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The Catholic University of America

The Character of Border Conflict:
Latin American Border Conflicts
1830 – 1995

A DISSERTATION

Submitted to the Faculty of the

Department of Politics

School of Arts and Sciences

of The Catholic University of America

In Partial Fulfillment of the Requirements

For the Degree

Doctor of Philosophy

©

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Steven R. Ligon

Washington, D.C.

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Abstract

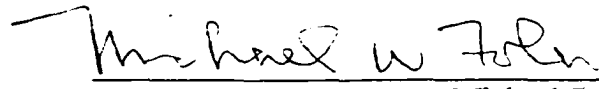
This study reviews twenty-eight border conflicts in South America occurring between 1830 and 1995. The study seeks to understand the level of state response to border conflicts.

Using both process tracing and reduction analysis, it assesses the conflicts for occurrence on contested borders, the existence of period-critical natural resources in the border areas, the existence of riparian rights issues in the conflicts, and immigration issues. It examines the type of period-critical natural resources whether extractable or renewable natural resources.

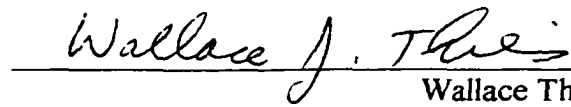
Testing the original hypothesis that as period-critical natural resources are recognized in contested areas there is a greater likelihood that armed hostilities will occur, the study finds this to be too simplistic. Alternatively the study demonstrates that there is a complex and iterative relationship between the variables of contrasted border, period-critical natural resources and riparian access which, when all three coincide, raise the likelihood of armed conflict. It finds that immigration is a contributor to raising tensions over extractable period-critical natural resources and may serve as a rationale for instigating hostilities. The study also finds that technology serves to elevate and demote natural resources into period-critical status, and that as it does so, raising and lowering tensions along contested borders.

Extractable natural resources are found to be more likely causes of armed conflict than renewable natural resources. The study concludes with observations on potential causes of 21st Century border conflicts.

This dissertation by Steven R. Ligon fulfills the dissertation requirement for the doctoral degree in Politics approved by Michael Foley, Ph.D., as Director, and by Wallace Thies, Ph.D., and Russell Swenson, Ph.D., as Readers.



Michael J. Foley, Ph.D., Director



Wallace Thies, Ph.D., Reader



Russell Swenson, Ph.D., Reader

To my wife, Sheryl,
who's unfailing support, encouragement, and proofing over many years
led to the completion of this work.

To my children, Robert, Marie and Daniel, and Ellie
who believed in, helped, and supported me.

and

To Dr. Michael Foley,
who believed in this project and always encouraged me to complete it.

More than an end to war, we want an end to the beginnings of all wars.

**Franklin Delano Roosevelt
The last speech he planned to deliver
(The day after his fatal stroke)**

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Chapter 1: Historical Background and Methodology

Introduction:

Dissolution of the Spanish Empire in the early 19th century left embryonic countries with massive uncharted areas and a heritage of conflicting territorial claims rooted in the viceroyalty traditions of Spanish colonization. While many of these disputes resulted in actual armed conflicts¹, an equal number have been resolved by the saber rattling of police conflicts and troop movements.² In addition, some disputes have been resolved by diplomatic means³, without resorting to armed conflict. The dispute between Chile and Argentina over the watershed areas of the Andean range, a natural resource of seeming great importance, which appears to have the same potential for war as the above-cited cases, was resolved by a combination of bilateral negotiations and third-party arbitration by Great Britain and the United States. Still other borders were resolved without excessive diplomatic contact. We might call these no-contest borders.⁴ This sampling leads to the question of what determined whether these nations either went to war, rattled swords, or settled border

¹ Border wars: The War of the Pacific – Chile against Bolivia and Peru; The Five Years War – Paraguay against Argentina, Brazil, and Uruguay; The War of the Patronos - Colombia against Peru; The Falklands/Malvinas War – Argentina against the United Kingdom; The Chaco War – Paraguay against Bolivia; Ecuador's wars with Colombia (Marañon) and Peru, Colombia's war with Peru over Leticia, and Paraguay's war with Brazil over Apa.

² Saber Rattling and Skirmishes: Argentina with Brazil (Misiones), Uruguay (La Plata), Bolivia (Puna de Atacama) and Chile (Beagle Channel and Patagonia); Brazil with Uruguay (Yaguaron); Bolivia with Brazil (Acre Abuná) and Peru (Acre-Madre de Diós); and Venezuela with Colombia (Gojijira-Guainía).

³ Diplomatic Resolutions: Brazil with Peru (Acre-Purús) and Colombia (Apaporis); Venezuela with Colombia (Arauca-Yávita) and the United Kingdom (Guyana); and Chile with Argentina (Los Andes).

⁴ No Contest Resolutions: Brazil with France (Amapá), Venezuela (Amazonas), Ecuador (Iça), United Kingdom (Pírra) and the Netherlands (Tumuc-Humac).

what determined whether these nations either went to war, rattled swords, or settled border disputes diplomatically. If a model could be adequately developed to aid in the prediction of when and where these conflicts occur, the payoffs would be of unquestionable worth for intelligence analysts and policy makers, enabling them to take actions to prohibit or mitigate conflict, or at least avoid being caught unawares. Additionally, such a model would serve the theoretical needs of the academic community; better enabling it to understand the importance of period critical environmental, economic, and political causes of conflict.

Unfortunately, the current literature available does not focus on the origins of “minor” conflicts such as those cited above. Yet the importance of adequate theory has been long recognized in the field of international relations.

Review of the Literature

A plethora of literature exists about South American wars. A legalistic and exhaustive work was completed on the border wars in Latin America by professor Gordon Ireland⁵ of Louisiana State University. Although thorough, it is dated (completed in 1938). Other works by such noted historians as Dr. Robert Scheina⁶ have attempted to address the

⁵ Gordon Ireland, *Boundaries, Possessions, and Conflicts in South America* (New York: Octagon Books, 1938).

⁶ Robert L. Scheina, *Latin America: A Naval History 1810-1987* (Annapolis, Maryland: Naval Institute Press, 1987). See also Thomas E. Skidmore and Peter H. Smith *Modern Latin America*, 3d ed. (New York: Oxford University Press, 1992) Particularly Chapters 1 and 6. G. Pope Atkins, *Latin America in the International Political System*, 2nd Ed. (Colorado: Westview Press, 1989) attempts to view the region from the regional balance of power perspective, but becomes so hopelessly wrapped up in the OAS that the focus soon shifts to the North-South issue vice the problems between the Latin American states.

conflicts, paying attention only to the preparedness of each side for war, but making little attempt to explain the motivation for the disputes, preferring to relegate them to simple historical animosity. Some historical accounts⁷, developed by numerous authors, are merely nationalistic one-sided views of the picture.

These historical accounts leave us with unanswered questions, principal among which are: Why do these nations choose to go to war in the first place? Why are some borders contested while others are not? Why are some settled by less bellicose means than war?

Many theorists have speculated on why nations war. Structural Realists, such as Kenneth Waltz, see war as one of many possible responses to actual or emerging imbalances of power. It is a natural part of politics between rival states under the condition known as international anarchy. This level of analysis is so high as to obscure even states from relevance. Traditional Realists, such as Edward H. Carr, Hans Morgenthau, and Robert Guilpin study states, but as Robert Vasquez has noted, they are so focused on states' struggle for power that they fail to allow for other motives for strife. Interdependent Theorists such as Ronnie Lipschutz and Thomas Homer-Dixon focus on specific areas of strife, but in so doing they seem to overlook the states as actors, a primary cornerstone of the Realist school.

⁷ For example, see : Julio Londono, *Geopolitica de Suramerica* (1977), Cesar José Marini, *La Crisis en el Cono Sur* (1984), and especially Bernardeo Quagliotti de Bellis, *Constantes Geopoliticas en Iberoamerica* (Uruguay: Geosur. 1979) and Bernardeo Quagliotti de Bellis, *Uruguay en el Cono Sur* (1974).

Let us examine these three schools of theory, and attempt to distill from them hypotheses that more fully examine the causes of border conflict in the nineteenth and twentieth centuries in South America. As most of these theories fall in the Realist camp, I will begin by examining the state-centric hypotheses of this school. Next, I will examine the structuralist variants of realism and then the interdependent derivative of it. Finally, we will look at the works of Ronnie Lipschutz and Thomas Homer-Dixon.

Realism

In his landmark book, *The Twenty Years' Crisis, 1919-1939*, British scholar Edward H. Carr looked critically at the normative political theories of the inter-war years and blamed them for the troubles in pre-World War II Europe. "For more than a hundred years, the reality of conflict had been spirited out of sight by the political thinkers of Western civilization. The men of the nineteen-thirties returned shocked and bewildered to the world of nature."⁸ Carr's observations led him to call for a more realistic approach to international theorizing, focusing on conflict as the engine that moves nations through history. "Our task is to explore the ruins of our international order and discover on what fresh foundations we may hope to rebuild it; and like other political problems, this problem must be considered from the standpoint both of power and of morality."⁹ Hans Morgenthau¹⁰, founder of

⁸ Edward Hallett Carr, *The Thirty Years Crisis, 1919 - 1939* (New York: Harper and Row Publishers, 1939), 225.

⁹ Carr, 1939, *Crisis*, 226.

¹⁰ Hans Morgenthau, *Politics Among Nations*, 5th ed. (New York: Alfred A. Knopf, Pub. 1973). Particularly Chapter I.

American Realism, focused on power and the relative weight of states in his seminal work, *Politics Among Nations*. Morgenthau believed, like Carr, that “politics, like society in general, is governed by objective laws that have their roots in human nature”¹¹ and that the driving concept behind those laws is the quest to achieve or maintain power.

Interests defined in terms of power...provides the link between reason trying to understand international politics and the facts to be understood.... Without such a concept a theory of politics, international or domestic, would be altogether impossible, for without it we could not distinguish between political and nonpolitical facts, nor could we bring at least a measure of systematic order to the political sphere.¹²

Unlike Carr who felt that “it is an unreal kind of realism which ignores the element of morality in any world order,”¹³ Morgenthau divorced morality from power refusing to “identify the moral aspirations of a particular nation with the moral laws that govern the universe.”¹⁴ In so doing, Morgenthau focused on a single explanatory variable and thus narrowed the focus of scholarship. By establishing this boundary, Morgenthau effectively opened the way for scholars to study the international system and its major actors, the states.

Morgenthau believed that the international system is anarchical, marked by struggles of unitary, rational states over power. “All history shows that nations active in international

¹¹ Morgenthau, 1973, *Politics*, 4.

¹² *Ibid.*, 5.

¹³ Carr, 1939, *Crisis*, 234.

¹⁴ Morgenthau, 1973, *Politics*, 11.

politics are continuously preparing for, actively involved in, or recovering from organized violence in the form of war.”¹⁵ As suggested by his selection of cases, Dr. Morgenthau did not consider the small nations outlined above as important to the international system. He refers to Latin America only as it helped swing major power balances, as examples of wars fought for purely economic reasons (the Boer War and Chaco War), or to demonstrate the impotence of international sanctions.¹⁶ Despite Morgenthau’s arguments for the domestic-to-international universality of his definition of power and its relationship to international politics, many have found it incomplete or wanting.

For our purposes, however, it seems logical to deal with international crises as conflicts between states. Additionally, as Morgenthau indicated, states behave as rational actors, making cost and benefit analyses of their actions. What we must discard is a notion that Bolivia somehow was acting to increase a nebulous concept of power when it undertook the Chaco War. There were clear economic reasons for this conflict and an abstract conception of power was not one of them.

¹⁵ Ibid., 40.

¹⁶ Ibid., 50, 190, 297-298.

Neorealism – the Structuralist School.

A major branch of realism is generally known as neorealism, principally represented by the works of Kenneth Waltz¹⁷ and his adherents. Waltz calls Morgenthau's and Kissinger's theories "inside-out," stating, "It is not possible to understand world politics simply by looking inside of states." If we do, Waltz claims, "We can say what we see, but we cannot know what it may mean."¹⁸ Waltz argues that:

In order to take Morgenthau, Kissinger, Levy, and the rest seriously, we would have to believe that no important causes intervene between the aims and actions of states and the results their actions produce. In the history of international relations, however, results achieved seldom correspond to the intentions of actors. Why are they repeatedly thwarted? The apparent answer is that causes not found in their individual characters and motives do operate among the actors collectively.¹⁹

This serves as the base for Waltz's pole vault up to the international system level of analysis. It is the system, rather than its parts, that matters in international politics. As Professor Robert O. Keohane has summarized, "A system, for Waltz, consists of a set of

¹⁷ Kenneth Waltz, *Theories of International Politics* (New York: McGraw-Hill, Inc., 1979). See also the development of his global system in *Man, The State, and War* (New York: Columbia University Press, 1959) and *Foreign Policy and Democratic Politics* (Boston: Little Brown, 1967).

¹⁸ Waltz, 1979, *Theories*, 65.

¹⁹ *Ibid.*, 65.

interacting units exhibiting behavioral regularities and having an identity over time.”²⁰ The international system is described by three variables: “ordering principles, ...functions of formally differentiated parts, ...and relative capabilities of power of the units themselves.... In such systems, we need not be concerned with the functions performed by the units since they are functionally alike, thus the dimension of differentiation of units ‘drops out’.”²¹ Waltz argues that the universal ordering principle of the international system is anarchy. Therefore the only variable that matters is the distribution of power. “The key changes that we are to look for, in international politics, are changes in the distribution of capabilities across units.”²²

Waltz’ writings on international politics are not very helpful to the study of smaller conflicts. His chief concern is with the polarity of the world system, and wars between relatively small states fall outside his purview because they are unlikely to alter the polarity of the system.

Force used by a state--a public body--is, from the international perspective, the private use of force; but there is no government to overthrow and no governmental apparatus to capture. Short of a drive

²⁰ Robert O. Keohane, *Neorealism and World Politics* (New York: Columbia University Press, 1986), 14.

²¹ Keohane, 1986, *Neorealism*, 14.

