care that may inspire cooperation over division. Structures of care are the institutional "outcome of relationship-building between individuals and groups."⁴⁹⁶ They are ever-changing and developing, contributing to a greater Model of Care.⁴⁹⁷ The Model of Care is similar to the Functionalist Model of international relations, wherein "ties between groups...will

494See Elinor Ostrom, *Reformulating the Commons*, 10 *Ambiente & Sociedade* 5 (2002).; See also Dietz et al., *supra* note 479, at 1908.

495Attributes of resources and appropriators conducive to self-governance of commons are:

"Attributes of the Resource:

- R1. Feasible improvement: Resource conditions are not at a point of deterioration such that it is useless to organize or so underutilized that little advantage results from organizing.
- R2. Indicators: Reliable and valid indicators of the condition of the resource system are frequently available at a relatively low cost.
- R3. Predictability: The flow of resource units is relatively predictable.
- R4. Spatial extern: The resource system is sufficiently small, given the transportation and communication technology in use, that appropriators can develop accurate knowledge of external boundaries and internal microenvironments.

Attributes of the Appropriators:

- A1. Salience: Appropriators are dependant on the resource system for a major portion of their livelihood.
- A2. Common understanding: Appropriators have a shared image of how the resource system operates (attributes RI, 2, 3, and 4 above) and how their actions affect each other and the resource system.
- A3. Low Discount rate: Appropriators use a sufficiently low discount rate in relation to future benefits to be achieved from the resource.
- A4. Trust and Reciprocity: Appropriators trust one another to keep promises and relate to one another with reciprocity.
- A5. Autonomy: Appropriators are able to determine access and harvesting rules without external authorities countermanding them.
- A6. Prior organizational experience and local leadership: Appropriators have learned at least minimal skills of organization and leadership through participation in other local associations or learning about ways that neighboring groups have organized."

Elinor Ostrom, *supra* note 493, at 5.

496Raul P. Lejano, *Theorizing Peace Parks: Two Models of Collective Action*, 43 *Journal of Peace Research* 563, 571 (2006).

497Id.

evolve naturally as an outcome of the pragmatic need to carry out mutually beneficial functions.”⁴⁹⁸ In his Game Theory analysis of peace parks, Lejano describes two abutting nations maximizing land use in their respective jurisdictions such that tensions mount along the border.⁴⁹⁹ Under highly individualized self-interests in times of greater conflict, the Game Theory model limited by the Prisoner's Dilemma might explain nations' myopic decision to choose a barricaded border or buffer over a peace park. However, Lejano reminds us that the game-theory model cannot be applied in today's globalized and dynamic system on its own without recognizing the history of relationship and trust-building between the players, in other words, Structures of Care.⁵⁰⁰ Where a Model of Care has been developed, a peace park might transcend its service as a buffer zone (to block against the spread of negative impacts that might provoke conflict) to provide an “active zone of cooperation.”⁵⁰¹

This conclusion is based on a series of propositions that help to explain how border tension can be transformed to a transboundary protected area for peace and cooperation.⁵⁰²

- **Proposition 1:** When the region of conflict encompasses land of considerable productive value, the equilibrium condition consists of both parties using their land and incurring the cost of continued friction with the other. This is the default, no-agreement paradigm.
- **Proposition 2:** When the cost of conflict is high, the optimal course of action is for both parties to set aside and maintain a neutral, empty buffer zone, instead of an active zone of cooperation.
- **Proposition 3:** In contrast to the model of individual rationality,⁵⁰³ in the model of care, the peace park works precisely when parties cease to think only as autonomous individuals but begin to constitute themselves in relation to the other and in union with the other. In this situation, the park acts not as a buffer, but as a bridge to cooperative activity.
- **Proposition 4:** The park acts as symbol of, vehicle for, and outcome of the joint construction of a mutual identity. It is a moral contract that guides innumerable other activities.
- **Proposition 5:** The strength of the new institution (i.e. a regime of peace and cooperation) increases with the greater multiplexity and depth of relationships, where multiplexity pertains to the degree to which relationships overlap along multiple

498Id. at 572.

499Id. at 571.; Raul P. Lejano, *Peace Games: Theorizing About Transboundary Conservation*, in *Peace Parks: Conservation and Conflict Resolution* 41, 51 (Saleem H. Ali ed., 2007).

500Id.

501Raul P. Lejano, *supra* note 498, at 51.

502Raul P. Lejano, *supra* note 495.

503The Model of Individual Rationality is the traditional Game Theory paradigm where each player seeks to maximize their own benefits or to minimize their costs, optimizing individual utility.

dimensions (e.g. state, town, civic group, family, etc.).

- **Proposition 6:** Relationships are aggregative – they build upon history, culture, tradition, and institutional memory. Their cumulative nature means that the institution of the park has to evolve over time, suggesting the need for a transition period and a continuity of efforts at relationship-building.

This series of propositions also pays homage to the fact that States are made up of a multiplexity of actors or stakeholders, each with their own historical patterns of coalitions and interests.⁵⁰⁴ This is relevant to the patchwork peace park model discussed later, wherein the declaration and stewardship of a peace park may depend upon the relationship dynamics of infra-state-level actors.

Declaration of a peace park across a boundary divided commons protects that landscape and its resources from Hardin's "Tragedy of the Commons" and sets it aside for stewardship. It is no longer a lost commons, but a "bridge to cooperative activity" as Lejano idealizes, or a collectively managed commons as explored by Ostrom. Peace parks contribute to the transformation of conflict to peace, the maintenance of peace and the fostering of a culture of peace. Lejano's Game Theory plus Model of Care assay of peace parks as compared to armed force-protected walls between nations provides an interesting analysis of peace parks across the spectrum of utilities (conflict containment to peace-building) and under varying degrees of political and social tension or amicability.⁵⁰⁵ In similar pursuit, the analysis below, describing when peace parks are established, is classified into three temporal periods describing varying stages of the peace and conflict continuum. These are characterized as: (1) times of peace, (2) times of conflict, and (3) times of post-conflict peacebuilding.

Peace, at a minimum, can be described as the absence of conflict, and thus conflict may be understood as the absence of peace. In reality, the distinction is not so black and white and the cacophony of names that have been invented to describe the nuanced shades of grey are a semantic exercise for any student of peace studies. Peace and conflict may in a sense be viewed as an overlapping continuum. Conflict has been described as, "a dispute or incompatibility caused by the actual or perceived opposition of needs, values and interests."⁵⁰⁶ It can range widely between a disagreement between two parties to all-out warfare, or "large-scale organized violence between politically defined groups."⁵⁰⁷ Peace, in a definition by association, has been called "the intervals between wars."⁵⁰⁸ The antinomy of this definition of peace, is Hobbes' definition of war:

"For Warre, consisteth not in Battell onely, or the act of fighting; but in a tract of time,

⁵⁰⁴Raul P. Lejano, *supra* note 495, at 578-579.

⁵⁰⁵*Id.*

⁵⁰⁶UNEP, *supra* note 204, at 7.

⁵⁰⁷Jack S. Levy, *War and Peace*, in Walter Carlsnaes, Thomas Risse & Beth A. Simmons, *Handbook of International Relations* 350, 351 (2002).

⁵⁰⁸Stanley Hoffman, *Peace and Justice: A Prologue*, in *What is a Just Peace?* 12, 12 (Allan & Keller eds., paperback ed., 2008).

wherein the Will to contend by Battell is sufficiently known....So the nature of War, consisteth not in actuall fighting; but in the known disposition thereto, during all the time there is no assurance to the contrary. All other time is PEACE.”⁵⁰⁹

Therefore, if conflict is a spectrum between disagreement and war, and peace is everything between wars, then peace and conflict necessarily overlap. If there can be conflict in times of peace, how then can we distinguish between times of peace, times of conflict and times of post-conflict peacebuilding?

Pierre Allan's International Ethical Scale of war, peace, justice and global care provides a platform for initial inquiry into this exercise of differentiating between peace, conflict and post-conflict peacebuilding. What Allan does is compare and contrast different states of peace and conflict, starting with two extremes – total eradication of all humankind⁵¹⁰ vs. agape-paradise⁵¹¹ – slotting other phases in between – genocide, war, non-war, just war, stable peace, just peace, positive peace and global care – according to consequentialist and utilitarian dimensions,⁵¹² as well as deontological⁵¹³ considerations.⁵¹⁴ The result is an international Ethical Scale, as depicted below:

⁵⁰⁹Thomas Hobbes, *Leviathan* 70 (Flathman & Johnson eds., 1997).

⁵¹⁰Total destruction of humankind would mean the eradication of all humans on Earth. An example of this would be an absolute and complete nuclear holocaust. Pierre Allan, *Measuring International Ethics: A Moral Scale of War, Peace, Justice, and Global Care*, in Allan & Keller, *supra* note 222, at 95-97.

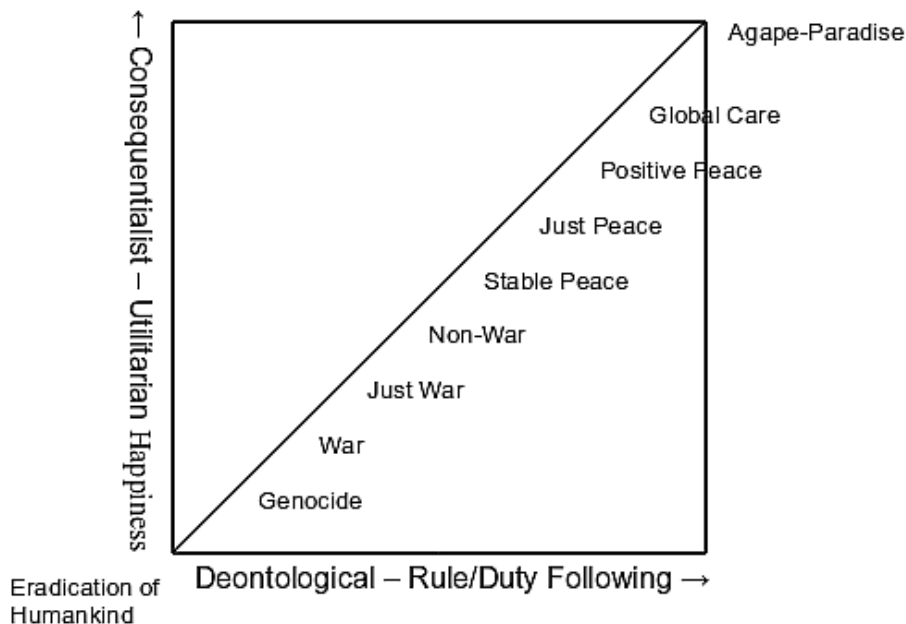
⁵¹¹Agape-paradise is an ideal for “the purest type of love, love of the other for the other's sake.” Agape ultimately is “the greatest humanity, the most considerate kind of attitude of people with respect to other people, animals, and even things,” a universal love. It can “go further and consider not only the rights of future generations of humans as well as of other species, but see all of this within a holistic ecological ethic.” *Id.* 97-100.

⁵¹²“Consequentialism – also known as a teleological approach – evaluates a given action by examining its consequences. This is to say that we should do whatever has the best consequences in terms of the good. For utilitarianism, a consequentialist ethic, we need to consider the greatest happiness for the greatest number of people.” *Id.* at 102.

⁵¹³“The deontological approach concentrates on the correct action, the one following given moral rules, or rules one rationally finds within oneself.” Each act strives to best exemplify a universal law or rights and duties based on morality and human dignity. *Id.*

⁵¹⁴*Id.* at 100-105.

Figure 3.1 An International Ethical Scale⁵¹⁵



Although Allan acknowledges that the position of each of the eight points between the two extremes on the International Ethical Scale is necessarily fuzzy, he describes each category and why it scores progressively better than the last in hopes of inspiring open debate. Accordingly, genocide is any of a list of “acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group.”⁵¹⁶ Its invidious purpose of organized killing “for the sake of erasing a people” makes it the worst of all wars.⁵¹⁷ Since war, whether it be civil war, guerrilla war or total war, allegedly seeks less evil aims of political change, it ranks higher.⁵¹⁸ Next in line, Allan proposes, is Non-War. In a

⁵¹⁵*Id.* at 104.

⁵¹⁶These acts include any of the following: “(a) Killing members of the group; (b) Causing serious bodily or mental harm to members of the group; (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; (d) Imposing measures intended to prevent births within the group; (e) Forcibly transferring children of the group to another group.” Convention on the Prevention and Punishment of the Crime of Genocide, art. 2, Dec. 9, 1948, 78 U.N.T.S. 277.

⁵¹⁷Pierre Allan, *supra* note 509, at 106.

⁵¹⁸“War is total in the sense that it is not armies, but nations that wage war. This requires the complete mobilization of the whole society and economy. Victory means crushing the enemy nation by targeting its civil society and economy.” “Guerrilla war is a total war as it requires the mobilization of a whole group or nation against its enemies and thus involves a whole people.” *Id.* at 94-95.; Allan distinguishes war from genocide based on the perversity of aims. *Id.* at 106.; War is seen more as an accelerated method of affecting social or political change, which tends to incite a social resistance proportional to the speed of change. *Id.* at 114, citing Quincy Wright, *A Study of War: The Time Element*

Hobbesian understanding of the term, Non-War is a negative war which disguises itself “behind an apparent peace” and the possibility of a return to arms and violence prevails.⁵¹⁹ He then follows this with Just War, a war which obeys *jus ad bellum* and *jus in bello* without ignoring consequentialism.⁵²⁰ Further along the scale is Stable Peace, “a situation in which the probability of war is so small” that in peoples' minds, it will not happen.⁵²¹ There are many reasons why Stable Peace might exist, which have nothing to do with justice or a universal Model of Care.⁵²² Therefore, Just Peace, defined by association as a Stable Peace with justice, is placed higher along the International Ethical Scale. Then there is Positive Peace, where there is no “oppression, structural violence, and social injustice,” and the peace is all-inclusive in a very Cosmopolitan sense.⁵²³ Finally, preceding the positive extreme of Agape-Paradise, is Global Care, “the highest humanly reachable level of an international ethic” that demands “obligations from all towards others, individuals and peoples alike, in a responsible and humane way.”⁵²⁴ An example of a Global Care ethic might be the Earth Charter.⁵²⁵

Using Allan's International Ethical Scale, with an adjustment made for the repositioning of Non-War after Just War (and thereby closer towards Agape-Paradise) we can create a Modified International Ethical Scale. Allan proposes that Just War is higher than Non-War because of it is by definition just. Alternatively, if violence is a measure of the extremity of conflict, then a Just War is

Must Be Appreciated 391 (1964).

519*Id.* 107-109.

520*Id.* at 109-111.; Satisfaction of the Just War Doctrine would require adherence to the following rules:

Jus ad bellum

1. Just cause (*iusta causa*): war must be the best means to restore peace and is mainly only acceptable for reasons such as self-defence following aggression or humanitarian intervention (e.g., Responsibility to Protect).
2. Legitimate authority (*legitima auctoritas*) and public declaration: war is undertaken and waged exclusively by the leaders of the state or community.
3. Right intention (*recto intentio*): a just cause is insufficient
4. Proportionality (*proportionalitas*): the means and measures of war must be proportionate to the injustice that led to it.
5. Last resort (*ultima ratio*): all other plausible conflict-resolution alternatives to war have been exhausted.
6. Probability of success: there exists a reasonable chance of repairing the damages of war.

Jus in bello

1. Discrimination: immunity or protection of non-combatant.
2. Proportionality: the means and measures of force used must be proportionate to the threat or opposing force.

Id. at 109.

521*Id.* at 111-115.

522Stable Peace may be (1) peace by *universal empire* (if there is only one actor, there is no other party to have conflict or war with); (2) *Carthaginian* peace, wherein the opposition is utterly destroyed; (3) peace by *indifference*, where there are too “few interests or identity-forming elements” to cause conflict or they are so geographically remote that there is no contemplation of war; (4) peace by *limitation of power projection*, or a loss of power capabilities at a distance; (5) peace by *voluntary limitation of power projection*, wherein capable nations opt not to project their powers abroad; (6) peace by *imposition*, often by major global powers. *Id.*

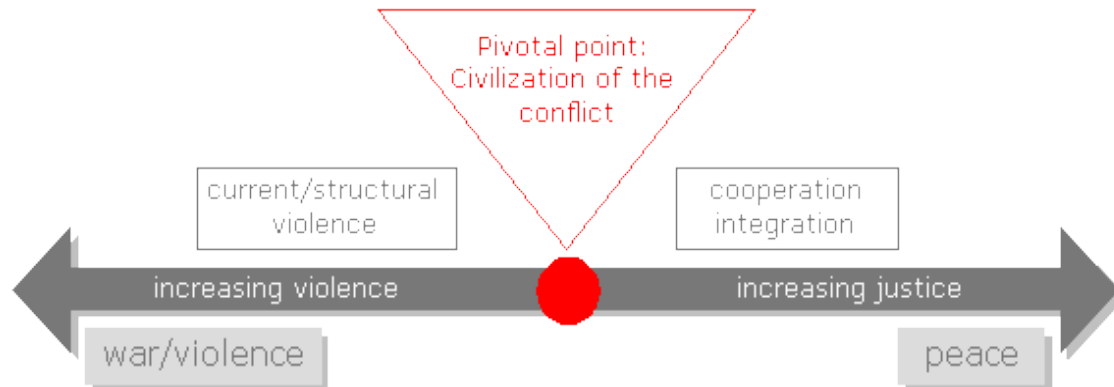
523*Id.* at 117-119.

524*Id.* at 119-128.

525Earth Charter Commission, The Earth Charter (2000) [hereinafter Earth Charter], available at <http://www.earthcharterinaction.org/content/pages/Read-the-Charter.html> (last visited June 9, 2010).

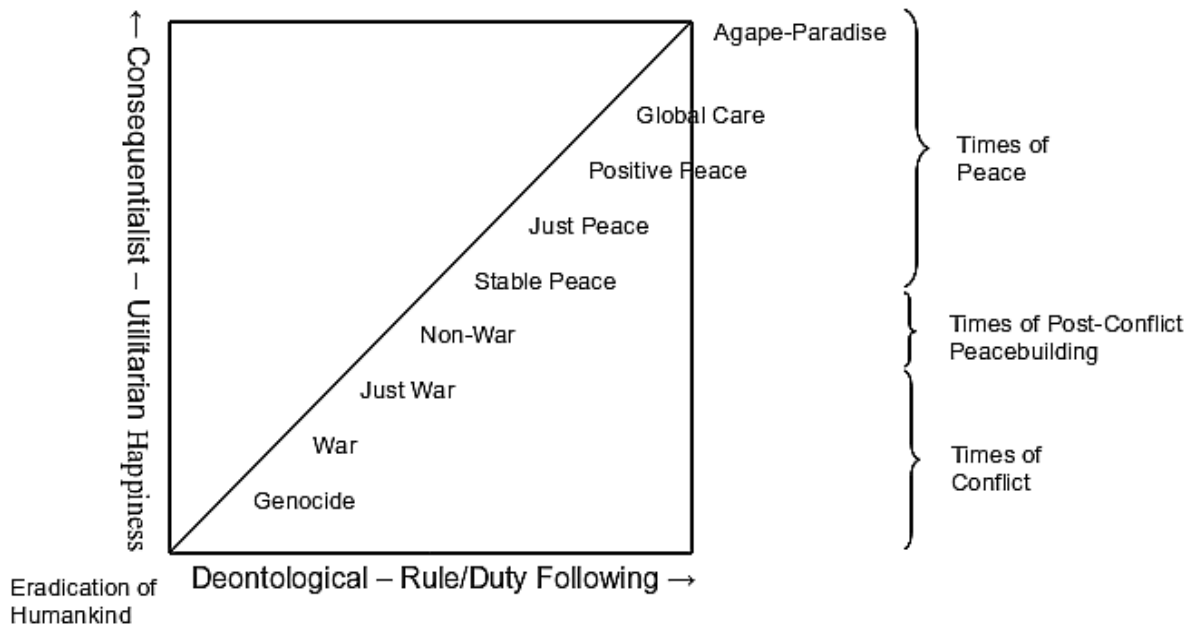
worse than a Non-War.⁵²⁶ Below is a diagram demonstrating the Point of Civilization of a conflict. In this illustration, violence is found to the left of the Pivotal Point and is considered a degeneration of civilization. On the other hand, cooperation is found to the right of the Pivotal Point, and depicts an increase in justice and peace.

Figure 3.2 The Point of Civilization



It seems antinomial to accept Just Wars and also a tendency towards greater justice the further one gets from violence. At this point, the author finds it necessary to raise with great skepticism the familiar question of whether it is possible to wage Just Wars. Although negative war does not explicitly speak on the justness of the contemplated “Battell” as Hobbes calls it, it is indicative of an abhorrence to violence that is perhaps morally superior to the allegedly “Just” War. This is at least true according to the Pivotal Point of Civilization. Furthermore, Non-War may provide a merely superficial peace, but this period of ceasefire provides genuine opportunity for alternative conflict resolution that may lead to a more stable peace and not to war (just or not). For these reasons, I propose a slight modification to Pierre Allan's International Ethical Scale.

Figure 3.3 A Modified International Ethical Scale⁵²⁷



Accommodating for this change, we have a structured continuum with which to attach our understandings of peace, conflict and post-conflict peacebuilding. From here on, conflict essentially encompass all forms of violent dispute resolution; in terms of the Modified International Ethical Scale: eradication of humankind, genocide, war and just war. Post-conflict peacebuilding or Non-War is what immediately follows these periods of conflict. Non-War is not considered to be a state of peace, because it is not necessarily stable. There is still a threat of war or a very near history of war, where peace must be nurtured or built. In such circumstances, a breakdown in the peace processes or a return to violent conflict are very real and the conflict-prevention capacities of a peace park are particularly salient. Times of peace would then include all of the other more stable forms of peace: Stable Peace, Just Peace, Positive Peace, Global Care and Agape-Paradise. Based on the categorical scaling above (A Modified International Ethical Scale), the following paragraphs will discuss when peace parks have been or could be established during times of peace, times of conflict and times of post-conflict peacebuilding.

Peace parks in times of peace

Peace parks created during times of peace (including Stable Peace, Just Peace, Positive Peace,

⁵²⁷*Id.* at 104.

Global Care and Agape-Paradise) are often a reflection of the relations between participating governments and their communities. It is more likely that during times of peace, sufficient conditions of stability will exist to support transnational negotiations and political agreements. There may have been conflict in the long-ago past (it may be difficult to find any human inhabited territory free of some conflictive history), but it is generations removed and no longer a point of tension amongst the peoples. Relations between the nation-states are characterized by on-going and continuous interchange and dialogue and there are mechanisms for pacific dispute resolution (e.g., arbitration or collaborative dispute resolution). In addition to existing relations and collaborations, governments may establish peace parks as a forum for cooperation in cross-cutting issues, such as border security, environmental stewardship and sustainable development. The stability of peace and the friendly relations existing between the nations will facilitate such a process.

In these peace, there is a memory of homeostasis between human communities and with non-human communities. This is a delicate dynamic. The physical passage of people or animals or other life form from one side to the other, or even the perceived shift of power flux from territory to territory can create tensions over the existence of a geopolitical line. In light of the forces of environmental change, particularly climate change, there needs to be a redefinition of this relationship between human and non-human beings. Environmental change at the scale predicted of anthropogenically induced climate change will likely produce biological migrations that may or may not accord with political boundaries.⁵²⁸ If human communities across an invisible line can respond to such shared phenomenon, then a new homeostasis based on peace and sustainability can be defined for current and future generations. Given the conditions of peace, where war or violence are far removed in the minds of human communities, it is more likely that nations will choose to cooperate to maintain harmonious balances and give rise to the timely creation of peace parks. Thus, peace parks created during times of peace are often a reflection of the peaceful and friendly relations between the affected communities and Governments.

Nature appreciation is a strong unifying force that promotes a Culture of Peace, which in turn facilitates the enjoyment of Nature. Despite differences between people who occupy different sides of a political boundary, they can find empathy and communion in their shared admiration for Nature. This common ground supports the transformation of natural resource conflicts to environmental peacebuilding.⁵²⁹ As per the previous discussion on Game Theory and the Model of Care, where there are natural resources shared by two adjoining territories that have developed Structures of Care (which

⁵²⁸Climate refugees (or climate change refugees) are defined by the Global Governance Project as “people who have to leave their habitats, immediately or in the near future, because of sudden or gradual alterations in their natural environment related to at least one of three impacts of climate change: sea-level rise, extreme weather events, and drought and water scarcity.” Studies have predicted that by 2050 there may be anywhere between 250 million to 1 billion climate refugees. Frank Biermann & Ingrid Boas, The Global Governance Project, *Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees* 8, 10 (Aysem Mert ed., Global Governance Working Paper No. 33, 2007).; See Intergovernmental Panel on Climate Change [IPCC], *Climate Change and Biodiversity* (Gitay, Suárez, Watson & Dokken eds., IPCC Technical Paper V, Apr. 2002).

⁵²⁹See UNEP, *supra* note 204, at 7.

can center around environmental stewardship and Nature appreciation), there is a strong incentive for regional and thus international peace and security to be fostered. In the same vein, peace and security form a much needed platform for environment and natural resources protection to occur. As noted in the IUCN's 5th World Parks Congress in Durban, South Africa (2003):

“a just peace is a fundamental precondition for the conservation of biodiversity and other natural and associated cultural resources, and one to which all sectors of society should contribute. Protected areas benefit from peaceful conditions both within and between countries, and can contribute to peace when they are effectively managed.”⁵³⁰

While neighboring States are experiencing times of peace, they may build upon these common interests by developing a relationship of collaborative transboundary conservation. The lack of conflict in the border region and between the participating Governments facilitates such processes.

Governments that have long participated in friendly relations between their nations, may see fit to celebrate such peace by cooperating in the joint declaration and management of a peace park. This was the case with Waterton-Glacier International Peace Park (WGIPP) between Canada and the U.S., as explored in the previous chapter. In these cases, formal relations had existed for some time between the Governments and neither of the countries had been at war with each other for a significant period of time. After the War of 1812, there were still hostilities and tensions rife across particular regions of the Canadian-U.S. Border, but more than a century had passed by the time WGIPP was declared and by that time, relations between the communities were amicable. Thus, a symbolic gesture of peace and friendship that addresses border conservation issues arose rather naturally. Transboundary conservation in this context is merely an extension of diplomatic relations to environmental stewardship activities on the ground where physical and ecological exchange is occurring.⁵³¹ Since the establishment of WGIPP, Canada and the U.S. have engaged in other symbolic gestures reflecting the continued peace and friendly relations between their Governments and peoples. There is a Peace Arch between Surrey, British Columbia (Canada) and Blaine, Washington (U.S.), a Peace Bridge between Fort Erie, Ontario (Canada) and Buffalo, New York (U.S.), and an International Peace Garden between Boissevain, Manitoba (Canada) and Dunseith, North Dakota (U.S.). Each of these is an emblematic link connecting the two countries across the expanse of its 3,987 mile-long border.⁵³²

⁵³⁰IUCN, *Peace, Conflict and Protected Areas*, Recommendations of the Vth IUCN World Parks Congress, WPC Rec 5.16, 2003, available at <http://cmsdata.iucn.org/downloads/recommendationen.pdf> (last visited Dec. 31, 2008).

⁵³¹In the case of Parque Internacional La Amistad (PILA) between Costa Rica and Panama, the friendly relations that existed between the two Governments and the peace that characterized their shared border (as in comparison to the violence and turmoil afflicting their northern neighbors) served to provide an opportunity for conservation. Conservationists working in that region had been trying for some time to save the Talamancas, so the meeting between the Presidents in that territory was seen an opportune chance to save the watershed and mountain range. Telephone interview with Alvaro Ugalde, in San Jose, Costa Rica (June 2, 2010) (Alvaro Ugalde is often heralded as the “Father of Costa Rican National Park System”).

⁵³²This figure does not include Canada's land border with Alaska. Janice Cheryl, Congressional Research Service, *U.S.*

Governments experiencing long-standing friendly relations may also choose to establish border peace parks as a forum for joint management of border issues and security. Parque Internacional La Amistad (PILA) between Costa Rica and Panama is an example of this. The two governments formed a Binational Commission that meets to discuss transboundary or border issues, including management of PILA, drug trafficking and passport requirements.⁵³³ Discussion of border strategies and cooperation in maintaining border security can help to buffer against possible future conflicts, as well as reduce the resource burden on States' governments. The IUCN WCPA Task Force on Transboundary Conservation's publication, "Security Considerations in the Planning and Management of Transboundary Conservation Areas," discusses benefits of integrating security and conservation in border areas, and then provides suggestions of best practices.⁵³⁴ A transboundary forum, such as a joint commissions, allows the governments and communities to resolve any issues diplomatically before tensions or conflicts rise to the point where one or more of the parties involved may seek violence over alternative methods of dispute resolution. In addition to providing a venue for pacific conflict resolution, transboundary collaboration can minimize economic and human resource burdens on protected areas managers and national security or intelligence offices.⁵³⁵ If security measures are transparent and well integrated into transboundary stewardship programs, it can also help to mitigate conflicts that potentially arise between local communities and border personnel.⁵³⁶ In times of war, this may be particularly helpful in ensuring that national security, intelligence, protected areas and local communities' interests are all aligned.⁵³⁷ If conducted properly, peace parks can be created for purposes of harmonizing security and conservation concerns, thereby contributing to a culture of peace between nations.

Peace parks declared during times of peace or created for the commemoration of friendly relations do not have to involve a history of conflict, or even a shared border.⁵³⁸ In some situations, "Brother" or "Sister" Parks have been created between nations that are not geographically adjacent. Governments across North, Central and South America have initiated a program for "Parques Hermanos" or "Brother Parks," that has led to the symbolic joining of parks such as Yosemite National

International Borders: Brief Facts 1 (Nov. 9, 2006).

⁵³³E.g. The governments of Costa Rica and Panama are currently considering allowing citizens of their two nations to cross the border without presenting their passports. Such issues are addressed in the Binational Commission, as well as in its variously themed subcommissions. See Interview with Nelson Elizondo Torres, *supra* note 405.

⁵³⁴See Leo Braack et al., *supra* note 5.

⁵³⁵E.g., via cost-sharing or joint border patrol activities. Where there is overlap, such activities may also benefit protected areas authorities. This is particularly true in regions where illegal natural resource extraction or other environmental crimes, arms, drugs or human trafficking are occurring. In such cases, collaboration between peace and security officers, protected areas personnel and local community members can produce a wide network of monitoring, surveillance and enforcement that minimizes the occurrences of illegal activity.

⁵³⁶Leo Braack et al., *supra* note 171 at 13.

⁵³⁷See *id.*

⁵³⁸Leo Braack et al., *supra* note 171 at 3.

Park in the U.S. with Torres del Paine National Park in Chile,⁵³⁹ Quebrada National Park in Argentina and Pinnacles National Monument in the U.S.,⁵⁴⁰ and World Heritage Sites Paquime (Mexico), Mount Albán (Mexico), Mesa Verde (U.S.) and Caracol (Belize) in the Belize, Mexico and the U.S.⁵⁴¹ These parks serve as symbols of friendship and diplomacy, where despite physical distances, protected areas authorities share information and experiences in helping each other to confront common environmental challenges. Quebrada National Park in Argentina and Pinnacles National Monument in the U.S. are home to the Andean Condor and the California Condor, respectively. Both species are in grave danger of extinction, so much of the cooperation between the National Park Service in the U.S. and the Administration of National Parks in Argentina centers around condor recuperation and reintroduction in the Parques Hermanos.⁵⁴²

As the negative impacts of anthropogenically induced environmental change, such as climate change, unravel, the role and peacebuilding capacity of peace parks created during times of peace will be particularly relevant. Traditionally, war has been a social mechanism for responding to environmental changes.⁵⁴³ When communities lack the ability to adapt to changing ecological conditions, maladaptation manifests and if not properly addressed, communities will eventually resolve maladaptations through war.⁵⁴⁴ In order to prevent an eventual armed conflict, communities can cooperate in peacefully addressing the impacts of environmental change. When faced with the option of “Trees now or tanks later,” communities should opt for preventative peacekeeping (conflict prevention).⁵⁴⁵

Peace parks in times of conflict

Extreme conflict, whether it means the extermination of the human species, or some part of it (genocide), war or even Just War, do not provide optimal conditions for the formation of a peace park. Nevertheless, it is during times of violent conflict that the objectives of a peace park and their capacity to foster a Culture of Peace, are most needed. The conflict may be induced by a variety of factors, but

539U.S. Embassy in Chile, *Chile y Estados Unidos Firman Convenio de Asociación* (Nov. 5, 2007), http://otros.conaf.cl/?page=home/contents&seccion_id=007&unidad=0&articulo_unidad=0&articulo_id=1684&maestra=1&PHPSESSID=c2565323742efda361d62c122d807449.

540U.S. Embassy in Argentina, *Acuerdo de Hermanamiento Entre el Pinnacles National Monument y el Parque Nacional Quebrada del Condorito* (Jan. 15, 2010), http://spanish.argentina.usembassy.gov/evento_parques_nacionales.html.

541Organization of American States [OAS], International Council for Integral Development [CIDI], Interamerican Commission of Culture, *Uniendo el Patrimonio Cultural y las Comunidades a Través de Fronteras: Parques Hermanos de las Americas* (Mar. 22, 2006), http://scm.oas.org/doc_public/SPANISH/HIST_06/CIDI01566S04.doc.

542U.S. Embassy in Argentina, *supra* note 539.

543Jeffrey A. McNeely, *Addressing Extreme Conflicts Through Peace Parks*, in *Extreme Conflict and Tropical Forests*, 159, 160, 165-167 (W. de Jong et al., eds., 2007).

544Id. at 160, citing R.B. Edgerton, *Sick Societies: Challenging the Myth of Primitive Harmony* (The Free Press, 1992).

545P. Thacher, *Peril and Opportunity: What it Takes to Make Our Choice*, in *National Parks, Conservation, and Development: The Role of Protected Areas in Sustaining Society*, 12-14 (McNeely & Miller eds., 1984).

those which are most conducive to peace park creation involve a border dispute or natural resource conflict (e.g., environmental scarcity or the “resource curse”). Many of the peace parks around the world have been established for purposes of resolving border conflict or addressing natural resource issues.⁵⁴⁶ In these cases, the peace park is generally discussed during cease-fire or peace negotiations and is formally created as part of the subsequent peace agreement(s). Peace parks declared in times of conflict are the most closely affiliated to armed conflict, both temporally and physically.

Peace parks are especially useful when resolving or settling border disputes. The Tatra and Krkonos peace park called for in the Krakow Treaty seeking to bring peace between the Czech Republic, Poland and Slovakia (at the time, Czechoslovakia and Poland), is perhaps the first example of such an attempt. In this case, the Krakow Treaty of 1925 between what was the Czechoslovakia and Poland proposed multiple peace parks between the nations to resolve a highly contentious border dispute.⁵⁴⁷ Between 1949 and 1967 six parks were declared: High Tatras National Park and Pienini National Park in what is now Slovakia; Tatrzański National Park, Karkonoski National Park and Pieninski National Park in Poland; and Krkonose in what is now the Czech Republic.⁵⁴⁸

Similarly, La Cordillera del Condor is a peace park that arose out of a border dispute between Ecuador and Peru.⁵⁴⁹ Following a peace agreement (the 1995 Rio Protocol) brokered by five Guarantor nations (Argentina, Brasil, Chile and the United States) ending over one hundred and fifty years of conflict over a disputed border, adjoining ecological parks (or Areas of Ecological Protection), “where unimpeded transit will be guaranteed and no military forces will be allowed,”⁵⁵⁰ were created “free of any sign of national demarcation.”⁵⁵¹ Jurisdiction over this territory is particularly rewarding because it provides access to the Amazon River and is a resource-rich fairly undeveloped region of the continent.⁵⁵² By creating a multi-stakeholder collaborative conservation process that allows for greater access to resources and more equitable distribution of resource benefits, delineation of the geopolitical border is rendered less relevant. Peace parks should be promoted more often in regions where borders are disputed – both terrestrial and marine.

When a dispute involves control or access to natural resources and their benefits, a peace park can provide an access and benefits sharing regime that is a negotiated and agreed to by all. Environmental security theorist, Thomas Homer-Dixon, has noted that resource scarcity does not automatically cause conflict.⁵⁵³ Rather, conflict can arise when conflagrating factors, such as power imbalances or political marginalization, hinder access and benefits sharing to certain people, thereby

⁵⁴⁶*Id.* at 19.

⁵⁴⁷Mittermeier et al., *supra* note 14, at 28.

⁵⁴⁸*Id.*

⁵⁴⁹*Id.* at 44.

⁵⁵⁰Beth A. Simmons, United States Institute of Peace, *Territorial Disputes and Their Resolution: The Case of Ecuador and Peru*, 27 *Peaceworks* 20 (Apr. 1999).

⁵⁵¹Mittermeier et al., *supra* 14 at 44.

⁵⁵²*Id.* at 44-45.

⁵⁵³See Thomas Homer-Dixon, *Environment, Scarcity, and Violence* (2001).

augmenting social inequities.⁵⁵⁴ It is important that in natural resource related conflicts, peace agreements determining access to resources and the distribution of environmental benefits are truly equal and perceived by all parties to be equal. Meaningful participation in natural resource management and environmental stewardship regimes negotiated in cease-fire or peace treaties can promote feelings of ownership and thus empowerment, mitigating any feelings of inequality and marginalization that may lead to prolonged conflict. Peace parks, such as La Cordillera del Condor, with collaborative stewardship frameworks are appropriate for ensuring participatory environmental and natural resource management processes that mitigate the likelihood of environmental conflicts.

Peace parks may also be declared during times of conflict in demilitarized zones (DMZs). Although armed conflict can wreak severe havoc on the environment, sometimes it can also be its savior.⁵⁵⁵ The presence of armed conflict may make it difficult and dangerous for civilians to inhabit or develop a natural landscape, thereby inadvertently protecting wildlife from human impacts (minus those of the armed conflict itself). Some areas are explicitly set aside by combatants as DMZs, essentially an off-limits no-(hu)man's land. These zones become incidental wildlife sanctuaries and are prime for peace parks. Other areas that might be similarly suitable for peace parks are military testing or training grounds, mine fields or lands rendered unsuitable for human inhabitation, where nature can be allowed to regenerate if set aside. As nations experience extended periods of peace and choose to move towards demilitarization or elimination of standing armies (as Costa Rica and Panama have done), lands that were previously controlled by the military can be converted to peace parks. Some of the military personnel may even consider transferring their skills to wildlife protection. Such transcendence from conflict to peace would well-serve the objectives of a peace park.

As an example, a peace park has been proposed between the Koreas, where long-term border conflict at the 38th parallel has led to the recognition of a Demilitarized Zone (DMZ). After the 1953 ceasefire, the DMZ has served as a “war-free” zone (even then, it is one of the most militarized and dangerous borders of the world).⁵⁵⁶ Studies indicate that transboundary ecology has rebounded and thrived even; this has been attributed not to proactive or collaborative conservation efforts, but rather to the mere absence of armed conflict or any other kind of human activity in the area.⁵⁵⁷ Conservationists are urging joint collaboration between the two Koreas to protect these rare natural resources, particularly as urban zones in South Korea threaten to spread northward toward the border, endangering ecosystems.⁵⁵⁸

⁵⁵⁴See *id.* at 13 (Resource capture is a type of environmental scarcity that occurs when “powerful groups within a society...use their power to shift in their favor the laws and institutions governing resource access. This shift imposes severe structural scarcities on weaker groups.”).

⁵⁵⁵Jeffrey A. McNeely, *supra* note 542, 160-164.

⁵⁵⁶See Hall Healy, *Korean Demilitarized Zone: Peace and Nature Park*, 24 *Int'l Journal on World Peace* 61, 61 (Dec. 2007).

⁵⁵⁷See *id.*; M. Bradley, *Korea's DMZ a Rare Chance for Conservation*, ABC Science Online, <http://www.abc.net.au/science/articles/2000/06/21/142141.htm> (June 2001).

⁵⁵⁸See The Korea Society, *Preserving Korea's Demilitarized Zone for Conservation and Peace – Building a Global Coalition* (Feb. 2006).; See *id.*

In places where conflict seems on-going and resolution far-off, peace parks can be used to support coordination of conservation efforts and the resilience of natural environments to conflict. This was the case in the Central Albertine Rift Transfrontier Protected Area Network (CAR TFPA Network) between the Democratic Republic of Congo, Rwanda and Uganda. Despite the regional conflict that colonized their parks, rangers were able to communicate with each other and maintain some level of wildlife protection.⁵⁵⁹ If a peace park has international recognition (i.e., World Heritage Site or RAMSAR listing), then its designation may ensure that international aid continues to support conservation activities throughout the conflict. Sustained insecurity can be justification for inclusion of a peace park in the “List of World Heritage in Danger,” thereby invoking the assistance of other States Parties to the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention).⁵⁶⁰ It may, one day, also bring the presence of Green Helmets, the ecological analog to the UN's Blue Helmet peacekeepers.⁵⁶¹ Most importantly, transboundary collaborative conservation receives the support that it needs to survive the armed conflict.

Peace parks in times of post-conflict peacebuilding

Peace parks are often established after conflict has ended, during periods of peacebuilding between nations. Times of post-conflict peacebuilding refer largely to states of Non-War or negative war, cease-fires or the years immediately following extreme conflict. It is distinguished from times of peace in that it is much closer to the armed conflict and memories of the violence remain raw and fresh. Tensions may still be high and perceptions of hostility towards previous enemies may still exist. Governance may be weak and institutions or infrastructure may need to be rebuilt; true sustainability is

⁵⁵⁹See Andrew J. Plumptre, *supra* note 318.

⁵⁶⁰World Heritage Convention, *supra* note 247, at art. 11(4), art. 13.

⁵⁶¹“Green Helmets” would respond to environmental emergencies. They may even act under mandate of the UN Security Council (per Chapter VII Article 25), intervening in “particular environmentally destructive practices constituting a threat to peace and the authority of the Security Council.” See Linda A. Malone, “Green Helmets”: *A Conceptual Framework for Security Council Authority in Environmental Emergencies*, 17 Mich. J. Int'l L. 515, 519, 521 (1996).; Many governments have not been keen on the idea of establishing a corps of “Green Helmets” invoked by the Security Council, because of the many controversies and arguments against the Security Council in general, as well as for reasons of their national and territorial sovereignty. Geoffrey D. Dabelko, *An Uncommon Peace: Environment, Development, and the Global Security Agenda* 50 Environment 32, 37 (2008).; Other proponents of “Green Helmets” have proposed creating them under the auspices of the United Nations General Assembly as a “UN Center for Emergency Environmental Assistance,” *Id.*; The Foreign Minister Eduard Shevardnadze of the then Soviet Union, has also called for a UN Environmental Security Council to be created by the UN General Assembly. *Id.*; A “Green Cross,” similar to the Red Cross which operates in humanitarian disasters, has also been advocated for response to environmental disasters. This was created in 1993 by the union of Soviet President Mikhail Gorbachev's “Green Cross” and Swiss National Council MP Roland Wiederkehr's “World Green Cross,” as “Green Cross International.” They work in environmental conflict prevention (e.g., water stewardship), response (e.g., post-conflict environmental analyses) and values change (e.g., per support of the Earth Charter). See Green Cross International (2003-2010), <http://www.greencrossinternational.net>.

still something to be sought after. During this fragile time, relations between previously conflictive communities may need to be renewed. Friendly relations must be rekindled and a Culture of Peace revived. A peace park between the recently conflictive communities provides a tangible framework for rebuilding and peacebuilding that can stave off risks of falling back into conflict.

It is easier to engage in a peace park process during times of post-conflict peacebuilding than during times of conflict. When States have returned to times of relative peace, they are freed to engage in peace park processes and to re-establish diplomatic relations with neighboring countries. The peace park may be established as an environmental peacebuilding tool, so as to redevelop relations and cooperation between nations or communities. This situation best comports with Gerardo Budowski's definition of a peace park, whereby an area's transboundary nature is not as relevant as the territory's "significant conflictive past."⁵⁶² Peace parks declared post-conflict may be similar to those developed in times of peace, in that they can celebrate a commitment to a culture of peace and friendly relations. It is an attempt to move away from conflict and towards just peace.

Establishment of transboundary peace parks in post-conflict regions are particularly helpful if transboundary natural resource management was a source of conflict or fueled the conflict. UNEP's 2009 report, "From Conflict to Peacebuilding: The Role of Natural Resources and the Environment," notes that since 1990, at least eighteen armed conflicts have been fueled by natural resources exploitation and "over the last sixty years at least forty percent of all intrastate conflicts have a link to natural resources."⁵⁶³ In UNEP's preliminary survey of intrastate conflicts over the last sixty years, natural resource related conflicts are twice as "likely to relapse into conflict within the first five years" than conflicts not associated with natural resources (which have tended to exhibit about 44% chance of relapse).⁵⁶⁴ Despite this, peace negotiations have only addressed natural resource management 24% of the time.⁵⁶⁵ Natural resource management is just one aspect of a peace park stewardship framework that can be negotiated in a post-conflict setting.

The newest international peace park in the Gola Rainforest between Liberia and Sierra Leone demonstrates this. The Gola Rainforest peace park recognizes the role of forests in conflict as well as their potential in a post-conflict peacebuilding environment to help communities achieve peace, cooperation and sustainable development.⁵⁶⁶ In addition, the Liberian-Sierra Leonian peace park goes another step further and recognizes the role of the peace park in the two nations' efforts to combat climate change.⁵⁶⁷ Holistic stewardship of the Gola Rainforest now and into the future helps to ensure

⁵⁶²Sandwith et al., *supra* note 19, at 3.

⁵⁶³UNEP, *supra* note 204, at 8.

⁵⁶⁴*Id.* at 8.; Carl Bruch, Senior Attorney and Co-Director of International Programs, Address at the American Branch of the International Law Association's International Law Weekend Post-Conflict Peacebuilding, Natural Resources and International Policy Session (Oct. 23, 2009).

⁵⁶⁵*Id.* at 5, 8.

⁵⁶⁶Cocorioko Man Joseph Kamanda, *Climate Change: Sierra Leone and Liberia Brace to Protect Gola Forest*, Environmental News Service, Oct. 25, 2009.; BirdLife International, *Presidents Further Their Commitment to Peace, Cooperation and Fighting Climate Change*, BirdLife International News Archive (Oct. 28, 2009).

⁵⁶⁷*Id.*

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that it will “continuously provide ecological services to the surrounding communities.”⁵⁶⁸ This will “further increase the resilience of the ecosystem to climate change,”⁵⁶⁹ which has been directly and indirectly linked to international and environmental security issues.⁵⁷⁰ A future of peace requires frank and collaborative action to mitigate and adapt to negative anthropogenically induced environmental changes.

A future of just peace can also be cultivated when developing peace parks in post-conflict peacebuilding contexts by explicitly commemorating the history of violent conflict in the region. Each of the six Transfrontier Conservation Areas (TFCAs) located across all of South Africa's borders are a memorial to southern Africa's conflictive past.⁵⁷¹ For years, apartheid, military and economic aggressions and war destabilized the region, turning neighbors against each other. Since the fall of apartheid more than 25 years ago, southern Africa has been drafting a new future and in the process, has turned to Nature for its “power to heal old wounds.”⁵⁷² Acknowledging the events or atrocities that occurred in a place can help victims and aggressors move towards reconciliation.⁵⁷³ This is the assumption upon which the South African Truth and Reconciliation Commissions were based - “that knowledge of the past leads to acceptance, tolerance, and reconciliation in the future, and that learning the 'truth' will somehow convince citizens to put the past behind and move on toward a more democratic future.”⁵⁷⁴ Conversely, denial of hostilities is not productive for the confidence or trust-building that is required to maintain peaceful relations and support meaningful collaboration between peoples.⁵⁷⁵ A peace park that respectfully memorializes history can offer a platform for re-establishing

⁵⁶⁸*Id.* at 2.

⁵⁶⁹*Id.*

⁵⁷⁰Dan Smith & Janani Vivekananda, *A Climate of Conflict: The Links Between Climate Change, Peace and War* (International Alert, 2007).; See Clionadh Raleigh, Lisa Jordan & Idean Salehyan, *Assessing the Impact of Climate Change on Migration and Conflict* (World Bank Social Development Department, 2008).; Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, *Climate Change and Conflict* (The Federal Ministry for the Environment, Germany, 2002).; See Jon Barnett & W. Neil Adger, *Climate Change, Human Security, and Violent Conflict* 1 *Global Environmental Change and Human Security News* 1, 1-3 (2006).; See Halvard Buhaug, Nils Petter Gleditsch & Ole Magnus Theisen, *Implications of Climate Change for Armed Conflict* (PRIO & World Bank, 2008).

⁵⁷¹Larry A. Swatuk, *Peace Parks in Southern Africa* 3 (2005).

⁵⁷²E. Koch, *Nature Has the Power to Heal Old Wounds: War, Peace and Changing Patterns of Conservation in Southern Africa*, in *South Africa in Southern Africa: Reconfiguring the Region* (D. Simon ed., 1998).; *Id.*

⁵⁷³See e.g., Albie Sachs, *Truth and Reconciliation*, 52 S.M.U. L. Rev. 1563 (1999).; Alfred Allan & Marietjie M. Allan, *The South African Truth and Reconciliation Commission as a Therapeutic Tool*, 18 *Behav. Sci. Law* 459, 459-477 (2000).

⁵⁷⁴James L. Gibson, *Does Truth Lead to Reconciliation? Testing the Causal Assumptions of the South African Truth and Reconciliation Process*, 48 *American Journal of Political Science* 201, 201 (Apr. 2004).

⁵⁷⁵E.g., the Japanese Government's reluctance to acknowledge wartime atrocities, such as the kidnapping, coercion and forced transport of *jugun ianfu* or “Comfort Women” from occupied territories (such as Korea, the Philippines, and China), who became sex slaves for the Japanese Military during World War II or the Rape of Nanjing have not helped regional relations or perceptions of Japan in Asia. Yoshiko Nozaki, *Feminism, Nationalism, and the Japanese Textbook Controversy Over “Comfort Women*, in *Feminism and Antiracism: International Struggles for Justice* 170 (Twine & Blee eds., 2001).; Yoshiaki Yoshimi, *Comfort Women: Sexual Slavery in the Japanese Military During World War II* (Suzanne

trust and building amicable relations so that more meaningful cooperation may occur. By engaging in a truth and reconciliation type process, communities can confront the atrocities and collaboratively move forward, pioneering a new dynamic based on interrelation and shared experiences – a culture of peace and collaborative environmental stewardship.

Just as peace parks created in times of peace might build upon a shared appreciation for Nature, peace parks can also be established in times of post-conflict peacebuilding to express appreciation for Nature. Nature can often provide a refuge for civilians, protecting them from the wraths of armed conflict.⁵⁷⁶ Civilians attacked by the armed combatants may flee into the bush seeking safety. Sometimes a temporary refuge can turn into more long-term encampment. When the Karen fled Burma/Myanmar for the mountain forests on the border with Thailand, they ended up settling there for over four decades.⁵⁷⁷ Before there is external support (from foreign governments or humanitarian aid organizations), refugees or internally displaced peoples rely heavily on natural resources for survival.⁵⁷⁸ Oftentimes refugees develop a “close respect for nature and understanding of natural resource management.”⁵⁷⁹ That dependence and relationship with Nature does not end when populations emerge from conflict. Economic and social restoration of nations emerging from conflict will require natural resources to fuel development. This relationship between nation-state well-being and environmental well-being can be highlighted in a peace park framework so that new stewardship paradigms are forged that respect human dependencies on natural systems. Post-conflict peace parks should take special advantage of the appreciation for Nature developed by displaced peoples and promote continued close relationships between humans and Nature as communities are rebuilt. Peace parks in post-conflict peacebuilding settings could even be declared expressly as an homage to Nature as a refuge and support-system for all humanity.

Initiating a peace park process

Perhaps the most powerful thing that a peace park can offer is its capacity to transform, whether it be from division to collaboration, conflict to peace, or degradation to stewardship, etc. Globally, there is significant potential for generating such transformations through transboundary peace parks. In a 2007 inventory of transboundary protected areas by the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), 227 internationally adjoining protected areas (IAPA) made up of at least 3,043 individual protected areas or internationally designated sites were

O'Brien trans., Columbia University Press, 2002).; Tessa Morris-Suzuki, Japan Focus, Mar. 8, 2007, *available at* <http://www.japanfocus.org/-Tessa-Morris-Suzuki/2373> (last visited June 11, 2010).; Peter J. Brown, *Japan, China Still Fighting Over History*, Asia Times Online, Feb. 11, 2010, *available at* <http://www.atimes.com/atimes/China/LB11Ad01.html> (last visited June 11, 2010).

⁵⁷⁶Jeffrey A. McNeely, *supra* note 542, at 161.

⁵⁷⁷United Nations High Commissioner for Refugees [UNHCR], *Thailand: Global Needs Assessment*, 2001, <http://www.unhcr.org/cgi-bin/texis/vtx/page?page=49e489646>.

⁵⁷⁸IUCN & UNHCR, *Forest Management in Refugee and Returnee Situations* 8 (Aug. 2005).

⁵⁷⁹*Id.*

identified.⁵⁸⁰ There are also many other transboundary landscapes and *de facto* conservation areas that may not satisfy the IUCN definition of a transboundary protected area (TBPA) or an IAPA that are not included in this inventory.⁵⁸¹ Each of these has the potential to be recognized as a transboundary peace park. The process of transformation from landscape to protected area to peace park takes a great idea, a some initiative and a lot of work. Ideally, a peace park process is locally specialized to suit regional circumstances and cultural relativism. It should also be a broadly participatory, collaborative and adaptive process. Although peace parks have largely been created in *ad hoc* fashion around the world, this section will explore some commonalities in peace park processes and attempt to outline a streamlined approach based on an adaptive project cycle.

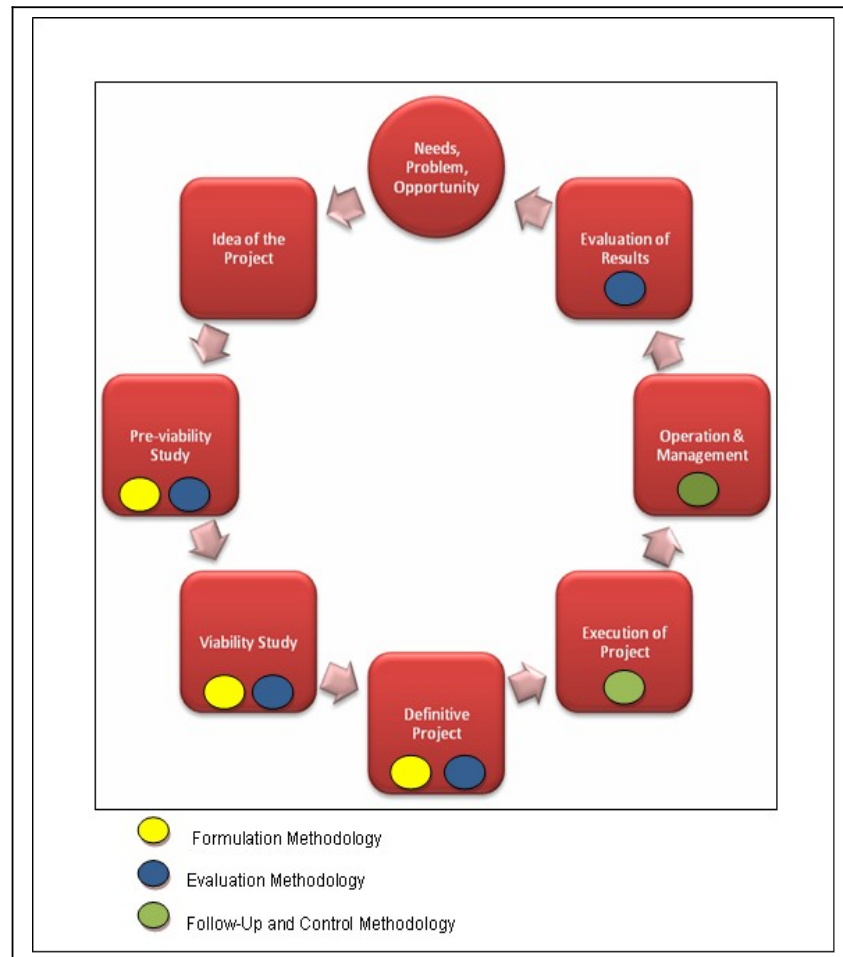
Peace park project cycle

Everything starts with an idea. Then, with the initiative of a few antagonists, or many, an idea is tested. If it withstands scrutiny, it may come to fruition. A useful methodology proposed by Trueba and Marco that illustrates this process is provided below:

⁵⁸⁰UNEP-WCMC, *Transboundary Protected Areas Inventory* 1 (2007).

⁵⁸¹The 2007 Transboundary Protected Areas Inventory includes only TBPAs that fit the IUCN definition and the IAPA definition. *Id.*; IUCN definition: “An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.” It must be designated under national legislation or by international or regional conventions and be included in the World Database on Protected Areas. *Id.*, IUCN Commission on National Parks and Protected Areas & UNEP-WCMC, *Guidelines for Protected Area Management Categories* 187 (1994).; IAPA definition: protected areas that “physically meet or nearly meet across international boundaries.” Dorothy C. Zbicz, *Transfrontier Ecosystems and Internationally Adjoining Protected Areas* 2 (1999).

Figure 3.4 Project cycle and the application of its different methodologies in its different phases⁵⁸²



Each of the phases identified above involves the following:⁵⁸³

Project Idea. A creative force that results from the identification of a problem, the

⁵⁸²Jorge Figueroa, Jorge Bentin & Pablo Martínez de Anguita, *Social Analysis: Field Scoping for the Viability of a Transboundary Protected Area Project Honduras (La Botija) and Nicaragua (Tepesomoto-La Pataste)*, in *La Conservación en las Fronteras: El Ciclo de Proyectos Aplicado a la Creación del Parque Binacional “Padre Fabretto”* 55, 62 (Pablo Flores Velásquez, Pablo Martínez de Anguita & Elaine Hsiao eds., 2007).

⁵⁸³Pablo Martínez de Anguita, *Metodología*, in *La Conservación en las Fronteras: El Ciclo de Proyectos Aplicado a la Creación del Parque Binacional “Padre Fabretto”* 3, 4-5 (Pablo Flores Velásquez, Pablo Martínez de Anguita & Elaine Hsiao eds., 2007).

seizing of an opportunity or the satisfaction of a necessity. It is important to clearly define the objectives of the project in this premier phase through dialogue and imagination in an interdisciplinary group. At this point, the idea can reach one of three fates: (1) archival for future reconsideration when the context is more favorable, (2) rejection because it is not considered viable, or (3) continue on to the Pre-feasibility or Pre-viability Study phase in order to obtain more information.

Pre-feasability or Pre-viability Study. A preliminary level of information based on generally documented information produced by third parties (e.g., public administrators, statistical institutions, international organisms, clearinghouses, universities, etc.). An assessment of the pre-viability of a TBPA should include and will depend on a variety of components, *inter alia*, the quality of natural resources in the area, a socio-political analysis identifying potential conflicts and the identification of interests and perspectives of local communities regarding the project. In its conclusion, a decision should be made as to whether the idea is feasible or whether there is an alternative strategy. The project can then follow the fates described earlier: archival, rejection or continuation (to the Feasibility or Viability Study phase) in order to obtain more information and minimize uncertainties.

Feasability or Viability Study. A much more detailed study based on primary information with a higher degree of certainty and quantification of the costs and benefits of the project over time. It should include the following studies: technical and biophysical, socio-economic, territorial and land use, hydrologic, legal, economic (e.g., ecotourism and silviculture), undertaken with stakeholder participation. The conclusion of this study should reach a decision regarding the fate of the project – archival, modification, rejection or continuation (towards approval in a defined project).

Defined Project. An integration of technical, financial, socio-economic, environmental and legal documents guaranteeing that investment in the project will have maximum returns. The quality and definition of the studies and proposals should be complete, forming the basis of a final proposal.

Financing. A study of financing options for the project, including from international and national organizations, governmental or non-governmental. The final decision should assure adequate and stable internal financing (so as to not rely completely on external financing) supported by public and private resources.

Project Execution. A mobilization of resources to transforming the idea into reality through the undertaking of projects, for which the previous studies have determined that

adequate conditions apply.

Operation and Management. A clearly defined administrative body with the necessary authorities to make decisions regarding the project and its management, and with the necessary resources to maintain its operation, should have been identified in the pre-viability and viability studies. This phase begins with the investment of resources and ends with the useful life of the project.

Continuous Evaluation.⁵⁸⁴ An evaluation of the results of the project and whether or not they are in compliance with the original objectives of the project. This should be verifiable through quantifiable measures and indicators so that results can be accurately compared.

It is important that a peace park process is based on an adaptive process that allows flexibility for periodical evaluations and adjustments as necessary. Throughout the TBPA formation process, studies of the area and evaluations of the costs and benefits of the protected areas must be ongoing and continuous in order to timely assess the needs and achievements of the peace park. The process, as illustrated in the diagram, must be cyclical and on-going.

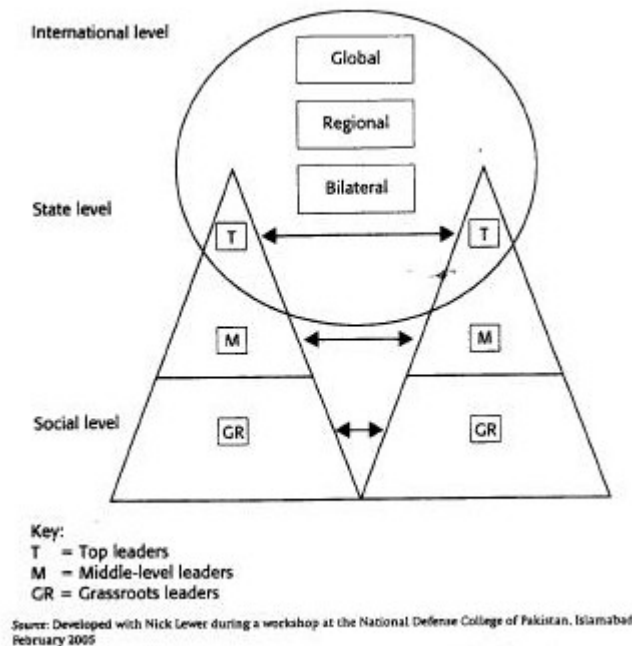
A peace park process should also be broadly participatory. The stakeholders or beneficiaries of the protected areas must be identified early on and included in all steps of the process in order to ensure that their interests are adequately considered and that benefits return to those most directly affected and involved. This includes identification of individuals and organizations (public and private) with the power to act, both in making decisions and in implementing them. In some places, this may require the participation of third party intermediaries capable of assisting in the brokering of the agreement.

Proponents of a peace park process

The Great Oz behind a peace park process might be a few people or many, depending on the level at which the idea is being promoted. Typically, peace parks have tended to be high-level initiatives pushed by a few national elites. However, a peace park initiative can also arise from lower-levels of government or community organization. A process may also be driven by an external actor, such as an international NGO, regional institution or development bank. A model depicting a framework for transformation of international social conflict helps to illustrate the different levels of possible peace park antagonists:

⁵⁸⁴This was originally listed as “Ex-Post” Evaluation, but in order to reflect continuous evaluation process of an adaptive project cycle, it has been changed here to “Continuous Evaluation.”

Figure 3.5 Modeling International-Social Conflict: a Framework for Transformation⁵⁸⁵



This model is based on a multi-track dynamic that involves the participation of various sectors of society at all levels, local to international.⁵⁸⁶ Civil society and social organizations represent the Grassroots level, while Middle-level leaders are those who link civil society to the societal elites, or Top Leaders.⁵⁸⁷ They can include international NGOs, religious institutions, academics and private sectors.⁵⁸⁸ At the top are international and regional forces, such as governments and International Governmental Organizations (IGOs), the United Nations (UN), development banks (such as the World Bank and regional development banks) and other international financial institutions, global or regional think tanks, etc.⁵⁸⁹

More often than not, peace parks have been created at high political levels between national elites, State to State or between governments. The idea is originally adopted by a political elite, an agency head, minister, Head of State or Head of Government and then communicated to their cross-

⁵⁸⁵Oliver Ramsbotham, Tom Woodhouse & Hugh Miall, *Contemporary Conflict Resolution: The Prevention, Management and Transformation of Deadly Conflicts* 28 (2nd ed., Polity Press, 2005).

⁵⁸⁶*Id.* at 25.

⁵⁸⁷*Id.* at 22-27.

⁵⁸⁸*Id.* at 26.

⁵⁸⁹*Id.*

border analog or counterpart.⁵⁹⁰ If in accord, these high-level actors will produce a formal agreement conducted per official diplomatic norm, typically involving the Foreign Ministers. This agreement is approved and signed according to national protocol dictated by domestic laws, making it a binding treaty agreement. This is the peace park process undertaken in Parque Internacional La Amistad (PILA) between Costa Rica and Panama. As of 1970, the Planning and Economic Cooperation Ministries had decided that they would work together to promote integrated development along their border.⁵⁹¹ The idea of a peace park was adopted at a high political level and a declaration signed by the Presidents after a joint visit to the Talamanca border region.⁵⁹² After having been circulated through the appropriate political channels in each country and back and forth through the usual diplomatic exchanges, this declaration was given effect in 1982 and ratified in 1992.⁵⁹³

Less practiced and talked about are lower-level locally-based initiatives. This is the rare case where the idea surges from the Grassroots level in territory itself. It may come from field staff, as was the case with the rangers in WGIPP,⁵⁹⁴ or from local organizations with an interest in jointly protecting the territory, such as the Fabretto Foundation on the border of Honduras and Nicaragua.⁵⁹⁵ Rangers in IAPAs may naturally collaborate on environmental issues that challenge each of their respective jurisdictions, such as control of forest fires, plagues and illegal natural resource extraction or poaching. They may propose the idea to higher levels of political authority, so that their collaborative efforts might be officially recognized.

⁵⁹⁰Trevor Sandwith et al., *supra* note 19, at 7, 9.

⁵⁹¹*Id.* at 10.

⁵⁹²The two presidents met in the border region and shared in a helicopter ride surveying the territory. Upon their descent to land, the presidents and their accompanying personnel drafted a joint declaration, establishing their intent to create Parque Internacional La Amistad (PILA). Telephone interview with Alvaro Ugalde, *supra* note 530 (Alvaro Ugalde was with the President of Costa Rica and helped to develop the joint declaration that came out of this meeting of minds in the Talamanca mountain forests); See Decreto No. 13324-A, *supra* note 413, at para 2 (Que el señor Presidente de la República de Costa Rica, Licenciado Rodrigo Carazo Odio y el Excelentísimo señor Presidente de la República de Panamá, doctor Aristides Royo, se reunieron el 3 de marzo de 1979, en la región fronteriza de la Cordillera de Talamanca, con el objeto de continuar la política de cooperación en el área fronteriza, y como gesto simbólico de las excelentes relaciones de amistad y fraternidad entre los dos pueblos y Gobiernos, ambos dignatarios intercambiaron impresiones sobre el alto valor científico y ecológico de la región, y coincidieron en la necesidad de conservar y preservar la flora y la fauna de la misma, para mantener el equilibrio ecológico y fundamentalmente los recursos hidrológicos del area fronteriza y que, para tal efecto, los dos gobernantes decidieron y firmaron una declaración conjunta para crear el parque internacional de la Amistad: Costa Rica- Panamá, en ambos lados de la frontera).

⁵⁹³Trevor Sandwith et al., *supra* note 19, at 10.

⁵⁹⁴Kootenai Brown (First Superintendent of Waterton Lakes National Park) and Henry "Death on the Trail" Reynolds (U.S. Ranger in Glacier National Park) would participate in joint patrols and discuss strategies for dealing with forest fires and predator management policies. They would share many of their scientific findings and tell each others' stories during park interpretations with tourists. U.S. NPS, *supra* note 253.; U.S. NPS *supra* note 254.

⁵⁹⁵There is currently an initiative to create a peace park across the mountain forest border region of Honduras and Nicaragua. This idea arose mainly through investigators working with the Fabretto Foundation in development of a model forest for sustainable forestry. This initiative will be explored in greater detail in the next chapter as a Case Study on the possible application of the Patchwork Peace Park model in a mountain forest border region in Central America.

Cooperation between public officers, even field staff, across international borders may be considered a violation of the national government's authority. External affairs and relations are generally understood as activities within the purview of State authorities. National constitutions often delegate foreign relations and affairs to the Heads of State or Government and their ministries or agencies. Officially speaking, a joint science fair by elementary schools just kilometers away from each other sitting on opposite sides of a shared border, may require an agreement between the Ministries of Education (and any other relevant authority) facilitated by the Foreign Ministries. All of this excess bureaucracy can stymie an enriching experience of information and cultural sharing. On occasion, we will find that local actors will disregard the red tape, choosing instead to work with each other. If a natural cross-border dynamic already exists, this will be easily accomplished. Government recognition of such activities may occur *ex-post facto* to support the continuation and expansion of these localized international cooperations or they may occur *de facto* by omission (inaction, neither approving nor preventing the activities).

A natural cross-border dynamic can also transcend other levels of governance to involve local or regional governments, as well as indigenous governments, as primary proponents of a peace park initiative. Governance of any territory of sufficient size will involve multiple layers of government. In a republic, layers of governance can be divided between regions, provinces and municipalities. In a federation, powers of governance are divided between the federal government, state governments and local governments. Muddled into these layers of government are also the recognized and unrecognized governance systems of many indigenous nations around the world. The United Nations Declaration on the Rights of Indigenous Peoples (hereinafter UNDRIP) protects the rights of indigenous peoples, most importantly their right to conservation and to “the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired.”⁵⁹⁶ Other States are required to negotiate with self-determined and autonomous systems of indigenous governance, recognizing indigenous customs and norms, and honoring the agreements that are made between them.⁵⁹⁷ A peace park process can be initiated at any one of the various levels of governance, between the various systems of

⁵⁹⁶Relevant rights enshrined in the UNDRIP include, *inter alia*:

Article 4: the right to self-determination, autonomy or self-government;

Article 18: the right to participate in decision-making

Article 19: consultation in good faith with their own representative institutions to obtain their free, prior and informed consent;

Article 26: protects indigenous rights to lands, territories and resources;

Article 27: mandates States to implement a process for recognizing indigenous systems of governance and land tenure; Article 29: the right to conservation of indigenous lands;

Article 30: the right of indigenous lands and territories to be free from military activities; and

Article 37: the right to the recognition, observance and enforcement of treaties, agreements or other constructive arrangements.

Human Rights Council, Sept. 7, 2007, *United Nations Declaration on the Rights of Indigenous Peoples*, U.N. Doc. A/61/L.67 (Sept. 7, 2007).

⁵⁹⁷*Id.*

governance, and by any of these locally-based actors. The subsidiarity principle would support declaration of peace parks and stewardship of peace park territories, marine or terrestrial, at these more localized levels of governance.⁵⁹⁸

External actors frequently play a role in high-level or local-level peace park processes. Externals can include foreign governments, international NGOs, international development organizations (including development banks), etc. International actors are often key players in a peace park process. Historically, organizations such as the IUCN, Conservation International, the World Wildlife Fund, the Nature Conservancy and the Peace Parks Foundation have been integral in lobbying governments to declare TBPA's and in building local and public capacity for the management of those areas. In southern Africa, the Peace Parks Foundation has been integral in the drafting and negotiation of transboundary cooperation agreements⁵⁹⁹ and in Central America, the IUCN, Conservation International and the Nature Conservancy have been key capacity-builders of border communities.⁶⁰⁰ One may be hard pressed to find an example of a peace park that has not benefited from an external intervention of some sort, whether an outside actor is the first to propose the idea, helps to promote it, or helps to fund it.

Since the creation of a transfrontier peace park is an international project, it requires more than just domestic action on the part of one State to officially establish the TBPA for peace and oftentimes it

⁵⁹⁸The Subsidiarity Principle supports decision-making at the most relevant level possible, relegating it to the most localized or lowest level, unless circumstances should require a more coordinated effort at a higher level. Higher levels of government are to act in subsidy or support to the activities of local actors. See Paolo G. Carozza, *Subsidiarity as a Structural Principle of International Human Rights Law*, 97 Am. J. Int'l L. 38 (Jan. 2003).; It is a fundamental principle of the European Union, enshrined in the Treaty of Maastricht. Treaty on European Union, Feb. 7, 1992, 1992 O.J. (C191).

⁵⁹⁹See Peace Parks Foundation, *Peace Parks Programmes: Projects*, 2008-2010, http://www.peaceparks.org/Programmes_1030000000_25_0_0_0_25_Projects.htm (the Peace Parks Foundation works with regional governments to support the creation of Transfrontier Conservation Areas (TFCAs). Their activities or interventions are currently focused on ten different TFCAs in southern Africa. "The interventions can range from facilitation of stakeholder meetings, the funding of feasibility studies, the funding of critical posts such as that of international coordinators, as well as getting involved with physical project implementation and park development if the situation requires.").

⁶⁰⁰The IUCN Mesoamerican Regional Office [ORMA] programme, Alianzas, is dedicated specifically to working with communities in border regions to conserve and sustainably use their natural resources. See IUCN, *Programa Alianzas*, Nov. 18, 2008, http://www.iucn.org/es/sobre/union/secretaria/oficinas/mesoamerica/nuestro_trabajo/unidad_de_equidad_social/programa_alianzas/; Conservation International and The Nature Conservancy have worked extensively with communities in transboundary biological corridor initiatives, including in the buffer zones of Parque Internacional La Amistad. See e.g., John Tidwell, Conservation International, *The True Wealth of Nations: How Costa Rica Prospers by Protecting its Ecosystems*, 2010, http://www.conservation.org/FMG/Articles/Pages/wealth_of_nations_costa_rica.aspx (CI worked closely with local communities around the La Amistad Biosphere Reserve through a project called AMISCONDE).; See also e.g., The Nature Conservancy, *Historias de Éxito: La Amistad Parque Internacional: Bocas del Toro, Costa Rica y Panamá, un Lugar Magnífico y Extenso*, Sept. 29, 2008, <http://www.parksinperil.org/espanol/quienessomos/exitos/art18185.html>.

requires the facilitation of outside parties to help spur along the momentum for such collective action. In the Israel-Jordan transboundary peace park, Friends of the Earth Middle East and EcoPeace were both involved in the joint efforts that resulted in a mayoral MOU declaring the peace park. La Cordillera del Condor, the peace park between Ecuador and Peru, is an example of a high-level peace park processes initiated at the instigation of outside actors. The idea was proposed by IUCN President Yolanda Kakabadse (Ecuador's Minister for Environment at the time) during a peace negotiation brokered by five other governments.⁶⁰¹ WGIPP between Canada and the U.S. was strongly supported by Rotary International, as is the decades-long proposal to create a peace park along the Mexico-U.S. border. The International Gorilla Conservation Programme made up of three international NGOs (African Wildlife Foundation, Fauna and Flora International, and the World Wildlife Fund) is a major stakeholder in the Transboundary Secretariat administering the CAR TFPA Network between the DRC, Uganda and Rwanda.

Experts, scientists and scholars from universities, regional or national aid and development organisms (e.g., USAID) and development banks (e.g., the World Bank, the African Development Bank) can also lend their expertise and resources to a peace park initiative. They may participate in the scoping studies and audits, biological surveys producing inventories of natural resources and species of flora and fauna, the proposal of resource management plans, and project proposals, etc. International organizations frequently fund or provide technical support for, *inter alia*, the development of management plans, capacity building for stewardship and sustainable development, or meetings and workshops. The success of a peace park process may depend heavily on the availability of sustained financial support. USAID and the World Bank have been financial backers of transboundary conservation around the world, including the South African Development Community, where the ten southern African peace parks are located.⁶⁰²

Participation of all stakeholders across all levels (local, regional, State and international) of governance in peace park processes supports a Just Social Peace. Most commonly, peace parks have been created at high political levels with the support of middle-level actors. Local-level stakeholders have not always participated in these processes, nor were they consulted as high-level decisions affecting their territories were made. Just Peace and Social Peace require that we expand peace park processes to become a much more meaningful and collaborative experience. Social justice also demands that peace park agreements are negotiated with indigenous communities on a basis of equality. Cooperation agreements between the governments of Costa Rica and Panama should reach out to include, as equals, the indigenous communities living in and around PILA. The same can be said of WGIPP and resident indigenous tribes, such as the Blackfoot or Blackfeet (as they are known in Canada and the U.S. respectively) and the Kootenai. In the CAR TFPA Network, the Transboundary Secretariat has allowed inclusion of international NGOs united under the auspices of the IGCP in transboundary collaborative conservation, but does not include an equally elevated status for the region's prior indigenous inhabitants (such as the Batwa). Based on the three case studies examined in

⁶⁰¹Trevor Sandwith et al., *supra* note 19, at 9.

⁶⁰²*Id.* at 12.

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the previous chapter, we observe potential for a more Just Social Peace to be developed in transboundary peace parks. As per the Framework for Transformation depicted in the Modeling of International Social-Conflict above, this broader participatory multi-level dynamic is conducive to conflict transformation towards Social Peace and in accord with human rights and efficiencies of the Principle of Subsidiarity, should be promoted in all peace park processes.

Legal Form: The Small Print

Peace parks are a paradigm founded upon the ideas of cooperative conservation despite borders and the rule of law. It is a model shaped by the international and environmental principles codified in so many treaties, conventions, declarations and charters signed by civilized nations around the world.

Principles of international peace and security,⁶⁰³ international cooperation,⁶⁰⁴ conservation and the right to a healthy environment,⁶⁰⁵ a right to sustainable development founded on social, economic and ecological pillars,⁶⁰⁶ as well inter- and intra-generational equity,⁶⁰⁷ and the recognition of environmental issues as the common interest or common concern of humankind,⁶⁰⁸ have been recognized in international agreements and declarations, such as the UN Charter, the Stockholm Declaration of the UN Conference on the Human Environment (Stockholm Declaration), the Rio Declaration on Environment and Development (Rio Declaration) and its Agenda 21, the World Charter for Nature and the Earth Charter. Universal norms, such as “do no harm to your neighbor” and access to information and due process in the environmental context are captured in the Convention on Environmental Impact

⁶⁰³The Preamble of the UN Charter sets forth the primary goals and means for drafting and adopting such a charter and creating the United Nations (UN). Pivotal to these declarations is the uniting of all nations in order “to maintain international peace and security.” Article 1, Purposes and Principles of the UN Charter states:

“The Purposes of the United Nations are:

- To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;
- To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace.”

All activities by the 192 Member States to the UN must be in accordance with principles of the UN Charter “so far as may be necessary for the maintenance of international peace and security,” making international peace and security the overarching priority. Charter of the United Nations, pmbl, art. 1(1) & art. 2(6), June 26, 1945, 1945 WL26967 (1945) [hereinafter UN Charter].;

The Rio Declaration on Environment and Development (Rio Declaration) notes explicitly the link between environment and peace in its Principle 25 – “Peace, development and environmental protection are interdependent and indivisible” Rio Declaration, *supra* note 154, at prin. 25.;

The World Charter for Nature was adopted by the UN in 1982 and it reaffirms that one of the most fundamental purposes of the UN is “maintenance of international peace and security.” It specifically identifies the environmental security linkage between scarce resources and conflict, as well as between conservation and peace by noting that “competition for scarce resources creates conflicts, whereas the conservation of nature and natural resources contributes to justice and the maintenance of peace and cannot be achieved until mankind learns to live in peace and to forsake war and armaments.” World Charter for Nature, pmbl, Oct. 28, 1982, 22 I.L.M. 455 (1983).;

The Earth Charter calls upon the Earth community to bring forth “a culture of peace,” stating as one of its core principles, “democracy, nonviolence and peace.” This means promotion of a “culture of tolerance, nonviolence, and peace” per the following:

- a. Encourage and support mutual understanding, solidarity, and cooperation among all peoples and within and among nations.
- b. Implement comprehensive strategies to prevent violent conflict and use collaborative problem solving to manage and resolve environmental conflicts and other disputes.
- c. Demilitarize national security systems to the level of a non-provocative defense posture, and convert military resources to peaceful purposes, including ecological restoration.
- d. Eliminate nuclear, biological, and toxic weapons and other weapons of mass destruction.
- e. Ensure that the use of orbital and outer space supports environmental protection and peace.

Assessment in a Transboundary Context (hereinafter the Espoo Convention) and the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (hereinafter the Aarhus Convention).⁶⁰⁹ Many of these principles are then transposed and reiterated in regional conventions or national legislation.⁶¹⁰ These principles are well-intended and well-accepted, as evinced by the many legal documents in which they are scribed.

However, if conventions and declarations between nations are not implemented or enforced, they can be seen as mere expressions of unbinding aspirations. Words on paper. International law only works when it physically attaches its principles to real life implements; States must walk the talk. It is up to independently participating States to transpose policies, programs or initiatives to tangibly fulfill

f. Recognize that peace is the wholeness created by right relationships with oneself, other persons, other cultures, other life, Earth, and the larger whole of which all are a part.

Earth Charter Commission, The Earth Charter, pmbl & art. 16 (2000).

604UN Charter, *supra* note 602, at art. 1(3).;

The Stockholm Declaration supports collaborative conservation, with “all sharing equitably in common efforts.” Stockholm Declaration of the UN Conference on the Human Environment, art. 7, June 16, 1972, 11 I.L.M. 1416 (1972) [hereinafter Stockholm Declaration].;

International cooperation is supported in Principle 7 of the Rio Declaration, which mandates that “States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem.” Rio Declaration, *supra* note 154, at prin. 7.;

According to the World Charter for Nature, one of the fundamental purposes of the UN is “the achievement of international cooperation in solving international problems of an economic, social, cultural, technical, intellectual or humanitarian character.” World Charter for Nature, *supra* note 602, at pmbl.

605Stockholm Declaration, *supra* note 603, at ch. I(2).; Rio Declaration, *supra* note 129, at prin. 1 (humans are “entitled to a healthy and productive life in harmony with nature.”).; World Charter for Nature, *supra* note 602, at pmbl. (“mankind is part of nature and life depends on the uninterrupted functioning of natural systems,” indicating that a “healthy and productive life” would require healthy ecosystems.); Convention on Access to Information, Public Participation in Decisionmaking and Access to Justice in Environmental Matters [hereinafter Aarhus Convention], pmbl, June 25, 1998 (1998) (recognizes “that adequate protection of the environment is essential to human well-being and the enjoyment of basic human rights, including the right to life itself,” and that “every person has the right to live in an environment adequate to his or her health and well-being.”).

606Stockholm Declaration, *supra* note 603, at pmbl., ch. I(2) & art. 8 (the goal to “defend and improve the human environment for present and future generations has become an imperative for mankind – a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of world-wide economic and social development.”).; Johannesburg Declaration on Sustainable Development: From Our Origins to the Future, art. 5, Sept. 4, 2002, (2002) [hereinafter Johannesburg Declaration] (States “assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection).

607New Delhi Declaration of Principles of International Law Relating to Sustainable Development, pmbl (2002) (“fair distribution of benefits resulting [from sustainable development], with due regard to the needs and interests of future generations.”);

Intragenerational equity is the meeting of basic needs of all peoples currently on Earth and the extending of equitable opportunities to “satisfy their aspirations for a better life.” World Commission on Environment and Development, *supra* note 1, at 44.

Intergenerational equity stresses the goal of achieving intragenerational equity sustainably, with continuity into the

their duties and obligations, establishing trends in State practice that comply with international and environmental principles codified in mutually agreed upon conventions. This is particularly true in border areas, where interstate tensions can often come to friction or where remote communities fall outside of the control of central governments. In these situations, the acts of States may be inconsistent with international principles enshrined in international law, creating evidence of a contradictory customary law. Alternatively, peace parks can be used as a geophysical locus for implementation and enforcement of international principles and accords in a show of State practice tending towards *erga omnes* norms supported by *opinio juris*. Peace parks are a paradigm for international cooperation within the context of two fundamental goals, peace and conservation. Its principles are the principles of humanity reflected in their shared words, declarations, charters, treaties and conventions; all it needs is recognition and implementation.

It is important that these *erga omnes* norms of international law and international environmental law be built upon when outlining the legal framework of a transboundary peace park. The legal framework establishing the peace park sets forth the common vision (conservation, cooperation and peace), fundamental principles or guiding principles, an institutional framework for protected area management and decision-making processes. The organic document provides a constitutional system for the peace park that will set the tone for future cooperative agreements and activities. Once a peace park is created by bilateral or multi-lateral treaty, it becomes binding upon the parties to fulfill the duties stipulated in the agreement. The binding effect of a treaty is reflected throughout the Vienna Convention. In Article 11, States party consent “to be bound by a treaty” by “signature, exchange of instruments constituting a treaty, ratification, acceptance, approval or accession, or by any other means if so agreed.”⁶¹¹ Article 26 reiterates that, “every treaty in force is binding upon the parties to it and must be performed by them in good faith.”⁶¹² Recognition of *pacta sunt servanda* as an international customary principle is found in the preamble to the Vienna Convention on the Law of Treaties, which notes that “the principles of free consent and of good faith and the *pacta sunt servanda* rule are universally recognized.”⁶¹³ As an international customary principle, there is no derogation from this *jus*

future. Its goal is to ensure provision for the “needs of the present without compromising the ability of future generations to meet their own needs.” *Id.*; Johannesburg Declaration, *supra* note 605, at art. 3 (fundamental right of the children of today and the unborn generations of tomorrow to “inherit a world free of the indignity and indecency occasioned by poverty, environmental degradation and patterns of unsustainable development.”);

Stockholm Declaration, *supra* note 603, at prin. 1 & 2.; Rio Declaration, *supra* note 154, at prin. 3 & 20-22.

608 *E.g.*, Convention on Biological Diversity, art. 8(m), June 5, 1992, 1760 U.N.T.S. 79 (1992) [hereinafter CBD] (affirming that “the conservation of biological diversity is a common concern of humankind.”).

609 Convention on Environmental Impact Assessment in a Transboundary Context [hereinafter Espoo Convention], Feb. 25, 1991, 30 I.L.M. 802.; Aarhus Convention, *supra* note 604.

610 For example, States with modern constitutions have been incorporating a peoples' right to a healthy environment, imposing a proactive duty upon the Government and all citizens to uphold and protect this right. *E.g.*, Constituição Federal [C.F.][Constitution] art. 225. (Brazil).

611 *Id.* at art. 11.

612 *Id.* at art. 26.

613 Vienna Convention on the Law of Treaties, art. 26, May 23, 1969, 1155 U.N.T.S. 331 (1969) [hereinafter Vienna

cogens norm. For this reason, it is very important that principles of international law and international environmental law be properly outlined in a peace park's legal framework.

Principles and obligations agreed to in peace park agreements may also have binding effect on other areas within the territorial jurisdiction of the Parties. This follows one of the most fundamental principles of international law, *pacta sunt servanda*, whereby treaties are binding upon the parties participating and it is incumbent upon them to perform the treaty in good faith.⁶¹⁴ In fulfilling the terms of the treaty, parties are not allowed to contravene any substantive aspect of the treaty in their other activities. For example, Article 18 creates an obligation not to defeat the object and purpose of a treaty prior to its entry into force, and Article 27 prohibits a party from “invok[ing] the provisions of its internal law as justification for its failure to perform the treaty.”⁶¹⁵ A treaty entered into by States is to have effect throughout its entire territory.⁶¹⁶ For a treaty establishing a transboundary peace park, the obligations mandatory include at a minimum, conservation, cooperation and peace, but these principles may have an effect beyond the delineated boundaries of the PAs and extend to guide the policies of the nations parties. Two countries with a jointly managed transboundary peace park along their international border cannot wage war along another section of their border, because this defeats the peace park treaty requirement that participating nations resolve disputes through pacific means.

Many peace parks are created through agreements between governments or competent authorities in each of the relevant jurisdictions. Formal multilateral agreements signifying the initial declaration of a peace park can take the form of a convention, memorandum of understanding/agreement (MOU/MOA) or a peace agreement (when arising out of peace negotiations ending a conflict). A joint convention or treaty between the Parties can set up an entire legal framework for a peace park, much like a park “constitution,” or it can merely declare a delineated territory as a transboundary peace park.⁶¹⁷ An MOU/MOA can also provide the initial steps for declaration of a peace park. It might serve merely as a declaration of intent indicating that the participating Parties will work together towards the official establishment and subsequent management of a peace park or it could provide a much more developed framework that declares the peace park and outlines a management framework.⁶¹⁸ Peace accords that come out cease-fire agreements may also mandate declaration of border peace parks.⁶¹⁹ Peace parks can also be created through domestic legislation. WGIPP was declared purely by national legislation, not by treaty or convention. The two parks were officially declared part of an international peace park by separate congressional acts in each

Convention].

614*Id.* at art. 26.

615*Id.* at arts. 18, 27.

616*Id.* at art. 29.

617*E.g.*, Bilateral Agreement between the Government of the Republic of Botswana and the Government of the Republic of South Africa on the Recognition of the Kgalagadi Transfrontier Park, Bots.-S. Afr., Apr. 1999.

618*E.g.*, CAR TFPA Network MOU, *supra* note 323.

619*E.g.*, Krakow Treaty between Czechoslovakia and Poland, *cited in* Mittermeier et al., *supra* note 14, at 28.; *See e.g.*, Beth A. Simmons, United States Institute of Peace, *Territorial Disputes and Their Resolution: The Case of Ecuador and Peru*, 27 *Peaceworks* 20 (Apr. 1999).

of two governments.⁶²⁰ Regardless of whether the park originates out of international agreements or domestic legislation, it must be implemented by national laws in each of the participating nations.

The IUCN WCPA's guidance document on "Transboundary Protected Areas for Peace and Co-operation" has identified the following options for transboundary agreements:⁶²¹

- *A formal agreement or bilateral/multilateral treaty* to bind the parties to long term and accountable cooperation (e.g., The Bilateral Agreement between Botswana and South Africa to recognize the Kgalagadi Transfrontier Park in 2000)
- *Administrative instruments* such as MOUs developed between key agencies, departments or ministries (e.g., the 1986 formal MOU between the nine separate units, three political sub-national jurisdictions and the Commonwealth Government of the Australian Alps National Park)
- *A more limited agreement to address specific issues*, such as a protocol or contingency plans for dealing with emergencies or incidents like oil spills, fire, pest control or search and rescue operations (e.g. the 1986 Co-operative Reciprocal Agreement regarding mutual aid in the areas of fire control and search and rescue in WGIPP)
- *Informal agreements* could be considered by the managers to promote co-operative, friendly relations where the situation is not favorable to more formal agreements
- *Representation on each other's advisory or management bodies* (e.g., in Alpi Marittime (Italy) and Mercantour (France) TBPA, a representative from each management authority sits on the advisory committee of the other)
- *Establishment of a TBPA policy advisory committee* that includes stakeholders, especially local community members

The options listed above range from high-level formalized agreements to lower-level or even informal arrangements. Where conflict or lack of resources make more formal agreements difficult or impossible, more informal arrangements can be developed and promoted. When the dynamics are appropriate, these can be built upon and advanced. Even peace parks with more formal agreements should seek constant evolution towards more integrated management, broader collaboration and inclusion of a greater variety of stakeholders. Peace parks must strive to develop a Culture of Peace, as per Pierre Allan's Global Care paradigm, to the fullest extent possible.

2 Suggested best practice guidelines for designing peace park agreements

⁶²⁰An Act Respecting the Waterton-Glacier International Peace Park, May 24, 1932, 22-23 George (Can.); Part of Waterton-Glacier International Peace Park, 16 U.S.C.A. §161(a) (May 2, 1932).

⁶²¹Trevor Sandwith et al., *supra* note 19, at 30.

As mentioned, a peace park agreement can take various form and range from expressions of broad intentions to formulations of peace park “constitutions.” In all cases, it should be locally specialized so as to accommodate for regional peculiarities.⁶²² In all cases, it should also hold to an international standard that protects universal human and environmental rights and facilitates maintenance of International Peace, Social Peace and Environmental Peace. The IUCN WCPA promotes certain Good Practice Guidelines in its publication, “Transboundary Protected Areas for Peace and Co-operation.” Nine major themes developed in the IUCN's guidelines are:⁶²³

- Identifying and promoting common values:
- Involving and benefiting local people
- Obtaining and maintaining support of decision-makers
- Promoting coordinated and co-operative activities
- Achieving coordinated planning and protected area development
- Developing co-operative agreements
- Working towards funding sustainability
- Monitoring and assessing progress
- Dealing with tension or armed conflict

This section focuses primarily on the theme, “Developing co-operative agreements” by elaborating on some best practice guidelines in analyzing a legal framework for a transboundary peace park in any region of the world. The guidelines are developed more specifically for the legal analysis that is assumed to precede the drafting of any cooperative agreements. Cooperative agreements are expected to then be developed out of a comprehensive analysis and crafted so as to incorporate all of the best practice principles.