²² *Ibid.*, 15.

toward world hegemony, the private use of force does not threaten the system of international politics, only some of its members.²³

For a war to have an impact on the structure of the international system, it needs to be of a magnitude that can change the polarity of that system. Waltz argues that World War II was the only war in the 20th century to fulfill this requirement, moving the international system from a multipolar system of great powers to a bipolar system of super powers.²⁴

For Waltz, then, Latin American border wars fall from view. Although smaller states can be autonomous actors with their own goals and objectives, his theories set them aside as largely irrelevant to the study of the international system. The comings and goings of such small countries as Argentina and Brazil quickly fall beneath the notice of structuralist scholars. What counts is the preponderance of power available to the great powers in the international system. However, when small nations do go to war, they grip the attention of major powers and often bring them into confrontational situations. One need only look to the twentieth century Middle East, Balkans, or Cuba to recognize this. While Latin American wars may not have altered the global balance of power, they have warranted the attention of the United States, Great Britain, Russia, France, Spain, Portugal, Switzerland, Italy and the

²³ Waltz, 1979, *Theories*, 112.

²⁴ *Ibid.*, 199. "Can international systems be changed by the actions of their major constituents? In a multipolar world one great power, or two or three in combination, can eliminate other states as great powers by defeating them in war. Reducing a multi- to a tri- or a bipolar world would change the system's structure. Wars that eliminate enough rival great powers are system-transforming wars. In modern history only World War II has done this. In a bipolar world, one of the leading powers may drive for hegemony or may seek to enlarge the circle of great powers by promoting the amalgamation of some of the middle states."

Vatican, occasionally bringing their forces into play in resolving the situation, and potentially positioning them for armed conflict.

The Falklands or Malvinas War between Britain and Argentina placed the United States in the difficult position of picking between its Rio and NATO alliances. And, as Stephen Walt effectively demonstrated in his study of alliances, “Although the superpowers choose alliance partners primarily to balance against each other, regional powers are largely indifferent to the global balance of power.”²⁵ That indifference heightens the risk posed by these regional conflicts to the international system. While structural realists consider wars between small states unimportant, they matter greatly to those who fight and lose their lives in attempting to win them.

More important for the purposes of this study, Waltz’s focus on the stability of international systems means that he relegates decisions to go war or not to the category of foreign policy, since such choices cannot be explained by a system-level theory.²⁶ In effect, Waltz doesn’t address the pivotal question in managing international crisis: At what threshold do nations decide that the expected gains more than compensate for the expenses of war?²⁷ Clearly, neorealism is ill suited to answering regional questions.

²⁵ Stephen Walt, *The Origins of Alliances* (New York: Cornell University Press, 1987), 148.

²⁶ Waltz, 1979, *Theories*, 111.

²⁷ Bruce Bueno de Mesquita, *The War Trap* (New Haven: Yale University Press, 1981) attempts to establish mathematically what this threshold is. However, if one accepts his Expected Utility Model, the question simply inverts to Why do Nations not go to war when its expected utility would indicate that to do so

Systems Theory in the Study of South American

Yet, the attraction of systems theory to the study of regional systems such as Latin America is evident in the literature. The systems approach produces regional assumptions that fall squarely in the Western Realist tradition.²⁸ These authors investigate the political system integral to the region, and the effects that a system has on the states that it encompasses. They assume, at least in the Latin American region, that North America dominates the Latin American states, and that there is no real self-control outside that allowed by the United States. While the historical evidence they cite is generally supportive, they predict little more than the empirically obvious—these countries have tried to get along and failed. This is not very helpful in deciding why these nations go to war with each other. Clearly, a war between Britain and Argentina, or Peru and Ecuador is not helpful to the national interests of the United States. This body of theory implicitly identifies the outcome of wars such as the Peru-Ecuador conflict with the readjustment of the system. It does not address what in the system is readjusting or why. The theory explains little about the conflicts between Peru and Ecuador, Argentina and Britain, Brazil and Venezuela, and so on.

would be beneficial? Bueno de Mesquita does not answer this nor do his formulas indicate why certain geographic areas are selected in wars between neighbors.

²⁸ Authors which fit in this genre and are Latin America specific are: Alejandro Alvarez, *The Monroe Doctrine: its Importance in the International Life of the States of the New World* (New York: Oxford University Press, 1928); Atkins, 1989, *Latin America*; Norberto Ceresole, *Geopolítica de Liberación: Argentina, El Grupo Andiano, y las Naciones del Plata* (1972); William Mark Habeeb, *Power and Tactics in International Negotiations: How Weak Nations Bargain With Strong Nations* (Baltimore: The Johns Hopkins University Press, 1988); de Bellis, 1979, *Constantes*, and Mario Travassos Travassos, *Aspectos Geográficos Sul-Americanos* (1978).

One author who studied the Latin American regional level of geostrategy is Philip Kelly.²⁹ He finds that traditional Euro-centric geostrategic models play heavily in the writings of military elites and some political theorists of South America. Kelly examines what he refers to as *Shatterbelts* and *Checkerboards*. “*Checkerboards* appear as multipolar balance-of-power structures that reveal a fragmentation relative to the dictum, ‘my neighbor is my enemy, but my neighbor’s neighbor is my friend’ *Shatterbelts* are regions where military rivalries between outside great powers tie into local contentions and bring the possibility of conflict escalation.”³⁰

Checkerboards and shatterbelts have formed the basic structure of South American geopolitics since colonial times, the former internally in the continent’s multipolar balance-of-power configuration, the latter externally in its original separating of the Spanish and Portuguese empires in America and its later isolating of South America from the Middle American shatterbelt and beyond. The predominant checkerboard kept the continent’s geopolitics largely focused inwardly on frontiers, resources and development, and the prevention of two-front wars and an escalation of conflict. There are no longer any shatterbelts in South America, but they have left South America divided, isolated, and dependent on foreign resources and technology.³¹

²⁹ Philip Kelly, *Checkerboards & Shatterbelts : the geopolitics of South America* (Texas: University of Texas Press, 1991).

³⁰ Kelly, 1991, *Checkerboards*, vii.

³¹ *Ibid.*, 209.

Kelly argues that the conflicts of Latin American states can be explained by a combination of friction with their neighbors and their alignments in the international system. For example, Cuba taking on the United States was really Cuba acting at the behest of the USSR, and its actions were potentially counter to its own self-interests. If, as Kelly asserts, South American states are pursuing their own geostrategic interests as well as the biddings of their super power masters, then the data should show more examples of seemingly illogical moves on the part of states trying to further great power interests. We might expect that Brazil, in pursuing its strategic drives towards the Caribbean, might have encountered armed resistance from Venezuela and the Guianas, then colonies of Holland, France and Great Britain. At least on a cursory level, this is not the case. Additionally, there are some cases wherein the checkerboard assumption cannot work because of the number of belligerents involved. Specifically, in the War of the Pacific, Chile fought Bolivia and Peru, but Argentina, Brazil, Colombia and Ecuador did not take advantage of the situation. In the War of the Triple Alliance, Paraguay's actions united Uruguay, Argentina and Brazil against her. Bolivia did not enter the equation. In sum, even this level of granularity seemingly fails to explain why countries go to war. However, it does illustrate some interesting dynamics when considering the sub-system nature of the South American region. Indeed, as Kelly states, South America is generally unconcerned with balance of power politics between the United States and Russia. Much in line with Morgenthau, Kelly feels that they served more for strategic weighting than as allies during the Cold War.

But, to say that there was no Latin American interest at stake in super power politics is incorrect. The non-proliferation agreements of Argentina and Brazil, the nuclear-free zone initiatives of the South Atlantic, the attempts at regional union of the Andean Pact, and the South American free trade zone amply illustrate initiatives of regional players to both settle regional conflicts and to play a role in the international dynamics of superpower relationships.

An alternative to Power... Economic and Political Prestige

Robert Gilpin³² developed Dr. Morgenthau's propositions in an attempt to operationalize realist variables, identifying stages of expansion and contraction through which all nations pass. Reflecting his structuralist roots, Gilpin is focused on the system rather than its members; however, he is closer to the states in that he is concerned with the relationships of the states within the system. In Gilpin's view, states are either expanding their prestige or attempting to maintain it. "Throughout history a principal objective of states has been the conquest of territory in order to advance economic, security, and other interests. Whether by means of imperialist subjugation of one people by another or by annexation of contiguous territory, states in all ages have sought to enlarge their control over territory and, by implication, their control over the international system."³³

³² Robert Gilpin, *War and Change in World Politics* (Cambridge; Cambridge University Press, 1988). Particularly Chapters 5 and 6.

³³ Gilpin, 1988, *War*, 23.

In order to focus on the objectives of nations in international politics, Gilpin strives to divorce the notion of military power from its economic and cultural fonts. Gilpin substitutes prestige for power in realist relationships. "Prestige is the reputation for power, and military power in particular.... [P]restige involves the credibility of a state's power and its willingness to deter or compel other states in order to achieve its objectives. Prestige, rather than power, is the everyday currency of international relations..."³⁴

Gilpin's substitution initially seems promising for explaining regional conflicts. Clearly, one of Argentina's motives in its wars with Brazil and Chile was the desire to establish its position as first among equals--but why? What is to be gained by being perceived as the top dog?

Here the explanatory power of Gilpin's work falls short of explaining why and where nations go to war -- the central questions of this text. Theses such as Gilpin's, in focusing on a system of superpowers, fail to address fundamental questions of human nature, such as why small nations, struggling to satisfy domestic demands, engage in costly conflicts with non-threatening neighbors over contested borders as in the case of Paraguay's wars (See Chapter 3). Although in some states the reason for expansion is obvious (such as Iraq's desire to possess the oil and wealth of Kuwait), in many cases the cause for expansion is relatively obscure (such as in Serbia, or Syria).

³⁴ Ibid., 31.

Realists in the Study of Latin America.

We find realist authors such as Jack Child³⁵, Harold Davis and Larman Wilson³⁶, and Robert Scheina³⁷ accept Morgenthau's state-centric model which sees states as unitary actors, seeking after rational ends, in which the ultimate goal is to increase or maintain power. While their work is illuminating, the basic assumptions appear to be flawed. The first assumption, that states are unitary actors, does not set well when examining South America. In many cases, these nations were not unitary actors during the periods of conflict. For example, during the majority of the Peruvian conflicts with its neighbors, especially Bolivia, Chile and Ecuador, the government of Peru was divided between forces allied with other nations in contest with each other for control of the country. Likewise, the Argentine conflicts with its neighbors prior to the latter Rosas period (1850s) were largely with Buenos Aires, which was also warring with the remainder of what is today Argentina. The goals of these wars were not necessarily rational if defined as an increase or maintenance of state power, but rather the consolidation of control within their perceived boundaries. Even as this paper is written, the Government of Colombia controls only part of its territory, and hence studying it as a unitary state may result in misleading judgments. However, as the state is

³⁵ Jack Child, *Geopolitics and Conflict in South America: Quarrels Among Neighbors* (New York: Praeger, 1985).

³⁶ Harold Eugene Davis and Larman C. Wilson, *Latin American Foreign Policies and Analysis* (Baltimore: Johns Hopkins University Press, 1975).

³⁷ Scheina, 1987, *Naval History*.

generally accepted as the unit of analysis in current literature, it will be used as such in this study.

Nevertheless, as the dominant paradigm in political science, and with assumptions generally accepted by historians of the region, realism has produced by far the most literature in the area and has resulted in some insightful studies, especially in the case of Jack Child whose work begins to define a political system covering the region.

Interdependence

Since the international system level of analysis appears inadequate to explain regional conflict, we are forced to study the state; however, we need not focus on the individual actors, as Waltz cautioned. Regional conflicts, such as those evident throughout the history of Latin America, call into question the interrelationships of actors at the regional level.

Robert Keohane's studies³⁸ address the increasing importance of the lesser powers in international regimes and transnational institutions in constraining the actions of greater powers. His studies, launched from his foundation work in *Power and Interdependence* co-authored with Dr. Joseph Nye, called attention to the complex interdependence that exists between industrialized democracies of the world. His work subsequently has focused on the roles non-state actors play in state behavior, as well as the forces that facilitate change

³⁸ Robert Keohane, *After Hegemony* (New Jersey: Princeton University Press, 1984), Particularly chapters 6, 9 and 11. See also Keohane, 1986, *Neorealism*. Particularly chapters 1 and 7.

within regimes and institutions. Of his work, Keohane stated in 1988, "...it seems to me, [complex interdependence] characterizes relationships among democratic industrialized countries, though not necessarily elsewhere in the world."³⁹ Keohane's works focus on the international institutions, and as such fail to deal with relations between regional powers. When looking at Peru and Ecuador in their border wars, one is hard pressed to classify them as "industrialized democracies". And while many have written about balances of power, these European-based observations seem strangely foreign when describing gaucho-wars, caudillos, and continuing friction as evidenced by recent Peru-Chile, Peru-Ecuador, and Venezuela-Colombia relations.

Conventional wisdom that democracies will not go to war has lulled many into the feeling that there could be perpetual peace in Latin America as these countries move away from the era of military dictatorships and coups. Unfortunately, a quick look at the headlines of the past few years does not portend such relationships. The 1995 war between Peru and Ecuador was only settled in January 1999, and recent allegations of Argentine support for Ecuador have called into question its participation as a treaty guarantor.⁴⁰ Criminals continue to flee across the borders between Colombia and Venezuela⁴¹ and Colombian and

³⁹ Robert Keohane, *International Institutions and State Power* (Boulder Colorado: Westview Press, 1989). 9.

⁴⁰ Elizabeth Olson, "Menem's Accounts Frozen", *New York Times*, Friday, October 5, 2001, Section A, Page 8. Accessed 10 October 2001 in LEXIS-NEXIS Academic Universe.

⁴¹ "South American border conflict heats up", *Catholic New Times*, February 25, 2001, Page 4. Accessed 10 October 2001 in LEXIS-NEXIS Academic Universe.

Venezuelan armed forces last went on alert over the Gulf of Venezuela in 1987.⁴² Chile and Argentina continue to upgrade their navies vis-à-vis each other.⁴³

Edward Mansfield and Jack Snyder recently demonstrated that the inherent instability within democratizing states, especially in states where political momentum is swinging from authoritarian to democratic, causes emerging democracies to be “more likely to fight wars than were states that had undergone no change in regime.”⁴⁴ Mansfield and Snyder found that the belief in the corollary between democracy and peace seems to be truer as the age of the states increases. The more established the elites, and the more entrenched their resources are in the society, the greater their interests in maintaining peace. However, Mansfield and Snyder found that for the “zone of peace” to expand, there must be commensurate assurances of peace and stability from greater powers.⁴⁵ Their argument intimates that the democracy: peace corollary is true only in the world where great powers make it so, such as Europe. By paying so much attention to major powers, the friction along national boundaries of the developing world is often overlooked. A State Department official demonstrated this when he expressed dismay at Peru’s war with Ecuador. His

⁴² “Peru-Ecuador Conflict One of Many Simmering Border Disputes”, The Associated Press, Tuesday, January 31, 1995, Accessed 10 October 2001 in LEXIS-NEXIS. Academic Universe.