A legal study of the transboundary territory begins with an evaluation of the comparative legal frameworks in each of the participating jurisdictions in such a way as to shape a unifying framework for the entire landscape that upholds universal principles. Where the legal frameworks of the participating jurisdictions differ vastly or are lacking in certain areas (e.g., there is no legal system for environmental impact assessment in one of the jurisdictions), it may be helpful to draw from shared regional or international commitments that address the matter. The goal is to provide a uniform legal framework that applies across the peace park, rendering the political boundary as uninhabitive as possible as stakeholders seek common grounds in landscape stewardship and peace. Considerations in a legal analysis for creating a peace park framework should address at the very least, the following matters:

⁶²²*Id.* at 17.

⁶²³*Id.* at 17-37.

- (1) Objectives and justification for a peace park
- (2) Legal basis for establishment of a peace park
- (3) Scope of agreement
- (4) Guiding principles and vision for peace park
- (5) Decision-making bodies and processes
- (6) Dispute resolution processes

Each of these themes is discussed in further detail below.

- Objectives and justification for a peace park
 - 1 A peace park agreement should clearly describe the reasons for which a transboundary peace park is being established. The agreement should explicitly state as its primary objectives, conservation, cooperation and peace. The peace park may also seek to achieve other goals, but the three elements of conservation, cooperation and peace, represent a minimum standard. Other objectives may include climate change mitigation and adaptation, sustainable regional development and poverty eradication, or cultural development.
 - Conservation objectives should secure protection of biodiversity (natural and cultural) and ensure their viability into the future.
 - Cooperation objectives need to ensure a minimum level of cooperation. A minimum level of communication (Level 1) requires: (1) some two-way communication between the PAs, (2) meetings/communication take place at least once a year, (3) information is sometimes shared, and (4) notification of actions that may affect the other PA sometimes occurs.⁶²⁴
 - Peace objectives should seek to build and maintain peace, commit to non-violent dispute resolution, and strive to build a Culture of Peace. If appropriate, the peace park agreement should recognize the history of violent conflict in the region and set forth processes for ensuring that the future peace is Just.
 - 2 The peace park agreement should identify the common values in the territory being protected, such as natural resources, ecosystem services, landscape features or species, cultural heritage, etc. Stakeholders should be involved in the process of identifying the shared values and interests. This is especially true of cultural resources, which may be of particular importance to certain groups and unknown to others.

⁶²⁴*Id.* at 34.

- 3 The common values justifying peace park declaration should highlight the importance of these values for the human communities, particularly in a changing world.
- 4 It should recognize existing cooperation in the area and explain why the common values identified serve as reasons for further cooperative stewardship.
- 5 The peace park agreement may also identify international values embodied in the peace park and how the peace park contributes to international objectives. For example, it may highlight the World Heritage or Biosphere Reserve status of the protected area(s) and explain how collaborative conservation of the peace park as a coherent unit will enhance biodiversity protection and resilience to the negative effects of climate change.

- Legal basis for establishment of a peace park

- 1 In peace parks created by treaty or convention:⁶²⁵

- The agreement should identify the legal authority of all parties participating in the agreement. An analysis of the legal authority should look to the constitutional systems of each participating jurisdiction and determine the source of authority to engage in a peace park process and binding peace park agreement (e.g., constitutional authorities to engage in cross-border relations and treaties).
- It should identify the appropriate protocol by which the legal agreement may need to be signed, ratified or further implemented through transposition or by implementing statute in each of the participating jurisdictions. In this exercise, the legal analysis should consider the monist or dualist nature of each participating jurisdiction so as to properly outline the procedures for signature, ratification, transposition and implementation of the peace park agreement.

- 2 In peace parks created by domestic legislation:

- A legal analysis should outline the national or sub-national legal framework for peace park creation.

⁶²⁵The use of the words treaty or convention are not meant to exclude the possibilities of creating peace parks across sub-national boundaries or between very distinct legal cultures (e.g., a paradigmatic nation-state republic vs. an uncoded indigenous legal system). For this reason, parties are referred to as “Participating Jurisdiction” and not as “State Parties,” for example.

The term “constitutional system” is also not meant to preclude a definition that embodies systems of governance at sub-national levels or between different legal traditions. It is inclusive of sources of law outside of the traditional concept of a singular document known as a “constitution.” A constitutional system may include jurisprudence developed over time, as well as customary or uncoded law as practiced by a community. The same understanding applies to the term, “constitutional authority.”

- In doing so, it should look to the constitutional authority of each participating jurisdiction and all environmental laws governing the territory. This should include environmental statutes and regulations, jurisprudence, policies and customary practices.
 - Attention should be given to the legal framework for protected areas systems within the participating jurisdictions. It should identify the relevant authorities or institutions participating in protected areas declaration and administration. It should identify the appropriate protocol for creating (or expanding) protected areas.
- 3 In all cases, consideration should be given to the legal basis for implementation, duration and enforcement of the peace park agreement. When does the agreement come into force? How might one party enforce the obligations agreed to? Procedures for amendment, extension and termination of the agreement should also be stipulated.
- Scope of agreement
- 1 Identify the Parties and their roles. This should also include identification of affected parties that are not already included in the process. For example, indigenous groups with lands or resources within the delineated boundaries of the park whose rights will be affected by the creation of a peace park. Their participation should be based on the full exercise of all rights enumerated in the UNDRIP.
- Define the roles of civil society. Provide for meaningful participation of all stakeholders or interested parties at all stages of the peace park process and future peace park stewardship. Participation of civil society should accord with the Aarhus Convention and other relevant norms and principles.
 - Identify third parties, such as donors, conservation partners, research institutions, etc., and define the scope of their roles in the peace park process and future peace park stewardship.
- 2 Clearly delineate the territory/jurisdiction. At this time, areas of special protection can be listed (e.g., nucleus zones) and buffer zones identified.
- Address as early as possible any territorial disputes and land tenure or resource (natural and cultural) rights issues that may be pending or might arise in the peace park process.
- 3 Define areas of cooperation. This can range from limited areas of cooperation to full cooperation. Limited cooperation may be as little as a declaration of intent to cooperate in developing areas of cooperation in the future. Areas of cooperation

can include, *inter alia*, elaboration of joint management plans, joint patrols, participatory biological inventory and mapping studies, control of illegal activities within the peace park, control of forest fires and plagues, control of invasive species, preservation of endangered species, reintroduction of species, environmental education programs, development of sustainable ecotourism and benefits sharing programs, and buffer zone management.

- 4 The peace park agreement should provide for sustained and sufficient financing and capacity-building, so as to ensure continued stewardship of the peace park into the future. Participating jurisdictions can set up cooperative budgets, explore joint revenue-generating activities and establish mechanisms of equitable revenues sharing. If possible, the peace park's budget can additionally provide for environmental education, capacity-building and sustainable development programs for communities in the peace park's buffer zones.
- 5 A peace park agreement should develop a reporting mechanism. Monitoring and studies of the area should be on-going in order to assess the success and weaknesses of peace park stewardship. Assessments should be based on clearly defined baseline data and appropriate indicators and benchmarks. Studies should evaluate, *inter alia*, the effectiveness of management plans and activities, benefits to local communities and ecological well-being. These evaluations should inform the decision-making processes related to the peace park.

- Guiding principles and vision for peace park

- 1 Develop a common vision for the peace park. This can be based on shared resources (e.g., an endangered species of charismatic megafauna or water resources) and/or common values (e.g., cultural heritage, nature appreciation, etc.). It should serve as a unifying and timeless vision for stewardship of the peace park. Focus on values that bring people together and cultivate peace.
- 2 Select a recognizable symbol that provides a uniting theme for the peace park. Use this logo on peace park materials and on signs around the peace park territory.
- 3 The peace park should incorporate a framework of principles based on universal norms. The peace park agreement and future stewardship framework should accord with all of the rights and principles of international law, human rights law and international environmental law. International and regional agreements ratified by the participating jurisdictions should be used to ensure protection of the peace park when necessary.
- 4 The peace park agreement can promote the harmonization of environmental laws, regulations and policies between the participating jurisdictions. Participating

jurisdictions should collaborate in the development of common codes and procedures for data collection, park visitors and nature interpretation, border security management, customs and immigration, etc.

- 5 Parties can jointly seek international recognition for the peace park under international programs, such as the List of World Heritage Sites, the Ramsar Convention, UNESCO's Biosphere Reserve program or UNESCO's Man and the Biosphere program.

- Decision-making bodies and processes

- 1 The peace park should provide for peace park administration or a process to create a peace park management body. This can be done by naming peace park administrators, based on protected areas management authorities in each of the participating jurisdictions. Or it can mandate the creation of a transboundary body (such as a secretariat, commission, committee, working group or task force).
- 2 When creating a transboundary stewardship body, the following matters should be addressed: management objectives, scope of authorities, decision-making protocols (and processes for handling situations when these protocols are insufficient), procedures for meetings and consultations (i.e, frequency of meetings, public notices and access to information, who may participate and how, recording of minutes, etc.), and methods of review and amendment.
- 3 The peace park agreement should initiate a coordinated planning process to develop integrated strategic management plans, zoning plans, budgets and joint projects. It can also set forth guidelines on Strategic Environmental Assessment (SEA) or Environmental Impact Assessment (EIA) procedures on each side and across the border.
- 4 Peace park stewardship should be as collaborative as possible, involving as many stakeholders as possible. If this is too difficult to achieve from the outset, it should be a goal for the participating jurisdictions to work towards. Consultations with other authorities should be maintained regularly so that peace park objectives support and are supported by other policies and programs by the nation(s) involved.
- 5 The peace park agreement should ensure the meaningful participation of civil society in all decision-making processes. Ensure that measures are in place for the transparency of information and due process regarding all peace park activities and decision-making processes. Participation of civil society should accord with with the Aarhus Convention and other relevant norms and principles.

- Dispute resolution processes
 - 1 Identify as early as possible, any actual or potential disputes in the different participating jurisdictions that may affect the peace park process or its future stewardship. Support resolution of these conflicts.
 - 2 The peace park agreement should provide for a non-violent dispute resolution process for any conflicts that may arise after its adoption. Methods of alternative dispute resolution should be sensitive of cultural relativity and honor different traditions or cultural practices/systems for dispute resolution.
 - 3 Develop a contingency plan or initiate a process for elaborating a contingency plan for peace park stewardship in times of armed conflict, emergency or natural disaster.
 - 4 Security personnel should be involved in the peace park process and the drafting of any strategic management plans that are relevant to governance of the peace park so that security activities are harmonious with peace park objectives and programs. It should be understood that security personnel and peace park officers operating in the peace park during times of armed conflict are not taking sides in the conflict. They are acting essentially as “Green Helmets,” working to protect the environment.
 - 5 The IUCN WCPA's publications, “Security Considerations in the Planning and Management of Transboundary Conservation Areas,” and the Draft Code for Transboundary Protected Areas in Times of Peace and Armed Conflict should be incorporated into strategic and contingency plans for the peace park.⁶²⁶

The best practices guidelines outlined above do not purport to be a definitive all-inclusive list. It is meant to provide the beginnings of a minimal standard for developing legal frameworks for transboundary peace parks promoting conservation, cooperation and peace (environmental peace, social peace and international peace). Hopefully, this will contribute to and stimulate an open and collaborative process that combines the IUCN WCPA's guidelines for “Transboundary Protected Areas for Peace and Co-operation” and the Draft Code for Transboundary Protected Areas in Times of Peace and Armed Conflict, with the guidelines mentioned here, and then advances them in a manner that unites theory, practice and legal form.

Stewardship Frameworks

Peace parks do not end with the signing of a celebratory agreement or adoption of legislation declaring a new international peace park. Stewardship frameworks may not even be contemplated in

⁶²⁶See Braack et al., *supra* note 171.

organic peace park agreements or acts. In some cases they may only transcribe general intentions to cooperate towards collaborative conservation of a shared natural landscape. The initial legal document(s) might only dictate that a process take place for creating a stewardship paradigm, so subsequent agreements will need to be developed in order to create the actual stewardship framework. As a result, stewardship frameworks may be invented piecemeal and will very possibly involve a combination of legal forms. For example, when a peace park is declared by general joint declaration, it creates an overarching basis for cooperation between governments, ministries or protected areas administrators, but subsequent MOUs between the agents will be needed to elaborate upon details of cooperative stewardship. These follow-up agreements can set up a paradigmatic framework for shared or separate stewardship of the peace park territory, or they may provide substance to the skeleton, dictating collaboration in only certain specified areas of management (e.g., control of forest fires and plagues, outlining specific programs of cooperation or establishing joint task forces and committees). Peace park agreements require a great deal of work to implement and enforce. They need to be supported by an appropriate stewardship framework that is specially developed to accommodate for local circumstances and particularities. Peace parks provide a geographic area for experimentation in different paradigms as stewards find management practices that best suit their goals and situational circumstances. Great freedom exists for peace park proponents in determining how they craft stewardship frameworks. Exercise of this freedom may result in different types of arrangements, which can be categorized generally as: (1) separate management, (2) joint management, or (3) limited joint management. The spectrum from separate to joint management reflects different levels of cooperation between participating jurisdictions. If a peace park is to truly support Ecological Peace, Social Peace and International Peace, however, it should strive for greater and greater integration and collaboration. In order to respond to potential environmental changes, it should also be flexible and adaptive.

Separate management

Perhaps the most common form of peace park stewardship is that which retains separate management regimes divided between the participating jurisdictions. In this situation governments might each declare a new protected area on their respective sides of the border or agree to the inclusion of already existing protected areas in a larger unitary protected area that transgresses the frontier. This is officiated through a bilateral or multilateral State-level agreement to declare a singular TBPA for peace, but each continues to manage their respective PA separately. This creates distinct zones, similar to a North side of the park and a South side of the park, run by different management bodies. Administering authorities meet occasionally to coordinate management plans and activities, but there is generally minimal sharing of resources. This is the case in PILA where the peace park is administered separately in Costa Rica and Panama and even regionally, differentiating between the Pacific side and the Caribbean side.

A peace park with separate management regimes may not seem ideal for the holistic conservation, cooperation and environmental peace-building goals of a peace park, but it can serve as a

useful first step, particularly for regions in which PAs are heavily under-resourced and may only have “paper” protection.⁶²⁷ This allows the management bodies on each side of the border to receive some minimum level of external support to help them initiate the activities needed for developing basic management infrastructure. In some countries, PAs have been legally declared for years but have no management plans or enforcement authorities (i.e., park rangers) to implement conservation projects or enforce against violations within their territories. Such PAs may benefit from a smaller-scale and decentralized management approach with occasional communication at the higher levels to ensure that activities are in conformity with the objectives of the greater unitary TBPA for peace. When sufficient capacity-building within the individual PAs has occurred, then the parties may wish to move towards a jointly established TBPA for peace with more integrated management.

Joint management

Less common, but closer to full manifestation of the three peace park objectives (conservation, cooperation and peace), is joint declaration with joint management of a peace park. In this situation, participating jurisdictions agree to establish a new TBPA or to unite currently existing PAs to form a singular entity with much greater exchange of resources and a higher level of cooperation across an increasingly invisible boundary line. Relevant authorities agree to work together to integrate management on both sides of the border under one universally applicable strategic management plan implemented and enforced by a participatory co-management body. Generally, the same administering agencies or ministries that would govern domestic PAs retain their same roles in the transboundary peace park. For example, the CAR TFPA Network is administered by a Transboundary Core Secretariat made up of representatives from the protected areas authorities of each of the three countries (the DRC, Rwanda and Uganda) and stewardship of the entire transboundary corridor is detailed in the Ten Year Transboundary Strategic Plan.⁶²⁸

As a less integrated alternative, some TBPAs for peace create international commissions or task forces delegated the necessary authorities to make administrative decisions regarding only specific issues within the peace park. They may maintain largely separate management for the protected area, but engage in joint working groups focused on topics of transboundary importance, *inter alia*, border security, control of transboundary environmental crimes or socio-economic development through ecotourism. WGIIP is an example of a peace park with separate management, but which has created

⁶²⁷“Paper” parks are those which receive little or no protection beyond the paper on which the decree is written declaring the area legally protected. This situation can occur where administering authorities are faced with challenges such as the absence or lack of resources (human, monetary, technical) for management operations or enforcement against PA violations, corruption, lack of community consensus supporting the PA designation or lack of public information regarding its PA status, etc. All of these can result in continued activities contravening PA mandates, effectively obliterating its legal protection.

⁶²⁸CAR TBPA Network Strategic Plan, *supra* note 370.

an Inter-governmental Committee to work on “topics of mutual interest and benefit.”⁶²⁹ Each park has its own management plan, but these are developed with the aid of cross-border consultations.⁶³⁰ Supplementary to this are MOUs between the agencies providing for cooperation in designated activities.⁶³¹ Although initially limited, the realm of cooperative activities can be expanded upon when the conditions are appropriate. This can serve as a middle step for protected areas with lesser capacity or resources to engage in more comprehensive integrated management regimes.

Multi-stakeholder Collaborative Adaptive Management

A peace park initiative is the embodiment of a shared belief that cross-boundary conservation can effectively solve social issues, maintain healthy environments and build peace through its open dialogue and ecological restoration. Yet, it will not succeed without civic participation and change. Peace park stewards will struggle to meet the peace park's primary objectives absent community consensus and contribution, especially when their governments have few resources to sustain protected area management systems. Many post-colonial nations that modeled their national protected areas systems off of the United States' national parks have discovered that creating populations of “conservation refugees” and using command-and-control top-down park management regimes have not benefited nature conservation or the affected communities.⁶³² Protected areas policies now use words like decentralization, community participation and collaborative management. When community participation in peace park stewardship is orchestrated through decentralized systems of ecoregional management and supported by community capacity-building it can bring human activities that conflict with environmental protectionism into conformity with peace park objectives.

There are other benefits to including a wider spectrum of stakeholders in collaborative adaptive stewardship of peace parks. Developing the environmental stewardship capacity of a community can equip local actors to participate in international or regional programs, such as carbon sequestration schemes and programs of payments for ecosystem services, that can provide an alternative revenue stream that helps improve the socio-economic status of the participating community. Inclusion of stakeholders not traditionally perceived as conservation protagonists, such as the private sector and security sector, can promote harmony between the actions of those actors and the peace park's primary objectives. As these non-traditional actors play larger roles in peace park protection, they will begin to see the benefits of transboundary conservation, thus allowing the peace park concept to spread outside

⁶²⁹Memorandum of Understanding between the National Park Service of the Department of the Interior of the United States of America and Parks Canada of the Department of Canadian Heritage of the Government of Canada, on Cooperation in management, Research, Protection, Conservation, and Presentation of National Parks and National Historic Sites, Can.-U.S., May 20, 1998, art. 3 (listing forms of co-operative activities and topics of mutual interest and benefit).

⁶³⁰Glacier NP Management Plan, *supra* note 263.; Waterton NP Management Plan, *supra* note 263.

⁶³¹U.S. NPS & Parks Canada MOU, *supra* note 264, at art. 3 (listing forms of co-operative activities and topics of mutual interest and benefit).; Wendy Ross, *supra* note 270.

⁶³²*See* Mark Dowie, *supra* note 161.; Telephone interview with Alvaro Ugalde, *supra* note 530 (in the 1980s, protected areas managers realized they couldn't protect natural environments without including the people).

of the choir and into more elusive audiences. The IUCN WCPA has noted that the cooperation requirement of a recognized TBPA may be satisfied with as little as one meeting a year to discuss protected area activities.⁶³³ However, in order for a peace park to maintain its tri-prong goals of holistic conservation, peaceful relations and cooperative management, it should incorporate a much fuller degree of integration between stakeholders and protected area stewardship. Further clarification should be awarded to the cooperation element when defining a transboundary peace park. The cooperative element of a peace park should tend towards much fuller cooperation. Full cooperation, according to the IUCN WCPA, is characterized by:⁶³⁴

- Planning for the two PAs is fully integrated, and, if appropriate, ecosystem-based, with implied joint decision-making and common goals
- Joint planning occurs, and, if the two share an ecosystem, this planning usually treats the two PAs as a whole
- Joint management sometimes occurs, with co-operation on at least six activities
- A joint committee exists for advising on transboundary co-operation

A truly collaborative transboundary protected area should go require fully integrated PA planning and management that recognizes the nature of the unitary ecoregion, with cooperation on a variety of transboundary activities, mandated and implemented by a multistakeholder committee.

In evolving management regimes for peace parks, States can create multi-stakeholder and interdisciplinary task forces or committees to manage specified activities within the peace park (e.g., a multi-stakeholder committee made up of representatives from the relevant ministries or agencies, indigenous representatives, local community representatives, NGOs and INGOs, other experts, etc.). This promotes a much more participatory approach to peace park management and expands decision-making power to include stakeholders that may not typically have such direct access. A multi-stakeholder commission can be developed and expanded over time to grow its authorities and stakeholder base. It may start as a multi-stakeholder interdisciplinary council for consultation purposes, but can evolve to become the multi-stakeholder interdisciplinary organ for peace park governance. When creating a protected area with a focus on peace, it is preferable to promote such broad good-faith collaboration in the management and operation of the territory.

Where indigenous peoples are present, their integration into peace park processes should be promoted in such a way as to recognize most fully the indigenous rights captured in the UNDRIP. This means that indigenous leaders should sit as equals with Heads of State or Government and agreements in declaration of peace parks where there are indigenous lands or natural resources, should be recognized as international treaties subject to the rules established by the Vienna Convention. In mountain forests, similar relationships should be cultivated between highland and lowland communities

⁶³³Trevor Sandwith et al., *supra* note 19, at 34.

⁶³⁴*Id.*

so as to demarginalize communities that may feel disenfranchised or removed from political processes and the economic benefits of resource extraction and environmental degradation affecting their lands. Meaningful participation in a peace park process is a critical component of its ability to transform conflict to peace.

Holistic ecosystem management cannot be a static program. Human activities can be a positive or negative factor in the complex equation of ecological processes occurring simultaneously in any ecosystem and so our activities must be evaluated repeatedly and periodically. "Ecosystems constantly change, our understanding of them constantly changes, and management goals are subject to change. Consequently, ecosystem management must be adaptive."⁶³⁵ Management practices must be flexible to ensure continued effectiveness and sustainability. Adaptive stewardship strengthens protected areas resilience to environmental changes and socio-political circumstances.

Introducing patchwork peace parks

A patchwork peace park is a model for establishing and managing transboundary peace parks premised upon a collaborative community-based conservation paradigm. It envisions the creation of community conservation areas (CCAs), which are then woven together by cooperative agreements between neighboring communities, for the the purpose of establishing a greater transboundary CCA network – a patchwork peace park. Transboundary community-based conservation produces a local-level mechanism for resolving environmental conflict or responding to regional insecurities that may affect local conservation efforts. In the process of supporting regional conservation, it also strengthens the communities themselves. It is based on the principle of subsidiarity and the full exercise of universal human and environmental rights. Ultimately, a community-based transboundary collaborative conservation process would improve the resilience of the communities, ecological and sociological, to environmental changes and conflict.

It is well recognized that conservation requires peace.⁶³⁶ Unfortunately, environmental protection even in protected areas is extremely difficult to achieve in times of conflict, despite international humanitarian laws abrogating significant and long-term damage to the environment or natural resources.⁶³⁷ PAs can find themselves manipulated as tools of warfare (e.g., ecocide committed per Janjiweed scorched earth policies) or abusively exploited in order to support or fund continued violence (e.g., conflict timber).⁶³⁸ Even worse, natural landscapes may find themselves void of any

⁶³⁵John Douglas Peine, *Ecosystem Management for Sustainability* 8 (1999).

⁶³⁶Rio Declaration, *supra* note 154, at prin. 24 (Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and co-operate in its further development, as necessary) & prin. 25 (Peace, development and environmental protection are interdependent and indivisible).

⁶³⁷See Jay Austin & Carl E. Bruch, *The Environmental Consequences of War* (2000).

⁶³⁸See Jamie Thomson & Ramzy Kanaan, United States Agency for International Development [USAID], *Conflict Timber: Dimensions of the Problem in Asia and Africa* (2004).

kind of protection (*de jure* or *de facto*) in conflict situations and as conflict is born, escalates and continues, it may be increasingly difficult to engage in any environmental protection.

Ultimately, peace park formulations can be as varied as the imagination allows and some situations offer opportunity or require more creative practices. Times of conflict, political instability or insecurity provide a calling for alternative methodologies to the more often seen State-driven top-down approach to peace park processes. If the assumption is that peace parks benefit ecosystems, community development and international relations, and all of these come under threat where there is poor governance or civil unrest, then it may be proposed that peace parks are all the more needed in times of conflict. Peace park goals of conservation, sustainable development and non-violent dispute resolution should not be abandoned when times are tough. Additionally, the peoples who live in marginalized border communities should not be abandoned to suffer the detriments of conflict or poor governance. A peace park process must be promoted to provide relief for communities with few alternatives. A patchwork peace park offers this possibility and it does so based on the principle of subsidiarity.

A patchwork peace park would not necessarily bring an end to all violent conflict in border regions. However, it could strengthen the capacity of border communities to steward shared natural environments despite insecurity, barriers and multi-fronted challenges. With stronger community-based environmental governance systems, transboundary ecosystems and their communities are more resilient to the insurgence of armed conflicts or any kind of negative environmental change, including anthropogenically induced climate change. The next chapter on patchwork peace parks will present a legal framework for this community-based approach to establishing and managing peace parks. As a case study of its possible application, Chapter IV examines the patchwork peace park model applied in the mountain forests of Honduras and Nicaragua, where regime change in Honduras has stymied diplomatic relations between the two governments and a peace park process has paralyzed, leaving frontier communities disenfranchised.

“Political boundaries are the scars of history.”

Patchwork Peace Parks: A Community-Based Approach for Honduras and Nicaragua

“Some day the people are going to want peace so much that their governments will have to get out of the way and let them have it.”

– President Dwight D. Eisenhower

A Sustainable Approach for Mountain Forest Communities

Patchwork peace parks are an alternative paradigm to the more commonly implemented model of top-down inter-State peace park creation. They allow communities to act of their own initiative and to participate directly in the governance of their own lands. In the previous chapter we explored different peace park modalities. One way that peace parks have often been declared is through exclusion of local communities. People were removed from their traditional lands with little or no consultation and then similarly left out of stewardship and benefit-sharing programs. Arguably, this was appropriate for the time. Alvaro Ugalde, sometimes known as the “Father of the Costa Rican National park System,” has lamented that in Costa Rica when they started the protected areas system, there were already so many pressures for rampant development that if they had put protected areas up for a vote, they probably would have lost.⁶⁴⁰ However, current concepts of sustainable development, as promoted in Agenda 21, call for the “broadest public participation” by international, regional, sub-regional, non-governmental and all other organizations in a “dynamic program” of “developmental and environmental objectives.”⁶⁴¹ This “new global partnership” will require harmonious co-existence of humans in Nature. A patchwork peace park is based upon this very premise. As a community-based bottom-up approach, the patchwork peace park model is an alternative to the traditional top-down State implemented peace park.

A patchwork peace park is a network of Community Conservation Areas (CCAs). By organizing local community members to create CCAs, and then coordinating stewardship frameworks of neighboring CCAs, a model of transboundary community conservation (TBCC) can in similar fashion to the quilting bees of North America, be woven together. Quilting bees are a feminist tradition that brought females of all generations together to share ideas, stories and life lessons as they worked together to sew quilts that would keep them warm for the winter.⁶⁴² The tradition of patchwork quilts also brought women together across continents; they would often send patterns, cloth and new ideas back and forth across the seas.⁶⁴³ In the making of a patchwork quilt, each person brings pieces of cloth

⁶³⁹Chester, *supra* note 242, at np.

⁶⁴⁰Telephone interview with Alvaro Ugalde, *supra* note 530.

⁶⁴¹U.N. GAOR, 46th Sess., Agenda Item 21, at 1.3, 1.4 & 1.6, UN Doc A/Conf.151/26 (1992).

⁶⁴²Quilting 101.com, *Patchwork Quilts* (2005), <http://www.quilting101.com/styles/patchwork-quilts.html>.

⁶⁴³*Id.*

to the circle, typically scraps or patches of different size and color that cannot be used for much on their own. Sharing in the work, everyone sews the pieces together into a beautifully patterned quilt or blanket. These quilts are then used to protect against cold winter nights. Like pieces of cloth, individual CCAs can be joined with neighboring CCAs to create a broader network. CCAs can even be linked across borders to create a transboundary biological corridor for peace. In this demonstration of collective action for the common good, the whole is greater than the sum of its parts.

The patching together of a transboundary peace park is reminiscent of the Fable of Stone Soup. An old oral tradition, time and again told and retold, the Fable of Stone Soup is never the same way twice. One version tells the story of three soldiers who wandered into a village during a time of famine.⁶⁴⁴ They set up a large cauldron over a fire in the center of the town square, filling it with water and each placing a stone inside. Little by little, curious villagers were told that the soldiers were making stone soup. The soup, each soldier in turn noted, could use some salt, some pepper, an onion, or a carrot. In response, one villager would say that they could spare some salt, another villager, pepper, some would bring whatever they had, all contributing until they filled the cauldron with a cornucopia of ingredients. That night the entire village enjoyed a delicious meal and from then on, having learned how to make soup from stones, were happier and more prosperous than ever. The Fable of Stone Soup, like a patchwork quilt or a patchwork peace park is based on the moral that we are better when we work together. One plus one equals three.

In many ways, patchwork peace parks are an old tradition. Community-based conservation as a term might be perceived as a relatively recent buzzword, it is not in its practical application a new concept. What Eyal Benvenisti calls “the endogenous evolution of cooperation in small-scale common pool resources,” has existed for as long as communities needed to coordinate activities to ensure the efficient use of communal resources.⁶⁴⁵ He provides as an example, one of the most primitive unifying forces – the common pool resource known as water, and cites as the first documented story of cooperation, the biblical story of Jacob removing a heavy stone used to collectively monitor and control water use and contamination⁶⁴⁶. Benvenisti also describes the collective action of farmers in the Middle East collaborating to dig irrigation tunnels or “qanawat” across distances sometimes spanning more than fifty kilometers and highlights the importance of intra- and inter-community ties in supporting such extensive infrastructure development and management.⁶⁴⁷ What unites “potentially rival villages has been the shared religion,” or what can be understood as a common value.⁶⁴⁸ What is known today as “traditional knowledge,” is a community's collective experience often pertaining to the sustainable cooperative management of local resources or the environment. Cooperation within and amongst communities, as well as conservation, are time tested human traditions. “Patchwork peace park,” is in

⁶⁴⁴The Stone Soup Society, *The Fable of Stone Soup* (2010),a <http://www.stonesoupsociety.com/Stone-Soup-Fable.htm>.

⁶⁴⁵Eyal Benvenisti, *Sharing Transboundary Resources: International Law and Optimal Resource Use* 3-7 (Cambridge University Press, 2002).

⁶⁴⁶*Id.* at 3-4.

⁶⁴⁷*Id.* at 4-6.

⁶⁴⁸*Id.* at 7.

some ways just a new name for doing what communities have long done, cooperate in the stewardship of shared natural resources across a border.

Patchwork peace parks are not merely fable or an anecdotal ideal to share, they are a practicable model that can be applied in any transboundary ecoregion of the world. Communities across any divide can come together, enhancing land stewardship through collective action. In some cases, it may be even be more appropriate than traditional State-driven peace park frameworks. For instance, patchwork peace parks may be particularly relevant in situations where conflict, poor governance, or political instability render governments “unable or unwilling” to engage in transboundary peace park processes. In an ideal world, multi-stakeholder cooperation across borders should provide a solid foundation for successful TBCC, but border ecosystems in the real world are at times strife with insecurity and violence; their protection unsupported by far-away governments wrought with insecurities and exhibiting all the markings of poor governance. In these situations, a closer look must be given to how patchwork peace parks can be implemented and communities supported in their endeavors to be the local stewards of the world's threatened transboundary ecoregions.

Challenges of centralized mountain forest governance

Mountain forests are a local common pool resource that supports the livelihoods and well-being of the communities that inhabit them and are a global common pool resource that provides ecosystem services for all members of the international community.⁶⁴⁹ Governance of a local and global common pool resource like mountain forests must address many issues. The effects of climate change on the stewardship of mountain forest protected areas is an example of the multi-layered complexities that peoples might face. Focusing on the legal issues, it can be noted that legal frameworks governing mountain forest PAs will need to be strengthened in order to adequately confront climate change. Legislate changes will likely trigger political challenges. Nation-level governments may lack the capacity, resources (human and financial), and infrastructure (physical and political) to undertake the necessary legal adaptations. There may be lack of political will amongst elites and/or the greater public to ensure the security of our protected areas in the face of climate change. Poor governance would aggravate all of these problems. Mountain forest common pool resources in these situations are not well-suited for centralized governance.

Climate change is perhaps the most global scale environmental change currently challenging our planet. Mountain forests are especially vulnerable to the impacts of climate change.⁶⁵⁰ Drastic altitudinal change is a defining characteristic of mountains.⁶⁵¹ It explains the extremity of

649Common Pool Resources are “natural or man-made resources in which (a) exclusion is nontrivial (but not necessarily impossible) and (b) yield is subtractable.” Michael McGinnis & Elinor Ostrom, *Design Principles for Local and Global Commons* 5 (1992).

650See Derek Denniston, *supra* note 23, at 11.

651*Id.* at 12.; David Smethurst, *supra* note 23, at 90.

microclimates, biodiversity and ecosystems that can be found within a relatively short distance.⁶⁵² Altitudinal zonation may also inhibit the ability of mountain forests to adapt to anthropogenically induced climate change.⁶⁵³ The slightest changes in annual mean temperature can change a mountain forest into a desert.⁶⁵⁴ If the biological diversity loses its habitat, we may lose the biological diversity. This is a problem that will acutely affect the mountain forest dependent communities that inhabit these local and global commons. Mountain forest dependent peoples are by definition reliant upon the natural resources and ecosystem services provided by the mountain forests they live in.⁶⁵⁵ If the natural resource base that they depend on is altered sufficiently, mountain forest dependent peoples will have few options – adapt, migrate or perish.

Laws protecting Nature and vulnerable communities need to accommodate for the unique challenges of climate change. Take, for example, the many protected areas established based on site-specific designations. These protected areas are declared for purposes of protecting explicitly specified conservation values, such as endangered species of flora or fauna, the ecological services of the territory, or the rich cultural heritage of the area. If the *raison d'être* of the protected area ceases to exist or is altered (e.g., if a species' range shifts to a range outside of the protected area), justification for protecting the territory may be called into question. Additionally, if the site-specific conservation values are used as indicators for measuring environmental impacts, an environmental impact assessment may conclude that an environmentally destructive project has no significant impact on the protected area because the conservation value no longer exists for an impact to be measured against it. In other words, if there are no longer any grizzly bears in Yellowstone National Park and environmental impacts are measured according to the effects of a project on grizzly bears, then all projects in Yellowstone National Park will produce a Finding of No Significant Impact, regardless of their actual impacts on the environment. If legal frameworks for environmental protection are not adequately adapted to confront climate change, the future of Nature on Earth, even in protected areas, does not bode well.

Legislative changes in common law or civil law nations can be administratively challenging. Using the example above of site-specific protected area designations, administrative action would need to be taken in order to amend the site designation. Even the decision as to the appropriate administrative action is more than meets the eye. The site designation could possibly be amended to

⁶⁵²*Id.*

⁶⁵³Derek Denniston, *supra* note 23, at 42-44 (the slightest changes in climate can be disastrous to the viability of many endemic mountain species that have evolved to exist in a very specific climate and locale); Mountain forests may face “ecological squeeze,” whereby forest biota are pushed higher up the mountains, only to find that their forest habitat cannot exist above a certain altitude. Korner & Ohsawa et al., *supra* note 69, 684.

⁶⁵⁴*Id.* at 43 (a 2 °C increase in annual average temperature “would cause most of the [Tibetan Plateau's] current ecosystems to disappear and, in the central and northern sections, to be replaced with desert”).

⁶⁵⁵In Chapter I on “Transboundary Mountain Forest Ecosystems and Mountain Forest Dependent Communities,” we define “mountain forest dependent peoples” as “those people who live in nor near mountain forests and who obtain most of their livelihood from the mountain forest.”

designate new species that have moved in to the area, although this might trigger the question of which are invasive species and which are species following natural shifts in their range habitats. Or it could seek a more general approach, broadly recognizing the ecological import of the area, but this would might make indicator-based environmental impact assessment difficult. Administrative decisions would need to be based on the most current sound science and be open to public consultation, in accordance with the procedures of domestic law. If environmental changes happen quickly enough, environmental ministries or agencies will find their already over-burdened resources stretched beyond capacity as they try to maintain the relevance of their protected areas systems and to respond to conservation challenges imposed by climate change.

Political challenges may also compound the legislative challenges of adapting environmental legal frameworks to adequately respond to climate change. Simpler, more logistical difficulties, may hinder the necessary administrative or congressional actions, such as lack of capacity or financial and human resources. Or, more complex institutional issues may exist; physical and political infrastructures for environmental protection in the nation may already have been weak or non-existent. This may be indicative of resource deficiencies or perhaps even more invidious, the lack of political will. The central government may be distracted by other priorities, good or bad. Alternatively, the lack of political will or mobility may be symptomatic of poor governance overall. Corruption may be rampant and the swindling of public resources for other non-public uses may exhibit no transparency or accountability; there may be little or no rule of law, in which case changes to the environmental law would be nearly meaningless; or the entire political regime itself might be unstable and possibly even distracted by its efforts to maintain control of the nation through any and all means it deems necessary.

In addition to domestic political difficulties, there may be many cross-border political hurdles to overcome as well. Differences in political ideologies may divide governments of nations to the point of non-cooperation in the harmonization of legal frameworks and conservation activities in a transboundary protected area. Diplomatic relations may fail or cease entirely. At a worse extreme, the nations may go to war with each other. Armed conflicts in transboundary mountain forests are not an uncommon occurrence.⁶⁵⁶ Although there are international norms concerning the protection of Nature during armed conflict, these are often disregarded.⁶⁵⁷ Thus far, little accountability has been enforced

⁶⁵⁶Denniston, *supra* note 23, at 3.; Frederick Starr, *supra* note 134, at 173-176.

⁶⁵⁷*E.g.* Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques [hereinafter ENMOD], May 18, 1977, 31 U.S.T. 333.; *E.g.*, United Nations Rome Statute of the International Criminal Court [hereinafter Rome Statute], July 17, 1998, U.N. Doc. No. A/Conf. 183/9, 37 I.L.M. 999, *available at* <http://untreaty.un.org/cod/icc/statute/rome.htm> (last visited Oct. 28, 2008).; *E.g.*, Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, art. 35(3), June 8, 1977, 16 I.L.M. 1391, U.N. Doc. A/32/144 (1977), *available at* <http://www.icrc.org/Web/Eng/siteeng0.nsf/htmlall/genevaconventions> (last visited Oct. 29, 2008) [hereinafter Protocol I].; *E.g.*, Protocol Additional to the Geneva Conventions of 12 August 1949, Convention on Certain Conventional Weapons, Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons, June 8, 1977, 16 I.L.M. 1391, U.N. Doc. A/32/144 (1977), *available at* <http://www.icrc.org/ihl.nsf/TOPICS?OpenView> (last visited Nov. 2, 2008) [hereinafter Protocol III].; *E.g.*, ICRC, *Convention on the prohibition of military or any hostile use of environmental*

against such acts, thereby providing little disincentive for environmental war crimes. Needless to say, if relations between nations have deteriorated to this point, it is unlikely that the governments will sit down and negotiate a peace park treaty and joint stewardship framework.

All around the world, large-scale governance structures have been devised to manage commons. In an attempt to achieve economies of scale, modern States often centralize power based on “strong bureaucratic apparatus and sophisticated methods of governance to control people.”⁶⁵⁸ Centralized governance is sometimes characterized by the “losses and skewed decisions [that] emanate not from ignorance or poor judgment, but from the willful burdening of domestic groups by other groups who abuse the inherent flaws that exist in the domestic political processes of states.”⁶⁵⁹ The means by which governments have sought to maintain control have involved strategic/manipulative power-skewing and even coercion by force. Elitist vertical power structures often remove decision-making from the local-level and then rely on command-and-control top-down coercive measures to enforce them. This results in marginalization of minority groups and disrespects the human rights of individuals in the name of utility. Stories, sometimes accompanied by a cell phone recorded YouTube video, depict pandemics of police brutality and even military intervention targeted upon national civilians. Local communities most affected by the decisions affecting their lands are lost in this bureaucratic machinery.

The cons of centralized governance of commons, such as mountain forests, are not necessarily mitigated by international dynamics. Many ecoregions and natural resources find themselves straddling international frontiers. Globalization and mismanagement of natural resources have generated international dependencies on natural resources trapped wholly within one nation's borders.⁶⁶⁰ The UN Charter of Economic Rights and Duties of States requires cooperation between States when exploiting shared natural resources, but the tragic state of our oceans and waterways are testimony that something is not working.⁶⁶¹ Instead of engaging in full and equitable cooperation, States sometimes

modification techniques, 10 December 1976 (2005), <http://www.icrc.org/ihl.nsf/WebSign?ReadForm&id=460&ps=P> (last visited Dec. 5, 2008).; See International Conference of the Red Cross [ICRC], *Report of the Secretary-General on the Protection of the Environment in Time of Armed Conflict*, delivered to the 48th session of the United Nations General Assembly [UNGA] Annex, U.N. Doc. A/49/323 (Nov. 17, 1993), available at http://www.icrc.org/Web/Eng/siteeng0.nsf/htmlall/section_ihl_environment?OpenDocument (last visited Nov. 2, 2008) [hereinafter ICRC Guidelines].; See Antoine Bouvier, ICRC, *Protection of the Natural Environment in Time of Armed Conflict*, 285 International Review of the Red Cross 567 (Dec. 31, 1991), available at <http://www.icrc.org/web/eng/siteeng0.nsf/html/57JMAU> (last visited Nov. 2, 2008).; See Karine Mollard-Bannelier, *La protection de L'environnement en temps de conflit armé* 25-30 (2001).; See Mark A. Drumbl, *Waging War Against the World: The Need to Move from War Crimes to Environmental Crimes*, 22 Fordham Int'l L.J. 122, 131-132 (1998).; See Peter Sharp, *Prospects for Environmental Liability in the International Criminal Court*, 18 Va. Env'tl. L.J. 217, 234 (1999).

⁶⁵⁸Benvenisti, *supra* note 644, at 8-9.

⁶⁵⁹*Id.* at 11.

⁶⁶⁰Benvenisti, *supra* note 644, at 15.

⁶⁶¹Charter of Economic Rights and Duties of States, GA Res. 3281(xxix), UN GAOR, 29th Sess., Supp. No. 31 (1974) 50, available at <http://www.un.org/documents/ga/res/39/a39r163.htm> (last visited June 15, 2010).

use shared natural resources (e.g., international riverways) as bargaining chips against each other.⁶⁶² This type of political manipulation does not foster truly friendly relations between nations or a Global Care ethic. Centralized governance is not always the most efficient way of protecting transboundary environments, like mountain forests.

As discussed in the last chapter, mountain forests are a local and global common pool resource,⁶⁶³ which Garrett Hardin doomed to a fate of the “Tragedy of the Commons.”⁶⁶⁴ What he failed to consider is that at the local-level, individuals might have the capacity and “sufficient insight into the problems that they faced to restructure their own rules and change the incentives they faced.”⁶⁶⁵ In fact, more robust common pool resource institutions have been those based on Collective-Choice Arrangements (affected individuals can take part in modifying operational rules) and Minimal Recognition of Rights to Organize (the “rights of participants to devise their own institutions are not challenged by external governmental authorities”).⁶⁶⁶

Stewardship of mountain forests is more efficient when it arises from the local-level and then is accordingly “scaled-up.”⁶⁶⁷ There seems to be recognition of this theory evinced by a global trend towards local-level community-based forest stewardship; some estimates indicate that 200 million hectares have been transferred to a community tenure regime in the last 20 years.⁶⁶⁸ A patchwork peace park would build on community management of mountain forests and stretch these stewardship frameworks across borders to creating larger, more holistic ecoregional or biological corridor conservation networks. A patchwork peace park also has the added benefit of explicitly mandating a peace objective, which many mountain forest communities can benefit from.

Local collaboration for Environmental Peace, Social Peace and International Peace

A patchwork peace park is an environmental governance paradigm founded on community-based conservation and collaboration for peace, that seeks to mitigate the challenges of mountain forest stewardship today, while building resilience to the challenges of tomorrow. Where centralized forest governance fails to meet the demands of environmental and social change, there must be support at the ground level for a transboundary conservation initiative that can sustain Nature and its human communities. Such arrangements can be implemented by communities on alternate sides of an international border as they formally or informally organize themselves to locally manage shared natural resources and ecosystems. More importantly, so long as this cross-border collaboration exists,

⁶⁶²Benvenisti, *supra* note 644 at 18.

⁶⁶³See Arun Agrawal, *Forests, Governance, and Sustainability: Common Property Theory and its Contributions*, 1 Int'l Journal of the Commons 111, 111-136 (Oct. 2007).

⁶⁶⁴Garrett Hardin, *supra* note 477, at 1244.).

⁶⁶⁵McGinnis & Ostrom, *supra* note 648, at 6.

⁶⁶⁶*Id.* at 9.

⁶⁶⁷*Id.* at 10.

⁶⁶⁸Agrawal, *supra* note 662, at 117.

there will be *de facto* transboundary conservation whether or not there is recognition by the central or federal authorities.

Patchwork peace parks promote Environmental Peace, Social Peace and International Peace. Holistic conservation of transboundary ecoregions promotes the viability of the constituent ecology and ecosystem services. By involving communities directly in transboundary conservation, a land ethic and stewardship framework will emerge and affect greater harmony between human communities and other elements of Nature. This is Environmental Peace. Social Peace is that which exists intra- and inter-generationally amongst humans. Patchwork peace parks support the behavioral and institutional changes required for pacific dispute resolution, as well as social and environmental justice. It calls for collective action and broad collaboration in issues of common interest and common concern, bringing together stakeholders that may not commonly interact. This type of integration across sectors of society and cultures can foster Social Peace within and between communities at all levels, from local to regional, national to international. Social Peace must extend temporally beyond current generations to include future generations. Related to Social Peace is International Peace, the peace that exists between States or territorial jurisdictions. So long as the world is divided along State lines, International Peace will be needed to support conservation. Transboundary cooperation in the interest of stewardship of shared natural resources is a mechanism for environmental peacebuilding that facilitates positive relations between nations. With Environmental Peace, Social Peace and International Peace, our global community will find itself converging upon Pierre Allan's Global Care and a true Culture of Peace.⁶⁶⁹

The United Nations has promoted the concept of a Culture of Peace that involves Environmental Peace, Social Peace and International Peace. In its Declaration on a Culture of Peace, it defines a Culture of Peace as “a set of values, attitudes, traditions and modes of behavior and ways of life based on,” *inter alia*:

- Respect for life, ending of violence and promotion and practice of non-violence through education, dialogue and cooperation,
- Full respect for and promotion of all human rights and fundamental freedoms,
- Commitment to peaceful settlement of conflicts,
- Efforts to meet the developmental and environmental needs of present and future generations,
- Adherence to the principles of freedom, justice, democracy, tolerance, solidarity, cooperation, pluralism, cultural diversity, dialogue and understanding at all levels of society and among nations...fostered by an enabling national and international environment conducive to peace.⁶⁷⁰

⁶⁶⁹Pierre Allan, *supra* note 509, at 119-128.

⁶⁷⁰U.N. GAOR, 53rd Sess., art. 1, U.N. Doc. A/RES/53/243A (Sept. 13, 1999).

In order to cultivate a Culture of Peace, the Israel/Palestine Center for Research and Information recognizes that it is “an on-going process, it is necessary to continue to challenge each other, both looking at the other side's society and looking inward at our own society...to deal with some of the more difficult questions involved in what it takes to create a culture of peace at a time when peace does not yet exist, when the streets are filled with violence, when the challenge of the conflict still exists, when we are still, perhaps not officially but in reality, enemies.”⁶⁷¹

Peace requires change within an individual, within a community and across communities. As stated in the Constitution of the United Nations Educational, Scientific, and Cultural Organization (UNESCO), “since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed.”⁶⁷² UNESCO seeks this change through communication, cooperation and cultural exchange.⁶⁷³ The Earth Charter calls for a “sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace.”⁶⁷⁴ It calls on “every individual, family, organization, and community” to play a role to build this sustainable global community.⁶⁷⁵ Patchworks peace parks do the same, beginning with individuals in just one community and then reaching out to other communities interested in cultivating similar values and creating a network for conservation and peace. Geshe Kelsang Gyatso says that we must have Inner Peace before we can have Outer Peace.⁶⁷⁶ A patchwork peace park functions in much the same way. A community must find the means for transcending intra-communal divisions to sustainably steward their lands. Then, they may look outwards, to seek cooperation with other communities. Thus, peace within a community can grow to embrace peace between communities.

Patching communities through Transboundary Community Conservation Areas (TBCCAs)

Large-scale conservation can be achieved by beginning small-scale. It can begin with individuals interacting directly with members of their local community to change the policies and patterns of their collective land ethic into something more sustainable – a CCA. The patchwork peace park approach then envisions individual communities interacting directly to weave together their separate patches of CCAs across a shared border. Each CCA is a patch contributed by a community to the greater network of CCAs, until together, they create a community-based collaborative stewardship framework that quilts an entire landscape, biological corridor or ecoregion. This framework encourages implementation of the Subsidiarity Principle in TBCC. The movement is as organic as possible, arising from the lowest level, bottom-up. In the advice of the World Wildlife Fund's

⁶⁷¹Israel/Palestine Center for Research and Information, *Creating a Culture of Peace* 3 (Baskin & Al Qaq eds., Jan. 1999).

⁶⁷²Constitution of the United Nations Educational, Scientific, and Cultural Organization, pmbl., Nov. 16, 1945, 4 U.N.T.S. 275.

⁶⁷³*Id.* at art. 1(2).

⁶⁷⁴Earth Charter, *supra* note 524, at pmbl.

⁶⁷⁵*Id.* at 4.

⁶⁷⁶Geshe Kelsang Gyatso, *Transform Your Life: A Blissful Journey* (Aug. 2007).

Biodiversity Support Program, when designing transboundary natural resource management programs:

“it is best to work at the lowest transboundary level(s) possible. A bottom-up approach has the greatest chance of resulting in participation, buy-in and ownership of the process at the local level where the resources are managed. Involvement of higher levels can change over time, and as needed. It is important not to wait for all the enabling conditions to be in place before starting, but to take a pragmatic approach and start in areas where there are feasible opportunities, even if these are limited”.⁶⁷⁷

Thus, in initiating a transboundary CCA network for peace, or a patchwork peace park, proponents should begin by working with the smallest unit possible – other individuals within their community. In trying to protect the greater Continental Divide as part of a transcontinental watershed and chain of mountain forests, people can begin with their own backyards and the community they live in.

In creating a patchwork peace park, communities begin by organizing themselves to enact CCAs. CCAs can be defined as:

“Natural and/or modified ecosystems containing significant biodiversity values, ecological services and cultural values, voluntarily conserved by Indigenous peoples and local communities, both sedentary and mobile, through customary laws or other effective means.”⁶⁷⁸

This means that CCAs can be created *de facto* or *de jure*, by customary or codified law. CCAs can be (1) part of or all of an officially protected area (gazetted), (2) established voluntarily by communities on their own lands through customary or legal procedures and then recognized by government agencies, (3) established voluntarily by communities on their own lands through customary or legal procedures but not recognized by government agencies, (4) established by custom with no relationship to government, (5) community areas with special stewardship rules managed under community institutions, or (6) indigenous reserves and territories dedicated to their use and protection.⁶⁷⁹

The Indigenous and Community Conservation Areas Forum considers the following characteristics to be fundamental to any CCA:

⁶⁷⁷Harry van der Linde et al., *Beyond Boundaries: Transboundary Natural Resource Management in Sub-Saharan Africa* xix (Biodiversity Support Program 2001).

⁶⁷⁸Indigenous and Community Conservation Areas Forum, *Indigenous and Community Conservation Areas: A Bold New Frontier for Conservation* (2009), <http://www.iccaforum.org/>; See Ashish Kothari, *Community Conserved Areas: Towards Ecological and Livelihood Security*, 16 Parks 3, 3 (2006); See IUCN, *Community Conservation Areas in Central America: Recognising Them for Equity and Good Governance* (2007), available at <http://www.goodplanet.info/goodplanet/index.php/eng/Contenu/Points-de-vues/Aires-protegees-en-Amerique-centrale-de-la-necessite-de-les-reconnaitre-comme-un-modele-de-bonne-gouvernance-et-d-equite/%28theme%29/1518> (last visited June 15, 2010).

⁶⁷⁹Gonzalo Oviedo, *Community Conserved Areas in South America*, 16 Parks 49, 50-51 (2006).

- A community is closely connected to a well defined ecosystem (or to a species and its habitat) culturally and/or because of survival and dependence for livelihood;
- The community management decisions and efforts lead to the conservation of the ecosystem's habitats, species, ecological services and associated cultural values [even when the conscious objective of such management may be different than conservation *per se*, and be, for instance, related to material livelihood, water security, safeguarding of cultural and spiritual places, etc.];
- The community is the major player in decision-making (governance) and implementation regarding the management of the site, implying that community institutions have the capacity to enforce regulations; in many situations there may be other stakeholders in collaboration or partnership, but primary decision-making rests with the concerned community.⁶⁸⁰

CCA's can be established in terrestrial or marine habitat and can range vastly in size, from small patches less than a hectare to millions of hectares.⁶⁸¹ They can be created for any one of many conservation values and fit a spectrum of typologies. Some of these are listed below:

- Indigenous territories managed for sustainable use, cultural values or conservation objectives;
- Territories where mobile or nomadic communities have traditionally roamed, managing resources through customary regulations and practices;
- Sacred sites;
- Resource catchment areas from which communities derive livelihoods or ecosystem services and manage them for sustainable use;
- Critical habitats of wildlife, protected for conservation of biological diversity; and
- Landscape mosaics of natural and agricultural ecosystems containing considerable cultural and biological diversity value.⁶⁸²

When CCAs are created with the express objectives of promoting conservation, cooperation and peace, they serve as the building blocks or patches to a patchwork peace park. Neighboring communities can link CCAs together through formal or informal cooperation between communities. Geographically distant communities may similarly participate in CCA networks by creating *parques hermanos* (i.e., “sister” or “brother” parks). By collaborating in the harmonization of CCA stewardship frameworks, local communities can improve conservation efforts across a wider territory, taking advantage of

⁶⁸⁰*Id.*

⁶⁸¹Ashish Kothari, *supra* note 677, at 3.

⁶⁸²*Id.*

certain economies of scale, without giving up the direct collective action and collaborative decision-making processes that more centralized protected areas governance lose to bureaucracy.

With official support from governments, communities can, in accordance with municipal and/or national legislation, create formal CCAs (e.g., city parks or municipal protected areas). If a municipality or local level official has the authority, they can establish a municipal or community PA along a border with a neighboring community and then coordinate with other municipalities (or other parallel authority structure) to do the same. The marine peace park between Israel and Jordan across the River Jordan is an example of official cross-border local level collaboration. In January of 2007, mayors from both sides of the international river came together to sign an MOU declaring their intent to create a transboundary peace park.⁶⁸³ The MOU recognized “development of the peace park as a cooperative effort and as a centerpiece of peace building activities between their neighboring communities.”⁶⁸⁴

CCAs have received increasing recognition and support internationally, especially with organizations such as the IUCN and the Nature Conservancy helping to promote the model and supporting local capacity-building efforts worldwide. Worldwide, there are some 400 to 800 million hectares of forest owned or managed by communities.⁶⁸⁵ In countries like Mexico and Papua New Guinea, a resounding 80%-90% of all their forests are community forests.⁶⁸⁶ Some countries have moved to recognize different forms of CCAs, such as extractive reserves in Brazil and Alaska National Interest Public Lands in the United States, conveying legal status to these territories to be managed by traditional or indigenous peoples.⁶⁸⁷ Authorities can give strength to local level initiatives by adding legitimacy to such projects when they affirm the existence of *de facto* transboundary conservation areas, but a CCA does not require this formality and nor do patchwork peace parks. Also, in formalizing CCAs or transboundary CCA networks, it is important that the participation of higher levels of government not “exert influence and control that is not in the best interests of local levels.”⁶⁸⁸ As Ashish Kothari notes, “We need to recognise that CCAs often are not just ‘projects’ that communities take up, but are very much a way of life, with a grounding in history and tradition, even if many may actually be quite recent.”⁶⁸⁹

Case Study: a patchwork peace park between Honduras and Nicaragua

683Memorandum of Understanding to Create the Al Bakoora/Naharayim/Gesher Peace Park, Muaz Bin Jabal Municipality, Jordan, Jordan Valley Regional Council, Israel & Beit She'an Valley Regional Council, Israel (Jan. 10, 2007).

684Id.

685Indigenous and Community Conservation Areas Forum, *supra* note 677.

686Andy White & Alejandra Martin, *Who Owns the World's Forests?: Forest Tenure and Public Forests in Transition* 7 (2002).

687See Indigenous and Community Conservation Areas Forum, (2009), <http://www.iccaforum.org/> (the ICCA Database provides examples of ICCA case studies in different countries; “National Legislation and ICCAs” provides country-based reports on the status of national legislation, policy and implementation regarding ICCAs).

688Harry van der Linde et al., *supra* note 676, at xx.

689Ashish Kothari, *supra* note 677, at 10.

Collaborative conservation of mountain forests across borders ensures that the development of conservation corridors in transboundary ecoregions does not further marginalize mountain forest communities. Large-scale conservation is needed to protect against the fragmentation of complex mountain forest ecosystems and the ecological squeeze of mountain biodiversity. It allows for more cooperative mountain watershed management, which is critical for human populations. This includes human populations that live in mountain forests and rely very directly upon mountain forests for their livelihoods, subsistence, development and culture. It also includes human populations who live in and around mountain areas or their surrounding lowlands and who derive benefit from ecosystem services or natural resource extraction. The needs and wants of most of the world are satisfied to some degree by the natural resources and ecosystem services derived from mountain forests. However, the satisfaction of such needs and wants cannot be fulfilled at the harm of the hundreds of millions of politically marginalized, poor who inhabit mountain forests.

Mountain forests would benefit from decentralized governance spearheaded by their inhabitant local communities. As we know, mountain forest peoples suffer most directly the effects of unsustainable mountain forest development. Centralized mountain legislation and policy-making can impose systems of governance that are not well-suited for the unique complexities of mountain forest ecoregions; thus, a decentralized approach is preferable.⁶⁹⁰ In a decentralized system based upon the subsidiarity principle, the local communities of mountain forests become the direct stewards of their environment. Such empowerment of historically marginalized communities is a positive transition to a paradigm of direct democracy. If we believe in the values of people and democracy, then a peace park can be crafted to provide for effective participation of local communities. Governance schemes can invoke participation of local actors directly in the decision-making and management of their surrounding environments and natural resources. If mountain forests and their peoples are to be safeguarded from continued marginalization and disenfranchisement, mountain forest communities must be empowered to voice their circumstances, interests and desires. Mountain forests and their special circumstances could benefit from the patchwork peace park model put into practice by local peoples themselves.

Profile of the study area

The proposed peace park between Honduras and Nicaragua will create a transboundary biological corridor linking four protected areas, La Botija and Cerro Guanacaure in Honduras, as well as Serranías Tepesomoto-La Patate and Cañon de Somoto in Nicaragua. Together, these protected areas and the greater biological corridor that they form cover just over 33,400 hectares of a singular border-straddling ecoregion. It is essentially the southernmost limit of the Central American pine-oak forest ecoregion, which extends from southern Mexico all the way to northern Nicaragua.⁶⁹¹

⁶⁹⁰Price & Messerli, *supra* note 76, at 16.

⁶⁹¹Alianza para la Conservación de los Bosques de Pino-Encino de Mesoamérica, *Plan de Conservación de los Bosques de*

Environmentally significant, this region has been largely ignored or abandoned by the social, economic and political powers that be, leaving its natural areas just as vulnerable as its human populations.

The peace park's mountain forests and the watersheds are shared by ten different municipalities within the departments of Choluteca (Honduras), Estelí and Madriz (both in Nicaragua). All of the communities in the proposed peace park and its surrounding lowlands depend on these mountain forests for ecosystem services. They also face similar environmental threats – forest fires, gorgojo pine beetle plagues, illegal logging and drought. Recent water shortages, even in highland areas, emphasize the common interest and common responsibility of the border communities in both Honduras and Nicaragua to collaboratively protect their shared mountain forests.

Popular recognition of the importance of these mountain forests and critical watersheds by local community members, NGOs and government officials spurred momentum to declare a transboundary peace park between Honduras and Nicaragua in 2007/2008. However, the peace park process has been paralyzed by political tensions and obstacles mounting between the two governments. Casual commentary might note that at this very time and in this very situation, a peace park between the two countries would be all the more relevant and significant. Nevertheless, political statements and actions by the two governments indicate that movement in the direction of bi-national (between two State governments) declaration of a peace park will be long in the waiting.

Despite the political differences that may exist between their governments, the communities on the two sides of the border continue to feed a natural dynamic that directly links their families, Honduran and/or Nicaraguan. Also, despite the political differences that may exist between their governments, the communities on both sides of the border continue to deal with growing environmental challenges, environmental degradation and environmental change. The lack of will and action at the national level is a call to the local communities to undertake direct action in the conservation of their lands and natural resources.

My field research in the proposed peace park territory indicates that there already exists a system of civil organization, largely supported by the legal frameworks of each nation, that can empower local communities to implement the patchwork peace park model in Honduras and Nicaragua. This chapter will provide a broad history of the peace park movement and discuss my research findings from field trips into the territory, as well as next steps towards community-based transboundary collaborative conservation for peace and cooperation in the proposed territory *a la* the patchwork peace park model.

History and regional context

The peoples of Honduras and Nicaragua share a long history of relative unity. As part of greater Central America, they were identifiable by a handful of what are now considered to be indigenous peoples. In the border region of the proposed transboundary peace park between Honduras and

Pino-Encino de Centroamérica y el Ave Migratoria Dendroica chrysoparia (E.S. Pérez, E. Secaira, C. Macías, S. Morales & I. Amezcua eds., Fundación Defensores de la Naturaleza & The Nature Conservancy 2008).

Nicaragua, the Chorotega (meaning inhabitants of Cholula) have historically ethnically dominated. Although there are few communities recognized officially as “indigenous” by their governments, many people on both sides of the border in the peace park territory still recognize their Chorotega ancestry.⁶⁹²

It was not until colonialism in the 1500s that Central America was divided into a number of administrative territories or until the 1800s that separate republics claimed independence and trumpeted distinct national identities.⁶⁹³ What was once a united Central America is now composed of seven sovereign nation-states – Belize and the Republics of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. Despite some rhetoric and regional agreements recognizing regional solidarity for peace and development, divisive disagreements continue to wrack post-colonial Central America.

Since their independence, bloody civil wars spilling across sometimes unclearly defined borders has scarred a history of regional unity. Honduras and Nicaragua share a borderline that is approximately 922 km long, almost three times the length of the border between Nicaragua and its other neighboring country, Costa Rica.⁶⁹⁴ In fact, it is the largest stretch of frontier that either of the two countries shares with any other nation. Unfortunately, it has also been a gateway of conflict between two nations, who have shared a bitter history of war and discord. Only recently in 2007, was their century long maritime and territorial boundary dispute resolved by the International Court of Justice, resulting in a set of disputed cay islands juridically distributed between the two nations.⁶⁹⁵

Although the territorial dispute is now behind them, fissures between Honduras and Nicaragua continue to separate the populations. In 2006, for the first time since the Sandanista-Contra War (1976-1990), Nicaragua elected Sandanista Daniel Ortega back into presidency. While Manuel Zelaya (“Mel”) was President of Honduras, relations and policies between the two governments were more allied. However, with the election of Porfirio Lobo Sosa (“El Lobo”) in 2009 to the presidency in Honduras pursuant to the military ousting of “Mel,” diplomatic relations between the two governments have been stalled. President Ortega decried the military coup against Ex-President of Manuel Zelaya and refuses to recognize the new presidency of “El Lobo” in Honduras. The Government of Nicaragua

⁶⁹²At the national level, there are no officially recognized indigenous communities within the proposed delineation of the transboundary peace park. However, at the municipal level, San Jose de Cusmapa and San Lucas (both in Nicaragua) are considered to be indigenous communities. This may be due to the fact that individuals who identify themselves as indigenous Chorotegas have come into positions of civic service within the municipalities. Their presence in public offices at the local level contributes to the quasi-official recognition of the indigenous communities in those municipalities. For example, in an interview with the mayor of San Jose de Cusmapa, the mayor explained that cutting trees on what are generally recognized to be indigenous lands in San Jose de Cusmapa, requires permissions by the municipality, as well as the indigenous community (administered by the Junta Directiva, or directorate, acting in accordance with the mandates or approvals of the Consejo de Ancianos, or Council of Ancients). In this way, the indigenous community directly participates in the decisions that affect their lands, although it is not required by national legislation or codified law.

⁶⁹³Thomas L. Percy, *The History of Central America* (Greenwood Press, 2006).

⁶⁹⁴CIA.gov, Nicaragua, <https://www.cia.gov/library/publications/the-world-factbook/geos/nu.html> (last visited September 15, 2007).

⁶⁹⁵Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.), 2007 I.C.J. No. 120 (Oct. 8).

has accepted that economic relations will continue, but is not ready to acknowledge diplomatic relations with a government that it considers to be illegitimate.⁶⁹⁶

The ecological, economic and social context

As the Honduran and Nicaraguan peoples emerged from years of tragic civil and cross-border guerrilla warfare, they found themselves characterized by poverty and corruption, yet rich culturally and environmentally. Drawn together by their social circumstances and geographic proximity, communities have long interacted back and forth across the Honduran-Nicaraguan border, oftentimes unofficially. The ecological, economic and social conditions of this mountain forest region shared by the peoples of Honduras and Nicaragua are prime for implementation of the patchwork peace park model.

Environmental situation in the proposed territory

Nicaragua and Honduras are part of an extremely resource rich region of the world. More than one-third of the terrestrial territory of Central America is covered in forests,⁶⁹⁷ and of this, about 43% (or 8.6 million hectares) of this is located in these two countries alone.⁶⁹⁸ Central America is also known as one of the biodiversity hotspots of the world, providing habitat for about 7% of the world's biodiversity.⁶⁹⁹ Approximately 8,500 different known species of plants and animals can be found in Nicaragua⁷⁰⁰ and more than 6,600 in Honduras.⁷⁰¹ This is an extremely broad representation of the globe's flora and fauna in a relatively small portion of the planet's surface area.

The mountain forests of the Choluteca and Madriz departments of Honduras and Nicaragua, respectively, mark the southern-most limit of the American pine-oak forests range (*Pinus* spp. and *Quercus* spp.), which is dominated by the *Pinus oocarpa*, a highly marketable wood.⁷⁰² These pine forests provide habitat for multitudinous species of flora and fauna, including the internationally

696On March 8th, 2010, Foreign Minister, Samuel Santos, reiterated that his Government does not recognize the Government of Porfirio Lobo in Honduras and that the Republic of Nicaragua will continue to uphold its declarations in the resolutions passed by the Organization of American States (OEA – Organización de Estados Americanos), the System of Central American Integration (SICA – Sistema de Integración Centroamericana) and the Rio Group. However, Nicaragua maintains economic relations with Honduras. La Prensa, “No Reconoceremos a Gobierno Hondureño,” *Reitera Santos*, La Prensa (Mar. 8, 2010), <http://www.laprensa.com.ni/2010/03/08/politica/18470>; El Heraldo, *Nicaragua Reconoce Necesidad de Integración*, El Heraldo (Mar. 26, 2010), <http://www.elheraldo.hn/Pa%C3%ADs/Ediciones/2010/03/26/Noticias/Nicaragua-reconoce-necesidad-de-integracion>.

697Jorge Eduardo Rodríguez Quirós, IUCN, *Centroamérica en el Límite Forestal: Desafíos para la Implementación de las Políticas Forestales en el Istmo 9* (Gabriela Hernández ed., 2005).

698 *Id.* at 12.

699 *Id.* at 5.

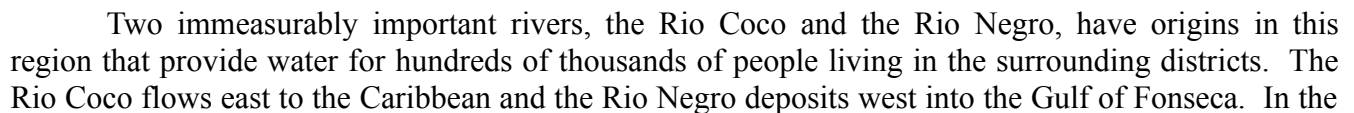
700 Earth Trends Country Profiles, Biodiversity and Protected Areas—Nicaragua (2003).

701 *Id.*

702Alianza para la Conservación de los Bosques de Pino-Encino de Mesoamérica, *supra* note 690, at 15-16.

Professor Nicholas Robinson
17 July 2010

Figure 3.6 Ecosystems in the Departments of Madriz and Esteli (Nicaragua) and Choluteca (Honduras)⁷⁰⁶

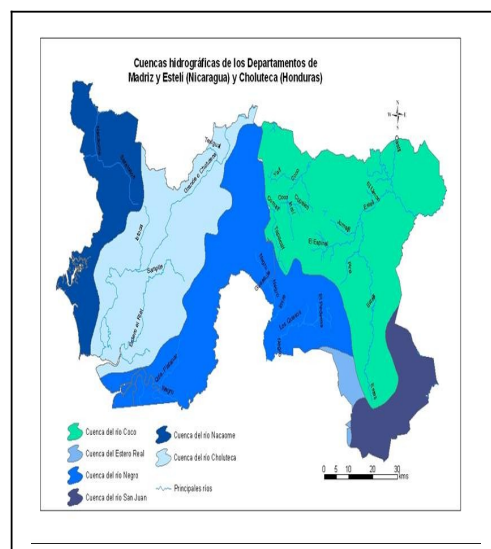


704 Jorge Figueroa, Jorge Bentin & Pablo Martínez de Anguita, *Social Analysis: Field Scoping for the Viability of a Transboundary Protected Area Project Honduras (La Botija) and Nicaragua (Tepesomoto La Pataste)* (2007), in *La Conservación en las Fronteras: El Ciclo de Proyectos Aplicado a la Creación del Parque Binacional “Padre Fabretto”* 55, 60 (Pablo Flores Velásquez, Pablo Martínez de Anguita & Elaine Hsiao eds., 2008).

706 Céline Charlec, Silvia del Río Rodríguez & Pablo Martínez de Anguita, Estudio básico de Planificación Territorial para la creación de un Parque Binacional para la Paz en los departamentos de Choluteca (Honduras) y Madriz (Nicaragua), 64 anx.3 (2007).

past, the communities of Nicaragua and Honduras did not generally lack for water.⁷⁰⁷ Some places got as much as 7,500 mm of precipitation annually. Given recent water shortages and continually diminishing supplies in the face of escalating social demand, local and State politicians have become increasingly concerned about water issues. During one of my visits in 2007, Nicaragua was forced to impose daily blackout periods across the nation because it was unable to provide enough hydroelectric energy to meet human needs, a symptom of the first-ever water shortages in the nation. Stewardship of these key rivers and their tributaries will be an essential part of the political process in resolving water shortages.⁷⁰⁸ The Natural Reserve Serranías Tepesomoto – La Patasta was protected mainly for its exceptional hydraulic value.⁷⁰⁹ With climate change, stewardship of this protected area will need to be strengthened if it is to remain a provider of hydrological resources for generations to come. Below is a graphic representation of the major watersheds in the relevant region (please refer to map below).

Figure 3.7 Watersheds in the Departments of Madriz and Esteli (Nicaragua) and Choluteca (Honduras)⁷¹⁰



The condition of these mountain forests is deteriorating and under great pressure from anthropogenic threats, including the effects of anthropogenically induced climate change.

⁷⁰⁷Jorge Eduardo Rodríguez Quirós, *supra* note 696, at 9.

⁷⁰⁸See Jordan Macknick, *An Analysis of Water Management Structures in the Transboundary Mountainous Area between Nicaragua and Honduras*, in *La Conservación en las Fronteras: El Ciclo de Proyectos Aplicado a la Creación del Parque Binacional "Padre Fabretto"* 189 (Pablo Flores Velásquez, Pablo Martínez de Anguita & Elaine Hsiao eds., 2007).

⁷⁰⁹Orlando Lagos, *supra* note 704, at 1.

⁷¹⁰Charlec, Rodríguez & Martínez de Anguita, *supra* note 705, at 68 anx. 7.

Conservation and sustainable use of these resources has not always been a primary priority for Central American nations. Deforestation has become a significant force in this part of the world, taking nearly 375,000 – 416,000 hectares of forest a year.⁷¹¹ This issue is extremely prevalent in Honduras and Nicaragua, where illegal logging leads to exploitation of forest resources that exceed legally authorized quantities by more than 60%.⁷¹² Honduras is extremely dependent upon the use of wood, which provides somewhere between 65-70% of its energy.⁷¹³ Most of this wood is harvested from natural forests or areas of vegetation in processes of recuperation.

Other activities such as inappropriate land uses and augmentation of agriculture have contributed greatly to these alarming levels of deforestation.⁷¹⁴ The Nature Conservancy has declared that the situation regarding forest resources in this particular area is extremely grave, with deforestation reaching critical levels due to the expansion of agriculture.⁷¹⁵ Near Cusmapa, in the Nicaraguan region, subsistence farmers have been infiltrating deeper into the mountainous pine forests, cutting trees as they clear land for beans and corn. Despite legal protection of the protected areas (La Botija, Tepesomoto – La Patata, and Cañon de Somoto), limits on the number of trees that can be cut down on private property and prohibition of tree-cutting within 15 km of the border (applicable on the Nicaraguan side),⁷¹⁶ the farmers have been clearing land further and further up the mountains. Most of the land in this territory is better suited for forest vegetation and not farming, so agricultural production is inefficiently low. This further aggravates the cycle, forcing farmers to clear more land in order to produce enough just for subsistence. These practices have only contributed to the fragmentation of natural habitats and deforestation in the region, affecting plant and animal resources alike. In turn, the loss and fragmentation of habitat has led to environmental degradation and greater levels of poverty and social vulnerability. If the mountain forest communities and lowland communities are to continue to depend upon the ecosystem services available in this region, the legal protections of the aforementioned protected areas must be strengthened and connectivity between them facilitated by the appropriate stewardship of buffer zones.

Socio-economic situation in the proposed territory

Despite the park's rich array of flora and fauna, it is the stomping grounds of some of the most impoverished communities of both Nicaragua and Honduras. Honduras is the second lowest-income nation in Central America, but still falls well above Nicaragua, whose Gross National Income (GNI) is

⁷¹¹Jorge Eduardo Rodríguez Quirós, *supra* note 696, at 9.

⁷¹²*Id.* at 10.

⁷¹³*Id.* at 11.

⁷¹⁴*Id.* at 10.

⁷¹⁵The Nature Conservancy, Consultoria Dendroica Chrysoparia (2007).

⁷¹⁶Ley No. 585, 7 June 2006, Ley de Veda para el Corte Aprovechamiento [Ley de Veda] [Logging Prohibition] art. 1, La Gaceta [L.G.], 20 June 2006 (Nicar.).

second only to Haiti in Latin America and the Caribbean.⁷¹⁷ Worldwide, Honduras and Nicaragua's total GDP in 2008 was below more than half of the countries ranked (Honduras was ranked 110 out of 191, while Nicaragua ranked 135th).⁷¹⁸ Their GNI, calculated based on the Atlas method, reflects an equally poor ranking. Honduras' GNI index rates at 113th and Nicaragua at 138th of 210.⁷¹⁹ Just over half of Honduras' population (51%) lives below the poverty line,⁷²⁰ and some 18.2% of employed people (not accounting for the large percentage of unemployed) live off of less than \$1USD per day.⁷²¹ In Nicaragua, the poorest one-fifth (20%) of the population shares in only 3.8% of the national wealth,⁷²² and in both States nearly half of the population is unemployed or without meaningful employment.⁷²³ With human populations of nearly 8 million in Honduras and 6 million in Nicaragua, these are no small figures.⁷²⁴

Needless to say, the proposed patchwork peace park territory encompasses some of the poorer communities in two of the lowest income countries in Latin America and the Caribbean. International organizations are a constant presence in towns such as Cusmapa (Nicaragua) and El Jocote (Honduras), which is exemplar of this type of living, providing clothing, food, and school supplies for families who cannot afford these "luxuries" on their own. The drive up the mountains to the Nicaraguan-Honduran border from Somoto is littered with signs from different international or national non-profits working on different projects, giving you a taste of the diverse aid representation in the area. It is questionable how much the communities are actually benefiting from these endeavors. Ideally, these communities would be self-sufficient and prosperous of their own abilities.

The effects of poverty are extremely prevalent in many of these communities and oftentimes those who suffer the most are the younger generations. Inhabitants who survive off of subsistence farming, find it difficult to pursue education beyond the secondary or even primary level. Even the children who do manage to make it to school and stay in school, may find that their teachers do not. It is not uncommon for primary and secondary school teachers to fail to appear to their classes (either because they have no means of regular transportation to the school, they do not get paid enough to, or they are paid relatively well regardless of whether or not they show up).

Honduras and Nicaragua in general, have some of the highest child malnutrition rates (10% and 17% respectively) in all of Latin America and the Caribbean; exceeded only by Guatemala.⁷²⁵ In La

⁷¹⁷World Bank, World Development Indicators Database, *Regional Fact Sheet from the World Development Indicators 2009: Latin America and the Caribbean* (Apr. 20, 2009).

⁷¹⁸World Bank, World Development Indicators Database, *Gross Domestic Product 2008* (Apr. 19, 2010).

⁷¹⁹World Bank, World Development Indicators Database, *Gross National Income 2008, Atlas Method* (Apr. 19, 2010).

⁷²⁰Development Economics LDB Database, *Honduras at a Glance* (Dec. 9, 2009).

⁷²¹United Nations Statistics Division, *Millenium Development Goals Indicators*, <http://mdgs.un.org/unsd/mdg/Data.aspx>.
⁷²²*Id.*

⁷²³Only 56.3% of the population in Honduras is employed and 58.8% in Nicaragua. *Id.*

⁷²⁴U.S. Central Intelligence Agency [US CIA], *The World Factbook*, available at <https://www.cia.gov/library/publications/the-world-factbook/> (last visited July 16, 2010).

⁷²⁵World Development Indicators Database, World Bank, *Regional Fact Sheet from the World Development Indicators: Latin America and the Caribbean* (2007).

Botija, North American church aid groups have set up lunch programs at a few selected schools. Despite the benevolent intentions, this has caused a new problem. Students now walk hours more to attend schools with these meal programs, rather than attending the local school. This overburdens the resources of some schools and results in many children spending much of their day just traveling to and from classes, walking long distances alone. When teachers are unexcusedly absent, this can be described as a particularly unjust situation for the education and futures of rural youth.

Another important component of the transboundary peace park territory is the indigenous agricultural community that dominates the demographic. Subsistence farmers and indigenous communities (i.e. Cusmapa and San Lucas in Nicaragua) inhabit a significant portion of the privately owned property in the area, which comprises approximately 85% of the territory.⁷²⁶ The indigenous communities of this region originate almost completely from the Chorotegas, who inhabited a large part of the Central American isthmus. Many of these communities continue to identify with an indigenous Chorotega heritage, although little of the language and culture persists. In the north of Nicaragua there are five indigenous communities located in the Madriz and Nueva Segovia departments – Litelpaneca, Totogalpa, Mozonte, San Lucas and Cusmapa. Two of these, San Lucas and Cusmapa, are located in the proposed territory. Representatives of these communities are organized more centrally in Mozonte and Cusmapa under the Pueblo Indigena de Cusmapa (Indigenous Community of Cusmapa).

Various indigenous groups have banded together recently to reclaim their rights and to revive their cultural practices and traditions. Principle efforts of the Coordinadora Chorotega (a second level organization of five indigenous pueblos – Cusmapa, San Lucas, Litelpaneca, Mozonte and Totogalpa) and FEDICAMP (a federation of indigenous associations in Northern Nicaragua) have been focused on the organization of indigenous groups, the reclamation of indigenous rights, the recognition of these towns as indigenous communities (similar to the indigenous communities of the Atlantic Coast), indigenous land/property rights, and the strengthening of the indigenous identity and culture in this region. These groups have just proposed a new law to the federal government, allowing these towns to be officially recognized as indigenous communities.

A vision and mission for the Indigenous Town of Cusmapa was developed through a census of 16 different assemblies based on representatives (male, female and youth) from each location. Through a series of questions and responses, FEDICAMP was able to create a report of their conclusions. This report reflected the general agreement amongst indigenous community members regarding priority activities that they wanted the Indigenous Community of Cusmapa (an organization much like the Coordinadora Chorotega) to partake in. Most noticeably, the meetings called for the reclamation of the indigenous culture, identity, rights and lands. However, there were many who wanted the indigenous community to initiate environmental projects and to take action in protecting their natural environment.

When the groups discussed natural resources in the territory, there was a strong call for conservation of natural resources. Many wanted the indigenous community to control deforestation, to

⁷²⁶Interviews with Jairo Escalante, Fabretto Foundation (multiple occasions in 2007, 2008 and 2010).

reforest degraded lands and to institute environmental education programs in the area. The assembly leaders feel that the indigenous community must maintain strict control of their natural resources (similar to their land title sentiments). Where indigenous communities continue to control their land, they allow people to register for use and occupation of specified tracts. Most tenants use their land for subsistence farming purposes only.

Based on my own experiences in the territory and the compiled census of the different assemblies, it is apparent that the indigenous community presents a significant stakeholder group and the creation of a patchwork peace park in territory that overlaps theirs is extremely relevant to their interests. Although a peace park does not seem to directly contradict the objectives and activities of the indigenous groups, it is a project that cannot achieve success without integration and consideration for these members of the region and their expressed concerns and opinions.

Conflict potential as peace potential

In the not so distant past this was a region of violent human conflict. Just a little more than two decades ago, Contras and Sandinistas pushed into these mountainous pine forests, engaging in violent and savage warfare that took the lives of thousands, displacing human and animal populations alike, and scarring the trees and social systems in the area for awhile to come. A history of violent war and disregard for the values of human life and nature is a stigma that remains in the minds and hearts of many Nicaraguans and Hondurans, particularly since so many lived through the recent civil wars. During the Civil War in Nicaragua, Sandinistas and Contras were engaged in violent battles that took the lives of many civilians and soldiers. With CIA training and funding, the Contras were partaking in atrocious acts of brutality and psychological warfare against the Sandinistas and the thousands of civilians unlucky enough to be living in the midst of this carnage. The Sandinista government was not necessarily any more forgiving or compassionate in their war tactics, as they pushed into the mountainous forests of the north of Nicaragua and south of Honduras, hunting down Contra guerilla units. Unsurprisingly, the combatants' indifference towards human life was only paralleled in its attitudes towards the environment. To this day, bullet wounds scar the trees of the Choluteca/Madriz borderline territory – a reminder of the human and environmental destruction that ended only two decades ago.

Border conflicts in other parts of the international divide have brought the two countries head-to-head, but more peaceful policies have guided the State-leaders to the international courts (where the dispute is currently being resolved) rather than to arms. The conflict arose over the location of the maritime boundary that extends from the border of Cabo Gracias a Dios, with Honduras officially claiming in 1982 that the line was demarcated by the 15th parallel.⁷²⁷ Nicaragua adamantly disagreed, claiming that the boundary was northeast of that. In November of 1999, Honduras signed a treaty (Caribbean Sea Maritime Limits Treaty) with Columbia recognizing Columbia's claims to large parts

⁷²⁷ Eric Green, *Honduras, Nicaragua to Discuss Dispute about Caribbean Sea Territories*, USIS Washington File (1999), available at <http://www.globalsecurity.org/military/library/news/1999/12/991220-border-usia1.htm>.

of the Caribbean, including the disputed territory, completely disregarding Nicaragua's position in the unsettled matter. The following month, Nicaragua brought its case before the ICJ, which has just recently been settled.⁷²⁸ The ICJ's delineation of the maritime boundary and distribution of cay islands between the two nations indicates that disputes between the two Governments can be resolved through peaceful judicial means.

On a more localized scale, boundaries between private and common or indigenous lands have been a source of tension and conflict. Land tenure and rights are prevalent issues in this particular region of both countries. Many inhabitants do not have proof of title to the land that they have been living on and improving for years and there are disagreements as to which lands are indigenous and which have been privatized by agrarian land reforms past. In Nicaragua in and around Cusmapa, this has been a source of constant tension between the indigenous community and private landowners, such as the Fabretto Foundation. On paper, the Fabretto Foundation has legitimately purchased title to certain forest areas, but the indigenous community claims that those plots are still part of their communal territory. Many of these boundaries are difficult to distinguish today as landmarks have changed and in the case of indigenous peoples, many occupants have inhabited the lands since before title granting documents were ever needed. The numerous land reforms that have directly affected property rights in this region are also subject to great dispute, leaving the drawing of exact borders between neighbors a heated issue. It is not uncommon for an outsider to the area to be warned against bringing up or looking too deep into land tenure and property rights issues in this border region.

Furthermore, uncertain land tenure has led to inefficient uses and degradation of land. Some subsistence farmers grow crops on lands with absentee owners; sometimes they do this with permission from the richer landowners. Principle crops produced by these farmers include beans, corn and coffee. Wealthier residents raise cattle and experiment with other export crops, such as tomatoes. Chemical and fertilizer use is poisoning the soils and waters; on more than one occasion I have seen discarded bottles inside or near the forest patches and hydrological units. The two historic town wells of Cusmapa are no longer drinkable. Forest clearing for grazing land has also been particularly invidious. Cattle are often allowed to roam free, eating tunnels into the cloud forest patches that can fairly be described as shrinking islands of mountaintop biodiversity. Lacking supervision by absentee landowners and without the possibility of acquiring legal title to these lands, subsistence farmers do little to regulate the environmental impacts of their livelihoods.

Even in territories where land rights are clear there is significant deforestation and degradation occurring. A frightening problem that is occurring on the Honduran side of the border (possibly also on the Nicaraguan side) is the deforestation of private lands, facilitated by government corruption. Farmers often encounter heavily armed men on their own property clear-cutting sections of pine forest with alleged government authorization. This issue was breached one night in June of 2007 in San Marcos de Colon (Honduras), where a group of land owners had gathered in a church and passionately presented their encounters with this problem. Their feelings of helplessness and lack of support or

⁷²⁸Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.), 2007 I.C.J. No. 120 (Oct. 8).

assistance from the very government officials who are empowered by the people to protect the people, were clearly felt in their desperate plea for answers. Without a body to protect them and not quite ready to take up arms themselves against the invaders (not to mention the fact that they are few against many, who are much better equipped than them), the farmers hoped that this peace park would provide a solution to their woes.

This is just a sampling of the range of socio-ecological problems that have taken root particularly strongly in this mountainous pine forest region of the two countries. Despite the layers and complexities of many of these socio-political-ecological issues, non-violent conflict transformation is both a possibility and a mandate for the peoples of Honduras and Nicaragua. A preference for peaceful dispute resolution in accord with international law is actually embodied in the Nicaraguan Constitution⁷²⁹ and must be a guiding principle in any cross-border dealings between the two nations. This includes civilly resolving the political differences that are currently blocking a peace park process between the two Governments.

Other transboundary cooperative efforts are taking place in the western region to help protect the natural and cultural resources through El Proyecto Corazón, the Heart of the Mesoamerican Biological Corridor (MBC). El Proyecto Corazón is the unification of multiple PA's along the eastern border of Nicaragua and Honduras: Reserva del Hombre, Río Plátano Biosphere, Biosphere Reserve Tawahka – Asangni, Patuca National Park, and Bosawas Biosphere in the very center or heart of the MBC (hence its name). Although the President of Nicaragua has said that only economic relations shall continue so long as “Lobo” is President of Honduras, it appears that transboundary conservation continues in El Proyecto Corazón. If transboundary conservation can work there, then there is no reason why the communities of Choluteca and Madriz should be prevented from coordinating the transboundary stewardship of their shared natural environment.

Project cycle to date

Over sixty years ago a Salesian missionary, Rev. Rafael Maria Fabretto came to Nicaragua from Venice, Italy.⁷³⁰ He spent some time in various parts of the region, but always loved the small town of Cusmapa in the high cool mountains of northern Nicaragua the most. It was there that Rev. Rafael Maria Fabretto would make his mark on the border communities of Nicaragua and where he would come to be known as “Padre Fabretto.” Padre Fabretto is perhaps most famous for his compassion for orphaned children. In and around Cusmapa, he built a handful of small homes where abandoned, abused or orphaned children could come to live and learn. When the warfare of the 1980s tore apart families, recruiting or forcing men and women to fight for the Sandinistas or the Contras, and children were left without parent or home, Padre Fabretto took them in.

⁷²⁹Constitución Política de la República de Nicaragua [Cn.] [Constitution] tit. I, ch. I, art. 5, La Gaceta [L.G.], 4 July 1995 (Nicar.).

⁷³⁰Fabretto Children's Foundation, *Organization History* (2010), <http://www.fabretto.org/About%20Us%20-%20Organization%20History>.

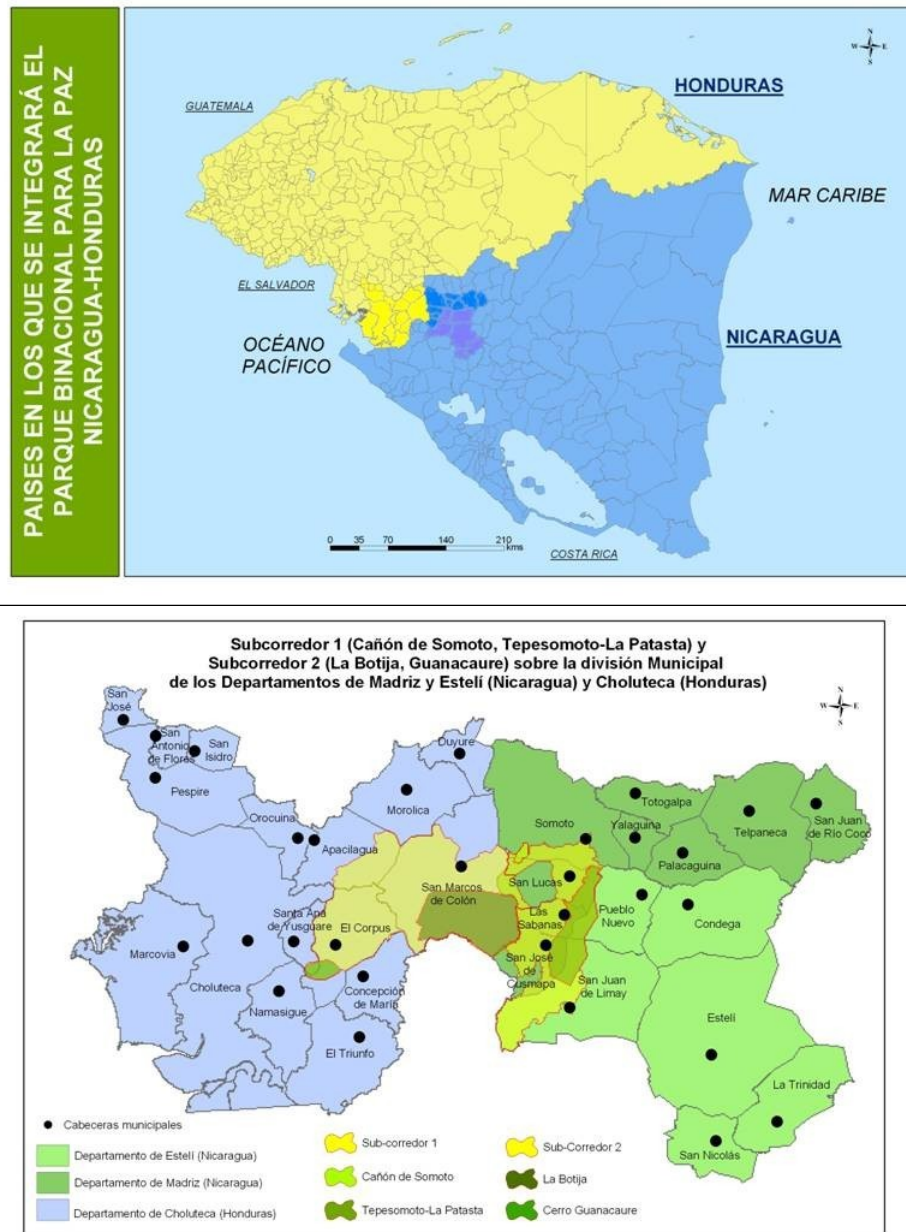
Today, many of those young orphaned children are young adults working for their community and filled with idea(l)s. More than a few of these “Children of Fabretto” have pursued studies in sustainable rural development or sustainable forestry and now help to organize organic shade-grown coffee cooperatives, model forests, a women's cooperative making pine-needle baskets (a non-timber forest product), organic gardens in the local schools, and environmental education programs for the new “Children of Fabretto.” Their work was introduced to a young Ph.D. student at the time, Pablo Martinez de Anguita from Spain, who had come to the region to design a system of payments for environmental services, a model he hoped to promote for purposes of sustainable rural development.