⁴³ “Navy considers building hull of first of eight new frigates in Germany”, *BBC World News Roundup*, Saturday, November 04, 2000. Accessed 10 October 2001 in LEXIS-NEXIS. Academic Universe.

⁴⁴ Edward Mansfield and Jack Snyder, “Democratization and War”, *Foreign Affairs*, May/June 1995, 81.

⁴⁵ Mansfield and Snyder, 1995, *Democratization*, 96.

responses indicated that he knew little about that corner of the world, and was not particularly concerned over it.⁴⁶

Alternatives to Realism

All of these theories are based on assumptions about the centrality of the state to the political system, of their struggles for dominance or status quo, and of the anarchical nature of the international system. One ardent critic of these hypotheses, Professor John Vasquez,⁴⁷ attacks the ability of the Realist and Nonrealist (Marxist) paradigms to produce meaningful knowledge. His study evaluates 7,827 hypotheses generated by scholars in the 1950s and 60s against three criteria: accuracy, centrality, and scientific importance. First, he finds that realism predominates in the international relations field. "It was found, for example, that 94.0 percent of the independent variable units and 94.2 percent of the dependent variables employed in actual hypotheses were realist. A review of how these independent and dependent variables were combined showed that 92.4 percent of the 7,827 hypotheses tested in the field were realist."⁴⁸

⁴⁶ Robert W. Hansen, Bureau of Intelligence and Research, Department of State. Author's notes from a presentation at a symposium entitled *The Future of Intelligence and the Central Intelligence Agency*, presented at Catholic University of America, April 19, 1995.

⁴⁷ John A. Vasquez, *The Power of Power Politics* (New Jersey: Rutgers University Press, 1983). Particularly Chapters 7 & 8.

⁴⁸ Vasquez, 1983, *Power*, 170.

Testing his criterion of accuracy (the proportion of hypotheses that fail to be falsified), he finds that “93.1 percent of the realist hypotheses were falsified, compared to 83.1 percent of the nonrealist hypotheses.” He continues,

Although early success would not be expected, one would not expect about 90 percent of over 7,000 realist hypotheses to be falsified. Also, the fact that nonrealist hypotheses, which consist of simply rejecting the fundamental assumptions of realism, can more successfully pass empirical tests than the realist paradigm, which has been the object of much work, raises serious questions about the accuracy of the realist paradigm.⁴⁹

Evaluating the criteria of centrality (the proportion of hypotheses central to the paradigm that fail to be falsified), Vasquez finds similarly disturbing results. Specifically, Vasquez classified as central to the Realist paradigm those hypotheses that relate national power or inter-nation alliances with inter-nation conflict-cooperation. He finds that “...the central realist hypotheses that relate national power or inter-nation alliances with inter-nation conflict-cooperation, employ national power or inter-nation alliances as predictors, or try to predict inter-nation conflict-cooperation have been consistently falsified.”⁵⁰ Specifically, Vasquez finds that the realist notion that nations seek power fails more often than the others.

⁴⁹ Ibid., 182-183.

⁵⁰ Ibid., 193-194.

Lastly, Vasquez looks at the criterion of Scientific Importance, which he defines as the ability of a paradigm to produce knowledge that “should not be considered obvious or trivial to most scholars in the field.”⁵¹ There are three types of knowledge that might be considered obvious or trivial: that which produces knowledge considered significant to the scholar yet which is “highly descriptive and/or a familiar generalization made in newspapers or history texts”; that which “correlates measures of the same concept”; or that which is “highly idiographic and therefore of little importance in terms of building a general theory of international relations.”⁵² Against these criteria Vasquez finds that “about two-thirds (69.5 percent) of the realist hypotheses were declared trivial, compared to about half (54.2 percent) of the nonrealist hypotheses.... This finding suggests that accepting rather than rejecting realistic assumptions does not result in comparatively more scientifically important findings.”⁵³

Unfortunately, after effectively calling both Realism and Marxism into serious question as viable paradigms, Vasquez does little to clarify the problem. “[T]he primary problem lies not in the research methodology of the field but in the incorrectness of the hypotheses that are being tested. Until a paradigm is found that shows promise of adequately

⁵¹ Ibid., 194.

⁵² Ibid., 194-195.

⁵³ Ibid., 196.

explaining the realist behavior, there will be no major progress in research. This implies that the realist paradigm must be rejected....”⁵⁴

So we must turn to other theorists to deal with a regional system such as South America, and from these theorists, attempt to derive a theory of our own. In reviewing cases, we find that we have seemingly rational actors, as all states appear to be in pursuit of benefits to their states. These benefits may come in the form of economic, political, or resource benefits.

Theories on the Relationship of Natural Resources and Conflict

When speaking of natural resources and their relationship to conflict, the majority of recent literature tends to assess the impact of resource scarcity on the international stage. That is to say, when nations collide over resources, it is because of a perceived scarcity of that resource, the impact on the societal structure of a state in response to losing control of a natural resource, and the necessity of extracting or controlling those resources to support the nations’ economies. One author who took a close look at the relationships of raw materials to state foreign policy was Ronnie Lipschutz.⁵⁵ Lipschutz posits, “‘property rights’ explain why, when and where conflicts over raw materials take place.”⁵⁶ They “represent the fusing of material and ideal interests.... they rationalize the order of things and act as instrumental

⁵⁴ Ibid., 226.

⁵⁵ Ronnie D. Lipschutz, *When Nations Clash: Raw Materials, Ideology, and Foreign Policy* (New York: Balinger Publishing Company, 1989).

⁵⁶ Ibid., 240.

rules for maintaining that order.”⁵⁷ The range of choices to a state in pursuing foreign policy objectives are bounded by its ideological position, founded in the history of that state. “Not all choices are possible; only those consonant with the national myth may be pursued.”⁵⁸

Based on this, Lipschutz finds that,

Conflict over resources can be defined in terms of conflicting perceptions of rules and regimes that define not only the terms of a state's access to resources outside its national territory but also a state's eligibility to participate in an international resource distribution system. The problem of securing access to strategic resources ordinarily plays only a subsidiary role in the broader foreign policies of states.⁵⁹

“Thus, we should look at raw materials as direct inputs into capabilities, and as indirect inputs into process, in order to understand the pursuit of ideal interests.”⁶⁰ Yet we find in examining the regional conflicts of South America that securing strategic resources seems to be pervasive in all of the armed conflicts. The difference may lie in Lipschutz’ examination of only “great powers”⁶¹ with prominent positions in the international power structure. South American conflicts, as noted earlier, fall well short of these contests in influencing the balance of power in the international sphere.

⁵⁷ Ibid., 240-241.

⁵⁸ Ibid., 242.

⁵⁹ Ronnie Lipschutz, Abstract of *Ore wars: access to strategic materials, international conflict, and the foreign policies of states*, Ronnie D. Lipschutz, *Dissertation Abstracts International*; Jan 1989, 1952.

⁶⁰ Lipschutz, 1989, *When Nations Clash*, 246.

⁶¹ Lipschutz examines the cases of Great Britain, the United States and the Soviet Union.

Carl Kaysen's examination of the utility of force in the modern world tends to downplay the importance of war in the industrialized era.⁶² Reviewing John Mueller's *Retreat from Doomsday*⁶³ Kaysen notes that land and raw materials have greatly reduced in strategic importance since the industrial revolution. "[T]he mere acquisition of territory did not by itself convey effective control of the resources sited on it, especially the all-important human resources."⁶⁴ Expressly to our area of interest; he states that "Raw material inputs have long been declining in overall economic importance; the ratios of primary production in general, and minerals specifically, to GNP have been steadily declining in industrial countries at least since the First World War."⁶⁵ The question then becomes whether it is cheaper to acquire needed raw materials by purchase or by conquest. In general, Kaysen finds that purchase is less costly in the view of industrialized societies. He does not discount the utility of force completely, but sees it as a tool of domestic political gain. Referencing the Malvinas war between Great Britain and Argentina, he notes, "A short, small war, ending in victory at little cost in blood or treasure, by mobilizing just these sentiments [nationalism, patriotism, etc.], can produce political gains for the leaders who initiate it."⁶⁶ The problem with his analysis is that the political gains were to Great Britain, who defended

⁶² Carl Kaysen, "Is War Obsolete? A Review Essay", *Theories of War and Peace: An International Security Reader*, Michael E Brown et. Al., eds. (Cambridge, Mass.: MIT Press, 1998)

⁶³ John Mueller, *Retreat from Doomsday: The Obsolescence of Major War* (New York: Basic Books, 1989)

⁶⁴ Kaysen, 1998, *Is War Obsolete?* 452.

⁶⁵ *Ibid.*, 455.

⁶⁶ *Ibid.*, 458.

in the conflict. The results for the Galtieri Government of Argentina, who initiated the conflict, were disastrous. Admittedly, the conflict was a last-ditch attempt to regain control in Argentina, but it required an historic contest to galvanize the public, and the contest was rooted in disagreements over fishing rights. And conflicts among industrialized South American nations have continued up until 1995, which would indicate that at least on the regional level, war has not lost its utility.

An extensive examination of the connection between renewable natural resource scarcity and conflict is that of University of Toronto Professor Thomas Homer-Dixon. Professor Homer-Dixon's work is exhaustive and examines the interplay between resource scarcity, environmental change, and domestic conflict. Beginning in 1990, he has been prolific in the production of case studies on the relationship of these three variables. He summarizes the hypotheses of the 1980s literature on the subject, noting several scenarios.

How might environmental change lead to acute conflict? Some experts propose that environmental change may shift the balance of power between states either regionally or globally, producing instabilities that could lead to war. Or, as global environment damage increases the disparity between the North and the South, poor nations may militarily confront the rich for a greater share of the world's wealth. Warmer temperatures could lead to contention over new ice-free sea-lanes in the Arctic or more accessible resources in the Antarctic. Bulging populations and land stress may produce waves of environmental refugees that spill across borders with destabilizing effects on the

recipient's domestic order and on international stability. Countries may fight over dwindling supplies of water and the effects of upstream pollution. In developing countries a sharp drop in food crop production could lead to international strife across urban-rural and nomadic-sedentary cleavages. If environmental degradation makes food supplies increasingly tight, exporters may be tempted to use food as a weapon. Environmental change could ultimately cause the gradual impoverishment of societies in both the North and south, which could aggravate class and ethnic cleavages, undermine liberal regimes, and spawn insurgencies. Finally, many scholars indicate that environmental degradation will 'ratchet up' the level of stress within national and international society, thus increasing the likelihood of many different kinds of conflict and impeding the development of cooperative solutions.⁶⁷

Hypothesizing that poorer nations are more susceptible to environmental change and thus more likely to be involved in "environmentally induced conflicts"⁶⁸ we might find his work more focused on regional conflicts such as those studied in South America.

Professor Homer-Dixon then attempts to simplify the question of how environmental change leads to conflict by looking at two "independent questions.... [W]hat are the important social effects of environmental change.... [And] what types of acute conflict, if

⁶⁷ Thomas F. Homer-Dixon, "On the Threshold: Environmental Changes as Causes of Acute Conflict", *International Security* (Fall, 1991): 77-78.

⁶⁸ *Ibid.*, 78.

any, are most likely to result from these social effects?”⁶⁹ He examines four social effects of environmental degradation: decline in agricultural production, economic decline, displacement of populations, and disruption of institutions and social relations. Examining the argument between “cornucopians” (those who place faith in the international market’s ability to regulate resource depletion and on the human spirit to overcome scarcity by resource substitution) and “neo-Malthusians” (who pessimistically view resource utilization as a “zero-sum” game), Professor Homer-Dixon acknowledges that the cornucopian arguments are historically founded. “But in assuming that this experience pertains to the future, cornucopians overlook seven factors.” In looking at history, scarcities seem to have occurred as single and isolated instances, slowly building over time, and were not aggravated by over consumption on a global basis. Today, these scarcities are (1) multiple and simultaneous, (2) accelerating in severity and building over a short period of time, and (3) exacerbated by over consumption worldwide. His fourth point is that the world market reflects not so much resource plenty and scarcity, especially in shared resources such as climate and oceans, as it does the consumption of larger nations at the expense of poorer nations. Thus (his fifth point), the markets reflect the adaptive capability of capital intense countries with their abundance of economic resources and technology. “Yet many of the societies facing the most serious environmental problems in the coming decades will be

⁶⁹ Ibid, 87.

poor; even if they have efficient markets, lack of capital and know-how will hinder their response to these problems.”⁷⁰

Professor Homer-Dixon thus does not share cornucopian optimism over mankind’s ability to overcome resource degradation. “Human beings may not have the mental capacity to understand adequately the complexities of environmental-social systems. Or it may simply be impossible, given the physical, biological, and social laws governing these systems, to reduce all scarcity or repair all environmental damage.”⁷¹ Lastly, he feels that the institutional and social degradation related to resource scarcities may deplete the pool of human ingenuity required to respond to the crises themselves. On balance, he feels that blind optimism and faith in historic market-based economics is unwise.

Professor Homer-Dixon then examines three levels of conflict. He notes that there are such things as “Simple Scarcity Conflicts” in which nations fight over scarce resources. He states that “they are easily understood within the realist paradigm of international relations theory, and they therefore are likely to receive undue attention from current security scholars.”⁷² He notes that simple scarcity conflict should arise over river water, fish and agriculturally productive land as these commodities are rapidly decreasing. “Group Identified Conflicts “are likely to arise from the large-scale movement of populations

⁷⁰ Ibid., 101.

⁷¹ Ibid., 101-102.

⁷² Ibid., 106.

brought about by environmental change. Relative-Deprivation conflicts categorize those disputes from disparate growth between states. “The rate of change is key: the faster the economic deterioration, it is hypothesized, the greater the discontent.”⁷³ He proposes that simple scarcity conflict may cause international conflict, group-identity conflict both international and domestic, and relative deprivation only domestic contention.

Homer Dixon’s 1991 paper launched a multi-year study involving over 30 scholars and generating a dozen case studies. Near the end of the project, Professor Homer-Dixon published his findings.⁷⁴ He reviewed his three hypotheses from the first paper regarding “Simple-resource”, “Group-Identity”, and “Resource Deprivation” conflicts and emphasized that his goal through he related six case studies was to “falsify the null hypothesis that environmental scarcity does not cause violent conflict” and to “identify how environmental scarcity operates, if and when it is a cause of conflict.”⁷⁵ Reviewing the cases, he modified his original three hypotheses.