Out of the question of what to do with Fabretto's standing forests and the problems of economic poverty, illegal deforestation and the history of conflict that still haunts the nightmares of many local residents, the idea to create a transboundary peace park was born. For some time, this idea would float casually through conversations, but it did not properly take hold until 2006 when an international synergy developed. In that year, a group of local stakeholders (including Orlando Lagos and Jairo Escalante, “Children of Fabretto”) along with scientists and scholars from different local and foreign universities, started the collaborative studies that would help to justify the creation of a new transboundary peace park between Honduras and Nicaragua.

This peace park postulates the joining of four PAs across an international border conjoining the two nations. It had selected as the physical locus upon which to attach ideals of community-based conservation, sustainable development, cooperation and peace, a particularly natural resource rich part of the region that has experienced little large-scale development, but is well familiar with the destructive activities of human beings. La Botija National Park and Protected Forest Area and Area of Water Production El Cerro Guanacaste in Honduras, along with Serranías Tepesomoto-La Patasta Reserve and the National Monument Cañón de Somoto, both situated in Nicaragua, are four very proximately located PAs in the Choluteca and Madriz departments of Honduras and Nicaragua, respectively. The connection of these conservation units provides a natural corridor for biological and cultural diversity, that support their viability into the future. Some hope has been expressed that this peace park will one day extend as far as the Gulf of Fonseca, but this is not currently being proposed. A comprehensive territorial study conducted by team researchers resulted in a proposed delineation of the peace park as it appears below:

Figure 3.8 Delineation of the Proposed Transboundary Peace Park⁷³¹

The second map (below) is a subset representing the marked territory in the first map (above).



⁷³¹Charlec, Rodríguez & Martínez de Anguita, *supra* note 705, at 155-156.

The studies undertaken by a team of local stakeholders, scientists, academics and experts locally and around the world have culminated in the production of a series of reports and papers that constitute the initial scoping analysis and subsequent pre-viability and viability reports for a transboundary peace park initiative.⁷³² Conclusions have supported the feasibility of a transboundary peace park in the delineated area and the idea has grown its support locally, regionally and internationally. In October of 2008, the 4th World Conservation Congress of the IUCN held in Barcelona, Spain, adopted Resolution 4.042 – Establishment of a Transboundary Peace Park between Honduras and Nicaragua by a vote of 302/407 (99 of the remaining votes were abstentions, 6 were no's). The resolution also agreed that this future protected area should be organized under a co-management framework that will strengthen the role of local communities in transboundary conservation and sustainable development.⁷³³

Meanwhile, a draft convention, the “Convention on Cooperation for the Creation of a Transfrontier Peace Park for the Environmental Management of the Wanki Coco o Segovia Watershed between the Republic of Honduras and the Republic of Nicaragua,” had been initiated between the governments of the two nations.⁷³⁴ With the adoption of the IUCN Resolution 4.042, much of the language in the resolution was co-opted and integrated into the draft convention and circulated. It is uncertain where this draft convention lays under the papers piled high on ministerial desks, but it seems there has been little movement since. This can be attributed to two major events. The first being the financial crisis of 2008 and the second being the military coup that ousted President “Mel” Zelaya out of office in Honduras, June of 2009. With the financial crisis, development and conservation aid dwindled and proposals for project support in the Honduran-Nicaraguan border region were finding it difficult to obtain funding for cross-border programs on the ground. At the State level, the *golpe de estado* or military coup, led to a breakdown in relations between the governments of Honduras and Nicaragua. The Presidency of Daniel Ortega in Nicaragua refuses to recognize the legitimacy of the purportedly democratically elected Porfirio “Lobo” Sosa. With the severance of diplomatic relations between the two States, the draft convention will likely remain wherever it had died.

Using Trueba and Marco's project cycle methodology as introduced in Chapter III, I have

⁷³²See Pablo Martínez de Anguita et al., *La Conservación en las Fronteras: El Ciclo de Proyectos Aplicado a la Creación del Parque Binacional “Padre Fabretto”* 55, 60 (Pablo Flores Velásquez, Pablo Martínez de Anguita & Elaine Hsiao eds., 2008).

⁷³³IUCN, *Establishment of a Transboundary Peace Park between Honduras and Nicaragua*, World Conservation Congress 4th Sess. Res. No. 4.042 (2008), *compiled in* Resolutions and Recommendations: World Conservation Congress, Barcelona, 5–14 October 2008, at 47-48, *available at* http://www.iucn.org/congress_08/assembly/policy/ (last visited June 16, 2010).

⁷³⁴Convenio de Cooperación para la Creación para el Manejo Ambiental de la Cuenca Wanki Coco o Segovia entre la Republica de Honduras y la Republica de Nicaragua, Hond.-Nicar., July 27, 2008, Rev. Oficina Tratados Cancilleria-27-60-08 (draft on file with author).

elaborated upon the events mentioned above in greater detail.⁷³⁵ This general timeline of the peace park initiative's progress from inception as an idea to its current status follows below:⁷³⁶

Project Idea. Emergence of the idea for a binational peace park between Honduras and Nicaragua through conversations between an investigator working for the Fabretto Foundation in Nicaragua (local NGO on Nicaraguan side of the proposed territory) and local community members and organizations of both countries, many of whom were already involved in local conservation and sustainable rural development efforts (2006). The idea was presented to the Secretariat of Environment and Natural Resources (SERNA) in Honduras and to the Ministry of Environment and Natural Resources (MARENA) (January 2007). The first team of researchers discussed deeply the idea of a peace park with local stakeholders on both sides of the border (February 2007).

Pre-feasibility or Pre-viability Study. Pre-viability studies were completed, including a stakeholder analysis and scoping of those who had been informed of the objective of the studies (May 2007). Conclusions from the pre-viability studies were presented to local stakeholders, SERNA in Honduras and MARENA in Nicaragua (June 2007).

Feasibility or Viability Study. Viability studies conducted by various volunteer scholars and scientists included the delineation of the area, hydrologic studies, forestry and ecotourism analyses, legal studies, etc. (July 2007 – May 2008). Publication of a collection of the research is available at www.parqueparalapaz.org, constituting the pre-viability and viability studies (May 2008). A workshop was organized in Somoto, Nicaragua to present the studies completed and compiled in the book to local authorities and stakeholders (May 2008).

Defined Project. A second workshop was organized in Somoto of local mayors, representatives of civil society, NGOs and indigenous Chorotegas, and environmental ministries, to further define the goals and objectives of a binational peace park (June 2008). This meeting resulted in the signing of an accord between all sixty participants to support the creation of a transboundary peace park and to encourage their governments to do so as well. This led to the approval of Resolution 4.042 by the IUCN 4th World Conservation Congress in Barcelona, Spain (October 2008). Another workshop was held in San Marcos de Colon, Honduras, where participants were divided by areas of expertise (environment, social development and economic development) and asked to identify

⁷³⁵Figueroa, Bentin & Martínez de Anguita, *supra* note 703, at 62.

⁷³⁶Pablo Martínez de Anguita & Elaine Hsiao, *Study Case: The Creation of a Binational Peace Park between Honduras and Nicaragua*, in *Forests and Society – Responding to Global Drivers of Change* (R. Alfaro, M. Kanninen, M. Lobovikov, G. Mery, B. Sawllow & J. Varjo eds., IUFRO-WFSE, forthcoming 2010).

problems and their causes in the proposed territory, and then to propose alternative solutions (December 2008). During 2008-2009, both embassies of Honduras and Nicaragua worked on an official binational agreement supporting the conclusions approved at the stakeholder level in the workshops. The agreement finished by the Ministries was sent to the office of both presidents. Unfortunately, the current uncertain political situation in Honduras has paralyzed this process. Grant proposals for binational projects premised upon the assumption that an agreement would be signed between the two governments have failed to acquire funding, thus projects remain in the definition phase.

The peace park project cycle as it stands, remains in the project definition phase and is incomplete (insofar as a project cycle is ever complete). A Defined Project is the “integration of technical, financial, socio-economic, environmental and legal documents guaranteeing that investment in the project will have maximum returns. The quality and definition of the studies and proposals should be complete, forming the basis of a final proposal.”⁷³⁷ A few proposals have been designed out of the stakeholder consultations organized in 2008, but these have not been successful. The peace park initiative has thus far, been unable to secure financing for project execution, operation or management.

As mentioned previously, the lack of support for the projects proposed is due in part to the financial crisis that crippled the ability of many international organizations to fund the development of new projects, and also partly because the binational agreement that was circulated between the governments of Honduras and Nicaragua was never formally signed. The proposed projects were premised upon legal officiation of a transboundary peace park at the State level and the assumption that legislative protection would exist for the territory. The proposals also did not identify the best (in terms of appropriateness) institutions or organizations as the project implementors. Although a stakeholder analysis of the area was undertaken in 2007-2008, most the stakeholders identified during that process were not designated or appointed as the principal implementors or managers of the projects proposed.⁷³⁸ Instead, other organizations with less expertise in the communities and particularities of the territory, or even in environmental conservation, were named as primary project proponents.⁷³⁹ This may be another explanation for why the project proposals were not selected for grant support.

⁷³⁷Figueroa, Bentin & Martínez de Anguita, *supra* note 703.

⁷³⁸*Id.*

⁷³⁹Although this might be an opportunity for an organization doing good works in other areas of these countries and in related areas of development to expand their activities into this territory, it does not help to support the local institutions and organizations that already exist and have an interest in developing local and cross-border conservation programs. Considering the efficiencies and benefits of facilitating local development, it would be advisable to support local stakeholders first before seeking external intervention from organizations with a learning curve (i.e., still need to be briefed on the dynamics and particularities of the communities and issues involved). When local stakeholders have identified and designed their own projects, outside actors may be invited for the expertise that they can provide. The role of these outside experts should be to transfer knowledge to local community members so that they may duplicate and improve upon those methods within the peace park territory.

Although Marco and Trueba's project cycle methodology considers evaluation of the project an "Ex-Post" activity, according to truly adaptive governance, evaluative analyses should be on-going throughout a project cycle.⁷⁴⁰ Consistent and continuous review of the strengths, weaknesses and impacts of previous activities should inform future decisions so that project activities remain relevant and effective. Given the recent developments (or lack thereof) concerning the establishment of a peace park in Honduras and Nicaragua, a collaborative evaluation should be undertaken so as to adapt the initiative's processes to current circumstances. Adaptive response would strengthen the resilience of the peace park initiative and its objectives despite instabilities or changes that might arise, such as political or financial insecurity and environmental change.⁷⁴¹ In this evaluative process, the patchwork peace park approach may be given serious consideration as a paradigm for recognizing sustainable community land ethics and building upon local capacities to extend that land ethic beyond their communities and across political borders.

Modalities for a patchwork peace park by the communities of Choluteca, Estelí and Madriz

After years of engaging in a peace park process with great potential, it can be difficult to accept that political bickerings between governments might be sufficient to extinguish what can be seen as the perfect union between idealism and practicality. If practicality has to do with feasibility and actual use, while idealism is devoted more to philosophical theory and adherence to the values of ideas and imagination, then a peace park is all of the above. President Ortega may have turned his back on everything but money driven exchanges with his neighboring counterpart, President Sosa, but the mountain forest communities are not going anywhere. There now exists a perfect opportunity to promote a peace park paradigm that may ultimately be superior, albeit less conventional. This is a chance for the communities of Choluteca, Estelí and Madriz to take environmental governance matters into their own hands and to take ownership of their own sustainable development.

The idea of TBCC as a paradigm for a transboundary peace park is not new. The idea was once suggested in a discussion with Professor Tom Ankersen of the University of Florida one late afternoon in San Jose, Costa Rica. It was the summer of 2007, *invierno* (winter) or the rainy season in Costa Rica, and the first legal study on frameworks for the establishment of a transboundary peace park between Honduras and Nicaragua were being undertaken. While discussing this research with Prof. Ankersen, the question arose as to whether the municipal governments had the authority to create

⁷⁴⁰Adaptive management is a cyclical process that requires constant review of activities past and experiences to date, so as to inform decision-making in determining future actions. See Robert M. Argent, *Components of Adaptive Management*, in Catherine Allan & George Henry Stankey, *Adaptive Environmental Management: A Practitioner's Guide* 11, 13 (Allan & Stankey eds., 2009).

⁷⁴¹Resilience is "a measure of a system's persistence and its ability to absorb change and disturbance but still maintain the same relationships among population or state variables. A system can be highly unstable but very resilient." Craig R. Allen, Lance H. Gunderson & C.S. Holling, *Commentary on Part One Articles*, in *Foundations of Ecological Resilience* (Allen, Gunderson & Holling eds., Island Press, 2009).

municipal PAs and to cooperate across the border in this way. The union of ideas that this suggestion presented between community conservation, direct and collective action, and conservation for peace in the establishment of transboundary local PAs for peace and cooperation seemed particularly attractive for the communities of Choluteca, Estelí and Madriz.

Nevertheless, in previous analyses of this case study, the focus has remained on a State-driven legal framework for a peace park between Honduras and Nicaragua. A section on local level collaboration for *de facto* transboundary conservation was always included, but never highlighted and never first. This top-down approach is typical of the mentality of an ordinary citizen in a highly centralized republic, where it is not uncommon to ask the State to do all the work, failing to understand that the State is supposed to be made up of all the people in the communities within its territory. The harsh cutbacks in development and conservation aid that have left many environmental NGOs reeling and in retreat, combined with the political paralysis that exists between the two governments of Honduras and Nicaragua, have incubated the perfect conditions for a TBCC approach to be revived and applied. The question that arises is, are the communities ready for this and if so, what needs to be done?

Stimulated by these questions, research was conducted in the mountain forests of Honduras and Nicaragua in February and March of 2010 with very specific goals in mind. First, it was important to detail the legal framework for forming transboundary community conservation areas (TBCCAs) for peace and cooperation, or in other words, patchwork peace parks. Second, it would be useful to gauge a spectrum of stakeholder perspectives regarding the concept of a patchwork peace park and hear what they might say regarding how a patchwork peace park might be achieved. Third, if the idea were well-received it would be advantageous to identify some initial projects that could enhance cross-border integration between the communities based on programs and institutions already in place that would foster the local initiative needed to create a patchwork peace park. The rest of this chapter is the result of these three lines of inquiry during five months of research conducted in Central America.

Research Methodology: Identifying critical concerns and a system for community organization

This case study is based on field visits in Honduras and Nicaragua, as well as research conducted in Costa Rica at the United Nations Mandated University for Peace and at Pace University School of Law in the U.S. It builds on previous research conducted over the past three years (2006-2009) that has contributed to an understanding of the possible legal frameworks for declaration and collaborative management of this transboundary protected area for peace and cooperation.⁷⁴² Previous research was based primarily on the more common approach towards peace park establishment – international cooperation between States (i.e., central governments). Meetings and interviews were conducted mostly with ministries and international NGOs, focusing less on individual community members. The possibility of transboundary conservation occurring at the local level and between

⁷⁴²See Velasquez, Martinez de Anguita & Hsiao, *supra* note 735.

municipalities was discussed briefly in my previous research, but not the principal focus.

The purpose of this thesis, however, is to propose an alternative model of transboundary collaborative conservation for peace – a bottom-up approach of community-based conservation across borders. Therefore, the selection of interviewees and the interview objectives were modified. This time, my interests were focused on learning the views of local actors and community members, local NGOs and local public officers (mayors and local representatives of the environmental ministries). The goal was to interview these actors in order to understand the legal framework and political dynamics of community-level social organization for the purposes of implementing a patchwork peace park model of environmental stewardship in Honduras and Nicaragua. Interviews were also conducted with some of the international NGOs working in the area in order to understand their perspectives and learn from the experiences they have had in community-based collaborative conservation in the Central American region.

Field research for this thesis was conducted in the capitals (Managua, Nicaragua and Tegucigalpa, Honduras) and in parts of the proposed peace park on both sides of the international boundary between Honduras and Nicaragua. Interviews were carried out mostly informally, unstructured and semi-structured.⁷⁴³ Meetings were arranged beforehand when possible, while others were conducted in the field as the opportunity arose. In some cases, community members became aware of the researcher's presence and the researcher was approached so that they might share their views and ideas.

Given the variabilities in methods of communication with many local stakeholders, it was not always easy to coordinate meetings in advance. Many local stakeholders can only be reached by house visits or rural post (which delays communication and in some cases essentially makes it prohibitively expensive for local actors to participate), and direct (i.e., face-to-face) communication tends to be the more common practice in the region. Attempts to arrange meetings by email or telephone often resulted in a request that plans be coordinated in person or received no response at all. Therefore, it was not possible to perform all of the interviews systematically desirable. Nevertheless, field visits provide a basis for some preliminary conclusions that will hopefully be explored in greater depth through future research, possibly to be undertaken in a much more structured and formal process.

This field research was also supported and supplemented by library and Internet research undertaken at Pace Law School in White Plains, New York (U.S.) and the United Nations Mandated University for Peace in El Rodeo de Mora, San Jose (Costa Rica). Cumulatively, this research provides

⁷⁴³Informal interviewing is typically characterized “by a total lack of structure or control,” and mostly involves a researcher taking notes of daily conversations. It is often used at the beginning of a researcher's observations in the field a sit helps them to settle in and build rapport with interviewees. In an Unstructured Interview, all parties clearly understand that an interview is being conducted for purposes of extracting information, but there is little control over the person's responses - “The idea is to get people to open up and let them express themselves in their own terms, and at their own pace.” Semistructured interviews are based on an interview guide, a list of written questions and topics that need to be covered and in a particular order. H. Russell Bernard, *Research Methods in Anthropology: Qualitative and Quantitative Approaches* 210-215 (4th ed., AltaMira Press, 2004).

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the theoretical foundations for understanding transboundary protected areas for peace and cooperation in general, as well as the principles supporting a patchwork peace park model of collaborative and adaptive TBCC in Honduras and Nicaragua. Informal interviews were also conducted with experts at Pace Law School, the U.N. Mandated University for Peace and other academic institutions (e.g., Earth University, Yale School of Forestry and Environmental Sciences, Universidad Rey Juan Carlos, University of Costa Rica, etc.), as well as various multinational environmental NGOs (e.g., IUCN, Conservation International, The Nature Conservancy), involved in transboundary conservation and/or community conservation. The author is extremely grateful to everyone who has shared their time and views; their perspectives and experiences have been valuable in the refinement of this research and the ideas it encompasses.

Environmental Governance and Stewardship in Honduras and Nicaragua

As mentioned previously, one of the primary goals of engaging in field research in Honduras and Nicaragua is to identify a framework for collaborative TBCC in the mountain forests on the frontier between Honduras and Nicaragua. This involves a union of codified legal frameworks for social organization and participation in the declaration and management of protected areas, with *de facto* customary practices of local communities living in this border region. A legal (codified and customary) framework for any peace park must be appropriately constructed for regional peculiarities. This is true even in Honduras and Nicaragua, where there are slight variations between legal and cultural approaches to civil organization. The sections that follow are an attempt to reconcile the legal and practical realities of the peace park territory within the patchwork peace park approach. This section will discuss separately the legal framework for community conservation in each of the two countries, and then weave these together to propose a transfrontier framework for a patchwork peace park by the communities of Choluteca, Estelí and Madriz.

Collaborative community conservation in Honduras

Community organization for the purposes of direct participation in environmental conservation and natural resources management in Honduras is recognized in its laws. Honduras is a democratic republic governed by a representative government, a government whose powers emanate from its peoples.⁷⁴⁴ Although it is a representative democracy, every citizen has the constitutional right to participation in all sectors of governance.⁷⁴⁵ No citizen can be denied their right to participate in the

744Cn. tit. I, ch. I, art. 4 (Hond.) (La forma de gobierno es republicana, democrática y representativa) (The form of government is republican, democratic and representative).; Cn. tit. I, ch. I, art. 2 (Hond.) (La Soberanía corresponde al Pueblo del cual emanan todos los Poderes del Estado que se ejercen por representación) (The sovereignty belongs to the people of which emanate all the powers of the State to be exercised through representation.).

745Cn. tit. I, ch. I, art. 5 (Hond.) (El gobierno debe sustentarse en el principio de la democracia participativa del cual se deriva la integración nacional, que implica participación de todos los sectores políticos en la administración pública)

politics or governance of the nation.⁷⁴⁶ These are fundamental constitutional rights of any individual citizen of the Republic of Honduras.

Citizens of Honduras also enjoy a fundamental right to an environment adequate to protect human health.⁷⁴⁷ The framing of this environmental right is similar to the link made between environmental change and human security found in certain sectors of environmental security scholarship.⁷⁴⁸ A state of environmental security, or adequate environment, is that which ensures human health and/or well-being. According to the Constitution of Honduras, it is the general duty of all persons to participate in the protection of the health of people and communities.⁷⁴⁹ Out of this obligation to safeguard personal and community health and the right to an environment adequate to protect such health, emanates the argument for environmental protection in Honduras.⁷⁵⁰ Furthermore, when these rights and obligations are partnered with the right to participation in a democratic government, it can be understood that all citizens of Honduras have a right to participate directly in environmental stewardship, including through active participation in environmental governance.

A citizen's right to participation in environmental governance and stewardship extends from the Constitution of Honduras to the nation's General Law of the Environment and can be found in

(The government must be based on the principle of participatory democracy from which the national integration is derived, which implies participation of all political sectors in the public service).

746Cn. tit. II, ch. IV, art. 45 (Hond.) (Se declara punible todo acto por el cual se prohíba o limite la participación del ciudadano en la vida política del país) (It is declared punishable any act which prohibits or restricts the participation of citizens in the political life of the country).

747Cn. tit. III, ch. VII, art. 145 (Hond.) (El Estado conservará el medio ambiente adecuado para proteger la salud de las personas) (The State will conserve the environment adequate to protect the health of people).

748See Sanjeev Khagram & Saleem Ali, *Environment and Security*, 31 Annu. Rev. Environ. Resour. 395 (2006).

749Cn. tit. III, ch. VII, art. 145 (Hond.) (El deber de todos participar en la promoción y preservación de la salud personal y de la comunidad) (It is the duty of all to participate in the promotion and preservation of personal health and of the community).

750Decreto No. 104-93, 8 June 1993, Ley General del Ambiente [Ley del Ambiente] [Environmental Law] pmbi., La Gaceta [L.G.], 30 June 1993 (Hond.) (Considerando: Que de acuerdo con la Constitución de la República, el Estado conservará el ambiente adecuado para proteger la salud de las personas, declarando de utilidad y necesidad pública la explotación Técnica y Racional de los recursos naturales de la nación;

Considerando: Que la destrucción acelerada de los recursos naturales y la degradación del ambiente amenaza el futuro de la nación ocasionando problemas económicos y sociales que afectan la calidad de vida de la población, y que es deber del Estado propiciar un estilo de desarrollo que, a través de la utilización adecuada de los recursos naturales y del ambiente, promueva la satisfacción de las necesidades básicas de la población presente sin comprometer la posibilidad de que las generaciones futuras satisfagan sus propias necesidades) (CONSIDERING: That according with the National Constitution, the Government will conserve the adequate environment to project the peoples health, declaring of public utility the technical and rational exploitation of the nations natural resources;

CONSIDERING: That the accelerated destruction of the natural resources and the environment degradation threatens the future of the nation causing economic and social problems that affect the population quality of life and that is duty of the Government to cause a type of development that through the adequate use of the natural resources and environment, promotes the satisfaction of the current population basic needs, without compromising the ones of the future generations).

subsequent environmental laws emanating from these organic laws.⁷⁵¹ In Honduras, citizens have a right to participate in issues of public interest,⁷⁵² which include all activities regarding the protection, restoration and sustainable use of the environment and its natural resources.⁷⁵³ It also contemplates citizen participation in environmental issues involving protected areas, conservation and management of natural resources⁷⁵⁴ (including forest resources⁷⁵⁵ and water resources),⁷⁵⁶ as well as environmental threats, such as forest fires and plagues.⁷⁵⁷ Citizen participation is a public interest,⁷⁵⁸ that includes, *inter alia*, denouncement of environmental harms⁷⁵⁹ and petitions for environmental protection.⁷⁶⁰ Civic participation in the establishment and management of a transboundary peace park would also fall within this right.

751See *id.*, at pmb. (Considerando: Que la participación comunitaria es imprescindible para lograr la protección, conservación y uso racional de la riqueza natural del país y del ambiente en general.

Considerando: Que el pueblo hondureño, reclama con urgencia, la emisión de una legislación apropiada para la gestión ambiental que permita la formación de una conciencia nacional y la participación de todos los ciudadanos en la búsqueda de soluciones de beneficio colectivo) (CONSIDERING: That communitarian participation is necessary to achieve the protection, conservation and rational use of the country's natural richness in particular and the environmental richness in general.

CONSIDERING: That the Honduran people, ask urgently, for appropriate environmental legislation for environmental management that allows the development of a national conscience and the participation of all the citizens in order to achieve solutions that benefit the whole population.);

E.g., Acuerdo No. 109-93, 27 May 1993, Reglamento General de la Ley del Ambiente, tit. V, ch. I, sec. II, art. 88, L.G., 20 December 1993 (Hond.) (Los habitantes en sus respectivos municipios tienen...el derecho de participar directamente en todas las acciones de defensa y preservación del ambiente y del uso racional de los recursos naturales de su respectivo término municipal) (Inhabitants of their respective municipalities have...the right to participate directly in all actions of defense and preservation of the environment and the rational use of natural resources of their respective municipality).

752See *e.g.*, Decreto No. 3-2006, 27 Enero 2006, Ley de Participación Ciudadana [Ley de Participación Ciudadana] [Citizen Participation Law], art. 2, L.G., 1 Feb. 2006 (Hond.).

753Decreto No. 104-93, 8 June 1993, Ley General del Ambiente [Ley General del Ambiente] [Environmental Law] tit. I, ch. I, art. 1, La Gaceta [L.G.], 30 June 1993 (Hond.) (La protección, conservación, restauración y manejo sostenible del ambiente y de los recursos naturales son de utilidad pública y de interés social. ... El interés público y el bien común constituyen los fundamentos de toda acción en defensa del ambiente) (The protection, conservation, restoration and the sustainable management of the environment and natural resources are of public utility and social interest).

754Cn. tit. VI, ch. I, art. 340 (Hond.) (Se declara de utilidad y necesidad pública, la explotación técnica y racional de los recursos naturales de la Nación) (It is declared of utility and public need, the technical exploitation and rational use of natural resources of the Nation).

755Cn. tit. VI, ch. I, art. 340 (Hond.) (La reforestación del país y la conservación de bosques se declara de conveniencia nacional y de interés colectivo) (The reforestation of the country and the conservation of forests is declared of national convenience and collective interest).; See also Decreto 98-2007, 28 Dec. 2007, Ley Forestal, Áreas Protegidas y Vida Silvestre [Ley Forestal] [Forestry, Protected Areas and Wildlife Law], L.G. 26 Feb. 2008 (Hond.).

756Decreto No. 104-93, 8 June 1993, Ley General del Ambiente [Ley General del Ambiente] [Environmental Law] tit. III, ch. III, art. 35, La Gaceta [L.G.], 30 June 1993 (Hond.) (Se declara de interés público la protección de la naturaleza, incluyendo la preservación de las bellezas escénicas y la conservación y manejo de la flora y fauna silvestre) (It is of public interest the nature's protection, including the scenery protection and the conservation and management of the wild flora and fauna).

757Decreto No. 104-93, 8 June 1993, Ley General del Ambiente [Ley General del Ambiente] [Environmental Law] tit. III,

A citizen's right to participate in the governance of environmental matters concerning their communities, territories and nation is accompanied by a corresponding duty to participate directly in environmental protection and sustainable use of natural resources.⁷⁶¹ In fact, in the regulations issued pursuant to the General Law of the Environment, Article 88 speaks first of the duty and then of the right to participate directly in all activities related to the preservation, protection and sustainable use of natural resources or the environment.⁷⁶² Under certain circumstances, such as forest fires or arson, public officers can even require local residents to provide any assistance or cooperation needed to fight the fires or capture arsonists.⁷⁶³ The duty to assist in environmental stewardship corresponds inherently to an individual's right to a healthy environment. If as Lansing Pollock's Freedom Principle postulates, "the freedom of other agents is equally as valuable as my own freedom," then we all enjoy an equal right to a healthy environment that should not be interfered with by the acts or omissions of others.⁷⁶⁴

ch. II, sec. C, art. 47, La Gaceta [L.G.], 30 June 1993 (Hond.) (Se declara de interés público la protección de los bosques contra los incendios y las plagas forestales y las demás actividades nocivas que afecten el recurso forestal y el ambiente) (It is of public interest the forests protection against the fires and the plagues and all the other hazardous activities that might affect the forestry resource and the environment).

758Acuerdo No. 109-93, 27 May 1993, Reglamento General de la Ley del Ambiente, tit. V, ch. I, sec. II, art. 89, L.G., 20 December 1993 (Hond.) (Se declara de interés público la participación de los habitantes de la República, individualmente o a través de organizaciones en la conservación del medio ambiente y de los recursos naturales).

759 Decreto No. 104-93, Ley del Medio Ambiente, tit. V, ch. I, art. 80, L.G., 8 June 1993 (Hond.) (Cualquier persona podrá denunciar ante la autoridad competente la ejecución de obras o actividades contaminantes o degradantes a cuyo efecto deberá iniciarse un expediente para su comprobación y para la adopción de las medidas que corresponden).

760For example, citizens can initiate petitions for the creation of new laws, which may include laws regarding specific types of environmental protection (e.g., management of electronic wastes) or laws declaring new protected areas. Cn. tit. III, ch. II, art. 80 (Hond.) (Toda persona o asociación de personas tiene el derecho de presentar peticiones a las autoridades ya sea por motivos de interés particular o general y de obtener pronta respuesta en el plazo legal) (Any person or persons association has the right to submit requests to the authorities either on the grounds of particular interest or general interest and to obtain a prompt response within the legal limit).

761Decreto No. 104-93, 8 June 1993, Ley General del Ambiente [Ley General del Ambiente] [Environmental Law] tit. VII, art. 102, La Gaceta [L.G.], 30 June 1993 (Hond.) (Los habitantes de las comunidades locales deben participar directamente en las acciones de defensa y preservación del ambiente y del uso racional de los recursos naturales del país.) (The inhabitants of the local communities must directly participate in the actions of defense and preservation of the environment and the rational use of the natural resources of the country).

762 Acuerdo No. 109-93, 27 May 1993, Reglamento General de la Ley del Ambiente, tit. V, ch. I, sec. II, art. 88, L.G., 20 December 1993 (Hond.) (Los habitantes en sus respectivos municipios tienen el deber y el derecho de participar directamente en todas las acciones de defensa y preservación del ambiente y del uso racional de los recursos naturales de su respectivo término municipal).

763Decreto Número 85, 18 November 1971, Ley Forestal ch. VII, art. 42, L.G. 18 November 1971 (Hond.) (Para combatir los incendios forestales y para capturar a los culpables en fraganti delito de los mismos, los representantes de la Secretaría de Recursos Naturales y autoridades militares y de policía locales están autorizados para requerir la cooperación de todo ciudadano residente en las localidades vecinas del siniestro).

764Lansing Pollock, *The Freedom Principle*, 86 Ethics 332 (1976).; Pollock's Freedom Principle is recognized in the Honduran Constitution; the rights of each person are limited by the rights of others. Cn. tit. III, ch. I, art. 62 (Hond.) (Los derechos de cada hombre están limitados por los derechos de los demás, por la seguridad de todos y por las justas exigencias del bienestar general y del desenvolvimiento democrático) (The rights of each man are limited by the rights

In other words, we all have a duty to not act (or fail to act) in a manner that will harm another individual's full enjoyment of the right to a healthy environment, or we all have a duty to maintain a healthy environment.

In summary, citizens of Honduras enjoy a right to a healthy environment and a right to participate in environmental governance. They also have a corresponding duty to participate in environmental stewardship on their lands or within their jurisdiction. If a transboundary peace park is an appropriate model for environmental conservation, then it follows that an individual has a right and potentially a duty to participate in the establishment and management of a patchwork peace park. The following section is an assessment of how such community-based organization might happen in Honduras. For purposes of analysis, community-based organization is divided into Social Organization and Political Organization. Social Organization refers to the groupings of individuals that might arise under Freedom of Association (this might include anything from a community committee, church group, NGO and so on), whereas Political Organization refers to the placement of individuals in positions of public service or government office (e.g., municipal administrators, ministers, etc.).

Social Organization in Honduras

There are a variety of mechanisms for social organization in Honduras that are based upon community-level associations. The right to free association is recognized in the Honduran Constitution⁷⁶⁵ and reiterated in legislation such as the Law of Community Participation⁷⁶⁶ and the Law of Municipalities.⁷⁶⁷ These laws codify the role of specific types of community social organization in the governance of the republic. Social organization can take place at the community level with families organizing amongst themselves, or at the regional level, with communities forming cooperative networks.

There are a variety of forms or forums of social organization that are already recognized in Honduras. At the micro-level (in neighborhoods or villages), individuals and families can form

of others, by the security of all and by the just demands of the general welfare and the advancement of democracy).

⁷⁶⁵Cn. tit. III, ch. II, art. 78 (Hond.) (Se garantizan las libertades de asociación y de reunión siempre que no sean contrarias al orden público y a las buenas costumbres) (Freedoms of association and assembly are always guaranteed, provided that they are not contrary to public order and morality).; Cn. tit. III, ch. II, art. 79 (Hond.) (Toda persona tiene derecho de reunirse con otras, pacíficamente y sin armas, en manifestación pública o en asamblea transitoria, en relación con sus intereses comunes de cualquier índole, sin necesidad de aviso o permiso especial) (Everyone has the right to meet with others, peacefully and unarmed, in public demonstration or transitory assembly, in connection with their common interests of any kind, without notice or special permit).

⁷⁶⁶Decreto No. 3-2006, 27 Enero 2006, Ley de Participación Ciudadana [Citizen Participation Law], pmbi, L.G., 1 Feb. 2006 (Hond.) (El sistema de Gobierno es democrático y representativo mediante el cual se garantizan los derechos de asociación y de petición, como sustento de la participación ciudadana) (The system of Government is democratic and representative, by means of which the rights of association and petition are guaranteed as the sustenance of citizen participation).

⁷⁶⁷Decreto 134-90, 29 Oct. 1990, Ley de Municipalidades [Law of Municipalities], L.G. 19 Nov. 1990 (Hond.).

patronatos.⁷⁶⁸ A *patronato* is “a natural structure of organization, connected by links of cohabitation in a specific community, made up of basic auxiliary units of public administration, the juridical personality of which the State recognizes.”⁷⁶⁹ Each *patronato* is made up of a *junta directiva* or directive unit (i.e., a secretariat, the administrative body in charge of implementing decisions), the *asamblea* or general assembly, the *fiscalía* or treasurer, and a *presidente* or president.⁷⁷⁰ Members of the *junta directiva*, *fiscalía* and its *presidente* are elected annually by the citizens of each community.⁷⁷¹

Patronatos vary greatly from community to community. Some villages have well-organized *patronatos* that are supported by broad participation from members of the community. While others are convened only when the occasion is deemed worthy and it may form a *junta directiva* solely for addressing the matter at hand. The *asamblea* of a *patronato* can be convened for a variety of purposes, from project oriented meetings (e.g., to determine the location of a new town center) to regular community-wide discussions. A *patronato* may have many *junta directivas*, each one with a different mandate (e.g., health, water management, education, etc.) or just one with the general duty of seeing through the approved decisions of the *asamblea*. Villages with a practice of social organization through *patronatos* tend to be well informed of who their *presidente* is and matters of concern to the *junta directiva*. Less organized villages may be unfamiliar with their *presidente* and the *junta directiva* may essentially be non-functional.

In addition to the formation of *patronatos*, citizens can form *comites locales* (local committees), *consejos consultivos comunitario* (community councils), *cooperativas* (cooperatives) and *redes* (networks). These organisms may be created out of common interest or shared benefit by any group of organized individuals, for example watershed management or forestry advisory groups, local women's cooperatives and networks of organic farmers. In addition, there are other more institutionalized forums for public consultation, such as the National Forum for Public Participation and Community Roundtables for Public Participation.⁷⁷² Individual members of a community may also advise their

768Id. art. 62 (En cada municipio o barrio, colonia o aldea, los vecinos tendrán derecho a organizarse democráticamente en patronatos, para procurar el mejoramiento de las respectivas comunidades) (In every municipality or neighborhood, colony or village neighbors have the right to organize democratically in *patronatos*, to procure the improvement of their respective communities).

769Id. (El patronato es una estructura natural de organización, vinculada por lazos de conveniencia en una comunidad determinada, constituidas como unidades básicas auxiliares de la administración pública, a la que el Estado le reconoce su personalidad jurídica) (The *patronato* is a natural structure of organization, connected by links of cohabitation in a specific community, made up of basic auxiliary units of public administration, the juridical personality of which the State recognizes).

770Id. (Estructura organizativa: Asamblea, Junta Directiva y la Fiscalía) (Structural organization: assembly, directive unit and treasurer).

771Id. (El patronato...será electa anualmente mediante voto directo y secreto de los ciudadanos y ciudadanas de su comunidad) (The *patronato* will be elected annually by direct and secret vote of the citizens of the community).

772Ley de Participación Ciudadana, *supra* note 751, at art. 6 (Son instancias de la Participación Ciudadana: (1) El Foro Nacional de Participación Ciudadana; (2) Los Consejos de Desarrollo Municipal y Departamental; y, (3) Las Mesas Comunitarias de la Participación Ciudadana) (These are instances of Citizen Participation: (1) the National Forum of Citizen Participation; (2) the Councils of Municipal and Departmental Development; and, (3) the Communitarian Tables

government by participating in a *consejo de desarrollo municipal* or municipal development council.⁷⁷³ Other commonly recognized forms of community oriented social organizations include NGOs, social entrepreneurs, etc.

These civil society groups or social organizations have the right to participate in local and national governance.⁷⁷⁴ According to the Law of Municipalities, it is also the duty of community members to participate in the protection of biological and cultural resources.⁷⁷⁵ They may do this as a member of a particular social organization or individually. In compliance with their civic duties and in exercise of their civic rights, an individual member of a community may participate in one of a number of social organizations.

A patchwork peace park could use these pre-existing mediums of social organization and build upon their functionalities. *Patronatos* that are more well-organized could lead the way and then work with neighboring groups to build similar capacities. Initially, the *patronatos* and other social groups can work on specific projects of shared interest that require collaborated collective action, such as watershed management. When the foundations of cooperative project development and implementation are in place, they can expand the scope and breadth of joint activities towards establishment of TBCCA networks.

Political Organization in Honduras

In this chapter, political organization differs from social organization in that it refers to the hierarchy of official governance. Governance is “any method by which society is governed,” but official governance is more specifically the systematized formal mechanisms (institutions and processes) of bureaucratic and political nation-state administration. In other words, political organization refers to the Government. The Government is made up of the “formal institutions of the [S]tate and their monopoly of legitimate coercive power,” which include “formal and institutional

of the Citizen Participation).

773Ley de Municipalidades, *supra* note 766, at art. 48 (Cada Municipalidad tendrá un Consejo de Desarrollo Municipal...nombrados por la Corporación Municipal de entre los representantes de las fuerzas vivas de la comunidad).

774Ley de Participación Ciudadana, *supra* note 751, at art. 5(2) (iniciativas ciudadanas podrán ser planteadas no solamente por ciudadanos individualmente considerados, sino que también por asociaciones civiles, patronatos, empresas, gremios o cualquier otro grupo social organizado) (citizen initiatives can be proposed not only by individual citizens, but also by civil associations, patronages, businesses, unions or any other organized social group) & art. 24(6) (Los vecinos [defined by art. 23 as the people who habitually reside in the Municipality] de un Municipio tienen derechos y obligaciones. Son sus derechos los siguientes: 6) Participar en la gestión y desarrollo de los asuntos locales) (The neighbors [defined by art. 23 as the people who habitually reside in the Municipality] of a Municipality have rights and obligations. Their rights are the following: 6) Participate in the management and development of local matters).

775Id. at art. 24(3) (Son sus obligaciones, las siguientes: 3) Participar en la salvaguarda de los bienes patrimoniales y valores cívicos, morales y culturales del Municipio y preservar el medio ambiente) (Their obligations are the following: 3) To participate in safeguard of the properties inherited from parents and civic values, cultural morals and of the Municipality and to preserve the environment).

processes which operate at the level of the nation state to maintain public order and facilitate collective action.”⁷⁷⁶ In Honduras, political organization, or the Government of Honduras, ranges from individual representatives in each community to the Head of State.

A municipality is “one population or association of resident people in a municipal term, governed by a municipality that exerts and extends its authority in its territory and is the basic territorial structure of the State and immediate channel of citizen participation in public matters.”⁷⁷⁷ The municipality is essentially the lowest unit of official governance in Honduras, although each municipality also has a representative (the *alcalde auxiliar* or *alcaldito*), appointed by the *alcalde*, or mayor, in each of the constituent communities.⁷⁷⁸ Direct communication between the individual communities and the municipal government takes place at this level, between the *alcalde auxiliar* and their corresponding *patronato*. The *alcalde auxiliar* communicates their village's interests and concerns to the *alcalde* and other municipal authorities. The *alcalde* is elected directly by the public, but the municipality may be geographically removed from a village or community, making the role of the *alcalde auxiliar* very important in maintaining an ear to the ground for local governments.⁷⁷⁹

One of the primary charges of a municipal government is protection of the environment.⁷⁸⁰ In executing its mandate to protect the environment, municipalities may enter into agreements with the

⁷⁷⁶Gerry Stoker, *Governance as Theory: Five Propositions* 18 (1998).

⁷⁷⁷Ley de Municipalidades, *supra* note 766, at art. 2 (El Municipio es una población o asociación de personas residentes en un término municipal, gobernada por una municipalidad que ejerce y extiende su autoridad en su territorio y es la estructura básica territorial del Estado y cauce inmediato de participación ciudadana en los asuntos públicos) (The Municipality is one population or association of resident people in a municipal term, governed by a municipality that exerts and extends its authority in its territory and is the basic territorial structure of the State and immediate channel of citizen participation in public matters).

⁷⁷⁸*Id.* at art. 60 (Habrán Alcaldes Auxiliares en barrios, colonias y aldeas propuestos en cada una de ellas por la asamblea popular respectiva y serán acreditados por el Alcalde correspondiente) (There will be Mayor's Aids in districts, colonies and villages, proposed by their respective popular assembly and confirmed by the corresponding Mayor).

⁷⁷⁹*Id.* at art. 12 (1) (La autonomía municipal se basa en los postulados siguientes: 1.- La libre elección de sus autoridades mediante sufragio directo y secreto) (The municipal autonomy is based on the following postulates: 1. - The free election of its authorities by means of direct and secret suffrage).

⁷⁸⁰*Id.* at art. 12(3) (La autonomía municipal se basa en los postulados siguientes: 3.- La facultad para recaudar sus propios recursos e invertirlos en beneficio del Municipio, con atención especial en la preservación del medio ambiente) (The municipal autonomy is based on the following postulates: 3. - The faculty to collect its own resources and to invest them to the benefit of the Municipality, with special attention in the preservation of the environment), art. 12(7) (Las municipalidades tienen las atribuciones siguientes: 7.-Protección de la ecología del medio ambiente y promoción de la reforestación) (The municipalities they have the following attributions: 7. - Protection of the ecology of the environment and promotion of the reforestation) & art. 14 (6) (La Municipalidad es el órgano de gobierno y administración del Municipio y existe para lograr el bienestar de los habitantes, promover su desarrollo integral y la preservación del medio ambiente...serán sus objetivos los siguientes: 6) Proteger el ecosistema municipal y el medio ambiente) (The Municipality is the administration and control system of the Municipal Government and it exists to obtain the well-being of its inhabitants, to promote its integral development and the preservation of the environment...its objectives will be the following: 6) Protect the municipal ecosystem and its environment)

Central Government or other units of decentralization.⁷⁸¹ This could potentially involve other municipalities or social organizations that share competencies regarding the exploitation of resources or who represent exploited areas and promote systems of reforestation and environmental protection.⁷⁸² Municipal governments also have the power to associate freely with other national or foreign entities for improved completion of its conservation objections.⁷⁸³ In other words, in order to enhance environmental protection of its municipal territory, a municipal government may formally collaborate with other social and political organizations, domestic or international. This authority is extended explicitly to the governance of forest resources.⁷⁸⁴

Municipalities may also form associative groupings called *mancomunidades*.⁷⁸⁵ These are typically composed of neighboring municipalities who may share an interest in collaboration for integrated governance of certain matters concerning all of their territories. *Mancomunidades* are created by prerogative of the autonomy of individual municipalities. In Honduras, a *mancomunidad* that covers all of the municipalities and communities of the peace park territory already exists. This alliance of municipalities is known as the Mancomunidad de Municipios del Cerro la Botija y Guanacaure (Mancomunidad of Municipalities for the Mountains of La Botija and Guanacaure, MAMBOCAURE). It was created specifically for the purposes of strengthening preservation of the PAs within their jurisdictions and to protect their primary water source, the mountainous watershed of La Botija and Guanacaure.⁷⁸⁶ Along with other border-adjacent municipalities, MAMBOCAURE local governments are also part of the Mancomunidad de Municipios Fronterizos (Mancommunity of Frontier Municipalities). All of these are part of Open Frontiers, the Interregional Network for Transfrontier Latin American Cooperation and Integration.⁷⁸⁷

781*Id.* at 12(11) (La autonomía municipal se basa en los postulados siguientes: 11.- Suscripción de convenios con el Gobierno Central y con otras entidades descentralizadas con las cuales concurra en la explotación de los recursos, en los que figuren las áreas de explotación, sistemas de reforestación, protección del medio ambiente) (The municipalities they have the following attributions: 11. - Subscription of agreements with the Central Government and other decentralized organizations which share competencies in the exploitation of resources, those which appear in the areas of exploitation, systems of reforestation, protection of the environment).

782*Id.*

783*Id.* at art. 20 (Los Municipios, con el voto afirmativo de los dos tercios de los miembros de la Corporación Municipal, podrán asociarse bajo cualquier forma entre sí o con otras entidades nacionales o extranjeras, para el mejor cumplimiento de sus objetivos y atribuciones) (Municipalities, with an affirmative vote of two-thirds of the members of the Municipal Corporation, will be able to be associated with each other under any form or with other national or foreign organizations, for the improved fulfillment of their objectives and attributions).

784*Id.* at art. 69 (Las municipalidades deberán lograr el manejo sostenible, por sí, en Título de tradición de tierras forestales a favor de municipalidades asociación o por conducto de terceras personas, de los recursos forestales de su propiedad, de conformidad con su vocación y con el plan de manejo que apruebe la Administración Forestal del Estado) (The municipalities must sustainably manage forest lands per municipalities association or through third parties, of the forest resources of its property, in accordance with its vocation and with a management plan approved by the Forest Administration of the State).

785*See id.* at art. 16-B.

786Interview with Jorge Betancourt, Consultant, Secretaría de Recursos Naturales y Ambiente [SERNA] (Mar. 9, 2010).

787Fronteras Abiertas, Red Interregional para la Cooperación Transfronteriza y la Integración Latinoamericana, *Socios del*

Departamentos or departments, in contrast to *mancomunidades* are conglomerations of municipalities as delineated by the State.⁷⁸⁸ Each *Departamento* is administered by a Departmental Governor, who is appointed by the Head of State and essentially represents the presidency within the department.⁷⁸⁹ In other words, the Governor of each department is an officer of the presidency, not a democratically elected officer of its territorial constituents. The Departmental Governor will likely be charged with facilitating implementation of the new Vision of the Nation 2010-2038 (*Visión de País*) and Plan of the Nation 2010-2022 (Plan de Nación) in collaboration with the *alcaldes* within its jurisdictional appointment.

The Vision of the Nation is Honduras' first attempt at trying to formulate a unified set of principles, objectives and goals to guide the State in its development through 2038, regardless of regime change or shifts from one political party to another.⁷⁹⁰ The first phase of implementation is the Plan of the Nation, to be executed between 2010 and 2022.⁷⁹¹ One of the four objectives, sustainable regional development, promotes social development and reduction of environmental vulnerabilities.⁷⁹² In attaining this and other objectives, guiding principles to be maintained are subsidiarity and decentralization, public participation, and sustainable development in harmony with Nature.⁷⁹³ The Plan of the Nation envisions eleven strategic pathways to implementing these principles towards achievement of the Vision of the Nation's primary objectives. These include, *inter alia*:

1. Sustainable development
2. Democracy, citizenry and governability
3. Poverty reduction, generation of assets and equality of opportunities
4. Education and culture as mediums of social emancipation
5. Health as a foundation for the improvement of conditions for life
6. Security for development
7. Regional development, natural resources and environment

Programa (2010),
option=com_content&task=blogcategory&id=37&Itemid=40.

<http://www.fronterasabiertas.org/index.php?>

⁷⁸⁸Ley de Municipalidades, *supra* note 766, at art. 3 (El territorio hondureño se divide en departamentos y éstos en municipios autónomos) (The Honduran territory is divided in departments and those, into autonomous municipalities) & art. 4 (Los Departamentos son creados mediante ley, sus límites están fijados en la misma) (Departments are created by law, its limits are fixed by law).

⁷⁸⁹*Id.* at art. 5 (El Gobernador Departamental será del libre nombramiento y remoción del Poder Ejecutivo) (The Departmental Governor will be freely appointed and removed by the Executive Power) & art. 6 (El Gobernador Departamental es el representante del Poder Ejecutivo en su jurisdicción) (The Departmental Governor is the representative of the Executive Power in its jurisdiction).

⁷⁹⁰*See* Soberano Congreso Nacional, República de Honduras Visión de País 2010 – 2038 y Plan de Nación 2010-2022 (Jan. 2010), available at www.visiondepais2010-2038.com (last visited June 19, 2010).

⁷⁹¹*Id.* at 11.

⁷⁹²*Id.* at 24-26.

⁷⁹³*Id.* at 17-21.

8. Climate change mitigation and adaptation⁷⁹⁴

Underlying the Vision of the Nation and the Plan of the Nation is the desire that the citizenry of Honduras itself will roll up their sleeves and participate in the advancement of their nation towards a better future based on sustainable development and security. In this sense, the Vision of the Nation and its Plan of the Nation accord well with those of a patchwork peace park. Municipalities situated in border territories can their civic duties under these national strategies by forming networks of CCAs for peace and cooperation.

Collaborative community conservation in Nicaragua

Nicaragua and Honduras share a similar legal framework; these similarities extend equally to include the bases for collaborative conservation at the community-level. In Nicaragua, the codified legal framework for direct participation in environmental stewardship originates from its national constitution. Nicaragua is a democratic republic, governed by a representative and participatory government operating under constitutional authorities emanating from its peoples.⁷⁹⁵ All persons have a right to partake freely in the decisions and formation of social, economic and political systems of the nation.⁷⁹⁶ Such participation in public matters and State governance can occur via dedication to public office or through civil action, including through petitions requesting particular government action.⁷⁹⁷ Public participation is a fundamental constitutional right and international right recognized by the Government of Nicaragua in its treaties ratified.⁷⁹⁸ It is essential to participatory governance of the

⁷⁹⁴*Id.* at 30.

⁷⁹⁵Constitución Política de la República de Nicaragua, *supra* note 728, at tit. II, ch. I, art. 7, La Gaceta [L.G.], 30 April 1987, as amended by Ley No. 192, Ley de Reforma Parcial a la Constitución Política de la República de Nicaragua, 1 February 1995, L.G. 4 July 1995 (Nicar.) (Nicaragua es una República democrática, participativa y representativa).

⁷⁹⁶*Id.* at art. 2 (La soberanía nacional reside en el pueblo y la ejerce a través de instrumentos democráticos, decidiendo y participando libremente en la construcción y perfeccionamiento del sistema económico, político y social de la nación) (The national sovereignty resides in the People and is exercised through democratic instruments, deciding and freely participating in the construction and improvement of the economic, political and social system of the nation).

⁷⁹⁷*Id.* at art. 50 (Los ciudadanos tienen derecho de participar en igualdad de condiciones en los asuntos públicos y en la gestión estatal. Por medio de la ley se garantizará, nacional y localmente, la participación efectiva del pueblo) (The citizens have the right to participate in equality of conditions, in public matters and State management. By law, they will be guaranteed, national and locally, effective public participation).; Citizens have the right to elect or be elected to public positions. *Id.* at art. 51 (Los ciudadanos tienen derecho a elegir y ser elegidos en elecciones periódicas y optar a cargos públicos) (Citizens have the right to elect or be elected in period elections and to choose public positions).; Citizens may also petition their Government individually or collectively *Id.* at art. 2 (Toda persona podrá tener participación ciudadana para promover el inicio de acciones administrativas, civiles o penales) (Every person can engage in citizen participation to promote the initiation of administrative actions, civil or penal) & art. 52 (Los ciudadanos tienen derecho de hacer peticiones, denunciar anomalías y hacer críticas constructivas, en forma individual o colectiva, a los poderes del Estado o cualquier autoridad) (Citizens have a right to petition, to denounce anomalies and to constructively criticize, in individual or collective form, to the powers of the State or any authority).

⁷⁹⁸Ley No. 475, 22 Oct. 2003, Ley de Participación Ciudadana [Law of Public Participation], pmb., L.G., 19 Dec. 2003

nation and its transformation from traditional forms of rule to a nation in which the citizens are the protagonists of their own society and systems of governance.⁷⁹⁹

Citizens of Nicaragua enjoy rights to the environment that impose a duty to protect the environment and its natural resources. According to Article 60 of the Constitution, all “Nicaraguans have a right to inhabit a healthy environment,” and according to Article 102, “conservation, development and rational exploitation of natural resources” are the duty of the State.⁸⁰⁰ This is much like the right enshrined in the 1998 Convention on Access to Information, Public Participation in Decisionmaking and Access to Justice in Environmental Matters (Aarhus Convention), which explicitly recognizes “that adequate protection of the environment is essential to human well-being and the enjoyment of basic human rights, including the right to life itself.”⁸⁰¹ In Nicaragua, as is typical of social-welfare States, the constitutional duty is placed most heavily upon the State to protect human health and the environment, but it also calls upon citizen participation in the maintenance of the

(Nicar.) (Considerando: (I) Que el ordenamiento jurídico nicaragüense, en su norma máxima, la Constitución Política, artículo 7 establece que Nicaragua es una República democrática, participativa y representativa, así como en el artículo 50 se garantiza el derecho de la participación ciudadana en igualdad de condiciones en los asuntos públicos y la gestión estatal, a través de la ley de la materia para que norme y regule dicha participación en los asuntos nacionales y locales estableciendo el ámbito de participación y los procedimientos atinentes. (II) Que el proceso de participación ciudadana es un derecho fundamental, reconocido en la Constitución Política y en diferentes instrumentos internacionales en materia de derechos humanos que han sido ratificados por Nicaragua) (Considering: (I) that the Nicaraguan legal ordering, in its highest legislation, the Political Constitution, article 7, establishes that Nicaragua is a democratic Republic, participatory and representative, as well as in article 50, the right of citizen to participate, in equality of conditions, in public matters and the management of the state is guaranteed, through the relevant law that regulates this participation in national and local issues and establishes the scope and procedures of participation. (II) that the process of citizen participation is a fundamental right, recognized in the Political constitution and in different international instruments in the matter of humans rights which have been ratified by Nicaragua).

799*Id.* (Considerando: (V) Que la gestión pública no puede ser concebida hoy en día sin la participación directa y permanente de la ciudadanía, pues esto constituye uno de los aspectos que exige un nuevo rol del Estado para contribuir a la transformación de los modelos y concepciones tradicionales sobre la forma y manera de gobernar y convertir a los ciudadanos...en protagonistas de los procesos de transformación de la sociedad nicaragüense y sus diferentes modalidades en la gestión desde las comunidades de la nación) (Considering: (V) that public management cannot be conceived today without the direct and permanent participation of the citizenry, that this constitutes one of the aspects that will promote a new role for the State that contributes to the transformation of traditional models and concepts regarding the form and way of governing, converting the citizens...into protagonists of the processes and transformation of the Nicaraguan society and its different modalities governance from the communities of the nation).

800Constitución Política de la República de Nicaragua, *supra* note 728, at art. 60 (Los nicaragüenses tienen derecho de habitar en un ambiente saludable. Es obligación del Estado la preservación, conservación y rescate del medio ambiente y de los recursos naturales) (Nicaraguans have the right to live in a healthy environment. Preservation, conservation and rescue of the environment and natural resources is the obligation of the State).; *Id.* at art. 102 (Los recursos naturales son patrimonio nacional. La preservación del ambiente y la conservación, desarrollo y explotación racional de los recursos naturales corresponden al Estado) (The natural resources are national patrimony. The preservation of the atmosphere and the conservation, development and rational use of the natural resources correspond to the State).

801Aarhus Convention, *supra* note 604, at pmb1.

environmental conditions necessary for health and well-being.⁸⁰² Protection of the environment is equated to protection of human health⁸⁰³ and it is the duty of all inhabitants of Nicaragua to protect the natural resources and the environment.⁸⁰⁴ Thus, in Nicaragua we find environmental rights tied to a civic duty to protect the environment and its natural resources, and explicitly for the sake of ensuring health, well-being and a healthy environment.

Linking the right to inhabit a healthy environment, the duty to protect the environment and its natural resources, and a right to direct participation in the governance of public affairs, it follows that all Nicaraguans have a right to participate directly in environmental governance and protection. For example, national, regional and municipal development plans must be made with the participation of civil society and incorporate elements guaranteeing protection and recuperation of the environment and its natural resources.⁸⁰⁵ If the matters addressed in the General Law of the Environment and Natural Resources are considered to be of public interest,⁸⁰⁶ then the enumerated objectives of the law are public matters in which citizens of the Republic of Nicaragua have a right to participate in the governance of. Thus, all Nicaraguans have a stake in the governance of environmental issues, such as environmental degradation, exploitation of natural resources, land use planning, protected areas, watershed and water resources and environmental education.⁸⁰⁷ Direct participation in the stewardship

⁸⁰²It is the State's duty to promote public participation in protection of public health and citizens are obliged to undertake health measures as necessary. Constitución Política de la República de Nicaragua, *supra* note 728, at art. 59 (Corresponde al Estado dirigir y organizar los programas, servicios y acciones de salud y promover la participación popular en defensa de la misma. Los ciudadanos tienen la obligación de acatar las medidas sanitarias que se determinen) (It is the State's duty to direct and organize health programs, services and actions and to promote public participation in protection of health. Citizens have the obligation to accept sanitary measures as determined).

⁸⁰³Protection of the environment contributes to the protection of health. Ley No. 217, 2 May 1996, Ley General del Medio Ambiente y los Recursos Naturales [General Law of the Environment and Natural Resources], art. 3(7), L.G., 6 June 1996 (Nicar.) (Son objetivos particulares de la presente Ley: (7) Propiciar un medio ambiente sano que contribuya de la mejor manera a la promoción de la salud y prevención de las enfermedades del pueblo nicaragüense) (Particular objectives of this Law are: (7) To create a healthy environment that contributes in the best way to the promotion of health and prevention of illnesses of the Nicaraguan people).

⁸⁰⁴*Id.* at art. 4(2) (Es deber del Estado y de todos los habitantes proteger los recursos naturales y el ambiente, mejorarlos, restaurarlos y procurar eliminar los patrones de producción y consumo no sostenibles) (It is the duty of the State and all its inhabitants to protect the natural resources and environment, improving them, restoring them and eliminating the causes of unsustainable production and consumption).; *Id.* at art. 13(3) (La protección del equilibrio ecológico es una responsabilidad compartida del Estado y los ciudadanos) (Protection of the ecological equilibrium is a shared responsibility between the State and the citizens).

⁸⁰⁵*Id.* at art. 12 (La planificación del desarrollo nacional, regional y municipal del país deberá integrar elementos ambientales en sus planes, programas y proyectos económicos y sociales, respetando los principios de publicidad y participación ciudadana) (The planning of national, regional and municipal development of the country must integrate environmental elements in its plans, programs and projects, economic and social, respecting the principles of publicity and citizen participation).

⁸⁰⁶*Id.* at art. 2 (Las disposiciones contenidas en la presente Ley son de orden público) (The matters contained in the present Law are of public order).;

⁸⁰⁷*Id.* at art. 3 (Son objetivos particulares de la presente Ley: (1) La prevención, regulación y control de cualesquiera de las causas o actividades que originen deterioro del medio ambiente y contaminación de los ecosistemas; (2) Establecer

of the environment and its natural resources is a right most particularly applicable to inhabitants of protected areas, the true stewards of their environments.⁸⁰⁸

It thus follows that the citizens of Nicaragua have a right and a duty to participate in environmental stewardship frameworks that would embody and facilitate the establishment and appropriate management of patchwork peace parks. The sections below explore the social and political frameworks that currently exist to support the meaningful enjoyment of citizens' environmental, social and political rights.

Social Organization in Nicaragua

Social organization is the fundamental first step to creating a network of CCAs constituting a patchwork peace park. The universal human right to free association allows citizens of Nicaragua to organize amongst themselves.⁸⁰⁹ Nicaraguans have the right to form organizations in order to further their interests towards the participatory construction of “a new society.”⁸¹⁰ In the laws and policies of

los medios, formas y oportunidades para una explotación racional de los recursos naturales dentro de una Planificación Nacional fundamentada en el desarrollo sostenible, con equidad y justicia social y tomando en cuenta la diversidad cultural del país y respetando los derechos reconocidos a nuestras regiones autónomas de la Costa Atlántica y Gobiernos Municipales; (3) La utilización correcta del espacio físico a través de un ordenamiento territorial que considere la protección del ambiente y los recursos naturales como base para el desarrollo de las actividades humanas; (4) Fortalecer el Sistema Nacional de Areas Protegidas, para garantizar la biodiversidad y demás recursos; (5) Garantizar el uso y manejo racional de las cuencas y sistemas hídricos, asegurando de esta manera la sostenibilidad de los mismos; (6) Fomentar y estimular la educación ambiental como medio para promover una sociedad en armonía con la naturaleza; (7) Propiciar un medio ambiente sano que contribuya de la mejor manera a la promoción de la salud y prevención de las enfermedades del pueblo nicaragüense; (Particular objectives of the present Law are: (1) Prevention, regulation and control of any causes or activities which cause degradation of the environment and contamination of ecosystems; (2) Establish mediums, forms and opportunities for the rational exploitation of natural resources within a National Plan founded in sustainable development, with social equity and justice and taking in account the cultural diversity of the country and respecting the recognized rights of our autonomous regions of the Atlantic Coast and Municipal Governments; (3) The correct use of physical space through a land use plan that considers the protection of the environment and natural resources as a base for the development of human activities; (4) Strengthening the National System of Protected Areas to guarantee biodiversity and other resources; (5) Guarantee the ration use and management of watershed and water systems, assuring that their use is sustainable; (6) Strengthening and stimulating environmental education as a way to promote a society in harmony with Nature; (7) Create a healthy environment that contributes in the best way to the promotion of health and prevention of illnesses of Nicaraguan peoples).

808*Id.* at art. 19 (Se incorporará y transformará a los habitantes de áreas protegidas en los verdaderos vigilantes de esos sitios) (The inhabitants of protected areas will be incorporated and transformed into the true vigilants of those sites.).

809Constitución Política de la República de Nicaragua, *supra* note 728, at art. 49 (En Nicaragua tienen derecho de constituir organizaciones) (In Nicaragua, they have the right to form organizations), art. 53 (Se reconoce el derecho de reunión pacífica) (The right to peaceful meeting is recognized) & art. 54 (Se reconoce el derecho de concentración, manifestación y movilización pública de conformidad con la ley) (The right to concentration, manifestation and public mobilization in conformity with the law is recognized).

810Constitución Política de la República de Nicaragua, *supra* note 728, at art. 49 (En Nicaragua tienen derecho de constituir organizaciones...sin discriminación alguna, con el fin de lograr la realización de sus aspiraciones según sus propios

Nicaragua, this “new society” is often portrayed as a participatory and representative democracy working towards sustainable development, eradication of poverty and harmony with Nature.⁸¹¹ When considered in conjunction with the right to direct participation in governance, particularly environmental governance, it seems that freely associated groups of individual citizens have a very basic right to the direct governance of their lands and natural resources. This may mean anything from organizing freely in exercise of a fundamental right to a healthy environment (e.g., against degradation or forest conversion) and in fulfillment of their duty to protect Nature (e.g., for restoration and regeneration).

Citizen organization in Nicaragua can take many forms. Some of these are recognized in national legislation, such as the Law of Citizen Participation (Law No. 475) and the Law of Municipalities (Law No. 40).⁸¹² That which is most analogous to the system of *patronatos* in Honduras is the hierarchy of the *consejo* (council) or *gabinete del poder ciudadana* (cabinet of citizen power) in Nicaragua established by presidential decree, “Creation of Councils and Cabinets of Citizen Power.”⁸¹³ This decree recognizes the international and constitutional legal basis for the very fundamental right of public participation in State governance and freedom of association, and sets up councils and cabinets as the fora through which these rights may be properly exercised.⁸¹⁴ The *consejo* or *gabinete del poder*

intereses y participar en la construcción de una nueva sociedad) (In Nicaragua, they have the right to form organizations... without discrimination, with the purpose of obtaining aspirations according to their own interests and to participate in the construction of a new society).

811E.g. Ley de Participación Ciudadana, *supra* note 797, at art. 4(6) (Participación ciudadana: Es el proceso de involucramiento de actores sociales en forma individual o colectiva, con el objeto y finalidad de incidir y participar en la toma de decisiones, gestión y diseño de las políticas públicas en los diferentes niveles y modalidades de la administración del territorio nacional y las instituciones públicas con el propósito de lograr un desarrollo humano sostenible, en corresponsabilidad con el Estado) (Citizen Participation: The process of involvement of social actors in individual or collective form, with the objective and purpose of affecting and of participating in the management, decision making and design of public policies at different levels and modalities of administration of the national territory and public institutions, in order to obtain human sustainable development in joint responsibility with the State).; *See also e.g.*, Ley General del Medio Ambiente y los Recursos Naturales, *supra* note 164, at art. 3 (objectives of the General Law of the Environment).

812Ley de Participación Ciudadana, *supra* note 797.; Ley 40, 26 June 1997, Ley de Municipios [Law of Municipalities], L.G., 17 Aug. 1998 (Nicar.).

813Decreto No. 112-2007, 29 Nov. 2007, Creación de los Consejos y Gabinetes del Poder Ciudadano, art. 1, L.G., 29 Nov. 2007 (Nicar.) (Se creen los Consejos y Gabinetes del Poder Ciudadano a fin de que el pueblo nicaragüense en el ejercicio de la democracia participativa y directa de los diferentes sectores sociales del país, se organicen y participen en el desarrollo integral de la nación de manera activa y directa y apoyen los planes y las políticas del Presidente de la República encaminadas a desarrollar estos objetivos) (The Councils and Cabinets of Citizen Power are created in order that Nicaraguans, in exercise of participatory and direct democracy of different social sectors from the country, is organized and participating in the integral development of the nation in an active and direct way, and support the plans and policies of the President of the Republic directed to develop these objectives).

814*Id.* at pmbl. (I) (recognizing the constitutional framework for public participation); *Id.* at pmbl. (II) (international legal framework for public participation).; *Id.* at pmbl. (III) (recognizing the fundamental principle of a participatory and representative democracy and the universal right to free association).; *Id.* at pmbl. (VI) (Que en consecuencia, combinando los derechos del pueblo Nicaragüense a organizarse libremente en el ejercicio de la democracia

ciudadano is made up of individuals representing, *inter alia*, each of the following interests:

- Promotion of Citizen Rights (Capacitation)
- Communication and Propaganda
- Citizen Security, Community Exchanges and Solidarity
- Women's Rights
- Youth Rights
- Elderly Rights
- Health
- Education
- Environment
- Transportation and Infrastructure
- Rural Development
- Culture
- Sports
- Proposals for Local Governments
- Programs and Projects to Promote Employment, Self-Employment and Community Work
- General⁸¹⁵

participativa con las facultades del Presidente de la República que le otorga la Constitución Política de crear comisiones o consejos que hagan efectivo el ejercicio de estos derechos de organización de nuestro pueblo, en apoyo a las políticas del Presidente de la República que el pueblo sea el que gobierne efectivamente y que juntos combatan la pobreza y el desempleo heredado de las administraciones anteriores) (That consequently, combining the rights of the Nicaraguan people to organize freely in the exercise of a participatory democracy with the faculties of the President of the Republic granted to him by the Political Constitution to create commissions or councils that make the exercise of these rights of organization supportive of the policies of the President of the Republic, that the people are effectively the ones that govern and that together, fight poverty and the inherited unemployment of previous administrations).

⁸¹⁵*Id.* at art. 2 (debiendo de existir en cada una de ellos un (a):

1. Coordinador (a) de Promoción de Derechos de Ciudadanía (capacitación),
2. Coordinador (a) de Comunicación y Propaganda,
3. Coordinador (a) de Seguridad Ciudadana, Intercambios comunitarios y solidaridad,
4. Coordinador (a) de Derechos de la Mujer,
5. Coordinador (a) de Derechos de los jóvenes y niños,
6. Coordinador (a) de Derechos de Adultos Mayores,
7. Coordinador (a) para Salud,
8. Coordinador (a) para Educación,
9. Coordinador (a) para Medio Ambiente,
10. Coordinador (a) para Transporte e Infraestructura,
11. Coordinador (a) para Desarrollo Rural,

The *councils* or *gabinetes* are facilitated by a *presidente* and exist in each community, *comarca* (officially recognized indigenous reserve), neighborhood, district, municipality, department and autonomous region.⁸¹⁶

At the national level there is a National Cabinet of Citizen Power (*Gabinete Nacional del Poder Ciudadano*) that integrates representatives from each of the sixteen established sectors listed above and from each of the fifteen departments and two autonomous regions currently existing in the nation (totaling 272 civil representatives).⁸¹⁷ Other interest group representatives can be included in these *consejos* or *gabinetes* upon decision by the respective *consejo* or *gabinete*.⁸¹⁸ In the National Council, civil interests are balanced with political interests, providing a direct link between civil society and the Government. The Coordinator of the Secretariat of Communication and Citizenship, the Ministers of the State, presidents of autonomous and governmental entities, national police authorities, the Board of Directors of the National Council for Economic and Social Planning (CONPES), and any other official representatives as selected by the President of Nicaragua, participate in the National Council on behalf of Government interests.⁸¹⁹ The National Council is presided over by the Head of State, or the

12. Coordinador (a) para Cultura,

13. Coordinador (a) para Deporte,

14. Coordinador (a) de Propuestas hacia los Gobiernos Locales,

15. Coordinador (a) de Programa y Proyectos de Promoción de Empleo, Auto-Empleo y trabajo comunitario,

16. Coordinador (a) General,

17. Todos aquellos (as) otros (as) que ellos mismos decidan).

816*Id.* at art. 2 (Los Consejos y Gabinetes del Poder Ciudadano tendrán presencia en las comunidades, comarcas, barrios, distritos, municipios, departamentos, regiones autónomas y a nivel nacional) (The Councils and Cabinets of Citizen Power will have presence in the communities, indigenous regions, districts, municipalities, departments, autonomous regions and at the national level).

817*Id.* at art. 3 (Se crea el Gabinete Nacional del Poder Ciudadano integrado por los Consejos de Poder Ciudadano a través de un representante de cada uno de los dieciséis sectores establecidos en el artículo anterior de cada uno de los quince departamentos y dos Regiones Autónomas existentes en el país; es decir, este Gabinete Nacional compuesto por 272 personas estará integrado por dieciséis personas de cada uno de los quince departamentos y las dos Regiones Autónomas del país, en representación de cada uno de los dieciséis sectores) (The National Cabinet of the Citizen Power integrates the Councils of Citizen Power and is created by a representative of each one of the existing sixteen sectors established in the previous article, from each one of the fifteen departments and two Autonomous Regions in the country; that is to say, this National Cabinet is made up of 272 people composed of sixteen people of each one of the fifteen departments and the two Autonomous Regions of the country, in representation of each one of the sixteen sectors).

818*Id.* at art. 2(17).

819*Id.* at art. 3 (este Gabinete Nacional compuesto por 272 personas...más el Presidente de la República que lo presidirá y la Coordinadora de la Secretaría de Comunicación y Ciudadanía del Gobierno de la Republica, los Ministros de Estado, Presidentes de entes Autónomos y Gubernamentales, Autoridades de la Policía Nacional, la Junta de Directores del CONPES, y demás funcionarios gubernamentales que determine el Presidente de la República) (the National Cabinet is made of 272 people...plus the President of the Republic that will preside over it, and the Coordinator of the Secretariat of Communication and Citizenship of the Government of the Republic, the Ministers of State, Presidents of Autonomous and Governmental beings, Authorities of the National Police, the governmental Board of Directors of the CONPES, and

Members of Nicaraguan society may also organize and form other civic groups. The Law of Citizen Participation also recognizes Municipal Open Town Halls and Municipal or Departmental Development Committees.⁸²¹ Other common forms of social organization in Nicaragua that enjoy legal representation are public and private institutions, unions, cooperatives, women's groups, youth groups, communal groups, collective interest groups, networks, NGOs, enterprises of social entrepreneurship, etc.⁸²²

A prominent social organization in certain municipalities located within the future peace park territory on the Nicaraguan side of the border is the Chorotega indigenous system of governance. In Nicaragua, the municipal regions of Cusmapa, San Lucas and Las Sabanas are all indigenous communities, with nearly the entirety of their populations identifying themselves as Chorotegas. On the other side of the border, Honduran campesinos may be equally descended from the Chorotegas, but there seems to be a lesser, essentially non-existent, movement to reclaim this indigenous identity within the Honduran peace park communities. In the Honduran villages I have visited in my field visits, the indigenous social structure does not continue in practice.⁸²³

In municipalities traditionally inhabited by Chorotega communities, parallel systems of

other civil servants as determined by the President of the Republic).

820*Id.*

821Ley de Participación Ciudadana, *supra* note 797, at art. 3 (Para los fines y efectos de la presente Ley, se desarrollan los instrumentos de participación ciudadana establecidos en la Constitución Política y otras leyes, siendo estos los siguientes: 1. Los Cabildos Abiertos Municipales. 2. Los Comités de Desarrollo Municipal y Departamental) (For the aims and effects of the present Law, the instruments of citizen participation established in the Political Constitution and other laws are the following: 1. The Municipal Open Town Halls. 2. The Committees of Municipal and Departmental Development).

822*E.g. id.* at art. 15 (when initiating new legislation, proponents may cite support from any of the civil society groups recognized by the Law of Citizen Participation) (para la realización del programa de consulta ciudadana...se podrá citar a las instituciones públicas y privadas, asociaciones civiles sin fines de lucro, sindicatos, cooperativas, organizaciones de mujeres, juveniles y comunales, gobiernos regionales y municipales, instancias de consultas municipales y departamentales, personas particulares que representen intereses de un colectivo o cualquier organización y especialistas, todos ellos relacionados con el objeto de la presente Ley) (for the realization of citizen consultations...it is possible to mention the public and private institutions, not-for-profit civil associations, unions, cooperatives, women's, youth and communal organizations, regional and municipal governments, departmental or municipal consultants, individual people who represent interests of a group or any organization and specialists, any of which are related with the intentions of the present Law).

823Supposedly there are still Chorotegas in Choluteca, Honduras, but from my field visits over the last three years, I find that they do not seem to be active on the Honduran side of the peace park. None of the Honduran community representatives that I interviewed identified themselves as indigenous, although many were aware that there were indigenous communities living nearby on the other side of the border. Indigenous representatives that I have spoken with in Nicaragua have also stated that there are no indigenous communities on the Honduran side of the border. Outside of the peace park territory there are many communities in Honduras who claim indigenous heritage and continue their traditional practices and culture, including some who live in the frontier areas of the Honduran-Nicaraguan border, but these communities are not currently included in the geographic delineations of the peace park.

governance exist (that of the indigenous and that of the formal Government). Since these municipal regions are predominantly made up of Chorotega indigenous people, the local governments are also often composed of indigenous representatives. In Cusmapa, Las Sabanas and San Lucas, the *alcalde* or *vice-alcalde* him/herself is often a member of the indigenous community.⁸²⁴ Representation of the indigenous people directly in the local government allows for greater integration of the indigenous system of governance in these municipalities. In Cusmapa for instance, the *alcalde* will direct a person soliciting approval to cut trees on their property to obtain permissions from the environmental coordinator of the *gabinete* of the relevant community⁸²⁵ and the indigenous community before even considering granting municipal permission.⁸²⁶

Permission from an indigenous Chorotega community must be approved by two layers of governance – the traditional and the formal.⁸²⁷ The traditional system of governance is known as the *consejo de ancianos*, or Council of Ancients. In Cusmapa, there are thirty-three members of the *consejo de ancianos* with one representative from each village.⁸²⁸ The *consejo de ancianos* meets as a plenary from time to time and takes decisions regarding the mandates of the *junta directiva*, or Secretariat. The *junta directiva* represents the formal system of governance. Its members are elected directly by members of the indigenous community with one representative from each community. As the formal system of governance, the *junta directiva* is charged with the administrative activities required for implementation of the decisions made by the *consejo de ancianos*. If the *consejo de ancianos* decides by plenary vote that it does not wish to permit tree-cutting on any of its territories, the *junta directiva* will be directed to deny every permit solicitation to remove trees on any property of the indigenous community (communal or private).

Although the citizens of Nicaragua can always choose to develop new mechanisms of public participation, it would be expeditious to utilize already-existing organizations, strengthening their functionality and capacity for broader collaboration and environmental stewardship. Implementing a patchwork peace park model in the system of *consejos* and *gabinetes*, could involve the introduction of the idea by one of the thematic representatives in the community (or any of the other geographic divisions – village, neighborhood, indigenous reserve, municipality, etc.). Initial presentation of the patchwork peace park idea could come through the coordinator of environmental issues or any other participant. Any member of a community, at the very least, has the right to present initiatives at the municipal level through the *consejo municipal* (municipal council).⁸²⁹ With sufficient support, they

824Interview with Miguel Marin, President of the Junta Directiva in San Jose de Cusmapa, Cusmapa, Nicaragua (Mar. 2, 2010).

825The relevant *gabinete* is that which administers the land on which the trees will be cut, at the sub-municipal level. In Cusmapa alone there are 30 *gabinetes* totaling 480 individual persons. The permit solicitor will need approval from the lowest level *gabinete*. This is an example of the Principle of Subsidiarity in practice.

826Interview with Nestor Maldonado, Office of the Mayor of San Jose de Cusmapa, Cusmapa, Nicaragua (Mar. 11, 2010).

827Interview with Miguel Marin, *supra* note 823.

828Technically there are twenty-eight indigenous communities in Cusmapa, but there are thirty-three members of the *consejo de ancianos* because some of the most elderly representatives are in the process of training their successors.

829Ley de Participación Ciudadana, *supra* note 797, at art. 29 (Se establece y reconoce el derecho de participación de la

could communicate the idea to other *consejos* or *gabinetes* through the National Council of Citizen Power or otherwise. Supportive *consejos* and *gabinetes* can then collaborate in implementation of the model by creating CCAs in each of their respective territorial or marine jurisdictions and integrating their land ethics and stewardship frameworks across a united landscape.

Political Organization in Nicaragua

The system of political organization in Nicaragua is very similar to the system found in Honduras. Essentially, the basic unit of community-level political participation is the municipal government,⁸³⁰ although, like the Honduran system, each *alcalde* has a representative in each of the villages (the *alcalde auxiliar*).⁸³¹ Municipalities are autonomous units responsible for regulating and administering public matters and the population of human inhabitants within its delineated territory.⁸³² This includes creation and organization of its own government, as well as management and use of its natural resources.⁸³³ Administration of municipal territories is premised upon the Principle of Subsidiarity, whereby any function that can be completed efficiently within its jurisdiction or whose completion requires a close community relationship, must be reserved for municipal competencies.⁸³⁴

población residente en los municipios del territorio nacional para que estos presenten iniciativas de ordenanzas y resoluciones ante el Consejo Municipal) (The right of participation of the resident population in the municipalities of the national territory is established and recognized, so that they can present decree initiatives and resolutions before the Municipal Council).

830Ley de Municipios, *supra* note 811, at art. 1 (El Municipio es la unidad base de la división política administrativa del país. Se organiza y funciona con la participación ciudadana) (The Municipality is the base unit of the administrative political division of the country. It is organized and works through citizen participation).

831*Id.* at art. 35 (El Alcalde nombrará Auxiliares, propuestos por Asambleas de ciudadanos que habiten en barrios, comarcas, valles, caseríos o comunidades a fin de mejorar los vínculos de comunicación e impulsar la gestión municipal) (The Mayor will appoint Auxiliares, proposed by Assemblies of citizens who live in neighborhoods, indigenous territories, valleys, small villages or communities, in order to improve communication linkages between them and to impel municipal management).

832*Id.* at art. 2 (La Autonomía es el derecho y la capacidad efectiva de las Municipalidades para regular y administrar, bajo su propia responsabilidad y en provecho de sus pobladores, los asuntos públicos que la Constitución y las leyes le señalen) (Autonomy is the right and the effective capacity of the Municipalities to regulate and to administer, under its own responsibility and in benefit of its settlers, the public matters that the Constitution and the laws convey to it).

833*Id.* at art. 3 (El Gobierno Municipal garantiza la democracia participativa y goza de plena autonomía, la que consiste en: 1. La existencia de los Concejos Municipales, Alcaldes y Vice-Alcaldes electos mediante el ejercicio del sufragio universal por los habitantes de su circunscripción. 2. La creación y organización de estructuras administrativas, en concordancia con la realidad del Municipio. 3. La gestión y disposición de sus propios recursos con plena autonomía) (The Municipal Government guarantees participatory democracy and enjoys total autonomy, which consists of: 1. The existence of Municipal Councils, Mayors and Vice-Mayors elected by means of the exercise of universal suffrage by the inhabitants of its circumscription. 2. The creation and organization of administrative structures, in agreement with the reality of the Municipality. 3. The management and disposition of its own resources with total autonomy.)

834*Id.* at art. 2 (Cualquier materia que incida en el desarrollo socio-económico de la circunscripción territorial de cada Municipio, y cualquier función que pueda ser cumplida de manera eficiente dentro de su jurisdicción o que requiera para su cumplimiento de una relación estrecha con su propia comunidad, debe de estar reservada para el ámbito de

Considered to be within the gambit of its authorities is conservation of the environment and natural resources.⁸³⁵ Notably, a municipal government has the capacity to create municipal CCAs, such as Municipal Ecological Parks, for conservation of more valuable natural resources found within the municipality.⁸³⁶ In fulfillment of its duties, municipal governments can enter into agreements with other State institutions or private entities with legal personality, thus setting the framework for the weaving together of patchwork peace parks.⁸³⁷

In its most fundamental elements, a municipality is a territory, its human population and its government.⁸³⁸ A municipal government is made up of a *consejo municipal* (municipal council) presided over by directly elected officers, the *alcalde* or mayor, and *vice-alcalde* or vice-mayor,

competencias de los mismos municipios) (Any matter that affects the socio-economic development of the territorial circumscription of each Municipality, and any function that can be fulfilled efficiently within its jurisdiction or that requires for its fulfillment a close relationship with the community, must be reserved for the scope of competencies of the same municipalities).

835*Id.* at art. 6 (Los Gobiernos Municipales tienen competencia en todas las materias que incidan en el desarrollo socio-económico y en la conservación del ambiente y los recursos naturales de su circunscripción territorial) (The Municipal Governments have competence in all matters that affect the socio-economic development and conservation of the environment and natural resources of their territorial circumscription).; *Id.* at art. 7(7) (El Gobierno Municipal tendrá, entre otras, las competencias siguientes: (7) Desarrollar, conservar y controlar el uso racional del medio ambiente y los recursos naturales como base del desarrollo sostenible del Municipio y del país, fomentando iniciativas locales en estas áreas y contribuyendo a su monitoreo, vigilancia y control, en coordinación con los entes nacionales correspondientes. En tal sentido, además de las atribuciones establecidas en la Ley No. 217 "Ley General del Medio Ambiente y los Recursos Naturales", publicada en La Gaceta, Diario Oficial, del 6 de Junio de 1996, y en concordancia con la misma, corresponde al Municipio las competencias siguientes:

- 1.1 Asumir opinión respecto a los contratos o concesiones de explotación de los recursos naturales ubicados en su circunscripción, como condición para su aprobación por la autoridad competente.
- 1.2 Percibir al menos el 25% de los ingresos obtenidos por el Fisco, en concepto de derechos y regalías que se recaudan por el otorgamiento de concesiones de exploración, explotación o licencias sobre los recursos naturales ubicados en su territorio.
- 1.3 Autorizar en coordinación con el Ministerio del Ambiente y los Recursos Naturales el marcaje y transporte de árboles y madera, para controlar su racional aprovechamiento.
- 1.4 Declarar y establecer parques ecológicos municipales para promover la conservación de los recursos naturales más valiosos del municipio. Dicha declaratoria podrá recaer en un área de dominio público o en terrenos privados, previa indemnización establecida en el Artículo 44 de la Constitución Política.
- 1.5 Participar en conjunto con el Ministerio del Ambiente y los Recursos Naturales en la evaluación de los Estudios de Impacto Ambiental de obras o proyectos que se desarrollen en el Municipio, previo al otorgamiento del permiso ambiental)

(The Municipal Government will have, among others, the following competencies: (7) Develop, conserve and control the rational use of the environment and natural resources as it basis for the sustainable development of the Municipality and the country, fomenting local initiatives in these areas and contributing to its monitoring, vigilance and control, in coordination with the corresponding national entities. In that sense, besides the attributions established in Law no. 217 "General law of the Environment and the Natural Resources," published in the La Gaceta, Official Daily, of the 6th of June of 1996, and in agreement with the same, the following competencies correspond to the Municipality:

- a. To make decisions with respect to contracts or concessions for exploitation of the natural resources located in its circumscription, such as conditions for its approval by the competent authority.

consejales or council members, and their appointees or staff.⁸³⁹ The *consejo municipal*'s primary function is sustainable municipal development based on the three pillars - economic, social and ecological development – and protection of the environment, with special emphasis on potable water sources, soils and forests.⁸⁴⁰ It is in charge of drafting and approving municipal ordinances and resolutions, which can include the declaration of municipal CCAs and policies and norms for municipal CCA stewardship that would satisfy its sustainable development and conservation mandates.⁸⁴¹ The *consejo municipal* is also responsible for engaging in cooperative and friendly relations with other municipalities in Nicaragua or in other countries.⁸⁴² Therefore, it is within a municipal government's authorities to declare municipal CCAs and to collaborate with other municipalities in the stewardship

b. Receive at least 25% of the income obtained by the State treasury, for rights and exemptions that are collected by the granting of concessions of exploration, operation or licenses on the located natural resources in their territory.

c. Authorize in coordination with the Ministry of the Environment and Natural Resources the marking and transport of trees and wood, to control its rational use.

d. Declare and establish municipal ecological parks to promote the conservation of the more valuable natural resources of the municipality. This declaration will be able to reduce to an area of public dominion or private lands, with prior indemnification as established in Article 44 of the Political Constitution.

e. To participate with the Ministry of the Environment and Natural Resources in the evaluation of Studies of Environmental Impact of works or projects that are developed in the Municipality, previous to the granting of an environmental permission).

836*Id.* at art. 7(7)(c).

837*Id.* at art. 9 (En el ejercicio de su competencia, los Municipios podrán: (a) Contratar con otras instituciones del Estado la prestación de servicios que por su naturaleza puedan ser realizados por ellas de una mejor forma, observando su correcta ejecución. (b) Celebrar contratos u otorgar concesiones previa licitación con personas naturales o jurídicas, de carácter privado, para la ejecución de funciones o administración de establecimientos o bienes que posea a cualquier título, sin menoscabo de ejercer sus facultades normativas y de control) (In the exercise of their competencies, the Municipalities will be able: (a) To contract with other institutions of the State, services that by their nature when correctly executed can be better realized by those institutions. (b) To celebrate contracts or to grant concessions with natural or legal personality, of private character, for the execution of functions or administration of establishments or goods that it owns of any title, without reducing its ability to exert its normative faculties and control).

838*Id.* at art. 1 (Son elementos esenciales del Municipio: el territorio, la población y su gobierno) (Essential elements of the Municipality are: the territory, the population and the government).

839*Id.* at art. 18 (El gobierno de los Municipios corresponde a un Concejo Municipal con carácter deliberante, normativo y administrativo, el que estará presidido por el Alcalde) (The government of the Municipalities corresponds to a Municipal Council with deliberative, normative and administrative character, presided over by the Mayor) & art. 19 (El Alcalde, Vice-Alcalde y los Concejales serán electos por el pueblo, mediante sufragio universal, igual, directo, libre y secreto, de conformidad a la ley de la materia) (The Mayor, Vice-Mayor and Councilpeople will be elected by the people, by means of universal, equal, direct suffrage, free and secret, in conformity with the law on the matter).

840*Id.* at art. 28 (Son atribuciones del Concejo Municipal: (1) Discutir y decidir el Plan de Desarrollo Municipal y definir anualmente las metas de desarrollo integral del Municipio, buscando el equilibrio económico, social y ecológico de todas las partes del territorio y de todos los estratos de la población municipal...(5) Garantizar el mejoramiento de las condiciones higiénico-sanitarias de la comunidad y la protección del medio ambiente, con especial énfasis en las fuentes de agua potable, suelos y bosques, y la eliminación de residuales líquidos y sólidos) (These are attributions of the Municipal Council: (1) Discuss and decide the Municipal Development Plan and define annually the integral goals of

of those CCAs; doing so would satisfy sustainable municipal development and environmental conservation obligations of the municipal governments more efficiently, through cost sharing and economies of scale. Given the special mandate of municipalities in Nicaragua to protect water resources and forests, it would be extremely practical for municipal governments in mountain forest regions to engage in this patchwork peace park approach.

Many of the local municipal governments have set up environmental commissions specifically to provide a forum for civic participation in issues of environmental governance.⁸⁴³ These commissions are sometimes developed *ad hoc* where a fund has been provided to support the communal management of a particular environmental issue and they may exist as long as the outside funding exists, while others are more developed and exist through the voluntary will of the local peoples. In the municipality of Somoto, there is a watershed committee mandated by municipal order as of 2004 that is charged with stewardship of a Water Reserve Zone (a type of local PA created by a municipal government in order to protect a water source located within its boundaries).⁸⁴⁴ This watershed committee operates at the departmental level, coordinating ten different communities (eight within Somoto and two within San Lucas) because all of Somoto's potable water comes from the high mountain tributaries of the Río Coco. There is interest amongst municipal officers to cooperate with other watershed communities to better manage their water resources. This cooperation needs to be facilitated and built-upon.