I narrowed the range of environmental problems that were hypothesized to cause conflict, so as to deemphasize atmospheric problems and focus instead on forests, water, fisheries, and especially cropland. I expanded the scope of the independent variable to include scarcity caused by population growth and resource maldistribution as

⁷³ Ibid., 108.

⁷⁴ Thomas F. Homer-Dixon, “Environmental Scarcities and Violent conflict: Evidence from Cases”, *International Security* (Summer 1994): 5-40.

⁷⁵ Ibid., 7.

well as that caused by degradation and depletion. And I also incorporate into the variable the role of interactions among these three sources of scarcity.

Reviewing the first hypothesis on “simple resource” conflicts, Homer-Dixon modifies it by differentiating between renewable and extractable natural resources. He believes that renewable natural resources (forests and croplands) do not induce international war, while extractable resources (coal, oil) will. The latter, he finds, can be converted to instruments of state power (guns, tanks, etc.) more easily than renewable natural resources. Of the renewable resources, Homer Dixon finds that river water is most likely to cause interstate conflict, especially “when a downstream riparian is highly dependent on river water and is strong in comparison to upstream riparians.”⁷⁶ In focusing on 20th century conflicts, Homer Dixon misses one key aspect of riparian conflict. In the South America cases, conflict occurred over the use of rivers for transportation of raw materials to world markets. In focusing solely on scarcity, over a century and a half of conflict over rivers in the western hemisphere is overlooked.

His second hypothesis regarding Group Identity conflict is also modified by his cases. He found that contextual issues (unexplained issues arising out of his case studies which are dissimilar between them) factor heavily into whether immigration of large populations causes conflict. He finds that land scarcity (environmental degradation) fuels immigration,

⁷⁶ Ibid., 19.

which causes internal conflict. The initial findings of this hypothesis are troubling. There are Latin American cases where population displacement caused international conflict, but it was environmental degradation in the neighboring state that fueled the conflicts, and in the case of the War of the Pacific between Chile, Bolivia and Peru, that conflict erupted into an all-out war. In sum, it seems that the causality of Homer Dixon's hypothesis is reversed. In the South American cases, extractable resources draw immigration, and the impact of that immigration coupled with the exhaustion of the extractable resource leaves the displaced population without recourse, causing internal dissent in the neighbor, and inviting parent nation intervention to "protect its citizens."

On the third hypothesis, Resource Scarcity, he makes an interesting change. Initially, Homer Dixon "hypothesized that scarcity would undermine a variety of social institutions...[but he now chooses to focus on the state as an institution]. The multiple effects of environmental scarcity, including large population movements and economic decline, appear likely to weaken sharply the capacity and legitimacy of the state in some poor countries."⁷⁷ "Serious civil strife is not likely to occur unless the structure of political opportunities facing challenger groups keeps them from effectively expressing their grievances peacefully, but offers them openings for violence against authority." But by raising his level of analysis to the state, he obliterates the granularity he originally sought to examine, namely what institutions exactly cannot respond to the scarcity of resources.

⁷⁷ Ibid., 25.

In the end, Homer Dixon's project produced yet another paper on the third hypothesis.⁷⁸ In this he finds that "worsening resource scarcities in poor countries can lead to social conflicts and frictions that disrupt the institutional and policy environment necessary for successful innovations. This indirect constraint of resource scarcity may help explain the disappointing growth performance of many poor countries."⁷⁹ This leaves one to ask, so what is the actual relationship of resources to state? Homer Dixon's project has highlighted several variables that need further examination (renewable and extractable natural resources, immigration, riparian access). But his overarching conclusion seems to be that that natural resources contribute to conflict when they do, and don't when they do not.

Oglethorpe University Professor John Ormè questions the use of force in world politics in light of environmental scarcity.⁸⁰ He finds that modern military technology is widening the gap between the "haves" and "have nots" in the world. Population destabilization has placed increasing demands on declining resources of states, and much in line with Homer Dixon's third hypothesis on Resource Scarcity conflicts, that these are leading to conflicts over distribution of world wealth. Ormè notes that industrialization of the Asian continent

⁷⁸ Edward Barbier and Thomas Homer-Dixon, "Resource Scarcity, Institutional Adaptation, and Technical Innovation: Can poor countries Attain Endogenous Growth?", *The Project on Environment, Population, and Scarcity* (Toronto, The American Association for the Advancement of Science, University of Toronto, 1996).

⁷⁹ *Ibid.*, 1.

⁸⁰ John Ormè, "the Utility of Force in a World of Scarcity", *International Security* (Winter 1997): 138-167.

and Southern Hemisphere is placing increasing demands on natural resources, increasing the salience of these resources in generating conflict.

Even if the consequences of the accumulation of greenhouse gases prove to be relatively mild, cheap energy, fertile land, and fresh water will not be obtainable in endless abundance in the coming decades. The combination of environmental threats and resource constraints may eventually bring a fundamental alteration in the basic conditions of international politics.⁸¹

If Ormè is correct, then resource scarcity and environmental threats might well be considered a national security issue. However, Princeton University's Marc Levy strongly disagrees. He examined "the position that environmental degradation was a threat to the United States."⁸² He discounts the "existential" view that there are certain environmental issues "so intimately connected to our deepest national values that they are constitutive of our security issues" as nothing more than "a rhetorical device aimed at drumming up greater support for measures to protect the environment."⁸³ He finds the "physical connection" argument that environmental degradation drive deterioration of security stature as having some merit, but "these arguments require difficult assessments of competing alternative responses. A combination of prevention, adaptation and 'letting nature take its course' is

⁸¹ Ibid., 165.

⁸² Marc A. Levy, "Is the Environment a National Security Issue?", *International Security* (Fall 1995): 36.

⁸³ Ibid.

likely to emerge as optimal.”⁸⁴ Levy’s calls his third link connecting environmental degradation and deterioration in security positions the political connection. This connection is an “indirect, political threat from environmental degradation (involving environmental refugees, resource wars, and so on) [that] is at once both the weakest substantive threat to U.S. security and the strongest intellectual challenge to the field of security studies.”⁸⁵ This is not because “we do not know much about the role of the environment in causing conflict because we do not know much about what causes regional conflict overall.”⁸⁶ Levy discounts Homer-Dixon and related scholars as having “succeeded at showing that the environment matters in processes of political conflict. Most sophisticated scholars of political conflicts already knew that, and now even more do.”⁸⁷ Levy’s analysis argues that the only environmental problems that are a threat to the United States are the Ozone layer and global warming. He feels that to study environmental causes of conflict is to miss the point, and that while this may contribute to the body of environmental policy knowledge, that it has no place in security studies.

So where does this leave us? Our South American examples contain wars over resources where no scarcity is perceived. For the most part they comprise a body of regional conflicts, involving a mix of extractable and renewable natural resources, immigration issues

⁸⁴ Ibid.

⁸⁵ Ibid., 36-37.

⁸⁶ Ibid., 37.

⁸⁷ Ibid., 60.

and riparian access conflicts. The cases offer us an ideal body of cases to examine the relationship of natural resources and varying levels of conflict, thus responding to Levy's call for more study of regional security, and at the same time perhaps illuminating better the relationships of natural resources and varying levels of conflict over contested borders among states not considered terribly important by many structuralists.

The Thrust of This Study

From the preceding analysis of the literature, it is evident that there are several hypotheses about the world that seem to apply to South American analysis, even if the entire schools do not. For example, the 28 conflicts are between states. In every case, there seems to be an identifiable economic objective that drives the conflict. This would indicate that states are the actors, and that they are rational in that they are pursuing rational concrete objectives. As such, this analysis is clearly in the Realist paradigm, although it rejects vague notions of "power" or "prestige" as the objectives of states. While these two objectives may have been ancillary to the causes of conflict, it appears that the objectives of these cases were economic in nature. Complex interdependence may explain some of the state's behaviors in these cases, but in general the states seem more concerned about their own economic interests than the system in which they operate. However, we will find cases in which international regimes have contributed to ending conflict. Lastly, Professor Homer-Dixon's arguments for renewable natural resources as a cause of conflict which can have international ramifications needs to be examined more fully.

The thrust of my research is to examine the character of Latin American border wars during the 19th and 20th centuries. I hope to provide a more relevant theoretical framework from which to examine border conflicts, based on the experience of 165 years of history. If renewable natural resources do indeed contribute to interstate conflict, do they do so at a comparable level to extractable natural resources? What determines how a conflict is resolved? What elevates some conflicts from diplomatic exchange through saber rattling and skirmishes to outright war? This study will examine 28 border conflicts in South America between independence (1820s) and 1995. There are four objectives for this study:

1. Provide an updated compendium of Latin American border conflicts.
2. Examine the relative weight of three variables in the border conflicts studied.
3. Initiate a more systematic approach to studying border wars.
4. Generate theory for future analyses in other Third-World regional inter-state conflicts.

Generating a Theory of Border Wars

The literature available regarding the causes of international war in Latin America is qualitative and deductive in nature. Looking at specific cases, the literature attempts to deduce how the system or the states contribute to the war.⁸⁸ Some, such as Scheina,⁸⁹ look at

⁸⁸ Norman D. Arbalza, *Mars Moves South: The Future Wars of South America* (New York; Exposition Press, 1974).

⁸⁹ Scheina, 1987, *Naval History*.

arms build-ups as a precursor to war, but fail to examine why the build-up occurred in the first place. This type of analysis results in chicken-and-egg analogies⁹⁰ that provide little insight to the problems and causes of conflict. Additionally, the works available do not adequately consider the requirements for fighting a war as a variable in the calculus of a state's bellicose decision.

We begin this study with the assumption that states are pursuing rational concrete objectives.⁹¹ Because these states are rational, we assume they will try to achieve their goals at the least possible economic and political cost. We recognize that in some of the early 19th Century cases, that the states were fragmented and had yet to become unitary actors. As such, we will examine the conflicts to ensure that they are between states and not between factions within what is today the modern Latin American State.⁹²

We will examine two questions arising from the rational actor assumption. The first is based on Professor Homer-Dixon's arguments on renewable and extractable natural resources as a source of conflict. To what extent do renewable and extractable natural resources provide the concrete objective for conflict in these causes?

⁹⁰ Which came first? The chicken or the Egg? This logic is embodied in the argument: Which came first?, The economic crisis? Or the War?

⁹¹ We recognize that States are oftentimes not unitary actors. However, our focus is on state response. Despite the turmoil among many of the states, the factions seldom can raise an army to confront another state's intervention. As such, we will accept the construct of a single, rational, unitary state for this study.

⁹² For example, there were conflicts along ill defined boundaries between the landed elite of the northern plains of Argentina and the Porteños of Buenos Aires. We will not include these conflicts in this study, classifying them as civil war.

The second question focuses on the nature of the contested border. Philip Kelly suggested that the checkerboard and shatterbelt effect has existed throughout contemporary South American history. Empirically we see that borders are a source of conflict and that all of the 28 conflicts focus on borders that were ill defined from the independence of each nation. To what extent does the historical contest of the border relate to continued conflict over that border?

The Variables

Let us attempt to place these three elements into a relational paradigm. Our dependent variable, that which we are trying to understand, is the decision to go to war. We are interested in two independent variables, which evidently contribute to that decision: contested or uncontested borders; and presence or lack of natural resources. We might display this as:

$$\text{Border} + \text{Natural Resources} = \text{War}$$

Clearly this is too simplistic. Let us try to flesh out these variables.

In looking at the border wars of South America, we find that they seem to occur along areas where there has been disagreement on the placement of a border since the creation of independent states. In some cases, the conflict predates independence, and reflects indistinct boundaries resulting from unexplored territories during the colonial empires of Spain and Portugal. As such, contested borders must be considered as an independent variable.

It seems logical that conflict occurs along these ill-defined areas because the need to draw the borders of a state draws the attention of the newly independent leaders. Here is support for some of the realist assertions about a state, one of which is that states have boundaries in which to exercise control. The newly independent states of South America had ill-defined borders, and in their early histories they strove to draw the lines of their political boundaries. For example, the northern border of what are today Uruguay and Argentina; and the southern borders of what are today Paraguay, Bolivia, and Brazil have been in contest since the competing territorial claims of Spanish- and Portuguese-Catholic missionaries attempting to establish missions and trading posts in the area. Although these ecclesiastical contentions were gone by the time of independence, they remained in the minds of the leaders of Argentina, Uruguay, Bolivia, Paraguay and Brazil. The resolution of the conflict left a legacy of treaties, oftentimes contradicting each other on where boundaries lay. One of the first things to attempt was to establish a definitive border between these states. The resulting contentions led to three wars and numerous diplomatic and armed clashes.

Another example is that of Patagonia. Unexplored and vacant at the time of Argentine and Chilean independence, the border was ill defined. Initial treaties were signed, but until the discovery of industrial grade coal in the region, the border was not contested with force. Because of the vagueness of the boundary described in the initial treaties, and the continuing ignorance about how the territory actually was composed by the leaders, the

border remained in doubt and drew governmental attention only with the discovery of natural resources of economic importance.

Clearly then, we must document whether conflicts occur along only contested borders, or if they occur along both contested and uncontested borders. This then is our first independent variable.

Independent Variable #1: Is the border historically contested? (Yes/No).

Operationalization of the Variable: We will examine the history of each case to determine what the initial status of the border was at the time of independence and how the initial arbitration was handled. As Kelly has pointed out, many of the borders in Latin America were uncontested simply because they were not explored.⁹³ If we find that the initial arbitration was bellicose or contentious, then we will say that the border was historically contested. If on the other hand, the border settled with routine diplomatic arbitration, without the polemics related with contention, then we will say that it is uncontested. It is my contention that conflicts will more often occur over historically contested areas because they attract the attention of the political elite.

Continuing to examine the variables, another thing evident in the cases of South American border conflict seems to be the role of natural resources in the contested areas. As

⁹³ Kelly, 1991, *Checkerboards*. Kelly posits that the source of conflict arises from the geopolitical balance in South America, with countries continuously positioning to better a neighbor. Checkerboarding refers to the alignment of states in conflicts, shatterbelts refers to areas of friction or conflict of adjoining states.

just mentioned, Patagonia became contested coinciding with the discovery of natural resources. Timing is important in discussing natural resources. Coal became necessary to fuel the fires of the Industrial Revolution. Oil became important with the development of the internal combustion engine. Rubber became important with the discovery of vulcanization and the spread first of bicycles, and then automobiles. Leather became important to run the wheels and cogs of industrial Europe and North America. The development of technologies seems to drive up the importance of certain natural resources, and that drives the importance of finding sources of these natural resources.