Municipal governments can associate freely amongst themselves for purposes of improving local environmental governance.⁸⁴⁵ Typically associations of municipalities are grouped according to their departments. For example, in the peace park territory there is the Association of Municipalities of

development for the Municipality, which seek economic, social and ecological balance for all parts of the territory and all levels of the municipal population...(5) To guarantee improvement of the hygienic conditions of the community and the protection of the environment, with special emphasis on the sources of potable water, soils and forests, and the elimination of liquid and solid residuals).

841*Id.* at art. 28(4) (Son atribuciones del Concejo Municipal: (4) Dictar y aprobar Ordenanzas y Resoluciones municipales) (These are attributions of the Municipal Council: (4) Dictate and approve municipal ordenances and resolutions).

842*Id.* at art. 28(11) (Son atribuciones del Concejo Municipal: (11) Discutir y aprobar las relaciones públicas nacionales e internacionales del Municipio, entre ellas, las relaciones de hermanamiento con Municipios del país o de otros países, de solidaridad o cooperación, y de ayuda técnica y económica, todo de conformidad con las leyes de la materia) (These are attributions of the Municipal Council: (11) to discuss and approve the national and international public relations of the Municipality, among them, friendly relations with Municipalities of the country or of other countries, for solidarity or cooperation, and technical and economic assistance, in accordance with the relevant laws).

843Interview with Cruz Antonio Padilla Gutiérrez, Secretary of the Municipal Council of San Lucas, San Lucas, Nicaragua (Mar. 12, 2010).

844Interview with Roger & Wilson, Coordinator of the Environment in the Municipal Council and Coordinator of the Municipal Commission on Culture and the Environment, Somoto, Nicaragua (Mar. 12, 2010).

845Ley de Municipios, *supra* note 811, at art. 12 (Los Municipios podrán asociarse voluntariamente por medio de asociaciones municipales que promuevan y representen sus intereses y prestarse cooperación mutua para el eficaz cumplimiento de sus actividades) (The Municipalities will be able to be associated voluntarily by means of municipal associations that promote and represent their interests and to give mutual cooperation for the effective fulfillment of their activities).

Madríz (AMMA) and the Association of Municipalities of Estelí (AMUDES).⁸⁴⁶ There is also an association for all of the municipalities of Nicaragua (AMUNIC).⁸⁴⁷ The coordination of environmental planning between municipal territories is one of the areas of public interest that has become a topic of interest in these municipal associations.⁸⁴⁸ Recently, AMUDES worked with the municipal government of Pueblo Nuevo, one of its constituent municipalities, to draft a development plan that for the first time, included protection of the environment and biodiversity.⁸⁴⁹ There used to be an Association of Municipalities in Protected Areas (AMAPRO), but this political organization seems to have fallen dormant and its charges have been passed on to the relevant regional municipal associations (e.g., AMUDES), if continued at all.⁸⁵⁰

Municipal governments may also choose to form official *mancomunidades*, which just like the *mancomunidades* of Honduras, are associations of municipal governments cooperating for purposes of mutual benefit.⁸⁵¹ *Mancomunidades* are a more formal association with legal personality.⁸⁵² The creation of a new *mancomunidad* has to be initiated by resolution from the *consejos municipales* (municipal councils) of each of the participating municipalities and then approved by the National Assembly.⁸⁵³

In developing affiliations with other political organizations, the municipal governments should not forget the traditional systems of governance which preceded them. In the border communities of Nicaragua, local governments in largely indigenous communities have managed to develop a customary system of co-governance. Despite the fact that the indigenous communities of Madriz and Estelí have not been recognized officially by the central government in Managua, there is as illustrated previously, a practice of collaborative governance at the local-level. This experience should be emulated in the creation of CCAs and the unification of CCA stewardship between stakeholders in Nicaragua with their neighbors across the international border in Honduras. Political entities such as

846Asociación de Municipios de Nicaragua [AMUNIC], *Directorio de Asociaciones Departamentales* (2009), <http://www.amunic.org/enlaces.html>.

847Id. at <http://www.amunic.org>.

848Id. at http://www.amunic.org/pp_planes.html; Interview with Nestor Maldonado, *supra* note 825.; Interview with Tamara Lucas, Representative of Asociación de Municipios de Estelí [AMUDES], Estelí, Nicaragua (Mar. 12, 2010).

849Interview with Tamara Lucas, *supra* note 847.

850Id.; Interview with Cruz Antonio Padilla Gutiérrez, *supra* note 842.

851Ley de Municipios, *supra* note 811, at art. 12 (Los Municipios también podrán, voluntariamente, constituir Mancomunidades y otras formas de asociación municipal con personalidad jurídica, cuyo propósito será racionalizar y mejorar la calidad en la prestación de los servicios públicos) (The Municipalities also will be able, voluntarily, to constitute Federations [*mancomunidades*] and other forms of municipal associations with legal personality, whose intention will be to rationalize and to improve the quality in the benefits of public services).

852Id. (La Mancomunidades son personas jurídicas de derecho público de prestación de determinados servicios municipales) (The *mancomunidades* are legal personalities of public right of benefit of certain municipal services).

853Id. (Para su creación se requiere, además de la aprobación de la Resolución respectiva por los Concejos Municipales de los Municipios a mancomunarse, de la posterior aprobación de la Asamblea Nacional) (For his creation it is required, besides the approval of the respective Resolution by the Municipal Councils of the Municipalities to unite itself, of the later approval of the National Assembly).

municipal governments should ensure the meaningful participation of indigenous communities in matters of local governance. In doing so, local governments should be sure to recognize the traditional systems of governance still in practice within indigenous communities and to engage cooperatively to safeguard those traditions and practices which are amiable to the objectives of a patchwork peace park: conservation, cooperation and peace.

Most citizens have greatest access to participation in political systems through their local governments. The patchwork peace park approach takes advantage of this fact and seeks to empower and build the capacity of individuals, who in turn strengthen the stewardship capabilities of their local governance systems to protect regional landscapes and resources. Individuals have a right and a duty to participate in governance; when it comes to local matters, it is explicitly recognized that this right and duty can be met individually or collectively.⁸⁵⁴ Importantly, in stating this, the Law of Municipalities recognizes that individual or collective participation in local governance is an obligation on all members of a community. Other rights and duties of municipal inhabitants are denunciation of abuses of the rational exploitation of natural resources, and protection of the environment.⁸⁵⁵ These rights and duties can be met through meaningful civic participation in local environmental governance. Additionally, patchwork peace parks will achieve their greatest potential when there is full citizen participation in the systems that govern their lands and resources.

Legal reconciliation of community-level conservation across the Honduran-Nicaraguan border

A patchwork peace park requires several elements – an ecological landscape across which to weave a quilt of protection, a legal system for normalizing a land ethic of environmental stewardship, and a network of community members participating directly in the dynamics of adaptive environmental governance. In the case study area between Honduras and Nicaragua, there are many ways in which these elements are similarly developed and can easily be integrated and unified. The recognized systems of social and political organization in the two territories are relatively analogous and additionally, much of the cultural practices, history and language are shared. The following project cycle analysis outlines some suggestions for how the existing social and political systems can be used to facilitate a patchwork peace park between Honduras and Nicaragua in the Choluteca, Madriz and Estelí departments. It builds on the previous project cycle that has been completed thus far towards the creation of a peace park between the two nations, taking as part of its initial assumptions the

854*Id.* at art. 16(1) (Son derechos y obligaciones de los pobladores del Municipio los siguientes: (1) Participar en la gestión de los asuntos locales, sea en forma individual o colectiva) (Rights and obligations of the inhabitants of the Municipality are the following: (1) participate in the management of local issues, in individual or collective form).

855*Id.* at art. 16 (3) & 16(7) (Son derechos y obligaciones de los pobladores del Municipio los siguientes: (3) Denunciar antes las autoridades municipales y nacionales las anomalías y los abusos en contra de una racional explotación de los recursos naturales ubicados en la circunscripción municipal. (6) Integrarse a las labores de protección del medio ambiente) (Rights and obligations of the inhabitants of the Municipality are the following: (3) To denounce before the municipal and national authorities the anomalies and abuses against rational exploitation of the natural resources located in the municipal circumscription. (6) To involve oneself in the labors of protecting the environment).

conclusions reached in those pre-feasibility and feasibility studies (i.e., a peace park would support biological and cultural conservation, as well as sustainable development in the region).

Project Idea. Emergence of the idea for a patchwork peace park between Honduras and Nicaragua as a community-based transboundary conservation approach that could serve as a more sustainable alternative to the top-down State initiated peace park process that has been prematurely halted due to the military coup in Honduras (June 2009) and breakdown of diplomatic relations between the two Governments post elections in Honduras (November 2009).

Pre-feasibility or Pre-viability Study. The patchwork peace park idea was preliminarily discussed with some of the proponents of the peace park initiative to gauge interests in exploring the feasibility of the patchwork peace park approach (June - August 2009). The patchwork peace park concept was presented to local proponents of the peace park initiative on both sides of the border to evaluate support for a new approach (October - December 2009). The pre-viability study indicated that a social, political and legal framework exist to support the creation of a patchwork peace park and that further study of stakeholder perspectives and political support would be valuable.

Feasibility or Viability Study. A rapid assessment viability study was undertaken to evaluate stakeholder support for a patchwork peace park approach and to determine local methodologies and experiencing in implementing such an approach. Interviews were conducted with local *alcaldes* and their officers, representatives of NGOs working in and around the area, and with scholars and experts in the topics of protected areas or natural resources management and community development (February – March 2009). The legal frameworks of both Honduras and Nicaragua were evaluated in order to determine the legal foundations for establishing a patchwork peace park. Conclusions from the viability study are presented here.

Defined Project. Individual *patronatos* and *gabinetes* convene meetings to discuss concerns and issues related to their environment and natural resources, proposing projects and norms for the long-term stewardship of their lands. The idea of CCAs can be introduced (if it has not been already) and evaluated for implementation in each of the *patronatos* and *gabinetes*. *Presidentes* of the *patronatos* and *gabinetes* can facilitate the creation of (or use of existing) *juntas directivas* for establishment of CCAs in each of their respective communities. The *presidentes* can facilitate communicate with *presidentes* of neighboring and other villages, forming joint *juntas directivas* and conducting joint meetings regarding the establishment and stewardship of CCAs in their local communities. These *ad hoc* alliances can be strengthened and better coordinated by

the creation of a broader association. The *alcaldes auxiliares* should be involved in all of these activities and engaged in dialogue with their respective *alcaldes* so that the municipal governments will participate directly in the coordination of CCA governance in their jurisdictions. Studies should be undertaken as needed so as to develop locally appropriate programs and projects regarding topics such as ecotourism, watershed management, health and sanitation, sustainable agriculture and food security, CCA benefits sharing, development of sustainable forestry or sustainable non-timber forest product industries, illegal natural resource extraction, environmental education, etc.

Financing. A comprehensive study should be conducted of the various financing options available from international and national organizations. Representatives of the *patronatos* and *gabinetes* should work with municipal governments and their respective *alcaldes* to develop projects and programs for which they can jointly solicit funding and technical support. Donors and NGOs should support efforts to implement community conservation projects and CCAs by facilitating the transfer of financial, human and technical resources to local communities. External funding should be consistent, transparent and accountable. CCAs should seek ways to be self-financing and financially sustainable, reducing dependencies on donor aid.

Project Execution. *Alcaldes* should formalize local CCAs (i.e., create official PAs, such as municipal PAs, areas for water production, municipal reserves or municipal ecological parks) through municipal ordinances or resolutions, or even through congressionally approved legislation, and pass similar local legislation codifying the policies and by-laws for stewardship of municipal PAs. *Alcaldes* can coordinate activities between their respective municipalities by integrating environmental governance of TBCCA networks into the agendas and work plans of *mancomunidades* and other associations of municipalities. Common decree(s) should be drafted and approved in accordance with national legislation. If there is sufficient political support at the State level, a treaty can be signed and ratified by the national governments to declare the patchwork peace park and national legislation passed to incorporate the patchwork peace park into respective national protected areas systems.

Operation and Management. Local governments and civil society representatives should meet regularly to facilitate broad stakeholder communication regarding regional environmental stewardship and to create a joint stewardship framework that collectively administers and regulates activities within the TBCCA network. Patchwork peace park stewardship should be based on principles of meaningful participation with stakeholders participating equally. A process should be developed for decision-making and administration of the patchwork peace park, as well as peaceful dispute resolution.

Policies, norms and regulations should seek to codify sustainable local and traditional practices, while regulating those which might be harmful to the current and future interests of the greater ecoregion. Land use planning and zoning in the relevant territory should comply with the objectives and principles of a patchwork peace park. Collaborative conservation in the patchwork peace park should work to promote environmental peace-building, stronger relations between communities across borders, and holistic management of landscapes and biological corridors.

Continuous Evaluation. Joint meetings between local governments and civil society participating in a patchwork peace park should ensure that the stewardship system or committee continues to effectively address the evolving issues confronting a patchwork peace park and implement collaborative decisions arising out of stakeholder meetings. Patchwork peace park governance should be adaptive and decisions should be made based on continuous monitoring and evaluation. Appropriate objectives and indicators should be developed and adapted as needed for monitoring and evaluation purposes.

The project cycle proposed above for implementation of the patchwork peace park approach in the mountain forest border communities of Honduras and Nicaragua is a general outline for developing a patchwork peace park between the communities and for its joint stewardship. Specific actions and processes should ultimately be developed by the communities themselves and based on informed and collective decision-making. In doing so, local patterns of environmental stewardship need to be assessed and continued so that the patchwork peace park is attached to already existing and functional institutions and practices. If local practices are not sustainable or institutions are weak, joint stewardship committees should consider how to improve upon them. Frank discussions should be initiated within the participating communities so that comprehensive understanding of the environmental context in which they live is fully developed. Questions that should be addressed in these discussions include, *inter alia*:

- hydrology – where are water resources and how do the regional hydrological systems function;
- sustainable land use – identify soil types, uses and how to improve upon them;
- biodiversity and species conservation – identify beneficial species, endemic species, endangered or threatened species and how to ensure the continued vitality of various life forms;
- processes for stakeholder consultation and participation, upholding at a minimum the requirements for public participation and access to information enshrined in the Aarhus Convention;
- compliance and enforcement of international environmental norms and principles –

how to use the precautionary and preventative principle in collaborative and adaptive patchwork peace park governance, combating environmental crimes, protecting human and environmental rights;

- peace – how to share information, experts, technology and financing so as to build good relations at the local level, how to promote and maintain a Culture of Peace, how to resolve disputes non-violently; and
- sustainable economic development – how to ensure that development of ecotourism is actually environmentally sustainable and that benefits are equitably distributed and shared, who can become concessionaires.

These questions and many more should be raised and discussed within the communities and between communities. External participation or assistance in the development and stewardship of a patchwork peace park should be offered only so as to provide the information and resources (economic, human or technical) needed for communities to make well-informed decisions and to develop and implement projects of their own capabilities.

A future of legitimacy?

A patchwork peace park is a process that may be developed patch by patch, bit by bit. As a network of TBCCAs, it can begin with *de facto* community conservation of local lands and natural resources. When sustainable stewardship practices and community social and political organizations are properly developed, this *de facto* conservation can be formalized to create *de jure* TBCCAs. Cross-border community collaboration for CCA stewardship can begin with targeted projects (e.g., cooperative watershed management or training of community fire brigades) and expand their scope to address more comprehensive environmental programs (e.g., regional land use planning and management). When political climes are opportune, greater formalization and stronger protections should be sought. This can begin locally with the declaration of local parks by local authorities in accordance with the powers of a municipality and national legislation governing the matter. Local governments can then collude to enter into agreements between the *alcaldes* joining and proposing joint management of these local parks for peace and cooperation. When higher level political support reaches a critical mass, these CCAs should be incorporated into the national protected areas systems of Honduras and Nicaragua via congressional legislation and bound together by treaty or convention between the central governments.

“You have given us the greatest of gifts: The secret of how to make soup from stones”

Transboundary Community Conservation and the Future of Peace Parks

“In a world beset by conflicts and division, peace is one of the cornerstones of the future. Peace parks are a building block in this process.”

– Nelson Mandela

How do we move from a culture of poverty, marginalization, political disenfranchisement, unsustainable development and conflict to a Culture of Peace? We can begin by imagining a different reality, a peace park, and then building a framework that will support and facilitate its realization. One way to begin this process is through the State paradigm – the State being an institutionalized association of certain peoples that generally embody Westphalian concepts of the nation-state, territorial sovereignty and control. However, environmental governance executed solely through the machinery of the State has its downsides, particularly in regions experiencing armed conflict or insecurity. As Jeffrey McNeely stresses, “peace parks must be tied to an international structure that endures when nations crumble.”⁸⁵⁷ This international structure can take the form of people and communities all over the world. Conservation can take place directly in each community, by individuals of those communities themselves. Together, communities can organize for purposes of shared interests and common concerns. The quilt of community conservation areas (CCAs) that they will weave together across landscapes will create a patchwork of peace parks, a flexible and organic framework that can endure.

Peace parks are a defined physical space where idealism meets practicality, and patchwork peace parks are an approach by which they can be cultivated anywhere in the world. By establishing peace parks globally, we may yet as a human society, find ourselves converging upon the universally applicable objectives of biological and cultural conservation, international cooperation and a Culture of Peace. When evoking the peace park concept, we must imagine these terms or aspirations in their fullest potential. Conservation is not just mere preservation, the storing of a singular angiosperm in an underground seed bank far from its home or the physical recordings of a nearly extinct language, but rather it is the assurance of a species or a culture's viability and vitality for generations to come. Similarly, international cooperation is not just governments agreeing to disagree by tacit inaction. If we accept that definition, then the Government of Honduras is effectively cooperating with the Government of Nicaragua in the erection of barriers between their two nations by doing nothing to improve their broken relations. Instead, international cooperation should involve the free flow and exchange of ideas, technologies, cultures and peoples across borders in ways that are productive and beneficial to all. A Culture of Peace is not just the temporary absence of extreme violence or war; it is

⁸⁵⁶The Stone Soup Society, *supra* note 643.

⁸⁵⁷Jeffrey A. McNeely, *supra* note 542, at 170.

the Global Care ethic of Allan Pierre and the complete realization of the principles of the Earth Charter, or as the UN General Assembly has declared, a “set of values, attitudes, traditions and modes of behavior and ways of life...conducive to the promotion of peace among individuals, groups and nations.”⁸⁵⁸ Peace parks are a framework for practical implementation of these universal ideals.

In a world that sometimes seems far and waywardly distracted from such an idealistic vision, the adamant demand to immediately bring about such a state on a global scale may seem overwhelming, impractical or even impossible. Even if these intentions are focused upon a localized geographical region, say the mountain forests between Honduras and Nicaragua, substantial challenges may line the way. Few might admit to being fundamentally against peace parks or its objectives of conservation, cooperation and peace; yet, despite the existence of thousands of protected areas lying nearby or adjacent to each other across an international or sub-national border (not to mention all of the areas not officially protected), there are relatively few true peace parks, or those which would satisfy all the elements or the definition of a peace park, in this world. Also, as may be noted in the case studies examined in Chapter II, of the peace parks that do exist, no two are the same. There are varying levels of cooperation, social peace and environmental resilience in each of the transboundary protected areas (TBPAs). There must be a way to overcome the overwhelmingly daunting task of bringing about world peace (ecological, social and international), or of bringing together the protected areas that straddle borders, and of moving existing peace parks towards a fuller realization of their basic goals (conservation, cooperation and peace). It is possible that a patchwork peace park can contribute to each one of these goals.

Patchwork peace parks seek to realize this vision at the simplest and easiest level, individuals in their own communities. Patchwork peace parks do not need the development of national or international infrastructure and institutions to administer a bureaucratic system of centrally managed parks. They do not result in the mere creation of more paper parks because patchwork peace parks in their most primal form are composed of lands and resources collectively stewarded by the people who occupy them. They can be as informal as *de facto* community conservation areas (CCAs), which do not necessarily enjoy the paper protection of gazetted parks, but do have the preferred implementation of an actual land ethic by the very people who can most directly impact the area.⁸⁵⁹ When individuals begin to protect the lands they live on and cooperate with each other to manage more holistically, the lands which they co-inhabit, then we find ecological peace and social peace affixing themselves to geographic locations. When this paradigm finds itself stretching across State borders, the idea of international peace becomes more and more tangible. From inner peace comes outer peace.

Piece by piece, a patchwork of peace parks may be woven to cover local commons, landscapes and ecoregions. The advantage of creating CCAs is that the bureaucracies are much more localized. The distance between people (physically and in the political hierarchy of society) is collapsed. It is much easier for a constituent to speak with its neighbors and representatives of local government, as

⁸⁵⁸Pierre Allan, *supra* note 509, at 90.; Earth Charter, *supra* note 524.; U.N. GAOR, *supra* note 669.

⁸⁵⁹See Aldo Leopold, *The Land Ethic*, in *A Sound County Almanac* 237, 237-263 (Ballantine Books 1st ed., Random House Publishing Group, 1966).

compared to national legislators and Heads of State or Government. Adaptive community conservation also intends that local people are directly involved in the stewardship of Nature and continuously monitoring for more effective management so that practices may be evolved and improved as best fits local or changing circumstances. None of this, however, assumes that communities are not plagued with their own bureaucracies or politics and that change may sometimes be slow and subversive. A CCA may begin as the vision of a small few hoping to adjust the behaviors of a greater many. The politics of solely one village easily reflect a microcosm of the realpolitics and petty egoisms that characterize global politics. When one village is linked to another, the concern for each other's affairs may be perceived as excessively meddling or handicapping of autonomous capabilities to manage domestic matters. These are just some of the potential dangers of transboundary community conservation (TBCC) that must be accounted for and mitigated.

This chapter, as a collection of final remarks and reflections, discusses some of the theories and realities of TBCC and describes ideas for what patchwork peace parks might mean for the future of peace parks. TBCC and patchwork peace parks will likely need time to build community capacities for stewardship and to make the appropriate shifts in cultural practices. Nevertheless, there is great potential for what patchwork peace parks might achieve. A common vision for peace parks, including patchwork peace parks, should be developed so that collective activities may be channeled towards their realization.

Reflections on Transboundary Community Conservation

As the number of protected areas, including peace parks, increases, conservationists have been asking themselves and society at large, how to best manage shared ecosystems and resources. Resoundingly, an answer has been community-based conservation – a bottom-up approach based on community stewardship and local capacity-building of peoples living in and around natural areas, perhaps supported by assistance from international and national organizations, governmental and non-governmental.⁸⁶⁰ Essentially, the patchwork peace park model is purveying this very same approach, collaborative community conservation across borders. However, before engaging in the wholesale advocacy of this concept, it seems only appropriate to discuss what community conservation across borders might actually mean in theory and in practice.

This section raises some questions about transboundary community conservation that are based on field research in Central America, but involves issues that likely afflict conservation efforts in all regions of the world. In reflecting on these concerns and aspirations for transboundary community conservation, it is the author's hope that we will all open ourselves to frank dialogue on these issues so that the most positive paradigms of global environmental stewardship may emerge. As Albert Camus once said, “good intentions may do as much harm as malevolence if they lack understanding.” When called upon by the noble intentions of a peace park – ecological peace, social peace and

⁸⁶⁰Goodale et al., *Transboundary Protected Areas: The Viability of Regional Conservation Strategies* (U. Goodale, M. Stern, C. Margolius, A. Lanfer & M. Fladeland eds. 2003).

international peace – it is our duty to inform ourselves and each other with utmost transparency of the complete narrative at hand, so that we might through our collective wisdom, make the best decisions.

Sustainable development needs participation

If our protected areas are going to grow and cover wider landscapes, ecoregions and biological corridors, then human communities must be called upon to participate directly in environmental stewardship. In many places it would be difficult for governments to acquire new public lands, possibly because it would be prohibitively expensive or it would involve the displacement of many peoples. Even if it were feasible to obtain the lands, public administration of new protected areas could further burden resources already stretched thin. Even the U.S., the nation with the highest GDP and GNI ranking in the world, struggles to finance its National Park Service.⁸⁶¹ California, a state whose economy ranks consistently in the top 10 when compared to nations around the world, has had to cut back drastically on its state park funding, which has resulted in the closure and/or removal of nearly all park personnel from some locations.⁸⁶² Perhaps this says more about government priorities than economic capacity, but the reality is that protected areas need the support of their local communities.⁸⁶³ Governments cannot establish and maintain protected areas without the support of society at large. Without the support of a spectrum of stakeholders, protected areas will become shrinking island vestiges of ecological sanctuaries, walled in for their own survival.

Public participation in environmental stewardship is not so different from public participation in a pure democracy.⁸⁶⁴ Devolution or sharing of protected areas responsibilities inherently involve increased direct participation in decision-making processes. Meaningful participation in environmental governance according to the 1998 Convention on Access to Information, Public Participation in Decisionmaking and Access to Justice in Environmental Matters requires at least, “the rights of access to information, public participation in decision-making, and access to justice in environmental matters.”⁸⁶⁵ Public participation in decision-making hinges upon the provision of information with sufficient time for review, opportunities for direct comment or engagement in open debate regarding the information and actions to be taken, and serious consideration by public authorities of the contributions made by civil society.⁸⁶⁶ The Arab Declaration on Environment and Development and

⁸⁶¹World Bank, *supra* note 717.; World Bank, *supra* note 718.

⁸⁶²Center for Continuing Study of the California Economy, *2008 California Economy Rankings* (Aug. 2009).; California State Parks Foundation, *California State Parks Foundation Statement on State Parks Closure in Governor's FY08-09 Budget* (Jan. 10, 2008), <http://www.calparks.org/press/2008/california-state-parks-foundation-statement-on-state-park-closures-in-governor-s-fy08-09-budget.html>.

⁸⁶³See Sean T. McAllister, *Community-Based Conservation: Restructuring Institutions to Involve Local Communities in a Meaningful Way*, 10 Colo. J. Int'l Envtl. L. & Pol'y 195 (1999).

⁸⁶⁴James Madison, *The Federalist No. 10: The Utility of the Union as a Safeguard Against Domestic Faction and Insurrection* (Nov. 22, 1787).

⁸⁶⁵Aarhus Convention, *supra* note 604, at art. 1.

⁸⁶⁶*Id.* at arts. 6-8.; See Neil A. F. Popovic, *The Right to Participate in Decisions that Affect the Environment*, 10 Pace Envtl.

Future Perspectives issued by the Arab Ministerial Conference on Environment and Development also extends the ambit of public participation to post-decision-making implementation of determined actions.⁸⁶⁷ Public participation must begin as early as possible and continue throughout the decision-making process, all the way until conclusory determinations are seen through by the decision-making public themselves.

Public participation is a fundamental requisite for any participatory democracy.⁸⁶⁸ A pure democracy as described by James Madison is “a society consisting of a small number of citizens, who assemble and administer the government in person.”⁸⁶⁹ It is a form of direct and popular governance. In order to overcome the definitional limitation of Madison's pure democracy, which is based on small numbers of citizens, Thom Holterman envisions pure democracy for larger communities as a “double intercommunal union,” and ultimately the “divi[sion of] large communities into smaller ones,” or the decentralization and devolution of authority to the smallest unit.⁸⁷⁰ A “double intercommunal union” is essentially a federation of communities or society of free associations, much like a patchwork peace park, which takes “the local community (in other words, the municipality or commune) as the basic unit for further federation, at the regional, national and international level.”⁸⁷¹ Governance in a federated network of communities is sometimes described as a “honeycomb model,” where “many decision-makers...take decisions on the basis of the consent principle.”⁸⁷² Power is distributed between a multiplicity of coordinated centers, rather than in the center (as in the spider web model) or top (as in a pyramid model).⁸⁷³ The direct and collective action evoked in developing a culture of TBCC in individuals and communities is facilitative or at the very least correlative to the building of a pure democracy in the nature of an intercommunal union.⁸⁷⁴

Law Rev. 683 (1993).

867Letter of the Conference on Environment and Development, 46th Sess., Agenda Items 34, 77(e)-(h), 78 & 79, at 9, U.N.Doc. A/46/632 (1991).

868This is recognized in the laws of both Honduras and Nicaragua. *E.g.*, Decreto No. 3-2006, 27 Enero 2006, Ley de Participación Ciudadana [Ley de Participación Ciudadana] [Citizen Participation Law], pmbL., L.G., 1 Feb. 2006 (Hond.);

869James Madison, *supra* note 863.

870Thom Holterman, *Anarchist Theory of Law and the State*, in Law and Anarchism 13, 18, 63 (Thom Holterman & Henc Van Maarseveen eds., Black Rose Books, 1984).

871*Id.* at 18.

872*Id.* at 59.; The Consent Principle is “a doctrine derived from sociocracy, in which power is invested in argument. Decisions are taken only if they are based on full agreement; this does not mean that everyone must support them, only that no-one must be against them.” *Id.* at 54.; Sociocracy is an idea pioneered by K. Boeke, meaning “a society in which order was based on neighborhood groups and workers' groups.” *Id.* at 81, *citing* Ramaer, *The Pyramid of Tyranny* 194 (n.d.).

873The spider web or pyramid model are illustrative of highly centralized governments. *Id.*

874Barbara Wyckoff-Baird, Andrea Kaus, Catherine A. Christen, and Margaret Keck, *Shifting the Power: Decentralization and Biodiversity Conservation* 38 (World Resources Institute, Oct. 2000) (case studies indicate that although “conservation improves *with* decentralization, it may not be improving *because of* decentralization), available at <http://www.wri.org/publication/shifting-power-decentralization-and-biodiversity-conservation> (last visited June 28, 2010).

The right to public participation in governance is a well recognized norm of international law. Public participation in general issues of national governance is found in the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights (ICCPR). Article 21 of the Universal Declaration of Human Rights states that “[e]veryone has the right to take part in the government of his[her] country, directly or through freely chosen representatives.”⁸⁷⁵ Similarly, the ICCPR states that “every citizen shall have the right and the opportunity...without unreasonable restrictions: (a) To take part in the conduct of public affairs, directly or through freely chosen representatives.”⁸⁷⁶ The general theory of public participation is also applied explicitly to indigenous or tribal peoples in the International Labour Conference's Convention Concerning Indigenous and Tribal Peoples in Independent Countries, wherein Convention Parties must “establish means by which these [indigenous] peoples can freely participate, to at least the same extent as other sectors of the population, at all levels of decision-making in elective institutions and administrative and other bodies responsible for policies and programmes which concern them.”⁸⁷⁷ The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) also maintains that indigenous peoples retain “their right to participate fully, if they so choose, in the political, economic, social and cultural life of the State.”⁸⁷⁸

It is only fitting that international law should codify a right to direct action in political matters or essentially public participation in governance. International law is as some would say, essentially a manifestation of anarchist law.⁸⁷⁹ It is a body of norms identified by the collective international community through the exercise of the Consent Principle and evinced by customary practice (i.e., *opinio juris*). International law is not drawn from one written code; instead it is derived from a variety of sources:

- a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- b. international custom, as evidence of a general practice accepted as law;
- c. the general principles of law recognized by civilized nations; and

⁸⁷⁵ G.A. Res. 217A, U.N. GAOR, 3d Sess., at 139, U.N.Doc. A/810 (1948).

⁸⁷⁶ G.A. Res. 2200, U.N. GAOR, 21st Sess., Supp. No. 16, at 55, U.N.Doc. A/6316 (1966).

⁸⁷⁷ Convention concerning Indigenous and Tribal Peoples in Independent Countries [ILO No. 169], art. 5, 8, Jun. 27, 1989, 72 ILO Official Bull. 59, 28 ILM 1382.

⁸⁷⁸ U.N. Human Rights Council, Sept. 7, 2007, *United Nations Declaration on the Rights of Indigenous Peoples*, art. 5, U.N. Doc. A/61/L.67 (Sept. 7, 2007) [hereinafter UNDRIP]; Article 18 of the UNDRIP also protects their “right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions.” *Id.* at art. 18.

⁸⁷⁹ See Gary M. Anderson & Adam Gifford Jr., *Order Out of Anarchy: The International Law of War*, 15 Cato Journal 25 (1995), available at http://www.cato.org/pub_display.php?pub_id=2775 (last visited June 29, 2010).; See also Jean Allain, *Anarchy and International Law: The Approaches of Hedley Bull and Noam Chomsky* (2008), available at <http://www.anarchist-studies-network.org.uk/documents/Conference%20Papers/Jean%20Allain.pdf> (last visited June 29, 2010).

- d. judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.⁸⁸⁰

What is noteworthy is that international law can be extracted from observation of custom and general practice. This is particularly true if a convention does not speak clearly on the matter. In the case of environmental governance, however, there are many treaties and declarations which are meant to guide custom in the shared stewardship of a planet fragmented into multiple territorial jurisdictions that recognizedly do not follow ecosystemic divisions. Observation would indicate that intended practice does not necessitate that one rigid paradigm should equally bind all territories, but prefers that principles and laws embodied in the corpus of international environmental law be attached to jurisdictions with care for local circumstances and flexibility for traditions and existing systems or institutions.

Meanwhile, anarchist law seeks to develop its own “democratic forms of direct self-organization,” or participatory democracy, that mirrors international law. Anarchist legal paradigms submit that individuals freely associated are the sources of law and not some far removed legislative body representing a minority of powerful interests.⁸⁸¹ Through collective decision-making and direct action, normative practices begin to emerge that allow individuals to form a degree of “interpersonal expectation” or predictability (one of the functions of law), thus shaping customary laws that “in one way or another have an official status in society and are formulated in such a way as to lay claim to a general validity.”⁸⁸² Anarchist law is in its essence, customary international law.

Domestic legal frameworks can also provide room for lawmaking by customary practice. In the U.S., there are many laws that are obsolete, but remain on the books. In Alabama, a person can be sentenced to death for putting salt on the railroad tracks. In Arizona a person cannot purposefully trip a donkey or horse.⁸⁸³ In West Virginia, each word of profanity spoken in public is subject to a \$1USD fine and in Alabama it is illegal to play cards on Sunday.⁸⁸⁴ These laws are not enforceable, even though they remain on the books.⁸⁸⁵ The practice of non-enforcement seems to indicate normative policy other than those written and passed by legislators. Meanwhile, common law requires that we follow the actual evolution of laws, looking to the law as it is (*lex lata*) or as it is written (*lex scripta*), as it was intended, as it is implemented and enforced (or not) and as it should be (*de lege ferenda*). Judiciaries could also take into account *lex non scripta* as evidence of *lex ferenda* and possibly the

⁸⁸⁰U.N. Charter, *supra* note 7, at art. 38.

⁸⁸¹Thom Holterman, *supra* note 869, at 62-63.; Henc van Maarseveen, *Anarchism and the Theory of Political Law*, in *Law and Anarchism* 85 (Thom Holterman & Henc Van Maarseveen eds., Black Rose Books, 1984).

⁸⁸²Henc van Maarseveen, *supra* note 880, at 95-96.

⁸⁸³Ariz. Rev. Stat. Ann. §13-2910.09 (2010).

⁸⁸⁴W. Va. Code, § 61-8-1 (1923).; [Ala. Code §13A-12-1 \(1975\)](#).

⁸⁸⁵*Doe v. Duling*, 782 F.2d 1202, 1205-1209 (1986) (where there is little or no history of practice in implementing a law, the statute may persist merely as “a matter of historical curiosity” and is not justiciable without evidence of a sufficient threat of prosecution).

emergence of a new *lex lata*.⁸⁸⁶ Indigenous or tribal laws are sometimes based on customary law or *lex non scripta* and domestic legal systems may require that these laws be taken into account.⁸⁸⁷

By purview of international and customary law, the right to public participation calls for a bottom-up governance of environmental matters. In its most basic form, codifications of the right to public participation are attempting to ensure that decision-making procedures are based on and consider the interests and views of a broad range of individuals, particularly those who do not occupy public office. Its procedural mandates seek to promote early participation in decision-making processes and education and capacity-building for all stakeholders. In relying on the direct participation of all persons making up a society, anarchist law or customary international law promote observance of a right to participate in environmental governance, and in some jurisdictions, this right corresponds to a duty to participate.⁸⁸⁸ In the process of institutionalizing public participation and developing community capacities to participate meaningfully, societies seeking to organize as a pure democracy are developing the “necessary conditions...to build up a social system as a self-organizing system.”⁸⁸⁹ Ultimately, this means that all peoples are lawmakers, giving meaning to the term “law from below.”

Collective environmental governance, like ecosystems, does not stop at borders. The International Court of Justice's (ICJ) recent judgment, Pulp Mills on the River Uruguay (Argentina v.

⁸⁸⁶*Erie R. Co. v. Tompkins*, 304 U.S. 64, 73 (Apr. 25, 1938) (federal courts apply law of the state, written and unwritten).; Beth Stephens, *The Law of Our Land: Customary International Law as Federal Law After Erie*, 66 Fordham L. Rev. 393 (Nov. 1997).; See e.g., U.S. House of Representatives, Office of the Law Revision Council, *Positive Law Codification in the United States Code* (n.d.) (mandated to restate and codify positive law, while reforming obsolete laws), available at <http://uscode.house.gov/codification/legislation.shtml> (last visited July 1, 2010).

⁸⁸⁷ILC No. 169, *supra* note 876, at art. 5, 8 (mandates recognition of the “values, practices and institutions” of indigenous and tribal peoples with explicit protection for their customary laws and customs).; UNDRIP, *supra* note 877.; E.g., Roque Roldán Ortega, The World Bank Environment Department, *Models for Recognizing Indigenous Land Rights in Latin America* 5-9 (Biodiversity Series Paper No. 99, Oct. 2004) (Bolivia, Brazil, Colombia, Costa Rica, Panama, Paraguay and Peru all have a superior legal framework, “high-level judicial instruments (constitutions or international agreements) recognizing indigenous land rights, as well as some national legal and regulatory framework operationalizing the high-level instruments”).

In some States, constitutions recognize traditional faith-based legal systems. See e.g., Frank E. Vogel, *Islamic Law and Legal System: Studies of Saudi Arabia* (2000) (Saudi Arabia constitutionally recognizes and implements traditional practices of Islamic or Shariya Law).; See also e.g., Robert Lingat, *The Classical Law of India* (J. Duncan M. Derrett trans., 1973).

⁸⁸⁸E.g. Reglamento General de la Ley del Ambiente, *supra* note 757, at tit. V, ch. I, sec. II, art. 88 (Los habitantes en sus respectivos municipios tienen...el derecho de participar directamente en todas las acciones de defensa y preservación del ambiente y del uso racional de los recursos naturales de su respectivo término municipal) (Inhabitants of their respective municipalities have...the right to participate directly in all actions of defense and preservation of the environment and the rational use of natural resources of their respective municipality).; E.g., Ley General del Ambiente, *supra* note 749, at tit. VII, art. 102 (Los habitantes de las comunidades locales deben participar directamente en las acciones de defensa y preservación del ambiente y del uso racional de los recursos naturales del país.) (The inhabitants of the local communities must directly participate in the actions of defense and preservation of the environment and the rational use of the natural resources of the country).

⁸⁸⁹Thom Holterman, *supra* note 869, at 61.

Uruguay, issued April 2010 recognizes a general obligation to ensure that activities within one jurisdiction do not harm the environment of areas outside of their jurisdiction and as a mechanism for preventing transboundary harm,⁸⁹⁰ States have a duty to engage in cooperative transboundary environmental impact assessment (EIA) for projects with cross-border impacts.⁸⁹¹ Uruguay had an obligation to notify Argentina through the joint Administrative Commission of the River Uruguay (CARU) of the paper mill plans on the River Uruguay⁸⁹² and with regard to the Principle of Prevention,⁸⁹³ it had a duty to do so “as soon as it is in possession of a plan which is significantly developed to enable CARU to make the preliminary assessment.”⁸⁹⁴ Furthermore, the purpose of early notification is so that the parties may in good-faith⁸⁹⁵ cooperate successfully, “assess[ing] the plan's impact on the river on the basis of the fullest possible information” and “to negotiate possible changes which may eliminate those risks or minimize their effects.”⁸⁹⁶

The ICJ fell short of explicitly recognizing a legal obligation by States engaging in projects with transboundary impacts to engage in public consultation of affected citizens, even those outside of its jurisdiction.⁸⁹⁷ The Court observed that there is currently no general international law “specify[ing] the scope and content of an [EIA].”⁸⁹⁸ This could be because transboundary EIA is a relatively new phenomenon on its way to building a critical mass of *opinio juris* that will shortly provide sufficient evidence of an *erga omnes* principle, or it may be specific to the fact that one of the international agreements speaking directly on the subject, the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention),⁸⁹⁹ is the product of a regional inter-State

890Case Concerning Pulp Mills on the River Uruguay (Arg. v. Uru.), at para. 193 (Judgment of Apr. 20, 2010), *available at* <http://www.icj-cij.org/docket/index.php?p1=3&p2=3&case=135&code=au&p3=4&PHPSESSID=3680b71f5ecd158e6463cf76c2d901f9> (last visited July 1, 2010), *citing* Legality or the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 241-242, para. 92 (July 8).

891*Id.* at para 77 & 204 (obligation to protect and preserve the environment “has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource”).

892*Id.* at para. 94 (the State initiating the planned activity has an obligation to inform during the first stage of the procedural mechanism so that the other State can determine “on a preliminary basis” whether there might be significant damage).

893*Id.* at para. 101 (the Principle of Prevention is a customary rule that requires a State “to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State”).

894*Id.* at para. 105 & para 205 (environmental impact assessment must be completed before implementation of a project and monitoring should continue throughout the life of the project).

895*Id.* at para. 145 (international law requires that co-operation be governed by the principle of good faith), *citing* Vienna Convention, *supra* note 612, at art. 26 (“[e]very treaty in force is binding upon the parties to it and must be performed by them in good faith”).

896*Id.* at para. 113, 115.

897*Id.* at para 216.

898*Id.* at para. 205.

899Espoo Convention, *supra* note 608.

organism, the United Nations Economic Council of Europe and neither Argentina nor Uruguay are part to it.⁹⁰⁰ It may also be because the Court found that Uruguay had sufficiently consulted affected populations in Argentina and thereby satisfied any possible obligations.⁹⁰¹ Regardless, the Court does say that the environmental impact assessments should at least conform with national legislation governing impact assessment processes.⁹⁰² In those situations, the Aarhus Convention on Public Participation does provide a right of citizens to participate in the EIAs of projects with impacts to their lands and natural resources.⁹⁰³ The ICJ's failure to recognize an explicit legal obligation for States to undertake public consultations of all affected citizens, including those outside of its jurisdiction, does not mean that this requirement does not exist.

Developing a process using local and organic resources

An active public that participates directly and collectively in the stewardship of lands that they inhabit is quintessential to community-based conservation.⁹⁰⁴ For many, it has been a lifestyle and cultural practice for civilizations seeking to manage sacred sites or natural resources according to “rules that privilege livelihood sustainability, risk-aversion, flexibility, social reciprocities and use-values.”⁹⁰⁵ A landscape could be made up of communal water sources, hunting grounds, sacred caves and ancient groves, forming a mosaic of land uses governed by a customary regulatory framework. Although community-based conservation far predates government-driven conservation (i.e., national systems of protected areas), this complex system of customary practices has not always been smoothly coalesced into the institutionalized systems of land use regulation that have emerged with the advent of governments and nation-states.

What a patchwork peace park tries to do is to marry the long-existing tradition of community conservation with the newer government-based conservation paradigm, seeking the greatest protection for environments and their human communities for millennia to come. It does this by examining the *de facto* conservation areas and practices that communities are already partaking in and the *de jure* legal protections that governments have or can offer, and then suggesting a process of collaborative and adaptive governance that can make the best use of these two systems. In other words, developing a process using local and organic resources. When questioned about his opinion on the most important

900Case Concerning Pulp Mills on the River Uruguay, *supra* note 889, at para. 205 (neither States are party to the Espoo Convention), 210 (the Espoo Convention is not applicable to the present case) & 215 (Argentina cites to Articles 2.6 and 3.8 of the Espoo Convention as part of the basis of its argument that Uruguay had an obligation to consult affected populations in Argentina).

901*Id.* at para. 217-219.

902*Id.* at para. 205.

903Aarhus Convention, *supra* note 604.

904Community-based conservation is “natural resources or biological diversity protection by, for, and with the local community.” McAllister, *supra* note 862, at 202.

905Grazia Borrini-Feyerabend, *Indigenous and Local Communities and Protected Areas: Rethinking the Relationship*, 12 Parks 5, 5 (2002).

issues arising in debates on indigenous and local communities and protected areas, Tariq Banuri responded:

“While most institutions can be subjected to social and participatory control, even the most ideal system is subject to misuse. As Michel Foucault put it, nothing is evil in itself, but everything is dangerous. I am tired of hearing that the state is intrinsically evil or that communities are fragmented by class and identity restrictions, or that the private sector is inherently violent and corrupt, the intellectuals are socially irresponsible, and so on. These are just unhelpful stereotypes. I would rather ask how these groups could collaborate and help overcome the weakness, corruption and inefficiency to be found in each. Naturally, the basis of such collaboration would be different in different places. In this sense, co-management seems to me a way out, a rejection of the modernist hubris that underpins much development thinking, both on the right and left. The hubris is best characterised by the Bauhaus slogan: “start from zero”. Development and conservation thinkers of all types too often believe they build entirely new societies, excising all the diseased elements of old societies. After the painful experiences of the last century we should be far more humble, we should realise that we have to build upon what exists.”⁹⁰⁶

His primary argument is not for one paradigm or another, but for a collaborative approach involving communities and their governments based on the systems that already exist. Translated into our terminology, he is describing a process envisioned for the patchwork peace park approach.

A proposal to build off of already existing traditional and institutional systems is merely a starting ground. Albeit the newcomer to the game, centralized environmental governance has become the dominant regime.⁹⁰⁷ Based on a model of self-purported legitimacy, it has not always recognized systems of community conservation or the areas that they protect.⁹⁰⁸ This model of centralized environmental governance, although sometimes undertaken in the name of a noble goal (environmental protection), has been forced upon many to their great disadvantage. The common story of the “fencing” approach, whereby protected areas are marked and declared, expelling numbers of traditional inhabitants from their lands and livelihoods base, is now popularly decried.⁹⁰⁹ More than a century

⁹⁰⁶*Id.* at 8.