Likewise, when other sources of these natural resources emerge, or synthetics can be produced at less cost than extracting natural sources of the resources, these resources lose economic importance to the state. With exploitation of the coalfields in Pennsylvania, the need for South American coal dropped and Patagonia settled out for a while. Likewise, as evidenced by Peru's conflicts with Bolivia, Brazil, Colombia and Ecuador, the conflicts occurred in the forests east of the Andes during the rubber boom. Before rubber, and after it, the conflicts seem to be resolved by diplomatic means. During the boom, they were resolved by border skirmishes and in one case, war. Another example is the War of the Pacific. As long as guano and nitrates were essential in Europe's agricultural industry, the Tacna-Arica border was in contention and led to war. After the introduction of synthetic fertilizers, the border contention seems to have stayed in the diplomatic realm with eventual resolution by diplomatic means. As such, we see that natural resources are period critical in that they are

important only at certain periods of time. Extractable natural resources can be exhausted, and as such we would expect to see conflicts over them to begin more suddenly and end with the depletion of these resources. Renewable resources, however, are not generally quickly exhausted and as such, we would expect that conflicts over renewable natural resources to be more protracted. In either case, natural resources that are not period critical would seem to be less contentious. Clearly the presence or absence of period-critical natural resources in the contested area is justifiable as our second independent variable.

Independent Variable #2: Is a Period Critical Natural Resource (PCNR) evident in the contested border area? (Yes/No)

Operationalization of the variable: A country may have many natural resources within its territory, but until such time as the technology becomes available to exploit that resource, it is of little use to the state that owns it. Natural resources elevate to PCNRs when something occurs to make that resource of economic importance to the state. That occurrence may be among other things, the emergence of indigenous, natural resource-demanding industry; the introduction of technology that makes a natural resource critical to the lifeblood of the state, or the discovery of an extractable natural resource which is in demand on the world market.

Dependent Variable: State Response to a Border Challenge

There are no cases in which a state erupts out of benign tranquility into full-fledged war. In every case, the conflict escalates through the diplomatic and skirmish stages into all out war. This then indicates that what we are really studying is the level of state response to

a border challenge. Thus we may say that the dependent variable we are studying is not the decision to go to war so much as the level of response to a challenge of its border.

If we look at the 28 cases for this study, we see some that elevated to war between the contestants, others that generated saber rattling and skirmishes, others that were resolved diplomatically, and still some that effectively were resolved without contest. We will look at four possibilities for this variable: War, Saber Rattling and Skirmishes, Diplomacy and No Contest. I hope that by including a range of outcomes we may better understand the subtlety of the relationship between the two independent variables and the dependent variable.

Some might ask why we do not consider the type of government that is responding as an additional independent variable. Classifying government types in Latin America is not always easy. For example, in 1973, the government of Uruguay was headed by President Bordabery, but was nonetheless a military dictatorship. Conversely, Peruvian governments of the 1960s were under the leadership of Air Force Officers, yet the government was decidedly civilian at the local level. So how do we classify? The thrust of this study is not the type of government that is responding, nor the type of war being waged. Rather, this study seeks to study the relationship between renewable natural resources in an historically contested border area with state response to border challenge.

Modifying the Paradigm to Generate Predictions

Graphically, Figure 1 depicts the traditional power politics paradigm, wherein the change of power of one or both states with the introduction of a common national interest

(such as a common natural resource; i.e., oil, water, etc.) raises the possibility of war. However, as Vasquez has pointed out, hypotheses based on power can be falsified over 90 percent of the time. In this study, we will replace power with the ability to control a period critical natural resource. This change in emphasis answers one of Robert Vasquez's critiques of realism by replacing the vague notion of power with an observable presence of period critical natural resources. Unlike warfare technology, the natural resources in an area do not change unless they are depleted.

$\Delta\text{Power}_1 + \Delta\text{Power}_2 + \text{Common National Interest} \rightarrow \uparrow\Delta\text{War}$ <p>(If the relative power of country 1 and 2 are changing and there is a conflicting national interest, then there is an increase in the possibilities for war.)</p>

Figure 1 Traditional Power Politics Paradigm Formula

The second traditional realist variable, National Interests, is equally vague. The realm of national interests contains everything from riparian control, to prestige, to political footing. If we do not define what national interest we are talking about, then we cannot determine if it is of importance to the war milieu. Control of period critical natural resources will be the national interest we examine in this study.

This provides an answer, for example, as to why the borders between Bolivia, Chile and Argentina have been settled in diverse ways over the years. Certain areas of the borders provided arable land during the heyday of the sheep industry, including watershed and highland grazing areas. As the livestock industry moved toward industrialized feeding, the

importance of high grazing areas diminished. Likewise, as the center for cattle ranching shifted south from the northern Argentine highlands to the Pampas, the requirement to control the sources of water in the north diminished and the need to control the watershed to the south increased. One would expect to see conflict over the northern area decrease during the 19th century and increasingly peaceful solutions result during the 20th century.

Also, we would expect the nitrate-rich Tacna-Arica border area between Peru, Chile and Bolivia; and the rubber-plantation areas along the Brazil-Peru border to be delineated peacefully in the mid 20th century as chemical substitutes were developed in the fertilizer industry and cheaper sources of rubber were developed in British Asia. Indeed, all this did occur. Instead of focusing on the military-industrial sector (“power”), a focus on the domestic-industrial sector or international trade may prove much more predictive of potential Lesser Developed Country (LDC) international conflicts. The predictive potential of this theory would also seem to be greater.

It therefore seems that a modified realist paradigm, as depicted in Figure 2 proffers more explanatory power than the traditional realist paradigm, especially in understanding South American border conflicts. This depiction asserts that when a period critical natural resource (PCNR) is perceived to exist in a contested border area, that the level of border hostility increases. Likewise, when a PCNR is in a contested border area, and the hostility over the border is increasing because one or both countries feel that their survival depends on possessing the PCNR, the possibility of resorting to war increases too.

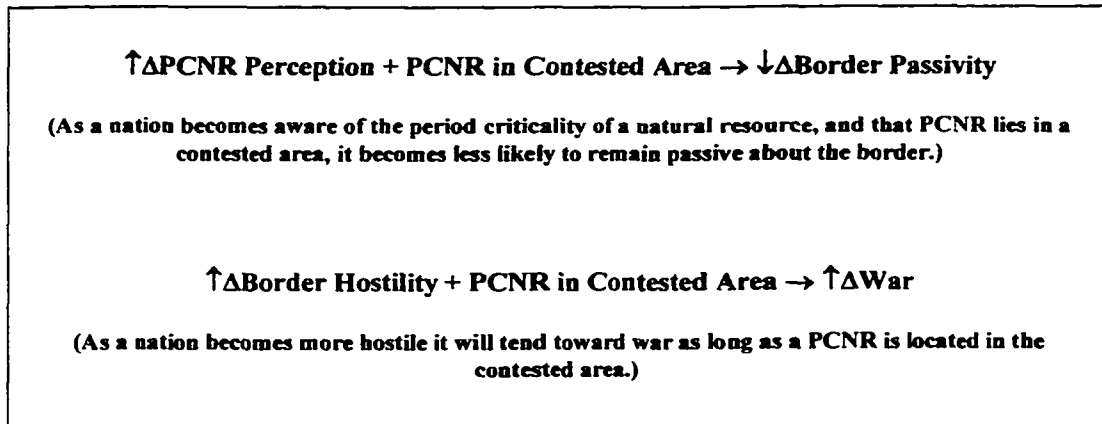


Figure 2 A Modified Realist Paradigm

A preliminary review of cases of 19th century Latin America border conflict focusing on the Southern Cone countries (Argentina, Brazil, Chile, Paraguay, Uruguay, and Bolivia) revealed interesting relationships of these two independent variables and the propensity toward peaceful settlement of a border. We can summarize these relationships in a series of hypotheses:

- If the border is historically contested (B_c) and if the contested area contains PCNRs important to the economies of one or both countries (R_i), then the conflict will be settled by resort to war. ($B_c + R_i \rightarrow \text{War}$)
- If, however, the border is uncontested (B_u) with PCNRs (R_i) located in the area, saber rattling or skirmishes (SR&S) to bring the owner to the bargaining table will be employed. ($B_u + R_i \rightarrow \text{SR\&S}$)
- If the border is contested (B_c) but no PCNRs (R_u) exist, then diplomatic settlement will occur. ($B_c + R_u \rightarrow \text{Diplomacy}$)

- If there is no contested border (B_u) nor PCNRs (R_u) in the region, then the border will remain without conflict. ($B_u + R_u \rightarrow \text{Peace}$)

This relationship can be simply sketched using the heuristic model in Table 1.

Table 1 Expected Array of Border Resolutions.

		The Border has been historically:	
		Contested	Non Contested
Are Period Critical Natural Resources	Yes	#1 War	#3 Diplomacy
	No	#2 Saber Rattling	#4 No Conflict

The independent variables in this model are each binary, allowing ease of categorization for the cases we will study. The values of the dependent variable are in quadrants 1–4 of the model.

1. Was the contested border area fought over? (Yes or No)

The work by Professor Gordon Ireland⁹⁴ provides a comprehensive study of disputed boundaries in Latin America. Ireland's work catalogs 51 disputed areas and provides 57 source documents (treaties and agreements). Published in 1938, it tracks the disputes only through the first two time periods of this study, however, it makes checking on the disputed

⁹⁴ Ireland, 1938, *Boundaries*.

areas in subsequent historical literature much easier by providing local names for the disputed area and thus enabling index searches in more recent literature. Other literature which contains detailed accounts of the conflicts are legion, but salient examples include works by Robert Alexander,⁹⁵ Marvin Alisky,⁹⁶ G. Pope Atkins,⁹⁷ Leslie Bethell,⁹⁸ Jack Child,⁹⁹ Harold Davis and Larman Wilson,¹⁰⁰ Luis Martin,¹⁰¹ Robert Scheina,¹⁰² Thomas Skidmore and Peter Smith.¹⁰³

The work in these volumes also contains a veritable gold mine of information touching on the second variable of this study, namely natural resources.

2. Were period critical natural resources present in the border? (Yes or No)

To understand if a natural resource is period critical, we must examine the economic histories of the contesting nations. If there is apparent alignment of a natural resource with the economic output of the nation, then we shall call the resource period critical.

⁹⁵ Robert J. Alexander, *Bolivia Past, Present, and Future of its Politics* (New York; Praeger, 1982)

⁹⁶ Marvin Alisky, *Peruvian Political Perspective* (Tempe, Az; Arizona State University Press, 1975)

⁹⁷ Atkins, 1989, *Latin America*.

⁹⁸ Leslie Bethell, *Argentina Since Independence* (United Kingdom; Cambridge University Press, 1993).

⁹⁹ Child, 1985, *Geopolitics*.

¹⁰⁰ Davis and Wilson, 1975, *Latin American Foreign Policies*.

¹⁰¹ Luis Martin, *The Kingdom of the Sun: A short history of Peru* (New York; Charles Scribner's Sons, 1974).

¹⁰² Scheina, 1987, *Naval History*.

¹⁰³ Skidmore and Smith, 1992, *Modern Latin America*.

One natural resource, water, is difficult to classify. Thomas Homer-Dixon looks at water as a renewable natural resource for irrigation and drinking. Likewise, Peter Gleick¹⁰⁴ has evaluated water as a source of conflict, as a tool of war, and as a target in war. However, his focus is on water as a life-giving resource to the inhabitants of a nation as opposed to a source of economic commerce of a nation. Gleick is seemingly more attuned to the economic importance of water resources than Homer-Dixon, but his focus remains on resource scarcity. He crafts a useful index combining an index of Hydroelectric dependence with an index of dependence on water originating outside of national borders to assess a nation's energy supply vulnerably. Gleick finds that Paraguay and Uruguay are both vulnerable in this regard.¹⁰⁵ His focus on resource scarcity however, brings him to the same conclusion as Homer-Dixon. "Water-related disputes are more likely to lead to political confrontations and negotiations than to violent conflict."¹⁰⁶

Examining the water issues in Israel and Palestine, Miriam R. Lowi¹⁰⁷ finds that "states that are antagonists in the 'high politics' of war and diplomacy are not likely to agree willingly to extensive collaboration in the sphere of 'low politics,' centered around

¹⁰⁴ Peter H. Gleick, "Water and Conflict: Fresh Water Resources and International Security", eds. Sean M. Lynn-Jones and Steven E. Miller, *Global Dangers: Changing Dimensions of International Security* (Cambridge, Mass: The MIT Press, 1995), 84-117.

¹⁰⁵ *Ibid.*, 108.

¹⁰⁶ *Ibid.*, 117.

¹⁰⁷ Miriam R. Lowi, "Bridging the Divide: Transboundary Resource Disputes and the Case of West Bank Water", eds. Sean M. Lynn-Jones and Steven E. Miller, *Global Dangers: Changing Dimensions of International Security* (Cambridge, Mass.: The MIT Press, 1995), 118-143.

economic and welfare issues.... It may be that cooperation in water utilization requires, at the outset, the positive resolution of political conflict.”¹⁰⁸ Again, focusing on resource scarcity renders a similar finding to those of Homer-Dixon and Gleick. But the conflicts of the 19th century, water was not scarce, and it seems to be involved in many of the conflicts.

Another way to look at water is as a form of transportation. In this case, it is not exactly a natural resource, but rather a line of communication connecting the state with other states, connecting its internal political organizations, and connecting it with the outside world of trade and finance. For the initial purposes of this study we will exclude riparian access as a PCNR. There is a reason for this exclusion. By first examining the array of cases without riparian access as a PCNR, we can then include it and examine what changes occur with its inclusion. By so doing, we hope to determine whether riparian access was perceived as a PCNR during the studied periods.

There are several corollary questions that this paper will study.

3. Does it make any difference if the contested PCNR is extractable or renewable?

As we mentioned earlier, natural resources can be either renewable or extractable. One might well ask if there are similarities or differences in the conflicts Argentina and Chile have encountered since Argentina’s economy has been largely agricultural based, while Chile’s wealth has come from minerals. We would expect to see several differences

¹⁰⁸ Ibid., 140.

between conflicts over renewable versus extractable resources. Renewable natural resources are generally perceived to be inexhaustible, and with proper conservation, can provide an almost inexhaustible source of income and sustenance. For example, farmland when properly maintained can provide food for many generations of people. Rotation of crops on that land can meet changing market demands. A second perception evident in viewing renewable natural resources is that it is primarily for domestic consumption. This is not to say that Argentina looks at the Pampas as a source of domestic sustenance. It is to say that the Pampas first and foremost provides sustenance to a domestic market and then the surplus generates wealth on the international market. As such, it is not seen as a source of industrial might, but as a source of economic strength.

By contrast, extractable natural resources are by their nature, exhaustible. This adds a sense of urgency not found with renewable natural resources. In the cases studied in this document, the extractable natural resources (oil, rubber, coal, copper, bauxite) are not destined for internal consumption as are the renewable natural resources, but are exported for the benefit of a few individuals. Often times, the export of these commodities is under the direction of foreign investors and companies, and as such the wealth derived from the extraction of these resources does not expand the domestic economy as much as does renewable natural resources. The trade of these commodities, when controlled by the elite of the country, is generally exchanged for industrial and military infrastructure. Foreign debt is leveraged against expected gains from the export of commodities. Unlike renewable natural

resources, state leveraging of extractable natural resources can leave the source country mired in debt when the market shifts and the value of the exported mineral drops, or the need for the commodity disappears.

We are focusing on natural resources that are critical to the economy of the state at the time of the conflict. If we are to detect differences in character of these border wars, we must determine if a state is more likely to go to war over resources which both feed the country and generate wealth through their export (renewable) or those that generate wealth for the elite of the country but which produce higher immediate gains for a short period of time (extractable). In determining the relationship of period critical natural resources to a state's decision to go to war, we will examine if there is a greater propensity to war over extractable or renewable PCNRs.

4. Is immigration a source of border conflict?

Certainly the War of the Pacific (Chile Vs. Peru and Bolivia) and the Puna de Atacama (Argentina Vs. Bolivia) controversies involved immigration. Is this the case for the rest of the cases in South America?

Much of the information on these last two questions is buried in political tracts specific to various countries. It is here where the political rhetoric of the nations comes to the surface, but also where the natural resource angle is most clear. Salient literature on this aspect of the research question can be found in abundance at the Library of Congress (LC)

Latin American Reading Room. Examples of these types of literature include works by Edgar Fernandez,¹⁰⁹ Santiago Jordan Sandoval,¹¹⁰ Bernardo Quagliotti,¹¹¹ Jorge Torrealba,¹¹² Mario Travassos,¹¹³ and Eugenio Valenciano.¹¹⁴ Another source of literature is that of the American University - produced country studies¹¹⁵ and the plethora of literature produced by Latin Americanists since 1945.¹¹⁶

Study Procedure

The first variable (Was the border historically contested?) reveals the areas where we expect to see conflict. From this variable we can separate the cases that we expect to be

¹⁰⁹ Edgar Oblitas Fernandez, *Geopolitica y Geografia en America Latina (Cono Sur)* (Sucre, Bolivia; Editorial "Tupac Katari", 1983)

¹¹⁰ Santiago Jordan Sandoval, *Bolivia y el Equilibrio del Cono Sudamericano* (1979)

¹¹¹ de Bellis, 1979, , *Constantes*.

¹¹² Jorge Torrealba Pacheco, *Limites y Tensiones Fronterizas en la Subregion Andiana* (1973)

¹¹³ Travassos, 1978, , *Aspectos*.

¹¹⁴ Eugenio O. Valenciano, *Los Comites de Frontera* (1989)

¹¹⁵ For example: Dennis M. Hanratty and Sandra W. Meditz, *Paraguay: A Country Study* (Washington DC; Headquarters, Department of the Army, 1990); Rex A. Hudson, *Peru: A Country Study* (Washington DC; Library of Congress, 1993); Rex A. Hudson and Dennis M. Hanratty, *Bolivia: A Country Study* (Washington DC; Headquarters, Department of the Army, 1989)

¹¹⁶ Good examples of excellent source material are: Joel Horowitz, *Argentine Unions, The State and the Rise of Peron, 1930-1945* (California: University of California, 1990); Guillermo O'Donnel, *Bureaucratic Authoritarianism: Argentina, 1966-1973, in Comparative Perspective* (California; University of California Press, 1988); David Rock, *Argentina: 1516 - 1982* (California: University of California Press, 1985); Riordan Roett and Richard Scott Sacks, *Paraguay: The Personalist Legacy* (Colorado: Westview Press, 1991); Ronald Bruce St. John, *The Foreign Policy of Peru* (Colorado; Lynne R. Lehner Publisher, 1992); A. Curtis Wilgus, *Argentina, Brazil and Chile Since Independence* (New York; Russell and Russell Inc., 1963), and Donald E. Worcester, *Brazil: From Colony to World Power* (New York; Charles Scribner's Sons, 1973).

contested from those we expect to see resolved diplomatically or without contest. We will array these cases along the X-axis.

Of critical importance to this study is the definition of War. The Correlates of War project out of the University of Michigan sets 1,000 deaths and 5,000 combatants as minimum levels. This is ideal for studying the Northern Hemisphere wars, but not helpful for wars involving fewer than 1000 combatants were involved. I have chosen instead to use maneuvers of organized ground forces of battalion strength (500 personnel) as an indicator of war. This differentiates war from saber rattling and skirmishes, involving police detachments, company-size military encounters, and general mob violence.

From the second variable (Were period-critical natural resources present in the contested area?) we will identify those cases in which countries recognize the value of the natural resources in the contested areas. We will array these cases along the Y-axis.

We expect that as we array these cases, that most cases of requiring war to resolve will fall in quadrant 1 of the model (Table 1 above), saber rattling and skirmishes (SR&S) in quadrant 2, Diplomacy in quadrant 3, and uncontested in quadrant 4. Aberrant cases can then be identified and examined more closely to determine if they are true exceptions and if there are any additional hypotheses that might explain these aberrations.

Methodology

This is a comparative case study, where rich historical detail on the cases of South American border conflicts is examined to enable choice from a small set of variables to

predict the level of conflict to be expected. After analysis of the data, we will select case studies to illustrate points of theory.

Research Hypotheses

To summarize, the chapters that follow will test the following hypotheses by focusing on South American border contests.

1. The likelihood of war to resolve border conflicts increases when period-critical natural resources are present in the contested area.
2. The likelihood of armed conflict increases when riparian access is perceived as a period critical natural resource.
3. The likelihood of war increases when immigration of foreigners into perceived sovereign territory is included in the war milieu.
4. The likelihood of armed conflict increases when technology improvements or market changes elevate valuable natural resources into the definition of period-critical natural resources.
5. The likelihood of armed conflict decreases when technology improvements or market changes transform period-critical natural resources into non-critical resources.
6. The likelihood of armed conflict increases when extractable natural resources are at stake in a contested border area more than when renewable natural resources are at stake.

Chapters 2 and 3 review the history of 28 border conflicts. For each conflict we will identify the common name for the contest, the contestants for each border, the highest level of conflict achieved during the contest, the points of contest, and what PCNRs were identified in the literature. Chapter 4 will then analyze the data and test the 6 hypotheses. Chapter 5 will examine falsified hypotheses. Chapter 6 will present two illustrative cases to demonstrate theoretical points, and hopefully depict some lessons that intelligence analysts and policy makers can draw from this historical study.

Chapter 2: Cases of Conflict

Introduction:

To gain an understanding of the birth of South America, one must comprehend that from its roots, the Spanish and Portuguese cultures have been juridical and litigious. Royal decree or official arbitration settled disputes. This continued through the independence period and into modern times. As Professor Beth Simmons has pointed out:

More than in other areas of the world, border disputes in the Western Hemisphere have been subject to formal legal and quasi-legal processes, such as adjudication and arbitration, in which the disputing countries request a neutral third party to make an authoritative ruling resolving the territorial question. There have been twenty-two such cases of legally binding third-party rulings on contested territorial sovereignty in Latin America. Compare these numbers to one small case in continental Europe; two among the independent states of Africa; two in the Middle East; and three in Asia, the Far East, and the Pacific¹

In this and the following chapter we catalog the border contentions in South American history. We will examine each conflict for natural resources involved, whether or not period critical natural resources (PCNRs) are involved, and in so doing construct a database which will enable us to look for trends in the data. Principal belligerents, beginning with the Andean nations (Chapter 2) and ending with the Southern Cone (Chapter 3), order

¹ Beth A. Simons, *Territorial Disputes and Their Resolution: The Case of Ecuador and Perú*, Peaceworks 27 (Washington, DC: US Institute for Peace, April 1999), 5.

the cases: Venezuela, Colombia, Ecuador, and Perú are covered in this chapter. Chile, Argentina, Paraguay, and Brazil are covered in Chapter 3. Bolivian conflicts with Perú are dealt with in Chapter 2, and conflicts with Chile, Brazil, Argentina, and Paraguay are dealt with in Chapter 3. Where riparian access is identified as an issue, it will be placed in the PCNR category in parentheses and treated separately in chapters 4 and 5. For the purposes of this study, the disputes between Great Britain, France and the Netherlands over one another's colonial borders will not be examined.

Figure 3 depicts all of the contests in the Western Hemisphere since the South American independence period of the early 1830s. (All maps are located at the end of this chapter)

Venezuela:

In the grand scheme of Latin American history, Venezuela often appears as a spoiled child, throwing tantrums over agreements to which they had previously acceded. However, the lofty wording of its original constitution, which forbade ceding of territory, coupled with the importance of the tropical highlands to its agricultural base, made concessions on territory treasonous. The change from 1925 to 1935 in the nation's basis of wealth shifted the locus of attention from the "campo"² to the "*mercado urbano*"³ as tropical exports lessened in importance vis-à-vis petroleum. This remarkable growth in oil as a principal

² Country, rural or agricultural based economy.

³ Urban Market, global economic market-based economies.

output came about under the direction of General Juan Vicente Gómez, dictator of Venezuela from 1908 until his death in 1935.⁴ As Fernando Coronil has noted, in the decade between 1925, when coffee was still king in Venezuela, to 1935 when oil had replaced it, economic focus shifted from the hillsides to the cities, policies shifted from agricultural to petroleum, and population migration increased to the cities as never before.⁵ While this may serve to answer why its interior boundaries are now calm, it also highlights why the conflicts continue over the boundary in the Gulf of Venezuela under which oil is located. In this segment, we will examine the demarcation of Venezuelan borders with Brazil, Colombia, and British Guyana.

The contested boundary name and the opposing country listed in parentheses comprise the segment titles. Maps of the contested borders are located at the end of each chapter.

Amazonas (Brazil):

The border between Brazil and Venezuela was determined by the location of the Amazon River watershed, illustrating the importance of watershed and rivers in the demarcation of all borders between South American nations. A summary of the 1777 treaty of San Ildefonso illustrates this language:

⁴ B. S. McBeth, *Juan Vicente Gomez and the Oil Companies in Venezuela, 1908-1935* (Great Britain: Cambridge University Press, 1988), 3.

⁵ Fernando Coronil, *The Magical State, Nature, Money, and Modernity in Venezuela* (Chicago, IL: University of Chicago Press, 1997), 78.

... from the source of the Memachi [River] by the highest ground past the sources of the Aquio [River] and the Tomó [River], as well as those of the Guaicía [River] and the Iquiare or Içana [River], so that all the streams which flow into the Aquio and the Tomó remained to Venezuela, while those which flow to the Guaicía, the Xié, and the Içana belonged to Brazil...⁶

The initial demarcation of the border was based *uti possidetis*⁷ on the Treaty of San Ildefonso of 1777, establishing the border between Spanish and Portuguese colonization of South America. Negotiations on this border between Venezuela and Brazil have always been amicable. Beginning in 1843 and extending until roughly 1930, numerous notes and exchanges occurred between the two nations, and demarcation surveys had, by that time, surveyed most of the border and placed markers along the tributaries.⁸ The border has been surveyed and marked and is not contested.

⁶ Gordon Ireland, *Boundaries, Possessions, and Conflicts in South America* (New York: Octagon Books, 1938), 139-140.

⁷ Beth Simmons provides a nice definition of *Uti possedetis*: Upon independence, most of the emerging states in the region accepted the principle of *uti possedetis*, which provides that newly decolonized states should inherit the colonial administrative borders that they held at the time of independence. However, there was disagreement over what constituted evidence of such "possession." According to one view, only Spanish legal documents could define borders (*uti possedetis juris*); but another view posited that lands actually held at the time of independence were the basis for continued possession (*uti possedetis facto*). For example, Brazil claimed large stretches of land beyond the borders that were stipulated in treaties between Spain and Portugal, simply because it had the strongest claim to their "control", Simmons, 1999, *Territorial Disputes*, 4.

⁸ Ireland, 1838, *Boundaries*, 138-144. Ireland lists the following Treaties in regard to this border: Treaty of Friendship and Boundaries, November 25, 1852; Boundary and Navigation Treaty, May 5, 1859; Spanish Commission Award of March 16, 1891 fixed the northern-most border between Colómbia and Venezuela, bringing Brazilian territory into contest which was resolved peacefully on April 24th, 1907; Two protocols of December 9th, 1905; the Protocol of February 29, 1912; the protocol of Rio de Janeiro of July 24,

Of note, the territory along Venezuela's southern border has always been inaccessible and unexplored. Difficult terrain and weather make the area rather inhospitable. Because of this, neither country had much reason to contest the border. The quadrant for this conflict is in the non-contested (lower right) corner.

Figure 5 illustrates the complex and unexplored nature of the Amazonas Border.

Table 2 Venezuela: Brazil–Amazonas Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Venezuela/ Brazil	0-No Conflict	None	None

Goajira-Guainía (Colombia)

The border between Venezuela and Colombia has long been problematic. Because of the vagueness of the initial demarcation during the colonial era, and conflicting *cédulas*⁹, determining the border *uti possedetis* proved difficult. With the dissolution of the Bolivarian attempt to establish an amalgamation of states called New Colombia in 1830, Venezuela and Colombia both adopted constitutions that fixed their borders in such a way as to bring their common border into contention. Figure 6 illustrates the border between the two countries.

1928. Exchange of notes November 7, 1929 to establish a third survey. The Brazilian commission never met the Venezuelan commission and returned without results.

Demarcation Commissions mentioned are: Survey of the Memachi to opposite the island of San José by mixed commission, January 7 – August 9, 1880; the Cupi Highlands survey by Brazilian Commission, 1882 – May 10, 1883; Survey of the Rio Negro 1914-1915.

⁹ *Cédulas* refer to royal decrees by the Spanish Monarchy, Granting land to differing individuals and governments over the colonial era.