⁹⁰⁷Dilys Roe, James Mayers, Maryanne Grieg-Gran, Ashish Kothari, Christo Fabricius & Ross Hughes, *Evaluating Eden: Exploring the Myths and Realities of Community-Based Wildlife Management* 10 (Evaluating Eden Series No. 8, International Institute for Environment and Development, Sept. 2000), available at <http://www.iied.org/pubs/pdfs/7810IIED.pdf> (last visited July 2, 2010) (national parks where humans and wildlife cannot co-exist is a historical anomaly when compared to the long practice of nature protection for religious, hunting or subsistence uses); Fikret Berkes, *Community-Based Conservation in a Globalized World*, 104 PNAS 15188, 15189 (Sept. 2007) (State ownership of wildlife resources has come to dominate conservation policies around the world).

⁹⁰⁸Borrini-Feyerabend, *supra* note 904, at 6-9 (interview with Adrian Phillips, Kenton Miller, Tariq Banuri and Taghi Farvar, all noting that community conservation areas must be recognized by national governments).

⁹⁰⁹McAllister, *supra* note 862, at 195 (the fencing model refers to protected areas “usually created by forcing local

after the first national parks started to dot the Earth's landscapes, governments are only in the beginnings of trying to figure out how to clean up some of that mess.⁹¹⁰ In many places, there are significant steps to be taken to rebuild trust and to share knowledge so that communities and their governments may truly collaborate in equitable partnership. A transition from centralized back to decentralized environmental governance will need to take a phased approach, building relationships and collaborations progressively.⁹¹¹

It must also be conceded that community-based conservation has challenges of its own. Community-based conservation should not be excessively romanticized, it is not always the “pro-poor, pro-wildlife” win-win situation that it is proclaimed to be.⁹¹² Experience shows us that public participation does not necessarily benefit the environment. For instance, the local cattle ranchers in Honduras did not support declaration of protected area La Botija with nucleus or “no touch” zones, because they preferred that the entire territory remain open to multiple-use, thus allowing their cattle to continue grazing into the last remaining patches of cloud forest in the area. Lacking the appropriate knowledge and opportunities, communities may tend towards “unfavorable conservation implications” when responding to population pressures, negative environmental change, and global market and development demands. As Banuri evoking Foucault said, “nothing is evil in itself, but everything is dangerous.”⁹¹³ This is especially true if existing non-egalitarian power structures continue to guide public participation.⁹¹⁴ As a result, the element of consensus building in the pure democracy model of community-based conservation produces entrenchment or socially legitimized justification for unsustainable patterns of human land use.⁹¹⁵

Furthermore, TBCC has added dimensions of complexity when compared to development of a

communities off of the land and forbidding them to use the protected resources, even in sustainable ways”).

910Interviews with protected areas authorities in both Costa Rica and Panama reveal government policies from the 1990s supporting decentralization of environmental governance and broader public consultation in decisions affecting protected areas and their buffer zones. However, in either sector of Parque Internacional La Amistad (PILA) between Costa Rica and Panama, it was not until the last five or so years that park administrators really began to engage in dialogue with the local communities and to institutionalize a broader role for civil society. Costa Rica's most recent management plan for PILA – Costa Rica was developed with stakeholder participation and will rely on community involvement in its implementation. It remains to be seen whether Panama will do the same in the development of its new management plan.

911Robert Horwich & Jonathan Lyon, *Community Conservation: Practitioners' Answer to Critics*, 41 *Oryx* 376, 380 (2007) (community conservation “often means initiating a project within a small rural area and expanding the project later”).

912Sian Sullivan, *The Elephant in the Room? Problematising 'New' (Neoliberal) Biodiversity Conservation* 1-2006 *Forum for Development Studies* 105 (June 2006).

913Borrini-Feyerabend, *supra* note 904, at 8.

914*Id.* at 764.; Wyckoff-Baird et al., *supra* note 873, at 39 (decentralization can result in the “capture” of decision-making bureaucracies by local economic elites through persuasion or corruption).

915See M. Nils Peterson, Markus J. Peterson & Tarla Rai Peterson, *Conservation and the Myth of Consensus*, 19 *Conservation Biology* 762, 763 (June 2005) (noting consensus processes that result in continued support of the status quo, such as claims that “sustainable development can occur indefinitely alongside current economic growth patterns,” which hinder any real chance for change).

culture of local stewardship and peace in one solitary community. The geologic or physical barrier alone may be daunting. Members of small rural communities may find it prohibitively burdensome to participate in meetings in a distant community on the opposite side of a large mountain range. In PILA, the communities on the Caribbean and Pacific side of the Talamancas meet less frequently than those which occupy the same side of the mountains, but straddle the international divide. In this case, the international or political barrier is less cumbersome than the geophysical border (the Talamanca Mountain Range).

Many socio-political divides may compound physical challenges to TBCC. To start, the definition of a community in and of itself can raise much controversy and debate. One definition for a community is, “a grouping of people associated in spatial, social, cultural or economic terms which occupy, have access to, or have a legitimate interest in, a particular local geographic area.”⁹¹⁶ However, communities can also arise out of shared interests, birthing many “communities of interest” in any one geophysical community alone.⁹¹⁷ Politics between individual members of one community alone can be tricky enough, but when compounded with relations between communities or individuals of other communities, even greater frictions and colorful interplays may exhibit themselves. If historical tensions, egos and politicking are stretched across multiple communities and borders, the so-called “messiness” scale may skyrocket and in-bickering or distrust could cause the entire process to collapse upon itself. Therefore, the foundations of a patchwork peace must be carefully constructed, one patch or community at a time (seek first inner peace), and stitched together securely based on common interests and relations of interdependence, mutual respect and recognition, so that the patchwork may radiate outwards (then seek outward peace) erasing socio-political divides.

Reconciliation amongst and between communities (spatially defined or of similar interests and cultures) may require external involvement, especially in the ambit of advancing institutional capacities.⁹¹⁸ Conservation interventions, “any project or program, large or small, which attempts to reconcile the seemingly contradictory interests of biodiversity conservation with development,” are not always initiated internally.⁹¹⁹ The degree of external intervention can vary from information providing (an idea is shared with one or more community members) to full-scale project development by an outside individual or organization (idea planning and implementation are carried out completely by non-community members). The latter of these is not preferable for the patchwork peace park approach which seeks autonomous community capacity-building.

Excessive external intervention can be debilitating to a society. When outside actors define the community and its interests on its behalf, they may exclude important members or groups which are already marginalized and not likely to make themselves noticed by an outsider.⁹²⁰ They can enforce

⁹¹⁶Dilys Roe et al., *supra* note 906, at 10.

⁹¹⁷*Id.* at 12-13.

⁹¹⁸McAllister, *supra* note 862, at 212.

⁹¹⁹Anne Hammill & Oli Brown, *Conserving the Peace: Analyzing the Links between Conservation and Conflict in the Albertine Rift* 4 (International Institute for Sustainable Development, March 2006)

⁹²⁰McAllister, *supra* note 862, at 205.

unequal power balances by singling out the elites and fortifying their already existing power structures. Or, they may create new elites, by identifying their own benefactors and training them to be future conservation leaders. Other members of the community may not understand why certain individuals were selected for receipt of special rights and privileges over others; those individuals may not be the ones that a community would choose of their own volition. Wanton or careless doling out of power can aggravate tensions between “communities of interest” or further marginalize already disenfranchised members of a community.

When externally induced conservation is heavily supported by outside funding, it can also be unsustainable. Many Integrated Conservation and Development Projects (ICDPs) initiate wonderful programs of community capacity building, wildlife protection, forest fire control, environmental education and so on, but once the grant or funding diminishes, so does the project. Any conservation or development practitioner can probably rattle off a seemingly unending list of projects that last only as long as the external funding does. If communities do not learn how to maintain these programs without outside financial support, ICDPs will never be sustainable. Donors should consider this when developing financing programs. They might want to consider developing a phase-out financial model, where support is provided over a longer period of time, with larger injections early on to build self-financing mechanisms. Then monetary support can diminish over time, with financial support focused on aiding communities in seeking their own funding independently (e.g., cooperative grant writing).

Heavy reliance on external financing can also be handicapping to the mentality of a community. Some of the small rural villages in the case study area proposed for a patchwork peace park between Honduras and Nicaragua are riddled with billboards and signs geographically representative of aid and development organizations across the globe. The communities in these places have become accustomed to charity and prefer to watch as peace corps volunteers dig them new latrines or volunteerists⁹²¹ from The Netherlands build new swing sets for their children and interns from some multinational environmental NGO plan organic community gardens in under utilized spaces. They switch religions frequently depending on which god is offering them the best meals and hand-outs for the month and have perfected the nod and smile when international developers describe electrification and water sanitation systems based on the newest technology that they can build for them. When asked to pitch in labor or resources however, they are elusive with their nodding and smiling, which are ultimately backed by little to no action. This kind of development does not help anyone in the long run and emphasizes the need to learn from the old adage, “Give a person a fish; you have fed them for today. Teach a person to fish; and you have fed them for a lifetime.”

It may be heartening to know that some case studies of community-based conservation seem to indicate that with conscientious broad and diverse stakeholder participation that mitigates for power imbalances, effective environmental stewardship can occur.⁹²² Thom Holterman suggests that in

921 Volunteerists is derived from volunteerism, whereby tourists from one place pay to travel to another, typically a “developing” nation or “impoverished” community, where they participate in community development projects.

922 See Tighe Geoghegan & Yves Renard, *Beyond Community Involvement: Lessons Learned From the Insular Caribbean*, 12 Parks 16, 22 (2002); Wyckoff-Baird et al, *supra* note 872, at 42.

creating a “new society” that is anti-élite étatism, “organized bodies are required – bodies organized by the people themselves. This will take place in the form of a process in which the functions of the State are reclaimed by society: a process because the destruction and reclaiming are not seen as single actions but as a lengthy development.”⁹²³ What is important in sketching this “new society” is not a fixed outcomes of what it must be or like, but is instead the definition of a process for development based on clearly defined norms or principles.⁹²⁴ Community capacity-building for purposes of broad and meaningful direct participation in environmental governance is a fundamental objective for any community-based conservation regime. This ability to self-organize to resolve socio-ecological problems is transferable to issues of any sort. For this reason, capacity-building for community-based conservation has been likened to pure democracy-building.⁹²⁵ The governance system that emerges is one of direct collective action, or actual governance by the peoples, founded on general principles, such as the right to self-determination, decentralization, subsidiarity and direct individual or collective action.

The difference in whether community-based conservation is the driver of or mere correlated trend to improved environmental and social resilience may be related to the degree of participation actually manifested.⁹²⁶ By definition, community-based conservation must involve local communities, but their participation can be as little as information gathering or as much as full ownership and autonomy.⁹²⁷ Grazia Borrini-Feyerabend describes this as a spectrum with sole government control on one end and total self-management by an indigenous or local community on the other.⁹²⁸ This spectrum is illustrated by Robert Horwich and Jonathan Lyon below:⁹²⁹

923Thom Holterman, *supra* note 869, at 28, citing P. J. Proudhon, *Idée Générale de la Révolution au XIXe Siècle* 300 (John Beverly Robinson trans., Freedom Press, 1923).

924Henc van Maarseveen, *supra* note 880, at 90.

925See Jesse C. Ribot, *supra* note 230.; Jesse C. Ribot, *Democratic Decentralization of Natural Resources: Institutionalizing Popular Participation* (Martha Schultz ed., World Resources Institute, 2002).

926Wyckoff-Baird et al, *supra* note 873, at 38 (decentralization of environmental governance is sometimes only correlative to improvements in environmental stewardship).

927McAllister, *supra* note 862, at 208-209.

928Borrini-Feyerabend, *supra* note 904, at 12.

929Horwich & Lyon, *supra* note 910, at 381.

Figure 4.1 The Continuum of Project Participation

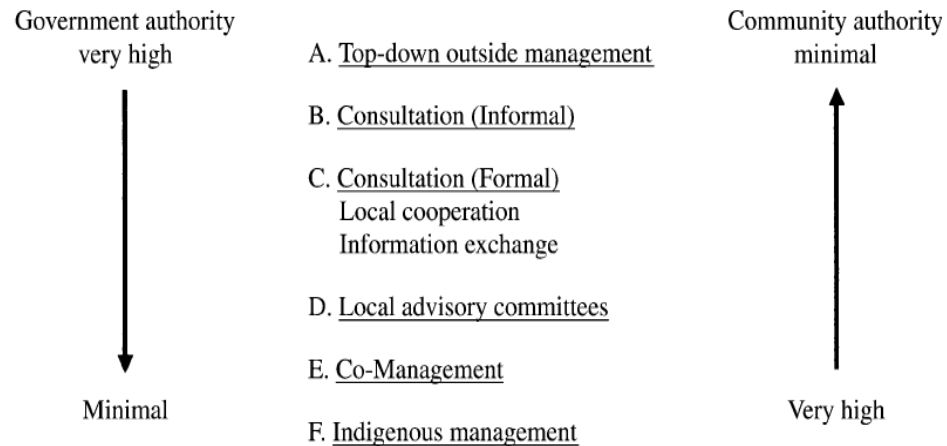


Fig. 1 The continuum of project participation and/or management (modified from Arnstein, 1969).

In this illustration, community and government displace each other at the two ends, with blends of power-sharing dispersed between. Adopting typologies of governance proposed by Bruce Amos and Jim Johnston of Parks Canada, Borrini-Feyerabend highlights four main categories of management that describe these formulations of power-sharing:

- (1) **Community Management:** Authority, responsibility and accountability for management of the PA rest with representatives of indigenous peoples and/or local communities with customary claims over the land and natural resources;
- (2) **Government Management:** Authority, responsibility and accountability for managing the PA rest with a government ministry or agency. The government level in charge may be the national (provincial in case of a federal country) or the local/municipal. The government may or may not have a legal obligation to inform or consult other identified stakeholders prior to making or enforcing management decisions. "Consultation" may be made explicit in the process by which the stakeholders are provided all the relevant background and decision information in the forms and by the means agreed with the government agency in charge;
- (3) **Private or Delegated Management:** Authority, responsibility and accountability for managing the PA rest with one or more private or corporate landowners or are delegated by the legal owner (including the government) to one or more clearly designated organizations. The latter may encompass environmental NGOs and foundations (not-for-profit institutions of the civil society, possessing specific expertise and management capacity), research institutions, universities, private

- management operators, military agencies and many other relevant bodies; and
- (4) **Multi-Stakeholder Management:** Authority, responsibility and accountability for managing the PA are shared in various ways among a plurality of actors, likely to include one or more governmental agencies, local communities, private landowners and other stakeholders. The actors recognize the legitimacy of their respective, if partial, entitlements to manage the PA. Distinct sub-types may be identified. In collaborative management, formal authority, responsibility and accountability still rest with one agency (often a national governmental agency), but the agency is required to collaborate with other stakeholders. “Collaboration” may mean that a multi-stakeholder body develops and approves by consensus a number of technical proposals for PA regulation and management, to be later submitted to the decision-making authority. In joint management, various actors sit on a management body with joint decision-making authority. (The requirements for joint management are made stronger by the specification of a modality of decision by consensus. When this is not the case, the balance of power reflected in the composition of the body in charge may *de facto* transform a joint management into a collaborative management situation).⁹³⁰

A successful patchwork peace park model will require the initial selection of a management or stewardship framework appropriate to currently existing conditions (i.e., suitability of local or indigenous governance mechanisms and systems of traditional conservation practices). If local institutions are already well developed, then it makes sense to utilize those avenues; whereas, if centralized powers have caused local communities to abandon traditional practices of governance or stewardship, then those authorities may need to initiate the process first. However, in seeking full attainment of the three peace park objectives, conservation, cooperation and peace, local stewardship capacities must be developed so that local and indigenous actors “move from being discriminated against to becoming the holders of a privileged status,” something beyond just “equal footing with other actors.”⁹³¹ It envisions a “privileged status” under which authority and full control rests with communities, combining environmental governance with general governance in such a way that a new order emerges. This new order is essentially multi-stakeholder management, wherein all peoples contribute (in the manner of common but differentiated responsibilities) and the division between community and government is blurred and borders physical or perceived are rendered irrelevant.

The international development world has been transitioning to a post-development era where neoclassical and neocolonial globalization agendas and methods are being challenged.⁹³² There is some

⁹³⁰Borrini-Feyerabend, *supra* note 904, at 13-14.

⁹³¹*Id.* at 13.

⁹³²Jan Nederveen Pieterse, *My Paradigm or Yours? Alternative Development, Post-Development, Reflexive Development*, 29 *Development and Change* 343-373 (1998).; John Rapley, *Development Studies and the Post-Development Critique*, 4 *Progress in Development Studies* 350, 351-352 (2004).; *See also* Piers Blaikie, *Development, Post-, Anti-, and Populist: A Critical Review* 32 *Environment and Planning* 1033-1050 (1999) (a critique of criticisms of traditional development).

debate as to different non-traditional development paradigms, such as alternative development vs. post-development vs. anti-development vs. reflexive development and so on, but whatever the terminology and related theoretical debate, what is notable is that the trend is towards a bottom-up community-based development process. The desire is to not have a round table of hegemonic international donors deciding what development is appropriate for a community or even an entire nation, none of which are their own, but rather to let the peoples themselves decide their own destiny. Development of this type is “participatory and people-centered,” allowing for interests other than economic World Bank type indicators to be factored in.⁹³³ Ensuring local food security is one example. If a community learns to feed itself, it is substantively better off, but since it is not contributing to external markets or the State tax base, World Bank development indicators would fail to register this improvement.⁹³⁴ Multistakeholder dialogue can produce a development strategy that incorporates shared and diverse interests.

If properly lead by a set of clear principles and norms, community-based conservation in a patchwork peace park can nurture the development of an egalitarian, informed and active civic population. As an integrated development and conservation theory, TBCC and patchwork peace parks can include principles such as: (1) voluntariness, (2) cooperation and mutualism, (3) equality, (4) consensus, and (5) federalism.⁹³⁵ It should also incorporate general principles of international and environmental law, *inter alia*, international cooperation, peace and security, conservation and sustainable development, and prevention of environmental damage to territories outside a State's jurisdiction.⁹³⁶ Most importantly, it maintain the primary objectives of a peace park – conservation, cooperation and peace (ecological, social and international). What these principles attach to is a collaborative decision-making process guiding the stewardship of any physical territory (marine or terrestrial) and a Culture of Peace within a community or between communities that inhabit that space. In this way, we maintain flexibility for cultural freedoms and efficient adaptation or response to changes in environmental, political or security situations, while upholding an ethic of Global Care and norms and principles of international and environmental law.

When implementing the patchwork peace park approach, it is important that stakeholders come together to design a process and not a regime. Conservation, cooperation and peace can serve as the focal points to unite individuals and communities. The process that is developed to achieve these goals can take the shape of a patchwork peace park. A stewardship framework that is developed from the ground-up should stress the benefits and need for collaborative community-based conservation across borders. It should explicitly seek to address community (human or otherwise) resilience to

⁹³³Jan Nederveen Pieterse, *supra* note 931, at 345.

⁹³⁴John Rapley, *supra* note 931, at 352.

⁹³⁵*Id.* at 92-93 (principal themes of anarchist theories which “do not form a new definite political system, but together constitute a theoretical framework of reference within which consideration is given to reforms, and theoretical concepts are developed which in turn can foster thoughts on political movements and actions).

⁹³⁶*See infra*, Chapter III, Toward a Legal Framework for Peace Parks, for a discussion on the international and international environmental legal principles supporting peace parks.

environmental change, such as climate change, and conflict. Although it may initially seem daunting, TBCC is an opportunity for the shaping of a new paradigm founded in equity, participation and peace (ecological, social and international). Patchwork peace parks provide a forum for stimulating social debates that will collectively stitch a shared vision for a patchwork of landscapes, cultures and ecosystems. These debates will inevitably incite conflict as groups disagree on modalities and details, but properly channeled, these synergies can be manifested pacifically and productively. Pieced together properly, a patchwork peace park has great potential.

The future of peace parks

A peace park is so much more than a beautiful ideal, it is a real and practicable alternative to so much of the border strife and conflict that we currently witness across historically entrenched geopolitical divides. In a world where human societies have spent decades enumerating and codifying lofty principles and values to be shared by all peoples, it is insufficient that these norms remain contained to the printed pages of treaties, declarations, charters or laws. States have a binding duty to uphold the treaties into which they enter and to partake only in those activities which conform with the international and environmental principles to which they have ascribed. As the Johannesburg Declaration warns, “the world may lose confidence in their representatives and the democratic systems to which we remain committed, seeing their representatives as nothing more than sounding brass or tinkling cymbals.”⁹³⁷ Through their actions, individuals (the smallest unit of a State) can morph soft-law principles into *erga omnes* principles believed to be binding upon all (*opinio juris*). If there is no *opinio juris* that values such as the maintenance of international peace and security, international cooperation, protection of rights to a healthy environment and sustainable development, are to be upheld and enforced, then our global community will find itself severely handicapped in its efforts to face global challenges and crises, such as climate change and poverty. There is no reason why we should not demand ecological peace, social peace and international peace for this one world we inhabit and many reasons indicating that we may need to.

Ecological peace

Global environmental surveys and current science paint a grim picture of our planet's ecological processes. The most recent “2007 Global Environmental Outlook” published by the United Nations Environment Programme (UNEP) comes twenty years after the World Commission on Environment and Development's (WCED) touchstone report, “Our Common Future.”⁹³⁸ The publication's introductions starts with:

“Imagine a world in which environmental change threatens people's health, physical

⁹³⁷Johannesburg Declaration, *supra* note 605, at art. 15.

⁹³⁸UNEP, *Global Environmental Outlook 4* (2007).

security, material needs and social cohesion. This is a world beset by increasingly intense and frequent storms, and by rising sea levels. Some people experience extensive flooding, while others endure intense droughts. Species extinction occurs at rates never before witnessed. Safe water is increasingly limited, hindering economic activity. Land degradation endangers the lives of millions of people.”⁹³⁹

Then the 2007 Global Environmental Outlook immediately follows by poignantly declaring that, “This is the world today.”⁹⁴⁰ It seems the trends are the same twenty years later, but the numbers are worse. Since 1997, global human population has grown by more than 1.7 billion.⁹⁴¹ Global GDP per capita has grown, but monetary wealth continues to be distributed unequally between peoples and consumption patterns have only placed increased demand on resources.⁹⁴² Despite the WCED's recommendation two decades ago that economic, social and environmental issues be integrated into development strategies, there have been “serious and persistent barriers to sustainable development.”⁹⁴³ People, particularly the poor along with women and children, are suffering the direct result of this worsening status quo. Developing countries bear up to 20% of the total burden of diseases linked to environmental risks.⁹⁴⁴ 1.8 million children die a year from unsafe water and poor sanitation, making the combination the number two killer of children in world.⁹⁴⁵ We are no closer to achieving sustainable development today than we were twenty years ago.

As a result of this human failure, species and ecosystems are suffering. The UNEP direly warns that “[e]cosystem services collapse is a distinct possibility if action is not taken,” declaring that the Earth is “imperiled.”⁹⁴⁶ The 2010 Global Biodiversity Outlook published by the Secretariat of the Convention on Biological Diversity (CBD Secretariat) also initiates its discussion with the grievous announcement that the 2010 target to significantly reduce the rate of biodiversity loss has not been met.⁹⁴⁷ If factors harming biodiversity can be condensed to a short list of five, “habitat change, overexploitation, pollution, invasive alien species and climate change,” the CBD Secretariat would note that all of these are getting worse or remaining constant even in the best situations.⁹⁴⁸ Projections of future ecological systems predict “high levels of extinctions and loss of habitats throughout this century, with associated decline of some ecosystem services important to human well-being.”⁹⁴⁹ Species ranges are expected to shift, dramatically altering landscapes and the natural resources that

⁹³⁹*Id.* at 6.

⁹⁴⁰*Id.*

⁹⁴¹*Id.* at 4.

⁹⁴²*Id.*

⁹⁴³*Id.*

⁹⁴⁴*Id.* at 5.

⁹⁴⁵*Id.*

⁹⁴⁶*Id.* at 6.

⁹⁴⁷CBD Secretariat, *Global Biodiversity Outlook 3*, at 9 (2010).

⁹⁴⁸*Id.*

⁹⁴⁹*Id.* at 10.

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underpin local livelihoods and ultimately, global financial systems.⁹⁵⁰ The 2008 IUCN Red List assessed 2.5% of the world's estimated 1.8 million described species and observed that the number of threatened species increases annually.⁹⁵¹ It identified 869 unique species as Extinct or Extinct in the wild,⁹⁵² but notes that due to the limited survey size, this is a “very conservative estimate” of the total number of species that have likely gone extinct worldwide.⁹⁵³

All of these reports point to the negative impacts of the megalth of anthropogenically induced environmental change, climate change, and stress the need for concerted action at all levels worldwide. They all mourn the insufficient action that has been taken to date,⁹⁵⁴ but remain hopeful in human possibility and adaptability.⁹⁵⁵ Perhaps this optimism is necessity driven. If what the CBD Secretariat says below is true, we may have no choice but to act now, act fast and act together:

“The action taken over the next decade or two...will determine whether the relatively stable environmental conditions on which human civilization has depended for the past 10,000 years will continue beyond this century. If we fail to use this opportunity, many ecosystems on the planet will move into new, unprecedented states in which the capacity to provide for the needs of present and future generations is highly uncertain.”⁹⁵⁶

There are ways to prepare for or respond to environmental change and human population growth constructively. An FAO Community Forestry Group study claimed that “increased population does not necessarily mean increased deforestation,” rather the relationship between population and forest was more strongly related to community organization and how they went about forest management.⁹⁵⁷ If addressed collectively, human co-habitation of a natural environment does not have to equate to negative environmental change. Instead, community-based environmental stewardship can help to strengthen environmental resilience. This is also true in situations of insecurity or extreme conflict. Nabin Baral's research discussed in Chapter II provided evidence that community managed forests in Nepal, particularly those with more well-established community forestry management systems, remained better protected during the Maoist insurgency of 1996-2006.⁹⁵⁸ The fact that these community managed forests survived takeovers by the Maoists and other negative impacts of violent

950Id.

951Jean-Christophe Vié, Craig Hilton-Taylor, Caroline Pollock, James Ragle, Jane Smart, Simon Stuart and Rashila Tong, *The IUCN Red List: A Key Conservation Tool* (J.-C. Vié, C. Hilton-Taylor & S.N. Stuart eds., IUCN Species Survival Commission, 2008).

952IUCN, *State of the World's Species* 1 (2008).

953Vié et al., *supra* note 950, at 6.

954See CBD Secretariat, *supra* note 946, at 9-10.; UNEP, *supra* note 937, at 66.

955CBD Secretariat, *supra* note 946, at 14.; UNEP, *supra* note 937, at 5.

956CBD Secretariat, *supra* note 946, at 13.

957Calibre Consultants, *supra* note 92, at 21, *citing* Community Forestry Group, *Community Forestry and Population Issues: Four Case Studies* (FAO, no date).

958E.g., Nabin Bharal & Joel T. Heinen, *supra* note 211.; E.g., Nabin Bharal, *supra* note 212.

conflict, while forestry groups continued their conservation practices is demonstrative of an ecological resilience to insecurity. With strong community networks, stewardship of these forests was able to respond positively and collectively to environmental and political threats. In a patchwork peace park, harmony between humans and all other aspects of Nature is not just a matter of balancing conservation and development, it is the establishment of a culture of peace that strengthens resilience to environmental and demographic change.

Maintaining ecological peace in fluctuating circumstances will require adaptive stewardship. Adaptive stewardship must be based on constant environmental monitoring. "Monitoring is the systematic gathering and analysis of information in order to gauge if something is changing."⁹⁵⁹ Information derived from regular monitoring must be made available to the public so that interested parties may make informed decisions regarding the governance of their environments. Reminiscent of anarchist social organization, adaptive stewardship should be a flexible approach, "fluid and capable of continual adjustment to changing circumstances," as detected through monitoring practices.⁹⁶⁰ Devolved information-gathering and decision-making requires the most proximate communities to foresee the accommodations needed to maintain peaceful geographic and ecological dynamics. It takes advantage of the fact that these are the peoples most likely to be the best informed of evolving local environmental and social circumstances and who have a history of traditional knowledge and practices best fit to respond to such changes in that very locale. Based partly on customary law and local governance structures that allow for more direct civic participation in rule-making, it is less administratively burdensome to adapt legal protections to evolving local situations. Adaptive community stewardship is thus a more effective response to environmental change, which includes climate change.

It is incumbent that ecological peace be sought collectively in border regions. As mentioned in the ICJ case above (Case Concerning Pulp Mills on the River Uruguay), international environmental law and the customary principle of prevention (against transboundary environmental harm) require that States must coordinate the necessary measures "to avoid any change in the ecological balance."⁹⁶¹ "This obligation cannot be expected to come through the individual action of either Party, acting on its own. Its implementation requires co-ordination...on both States to take positive steps to avoid changes in the ecological balance. These steps consist not only in the adoption of a regulatory framework...but also in the observance as well as enforcement by both Parties of the measures adopted."⁹⁶² Essentially, the ICJ mandates cooperation in transboundary environmental issues to proactively prevent ecological

⁹⁵⁹Center for International Forestry Research (CIFOR), *Towards wellbeing in forest communities: A source book for local governments* 31 (CIFOR, 2007).

⁹⁶⁰Henc van Maarseveen, *supra* note 880, at 90.

⁹⁶¹Case Concerning Pulp Mills on the River Uruguay, *supra* note 889, at para. 101 (The Court recognizes the principle of prevention as a customary rule and an obligation on all States "to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State" as part of the body of international law relating to the environment) & para. 183.

⁹⁶²*Id.* at para 184-185.

imbalances and to develop regulatory frameworks for doing so. Transboundary ecosystems or ecoregions are a likely venue for transboundary environmental activities or impacts to occur, thus they should be given special attention by international environmental coordination efforts. The declaration and joint stewardship of peace parks are one interpretation of what a transboundary environmental regulatory framework could look like.

Social peace

A patchwork peace park that brings together “communities” or “communities of interests” can help to bridge divides between different social groups. Early on in the history of human beings, communities or tribes may have separated from each other in search of adequate resources to maintain growing populations. Now, human beings find themselves divided from each other by gender, religion, economic status, level of education, ethnicity, political access, language, passports, and so on. Some of these categorizations exist for functionality (e.g., gender divisions for public bathrooms), but sometimes classifications can be unnecessarily and harmfully divisive (e.g., religious factions supporting holy wars). If unmitigated, societal fractures can be aggravated or destabilized by environmental change or shifting demographic factors.⁹⁶³ These fissures must be resolved in a productive and non-violent manner if conservation, sustainable development and peace are to prevail.⁹⁶⁴ Social peace demands an accounting for and reconciliation of past and present injustices. In the context of social conflicts, patchwork peace parks can build in “pressure release valves,” by providing a venue for peoples to express their grievances and to collectively resolve issues in productive ways.

Community-based networks of environmental peacebuilding seem to be growing around the world. Terence Duffy describes in “Civic Zones of Peace,” various typologies of public space used to promote a Culture of Peace.⁹⁶⁵ These include peace parks and peace gardens, as well as civic peace architecture (peace sculptures or monuments). Communities around the world have been dedicating their public spaces to peace by creating “zones of peace.”⁹⁶⁶ Some of these communities have been networking to create *ad hoc* federations of “peace cities” (e.g., the World Conference of Mayors for Peace Through Inter-City Solidarity which promoted international municipal cooperation for global peace).⁹⁶⁷ These “civic zones of peace” have been established to, *inter alia*, memorialize war (e.g., Hiroshima Peace Memorial Park in Japan), symbolize the end of apartheid (e.g., the Nobel Laureate

963Natural resource driven conflicts can arise: (1) “over the fair apportioning of wealth derived from ‘high value’ extractive resources” combined with acute poverty or lack of alternative livelihoods; (2) “over the direct use of scarce resources” oftentimes aggravated by demographic factors and natural disasters; or (3) when economies are “dependent on the export of a narrow set of primary commodities” and governments tend to be politically fragile and removed from the needs of their constituents (i.e., the “resource curse”). UNEP, *supra* note 204, at 8-11.

964Rio Declaration, *supra* note 154, at prin. 25, (peace, development and environmental protection are interdependent and indivisible).

965Terence Duffy, *Civic Zones of Peace*, 9 Peace Review (June 1997).

966*Id.*

967*Id.*

Peace Park in South Africa), declare nuclear-free zones (e.g., St. Peter's Square Peace Garden in the U.K.) and to join communities with a history of social conflict (e.g., the peace bridge in Londonderry of Northern Ireland).⁹⁶⁸ These are not the traditional transboundary peace parks constructed between nations, but very localized spaces dedicated to promoting a Culture of Peace.

Transboundary mountain forests are particularly well suited for implementation of the patchwork peace parks model. Chapter I on "Transboundary Mountain Forest Ecosystems and Mountain Forest Dependent Communities," discusses the many vulnerabilities of mountain forests and their peoples. Mountain forest peoples often present a diversity of cultures, languages and identities.⁹⁶⁹ However, the natural wealth that they are surrounded by and their cultural wealth are often unjustly exploited by "outside" or lowland populations.⁹⁷⁰ Unsustainable development and political marginalization of mountain forest communities provoke environmental degradation and social tensions.⁹⁷¹ This threatens their subsistence, livelihoods, cultures and human rights.⁹⁷² It also helps to explain the high instances of major armed conflicts in mountain and forest areas.⁹⁷³ A common response to mountain forest conflict, particularly in border regions, is militarization of these areas by the central government.⁹⁷⁴ Alternatively, mountain forest vulnerabilities and threats to mountain forest peoples can be resolved by community-based patchwork peace parks. Fundamental principles espoused by patchwork peace parks, such as self-governance, collective direct action, protection of traditional knowledge and alternative development are essentially the same values voiced by mountain peoples in the Quito Declaration, a Charter for World Mountain People.⁹⁷⁵

Patchwork peace parks provide opportunities to better integrate indigenous and traditional peoples, such as mountain forest peoples, into regional landscapes. Borders and most especially disputed boundaries between indigenous lands or territories inhabited by traditional peoples and lands controlled by an enveloping nation-state are ripe for development of TBCCAs. Collaborative stewardship of natural resources and landscapes straddling the territories of an indigenous community and a recognized nation-state (e.g., the Blackfoot and the Canadian and/or U.S. Government) is one cross-cutting issue that can bring indigenous and State representatives to a table on equal grounds and

⁹⁶⁸*Id.*

⁹⁶⁹UNEP WCMC, *supra* note 79, at 20.

⁹⁷⁰Derek Denniston, *supra* note 104, at 3.

⁹⁷¹*Id.* at 3.; UNEP WCMC, *supra* note 79, at 52.; Nikhat Sattar, *supra* note 110.

⁹⁷²Derek Denniston, *supra* note 23, at 11.; UNEP WCMC, *supra* note 79, at 21 (28% of the world's endangered languages exist only in mountain regions); Anderson & Harrison, *supra* note 119 (areas of disappearing languages tend to overlap areas of endangered biodiversity).

⁹⁷³Frederick Starr, *supra* note 134, at 169 (poverty, lack of political representation and participation, extraction of mountain resources to little or no benefit to mountain communities, and the subsequent radical psychology of victimization and militarized top-down control are key ingredients to the complete social and economic breakdown, lawlessness and violence of mountain conflicts); Derek Denniston, *supra* note 23, at 3 (in "1993, of 34 major armed conflicts taking place in 28 countries, 22 took place primarily in mountains, and another 8 included such areas").

⁹⁷⁴Frederick Starr, *supra* note 134, at 172, 175.

⁹⁷⁵*See* Quito Declaration, *supra* note 91.

for a shared purpose. In Parque Internacional La Amistad (PILA) between Costa Rica and Panama, coordination with the indigenous groups allows for burden-sharing in the costs and duties of park buffer zone protection.⁹⁷⁶ Collaboration in matters of land governance can improve relationships between indigenous or traditional groups and the State governments they have been subjected to. Furthermore, it accords with principles of the UNDRIP and is a step in the direction of restoring indigenous autonomy and stewardship of traditional lands.

So as to coordinate social peace and ecological peace, adaptive stewardship of natural environments must be based on broad and meaningful participation. The system of monitoring that was discussed previously under adaptive stewardship should be based on collaborative monitoring processes whereby all members of a community participate. Participatory monitoring should involve “local people who may have not received specialist, professional training and who have varying skills, expertise, societal roles and interests.” The intentions of participatory monitoring can be to document the already existing knowledge base of indigenous and traditional populations, or to increase the knowledge base of local community members of changes to their own environments. The comparison between traditional knowledge and up-to-date scientific evaluation can help to avoid problems of “shifting baselines,” whereby changes in environmental circumstances over time may happen gradually enough that they become normalized.⁹⁷⁷ It is the psychological phenomena by which a community may come to accept as normal (or the baseline) that there are no fish in the river or trees on the mountains. Participatory monitoring is “an ongoing process where local forest users systematically record information about their forest, reflect on it and take management action in response to what they learn.”⁹⁷⁸ This allows them to document an ecological baseline and any changes that may occur anytime thereafter, thus providing the basis for properly informed adaptations to stewardship paradigms. The broad participation of different “communities of interest” in adaptive stewardship combines social peace and ecological peace.

International peace

Inter-State boundaries are magnets for social derision and conflict. Borders are a historical phenomenon that may have practical reasons for being, but they are also hot spots for tension between

⁹⁷⁶The indigenous are allowed to independently govern their *comarcas* (i.e., reserves) along the Caribbean border of PILA. This provides a protective barrier to the eastern side of the peace park, allowing the national environmental authorities (MINAET in Costa Rica) to focus their limited resources on the Pacific side of PILA. In the Pacific sector, greater coordination with traditional populations also allows the park rangers to share in conservation responsibilities.

⁹⁷⁷Daniel Pauly, *Anecdotes and the Shifting Baseline Syndrome of Fisheries*, 10 *Trends in Ecology and Evolution* 430 (1995).; See Nancy Knowlton & Jeremy B. C. Jackson, *Shifting Baselines, Local Impacts, and Global Change on Coral Reefs*, 6 *Plos. Biol.* 54 (2008).; S. K. Papworth, J. Rist, L. Coad, & E.J. Milner-Gulland. *Evidence for Shifting Baseline Syndrome in Conservation*, 2 *Conservation Letters* 93–100 (2009).

⁹⁷⁸Kristen Evans & Manuel Guariguata, *Participatory monitoring in tropical forest management: a review of tools, concepts and lessons learned* 6 (CIFOR, 2008).

peoples. Despite efforts to section off the major occupied continents of the planet into two hundred plus nation-states, border wars continue to this day. Contentious borders or border regions far from central capitals are prime areas for developing patchwork peace parks. As mentioned in Chapter II, "First Generation Peace Parks: Prologue for the Future," peace parks have the potential to improve relations between nations (e.g., the European Greenbelt Movement), to resolve border disputes (e.g., La Cordillera del Condor between Ecuador and Peru), to jointly fashion natural resources management schemes during post-conflict peacebuilding in areas where natural resources provoked and/or fueled violent conflict (e.g., the Gola Rainforest between Liberia and Sierra Leone) and to unify regional sustainable development and environmental stewardship plans. These faculties will be all the more needed as populations continue to grow and the negative impacts of environmental change, such as climate change, continue to afflict ecosystems and their human dependents. States will need to collaborate in the stewardship of their boundary regions so that the natural resources and ecosystem services of those areas do not become the security concerns of the future. For all of the territories that have subscribed to the universal principles of international cooperation for peace and security, peace parks along shared borders are a framework within which to implement these principles and to peacefully secure borders for their future generations.

The construction of international peace sought in a patchwork peace park is a form of environmental peacebuilding that engages communities and not just States and their governments. The relations between governments are not always reflective of the state of relations between communities across borders. When the Government of Costa Rica and the IUCN first concocted the Sí-a-Paz program, they imaged peace parks on both of Costa Rica's international borders (in the north with Nicaragua and the in the south with Panama). Ultimately, only the peace park, Parque Internacional La Amistad, was successful in the south. Relations between the governments of Costa Rica and Nicaragua were too weak to support diplomatic cooperation, even for the protection of the Rio San Juan, a critically important watershed and hydrological resource for both nations. Nevertheless, a natural dynamic existed between the communities straddling the geopolitical border. The northern part of Costa Rica (Guanacaste) had once been a part of Nicaragua and many communities share family members that cross frequently for visits, work, commerce or services (e.g., clinics). Conservation of the Rio San Juan has taken advantage of the social peace that exists at the local level; NGOs in the region work instead with border communities to strengthen community stewardship of the transboundary watershed. Sí-a-Paz remains dormant as relations between the governments remain deteriorated, but transboundary corridor linkages and community conservation grow nevertheless.

Cooperation in safeguarding the environmental security of frontier regions can help to better define the proper role for border security in nations devoted to a Culture of Peace. One of the elements of Statehood is control in whole or in part of a territory. One manifestation of territorial control is the presence of armed guards trained to discriminate between "them" and "us," oftentimes positioned in the geographic location of where this division is most obvious, State borders. In a Culture of Peace, military presences should be redefined. Their primary role should not be combatant, but peacekeeper.

It is time to envision a “green” function for militaries around the world (i.e., green helmets).⁹⁷⁹ In places of peace or conflict, security personnel can utilize their skills to protect natural resources and ecosystems. In conflict, security personnel must be trained to protect the environment as part of their general duty to protect. The natural resources that remain will, after all, be the foundation for post-conflict rebuilding. If biological warfare leaves soils contaminated and toxic, communities will not be able to return and provide for their own food security, they will be left reliant upon outside aid. Warfare must be limited by activities permissible according to *jus in bellum*, which proscribes harm to the environment and natural resources.⁹⁸⁰

Border security personnel should be required to engage directly in preventative and precautionary international peacekeeping. Environmental protection will provide for greater environmental security into the future, thereby evading conflicts that may arise out of environmental insecurities. If security activities are directed towards safeguarding environments, particularly in border areas, they can help to maintain peace without the use of force. Preventative peacekeeping is especially needed today as States must begin to prepare themselves for the mass migrations that will be produced by the environmental insecurities of climate change. As a result of the negative impacts of climate change, populations will be forced to move internally or internationally.⁹⁸¹ If national security paradigms cannot appropriately accommodate for the “them” and “us,” human displacement will be a time bomb for global conflict. Such an outcome is severe enough to trigger the international customary principle of precaution. Security personnel should be directly engaged in assuring environmental security domestically and along borders in a manner that holds true to a Culture of Peace and the Global Care Model.

Outward radiation

An important aspect of the patchwork peace park is its ability to start small and then to radiate outwards, covering broader landscapes and offering more holistic ecoregional conservation. It offers a fungible model for the saying, “Think globally, act locally.” Patchwork peace parks allow every day individual peoples to take action where they are most effective, in their most immediate sphere of influence, their very own community. If small steps can be taken locally in multiple communities across a landscape or the globe, a patchwork of conservation and a sustainable land ethic can be woven together to cover our planet in a blanket of protection. By taking action in small patches, a community can also set an example for its neighboring communities. This is the approach that has helped to safeguard the Adirondacks of New York state. Barbara McMartin describes the Adirondack Park as “A Wildlands Quilt”: “Our foremothers created crazy quilts to treasure, and to warm their families; our forefathers created a crazy quilt of land parcels that is today's Adirondack Park.”⁹⁸² In the Adirondacks,

979See Linda A. Malone, *supra* note 560, at 519, 521.; Geoffrey D. Dabelko, *supra* note 560, 37.

980 See *supra* note 656.

981Biermann & Boas, *supra* note 527, at 10.; See IPCC, *supra* note 527.

982Barbara McMartin, *The Adirondack Park: A Wildlands Quilt* vii (Syracuse University Press, 1999).

parcels of public and private lands were woven together, each patch governed by different rules allowing a range of activities from absolute protection to public recreation, but always held together by a common thread – a land ethic of conservation and sustainable development for generations in perpetuity.

Piece by piece, we can protect our shared landscapes, but as McMartin notes: “The quilt needs constant care.”⁹⁸³ No community or patch must be allowed to fall behind. Hopefully through networks or federations of TBCCA initiatives, communities will incite a race to the top that can counteract the destructive race to the bottom of environmental pollution and land degradation that industrialization and excessive consumption have all too often caused. Each community must hold themselves and their neighbors accountable for slips or weak spots in the fabric and thread that keep the patchwork peace park and its conservation framework together. Collaborative stewardship will help communities share in these burdens and responsibilities, so that they might also collectively share in the benefits.

Patchwork peace parks are not just for mountain forests; they can be applied anywhere, in ecosystems of all types (marine or terrestrial) with varying levels of human development (rural to urban). It may be difficult to understand why a piece of land that is almost completely privately or commonly owned should be conserved as a protected area, especially in consideration of traditional notions of conservation where land is set aside by the State and largely untouched in order to preserve it in its most pristine and wild form. Thankfully the concept of conservation has expanded with time and human scientific understanding. There is no reason to think of protected areas as merely the last remaining pockets of Nature, living soils not yet paved over and choked off by human development. We now speak of biological corridors and habitat connectivity in places that have been agriculturally developed for ages, including even the concrete suburbs of California. Rebuilding linkages between ecological habitats that support the continuity of humans and other aspects of Nature, even in severely degraded areas, is possible. Green cities grown out of land use planning or zoning of human inhabited areas with the environment and the native or migratory flora and fauna truly in mind are proof that a land ethic can be just as well seeded in developed areas as undeveloped.

Networks of collective CCAs are the only way that we can cover entire landscapes, ecoregions, biological corridors, and habitats for migratory species, in a highly populated and increasingly developed world. If it is true that humans are meant to take over the world, then let peace parks be the paradigm through which they colonize this tiny rock hurtling through space and patchwork peace parks the methodology.

“The Earth is a very small stage in a vast cosmic arena. Think of the rivers of blood spilled by all those generals and emperors so that, in glory and triumph, they could become the momentary masters of a fraction of a dot. Think of the endless cruelties visited by the inhabitants of one corner of this pixel on the scarcely distinguishable inhabitants of some other corner, how frequent their misunderstandings, how eager they

⁹⁸³*Id.* at 93.

are to kill one another, how fervent their hatreds.

Our posturings, our imagined self-importance, the delusion that we have some privileged position in the Universe, are challenged by this point of pale light. Our planet is a lonely speck in the great enveloping cosmic dark. In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves.

...Like it or not, for the moment the Earth is where we make our stand.

...There is perhaps no better demonstration of the folly of human conceits than this distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home we've ever known.”

- Excerpts from “The Pale Blue Dot” by Carl Sagan⁹⁸⁴

984 Carl Sagan, Commencement Address, *The Pale Blue Dot* (May 11, 1996).