The resulting conference began on September 9, 1833, “in the course of which New Grenada [Colombia] agreed to Venezuela’s proposal for a line rather of convenience than of strict right”¹⁰ between the two countries. This treaty recognized the Gulf of Venezuela as an inland sea belonging to Venezuela. It drew the Venezuelan land frontier on the western shores of the Gulf.¹¹ However, when the governments of Venezuela and Colombia received the committee reports and signed protocols of December 14, 1833 and the protocol to carry out the treaty of January 25, 1834, the Venezuelan government refused to accept the proposed delineation. Successive conferences continued through 1875, when border conflicts along the contested boundaries between October 2, 1874 and April 19, 1875 terminated diplomatic relations between the two countries until 1880.

Upon resuming diplomatic relations, the foreign ministers of both countries signed an arbitration *juris* treaty in September 14, 1881, in which they agreed to submit the dispute to the King of Spain, *uti possedetis*, and to accept his binding agreement. King Alfonso XII accepted the arbitership and convened a council, but died before it was completed. Queen María Cristina, regent to King Alfonso XIII, issued the decision in his name on March 16, 1891. The decreed boundary:

Thus followed a considerable portion of the line claimed by Colombia but traced in three places a compromise line, giving Colombia the

¹⁰ Ireland, 1938, *Boundaries*, 206.

¹¹ Robert Graham, “Gulf of Venezuela talks with Colombia to restart in August”, in *BBC Monitoring Latin America – Political*, July 28, 1989, accessed 23 October 2001 in LEXIS-NEXIS Academic Universe.

whole Goajirá Peninsula northwest of Maracaibo, a triangle north of Apostadero on the Meta and at the southern end the large parcel enclosed by Casiquiare, Orinoco, Atabapo, and Guainía. The award upset about 100 miles of the West end of the Brazil-Venezuela boundary as fixed between them by the treaty of May 5, 1859...¹²

Figure 6 illustrates the claims and settlement put forth. Unfortunately, the declaration failed to address maritime boundaries. It recognized Colombia as a riparian territory with access to the Gulf of Venezuela, and awarded Colombia a large slice of territory down the Goajirá Peninsula.¹³ The decree left both parties disappointed, but Venezuela felt more oppressed and began stalling tactics. Signed by both parties' Foreign Ministers on April 24, 1894. In this treaty, Colombia ceded the eastern shore of the Goajirá Peninsula to Venezuela thus allowing the settlements in that area to remain part of Venezuela. The Venezuelan legislature did not accept the language of the treaty and proposed four modifications, which generated Colombian modifications to the Venezuelan ones. Eventually, in 1899, a joint commission of demarcation began their work, but suspended work in 1901 due to the internal disturbances in Venezuela, Colombia's civil war, and disagreements over where the line lay. Accusations of Venezuelan interference in Colombian internal affairs led to breaking off diplomatic relations again in November 1901. When Colombia approached Venezuela to exchange ministers in 1904, 1905 and 1906, Venezuela refused to accept the Colombian emissary until the treaty of navigation and boundary was finalized. Colombia

¹² Ireland, 1938, *Boundaries*, 211.

¹³ Graham, "Gulf of Venezuela talks", July 28, 1989.

began to occupy parts of their decreed territories, beginning with the erection of a customs house in Rio Negro in 1901 and establishment of settlements in the contested zone throughout the early 20th century. Venezuela's position was that no movement into the contested zones should occur until the border was marked.¹⁴ Ireland's frustration with the two governments is evident in his summary paragraph:

The negotiations upon this boundary thus lasted for fifty years before even arbitration could be agreed upon, it was ten years more before the arbiter decided the case, and the disappointed party postponed execution of the award for another twenty-five years, leaving the actual boundary on the ground nearly as far from settlement after eighty-five years as it had been at the creation of the two republics.¹⁵

The next phase in the negotiations was the 1941 Colombian-Venezuelan Frontier Treaty that permitted Colombia to obtain 50 kilometers along the Gulf shore, which is the basis of today's Colombian oil fields, but this treaty did not address maritime demarcation. Colombia's exploitation of the oil deposits in the 1960s led to confrontations, but negotiations headed off conflict. In the 1980s a fresh series of negotiations produced a working agreement between the two countries, however the Venezuelan military rejected the agreement because it failed to recognize adequate territory as Venezuelan. Frustrated by lack of progress on the issue, the Colombian government began probing the contested areas with fishing and naval ships. This led to aerial harassment, and finally Venezuela came close to

¹⁴ Ibid., 206-215.

¹⁵ Ibid., 215.

launching air strikes. The need to cooperate along their border against drug traffickers and guerrillas proved more compelling than conflict, and the saber rattling led to renewed calls for negotiations.¹⁶

In March 1989, Venezuelan President Virgilio Barco and Colombian President Andres Perez signed the San Pedro Alejandrino document that called for a permanent follow-up commission to settle the demarcation of the marine and submarine waters of the Gulf of Venezuela. The resulting nationalist fervor in Venezuela almost led to the overthrow of President Barco, and nothing resulted from this initiative.¹⁷

Again in 1992 a Venezuelan initiative to build an international deep-water port was welcomed by the elites of both countries, but violently opposed by the military and some opposition nationalist elements in both countries. Nothing was accomplished and talks lapsed that year and were not resurrected until 2001 when Venezuelan President Hugo Chavez and Colombian President Andres Pastrana announced that talks would be resumed as soon as representatives could be named.¹⁸

¹⁶ Graham, July 28, 1989, "Gulf of Venezuela talks".

¹⁷ "Colombia and Venezuela sign document to solve bilateral problems", in *BBC Summary of World Broadcasts*, March 8, 1990, accessed 23 October 2001 in LEXIS-NEXIS Academic Universe.

¹⁸ "President Perez on deep-water port; budget and other issues" and "Gulf of Venezuela talks with Colombia to restart in August", in *BBC Summary of World Broadcasts*, February 4, 1992, and *BBC Monitoring Latin America – Political*, May 9, 2001, accessed 23 October 2001 in LEXIS-NEXIS Academic Universe.

Beth Simmons recently listed the border as settled in 1932, with compliance having been delayed 25 years.¹⁹ This refers only to the land boundary, which indeed is not contested today. However, this author noted while participating in two United States Naval deployments during 1986 and 1987 that navigation into the Gulf of Venezuela was hampered because of contested maritime boundary claims.²⁰ Discovery and exploitation of oil in the Gulf has raised the area to strategic importance for Colombia, and the flow of immigrants,²¹ contraband, drugs and guerrillas has forced both countries to cooperate on the area. As of this writing, the border remains contested, but the countries are negotiating.

In the final analysis, this border has been contested although never to the level of war. The area now has period critical resources. It thus lies in the Contested with Period Critical Natural Resources (upper left) corner of the quadrant.

Table 3 Venezuela: Colombia - Goajirá-Guainía Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Venezuela/ Colombia	2-Border Clashes	Navigational Access	Oil (Riparian Access)

¹⁹ Simmons, 1999, *Territorial Disputes*, 5. (Table)

²⁰ The author was the Intelligence Officer for Commander, South Atlantic Force, United States. Atlantic Fleet, from 1986-19887 and participated in the United States Navy's joint naval exercises with all South American navies (UNITAS) during 1986 and 1987.

²¹ Robert Graham, July 28, 1989, "Gulf of Venezuela", Graham indicates that there was a large flow of immigrants into the Venezuelan oil fields and with the reversal of economic prospects between Colombia and Venezuela in the 1980s, much of that immigration reversed. However, over 600,000 Colombians remain in Venezuela as of 1998, most performing menial labor.

Arauca-Yávita (Colombia)

Transport of coffee and tropical woods from the Colombian highlands to the coast has long been a problem. Despite numerous rivers in the region, which could afford transport of these commodities, the conflict between Venezuela and Colombia has often hindered open transport. In the 1860s, with the Reformist Liberal Party in power in Colombia, a dream of transporting goods on steamships along the Meta River was delayed by nearly 30 years of wrangling.²² Figure 7 displays the contested area.

To the south of the contested Goajirá border lay an ill-defined area near the Venezuelan town of Yávita. The area was used for cattle production and, at one time, Colombian ranchers shipped up to 1000 head of cattle annually to Apure, Venezuela, used Venezuelan roads and, when operating, steamships on the Arauca River for transshipment to craft on the Orinoco River to the Atlantic Ocean. However, with their refusals to accept the Spanish Royal Arbitration of 1891,²³ Colombia asserted that it could occupy the areas agreed to by both countries prior to complete agreement on the borders. Venezuela disagreed and imposed high tariffs on goods moving on Venezuelan roads and rivers. The

²² Jane M. Rausch, *The Llanos Frontier in Colombian History 1830-1930* (Albuquerque, NM: University of New Mexico Press, 1993), 96-98.

²³ Rausch, 1993, *The Llanos Frontier*, 137-138. The Royal decree, handed down by the Queen Regent María Cristina in the name of 15 month-old King Alfonso XIII is referred to as the *Laudo* and delineated the boundary between Colombia and Venezuela in both the Goajirá and Arauca-Yávita regions. The decree, accepted by Venezuela, allowed development by a Venezuelan chartered French *Compañía General del Alto Orinoco* a 30-year lease to begin steam shipping on the Orinoco, to exploit forest, mineral and vegetable wealth from the area, and to develop and railroads. Trade from the area increased with the introduction of rubber plantations and coffee exploitation.

imposition of those tariffs shut down Colombian cattle production.²⁴ By this time, the region had become a haven for Venezuelan radicals, dedicated to overthrowing the government and it was constantly feared in the 1890s that the Venezuelan forays into the region in search of the revolutionaries was the beginning of an invasion.

...Arauca [Colombia] inevitably was caught up in Venezuelan regional and national political turmoils. Would-be revolutionaries found the Colombian plains a convenient place to organize invasions into Apure [Province, Venezuela], and their activities, which included extorting cattle and horses from local ranchers, made them indistinguishable from the run-of-the-mill outlaws who plagued the region. In 1909, 1911, and 1912, opponents of Apure's president, Dr. José Rafael Gabaldón, launched ill-fated raids from Arauca, and after [Venezuelan President Juan Vicente] Gómez overthrew [President Cipriano] Castro in 1908, the defeated president's supporters plotted their vengeance in Arauca. To crush them, Gómez did not hesitate to order their assassinations or to send troops across the Arauca River, with or without Colombian permission. His high-handed actions reinforced fears of an impending Venezuelan invasion, or even of the annexation of the entire province.²⁵

It was agreed in Caracas, July 20, 1917, that the Swiss Federal Council should arbitrate the disputed areas. The council responded at Bern on March 24, 1922, declaring that a joint survey commission headed by Swiss engineers should settle the four contested

²⁴ Ibid., 261-265.

²⁵ Ibid., 264.

zones. To Venezuela's dismay, they also ruled that the countries could take possession of the disputed territories outside of those four areas in accordance with the Spanish Laudo of 1891²⁶. The commission finalized their work in 1924, and notes were exchanged on July 20, 1925 in which the two governments agreed to build a neutral bridge. Venezuela continued to contend that the entire border between the two should be marked prior to occupation of the lands.²⁷ The border dispute was settled and signed finally in 1941, which considering the continued uses of Arauco as a haven for Venezuelan dissidents in the 1920s and 30s is rather amazing²⁸.

Herein lies a case of latent realization of the value of an area. According to Rausch, it was not until the 1849 Liberal Party assumption of power that the potential of opening the Llanos for exploitation and commercial gain really was fostered by the government. There were numerous initiatives, chief among them the encouragement of tobacco farming. However, it was also the advent of steam power and railroads that allowed them to consider opening the distant areas. The border was not contested for natural resources as much as for riparian access and in attempts to establish law and order over Venezuelan political opposition. We will place this conflict in the upper left quadrant, as containing renewable period-critical natural resources (tobacco, coffee, livestock).

²⁶ Ibid., 279.

²⁷ Ireland, 1938, *Boundaries*, 215-219.

²⁸ Rausch, 1993, *The Llanos Frontier*, 281.

Table 4 Venezuela: Colombia - Arauca-Yávita Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Venezuela/ Colombia	1-Diplomatic	Coffee, Tropical Woods, Livestock	Agricultural Products were the cash crop for Venezuela prior to 1925 (Riparian Access)

Guyana (United Kingdom)

The potential of Sugar Cane plantations drew British, Dutch and French explorers to the northeast coast of South America beginning in the 17th Century. Over the years of colonization into the 19th century, battles were fought between the three colonizers, largely ignored by Spain. Great Britain blunted a concerted Dutch attempt to seize all of the territory north of the Amazon in the mid-17th century. Brazilian settlements on its northern banks of the Amazon calmed Portuguese concerns, and after the Treaty of San Ildefonso, they generally ignored the presence of these colonists, who generally did not venture far enough to make contact with the Brazilians. Figure 8 depicts the boundary.

Venezuelan concerns over the westward expansion of the British settlers from British Guyana finally led to their late 19th century appeal to the United States for help in stopping the British encroachment.

Henry James' summation of the situation is concise and to the point:

Doubt or dispute had existed over the boundary line between the territories which have come to be known as Venezuela and British Guiana ever since 1814. The ancient Spanish and Dutch records, to

which both sides might appeal, were indefinite and confusing. Most of the disputed territory lay in the unreclaimed and little known tropical hinterland two to four hundred miles in from Demerara. Venezuela on her side had been guilty of the folly of laying claim to two thirds of what is now British Guiana, but she had shown a disposition, as time went on, to reduce her extravagant demands and to seek an arbitration of everything in controversy. On the other side, Great Britain had started more moderate geographical pretensions, but had been more arbitrary in insisting on them, and appeared, as time went on, to be inclined to enlarge them.²⁹

In the 1840s, some gold was discovered in the region west of the Schombrugk line³⁰ and British attitudes were noticeably stiffer. Settlements spread west and by January 1880, British Foreign Secretary Lord Salisbury stated a claim far west of the Schombrugk line. Finally, in 1895 President Grover Cleveland took up the Venezuelan cause. Secretary of State Richard Olney drafted a dispatch, which was read to the British and French foreign ministers. It declared:

The Monroe Doctrine rests...upon facts and principles that are both intelligible and incontrovertible. That distance and three thousand miles of intervening ocean make any permanent political union between the

²⁹ Henry James, *Richard Olney and his Public Service* (Boston: The Riverside Press Cambridge, 1923), 96.

³⁰ Schombrugk was a German explorer, employed by the Royal Geographic Society of London to survey the border between British Guyana and Venezuela. He also laid a line according to *uti possedetis juris*, which became hotly contested by the Venezuelans.

European and American State unnatural and inexpedient will hardly be denied:

...Whether moral or material interests be considered, it cannot but be universally conceded that those of Europe are irreconcilably diverse from those of America, and that any European control of the latter is necessarily both incongruous and injurious.

...The states of America, South as well as North, by geographical proximity, by natural sympathy, by similarity of governmental constitutions, are friends and allies, commercially and politically of the United States

...with the powers of Europe permanently encamped on American soil, the ideal conditions we have thus far enjoyed cannot be expected to continue.³¹

The declaration of the Monroe message—that existing colonies or dependencies of an European power would not be interfered with by the United States—means colonies or dependencies then existing, with their limits as then existing.³²

This demonstration of greater US willingness to enforce the Monroe Doctrine, known as the Olney Corollary to the Monroe Doctrine, surprised the British Foreign Office, but in the end brought Great Britain to the bargaining table, and began serious negotiations

³¹ James, 1923, *Richard Olney*, 107-108.

³² British and Foreign State Papers 741, 1061-1107 as cited in Ireland, 1938, *Boundaries*, 236.

on the Venezuelan border.³³ The treaty between Venezuela and the United Kingdom was signed February 2, 1897, and provided for establishment of an arbitral tribunal of five jurists³⁴ to examine the contending claims of Venezuela, Spain, France, the Netherlands, and the United Kingdom. Contending arguments were heard from June 15 to September 27, 1899, and a unanimous award made on October 3, 1899. The award gave Britain most of its claim, but provided Venezuela a protective area on the south side of the mouth of the Orinoco. In this case, the response of the United States, a major power, was to favor the major power defendant in the international arena. The case established the United States as a major hemispheric player, a profile that it retains until today.³⁵

The border appears to have been contested from a loss-of-sovereignty angle, not over natural resources. Although it was of increasing importance to the Venezuelan agricultural interests, by the time of its settlement, this border was not yet of critical economic importance. It falls in the Contested without Period Critical Natural Resources (lower left quadrant).

³³ G. Pope Atkins, *Latin America in the International Political System*, 2^d Ed. (Boulder, Co: Westview Press, 1989), page 117.

³⁴ Two from the United Kingdom, Two from the United States (one nominated by Venezuela, and a fifth to be selected by the four if required to break a tie.

³⁵ Ireland, 1938, *Boundaries*, 230-243.

Table 5 Venezuela: United Kingdom Guyana Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Venezuela/ United Kingdom	1-Diplomatic	Sugar Cane, Minerals (gold)	None

Colombia:

Colombia may be looked at as the ultimate loser in the quest for national sovereignty and international recognition. At the commencement of the Bolivarian era, it briefly seemed that Grán Colombia would occupy what are today Venezuela, Honduras, Costa Rica, Panamá, Venezuela, Ecuador and northern Perú. Then, at the dissolution of Grán Colombia, the borders began to shrink with the establishment of Venezuela on the east, Ecuador and Perú to the south, and eventually Panamá on the North. However, as its history demonstrates, Colombia has not shrunk gracefully, fighting to retain its perceived sovereignty at every step of the way.

Apaporis (Brazil)

Early in the history of the border between Brazil and Colombia, mostly Portuguese entrepreneurs searched for navigable rivers. The area was largely inaccessible and remained difficult to negotiate throughout the 19th century. The October 1, 1777 Treaty of San Ildefonso defined the border between Spanish and Portuguese settlement as running down the Juary River to the Marañon [Amazon] River, down the Amazon to the western-most mouth of the Yapurá River to include Portuguese settlements on its banks as well as those

settlements on the Rio Negro, and then by the mountains dividing the Orinoco and the Amazon.³⁶ Figure 9 depicts the contested area.

The Spanish award of March 16, 1891³⁷ moved the border eastward such that Colombia bordered Brazil instead of Venezuela and, as a result, brought many miles of border into contention. An April 24, 1907 treaty between Brazil and Colombia delineated much of this border, leaving the remainder to be decided in light of the ongoing Colombian contests with Perú and Ecuador. “By this treaty Colombia relinquished to Brazil territory which Colombia had previously claimed in the valley of the Içana and on the Sierra Arara east on the Apaporis between the Vaupés and the Caquetá [Rivers]”.³⁸ In a protocol of the same day, it was agreed that navigation on the Amazon and Iça Rivers should be open and free, allowing navigation to the ocean for either country and that the warships of each country should be able to pass unmolested through the waters of the other.³⁹ Subsequent treaties of 1908 and 1914 reiterated the free navigation clauses, and further defined the intergovernmental relations between the two countries, but the 1914 request by Brazil for actual final demarcation of the border went unanswered.

³⁶ *Ibid.*, 109.

³⁷ The Laudo, decreed by Queen Regent Maria Cristina in the Spanish King’s name which set the boundary of Colombia with its neighbors.

³⁸ Ireland, 1938, *Boundaries*, 112.

³⁹ *Ibid.*, 112.

Figure 10 gives some idea of the river structure in the Llanos during the expansion period of the Liberal Government of Colombia.

Brazil became aware of the treaty between Colombia and Perú in March 1924. In polite notes sent to the governments of both countries, Brazil observed that the agreement included territories not yet resolved between Colombia and Brazil. United States Secretary of State, Charles E. Hughes, conducted negotiations that finally resulted in the signing on March 4, 1925 of a protocol in which Brazil withdrew its observations, and agreed to conclude with Colombia their border demarcation immediately following the ratification of the Colombia-Perú treaty. Notes exchanged in 1930 established the demarcation effort to peacefully resolve this border.⁴⁰ The border was completely marked in 1937⁴¹ and is today considered settled.

There is a period-critical natural resource in this region, rubber. Part of the conflict arose out of the entry of Brazilian immigrants in search of rubber into this region. The border was contested for many years, and it falls in the upper left corner of the quadrant.

⁴⁰ Ibid., 109-115.

⁴¹ Simmons, 1999, *Territorial Disputes*, 5. (Table).

Table 6 Colombia: Brazil – Apaporis Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Colombia/ Brazil	I-Diplomatic	Rubber, Navigation, Immigration	Rubber (Riparian Access)

Oriente-Aguarico (Ecuador)

In 1830, the Colombian departments comprising the Ecuador province (Azuay, Guayas, and Quito) declared their independence from Colombia as the independent state of Ecuador. Shortly thereafter, several towns in the department of Cauca rose up against Colombia and declared their allegiance to Ecuador. In response to Ecuador's General Flores decree of December 1830, wherein he declared these towns incorporated into Ecuador, Colombia protested and demanded that the departments of Buenaventura and Pasto be returned to them. To this Flores replied that "while the departments of Chocó and Popayán were at liberty to decide their own future...the province of Pasto and part of Buenaventura were not as they were definitely annexed to Ecuador".⁴² In 1832 the government of New Grenada recognized Ecuador, and its territories subject to Ecuador's assumption of part of Colombia's foreign debt. But the convention of February 1832, drawing up the constitution for New Grenada, claimed the southern border of Pasto as part of Colombia. Negotiations continued through August 1832, and broke off when Ecuador refused to recede from the boundaries of ancient Quito (established by royal decree in 1563) "including the

⁴² Ireland, 1938, *Boundaries*, 177.

departments of Cauca as far as Cartago, and New Gránada insisted on retaining the whole of the department of Cauca, including the provinces of Pasto and Buenaventura.”⁴³ Colombia attacked Ecuador and seized the contested territories. General Flores, again President of Ecuador, instigated disturbances in the towns in 1841, taking advantage of internal unrest in New Grenada, and attempted to annex the territories. Under protest in Quito by New Grenada’s chargé d’affaires, the decree was rescinded. Responding to Ecuador’s 1858 attack and seizure of Aguarico, New Grenada called for Chile to arbitrate. This call was abandoned when internal unrest in both countries prohibited them from organizing their arguments. Figure 11 is a representation of this contested border area.

Conflicting claims between Brazil, Perú, and Colombia, led to further conventions, which came to no fruition through the remainder of the 19th century. Border clashes were common along the border, and in 1900, a protocol was signed between Bogotá and Quito in an effort to stem the violence and control revolutionary flight across the borders. Further attempts at agreement were made in 1904, 1905, 1915 and most of the boundary was settled in 1916. However, the signing of the 1925 agreement between Colombia and Brazil on their border angered Ecuador as it cut off Ecuador’s eastern claims. Ecuador broke off relations with Colombia for nearly 6 years, and returned to the diplomatic relations only in 1935.⁴⁴

⁴³ Ibid., 178.

⁴⁴ Ibid., 175-185.

Ecuador's border with Colombia has remained quiet ever since its 1916 demarcation. However, their animosity over the conflict was transferred to Perú as Ecuador attempted to retake their Amazon River access to the Atlantic Ocean. At the heart of this conflict was the desire to remain an Amazon nation, and riparian access was a critical natural resource prior to the dawn of aviation in our society. As such, this border falls in the lower left corner of the Quadrant.

Table 7 Colombia/Ecuador – Oriente-Aguarico Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Colombia/ Ecuador	3-War	Navigation	None (Riparian Access)

Loreto (Perú)

At Colombian independence in 1819, it claimed to include all the territories of the old captaincies-general of Granada and Venezuela in the viceroyalty of the New Kingdom of Granada. Perú proclaimed the independence of all the intendances that had formed the viceroyalty of Perú in 1821, which included contested territories along its northern boundary with Colombia. At Lima on July 6, 1822, both countries signed a treaty declaring that the borders would be amicably decided. However “Perú had just previously included in the call to elect deputies to her Congress the towns of Quijos and Mainas provinces north of the Marañon, to which Colombia protested on June 20, 1822 that these places had since 1718

formed part of the territory of New Granada.”⁴⁵ Colombia, conversely, included in her territorial organization law of 1824, three towns claimed by Perú.

Perú in 1826 again issued a call for deputies from one of the three Colombian provincial capitals, and by 1828, things began to get heated between the two countries. Figure 12 is Gordon Ireland’s representation of the Loreto and Leticia borders which brought Colombia and Perú into conflict.

Diplomatic relations were broken off, and on July 3, 1828, Colombia declared war on Perú with the stated objective of retaining the province of Jeán and part of Mainas, which Perú had taken over. A Peruvian naval expedition captured Guayaquil, occupied the Colombian province of Loja, but was subsequently defeated and retired. Colombian General Sucre defeated the Peruvian army at Tarqui on February 27, 1829 and an armistice was signed between Lima and General La Mar. Perú refused to abide by La Mar’s concessions and General Agustín Gamarra deposed him on June 7, 1829. Agustín continued the war until the Colombian civil war forced him to an armistice at Piura, July 10, 1829. However, the agreement lacked weight because of the civil war that soon toppled the Colombian government. Ecuador intervened in the border dispute, precluding demarcation. The conflict escalated with new conflicts between Perú and Ecuador, Perú and Brazil, Perú and Colombia, Colombia and Brazil, and Colombia and Ecuador. Perú began to resolve its differences with Ecuador and Brazil, excluding Colombia. Colombia continuously protested

⁴⁵ Ibid., 185.

every Peruvian move until 1867 when Perú invited Colombia, Brazil and Ecuador to join her in a general conference and demarcation of her northern boundaries.⁴⁶

The Putumayo territory between Caquetá and the Amazon west of the Brazilian frontier was the source of raw rubber. With the 1905 agreement between Colombia and Perú to withdraw from the contested region, a vacuum of control existed in the Colombian area and the rubber company of Peruvian Julio C. Arana Hermanos began to push into the Colombian territories. Ireland describes the company's practices:

...the Peruvian firm of Julio C. Arana Hermanos, whose deliberate policy was to supersede by purchase or force all Colombian rivals on the river and to employ in a system closely approaching slavery, with company indebtedness, fear, flogging, torture, and murder, such Indians as could be captured and held of the tribes of Boras and Huitotos and the smaller groups of Andoques and Ocainas who inhabited the region. One hundred and ninety-six Negro laborers had been recruited in Barbados...and taken into the Putumayo...to work the local managers' will on the Indians."⁴⁷

In 1907, the firm turned over its assets to the Peruvian Amazon Rubber Company, Ltd., a British chaired organization, which in turn named Arana its manager. However, rumors about the conditions for the laborers began to get out, and finally in the face of an

⁴⁶ Ibid., 185-190.

⁴⁷ Ibid., 192.

investigation by Great Britain's Consul General to Brazil, Roger Casement,⁴⁸ Perú launched an investigation, which ended in 113 indictments, but no prosecutions. British authorities prosecuted the four directors of the company, which by 1912 was in dissolution. But the presence of Peruvian authorities in the region drew Colombian forces south. On July 10, 1911, a "considerable Peruvian force from Loreto under Major Oscar Benavides attacked some seventy Colombian guards under General Isaias Gamboa"⁴⁹ and forced their surrender.⁵⁰

The rise of the Pacific rubber industry led to the demise of the Amazonian rubber industry around 1920, and with it went the importance of this border. The demarcation of the border was held in abeyance until it was again fought over as part of the Leticia conflict. Its involvement there, however, was only as the launching pad for Peruvian invasion of Colombian territory. This border was contested with major force, and contained period critical natural resources. It falls in the upper left quadrant.

⁴⁸ Roger Casement was famous because of his exposure of Belgium atrocities in the Congo. Ireland, 1938, *Boundaries*, 193.

⁴⁹ Ireland, 1938, *Boundaries*, 195.

⁵⁰ This was a naval battle, waged between Peruvian and Colombian gunboats, and limited ground combat. When the Peruvian gunboats bypassed some mines the Colombians had placed in the Putumayo River, the Colombians were so demoralized that they surrendered. Robert Scheina, *Latin America: A Naval History 1810-1987* (Annapolis, MD: Naval Institute Press, 1987), 120-122.

Table 8 Colombia/ Perú – Loreto Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Colombia/ Perú	3-War	Navigation, Immigration	Rubber (Riparian Access)

Leticia (Perú)

Negotiations on the Putumayo River triangle continued by wire through 1922, resulting in an agreed-upon boundary on March 24, 1922. The agreement, however, ceded 4,000 square miles inhabited by roughly 2000 people of Perú 's Loreto Province to Colombia. As mentioned earlier in this chapter, it also raised objections from Brazil, an objection from Mr. Arana's rubber company demanding reparations, and the ceding of territory. This raised hostilities in Perú to the point that President Augía y Salcedo was forced to resign. Figure 13 provides more detail on the Leticia geography.

Under the good offices of United States Secretary of State Charles Evans Hughes, Brazil withdrew its objections with the understanding that following the ratification of the agreement between Perú and Colombia, that its claims would be fairly adjudicated. Colombia refused to consider commercial requests, such as that of the Arana Rubber Company, and Perú desisted from these demands.

Patriotic feeling in Loreto Province was another matter. Colombia took control over its territory in August 1930. On September 1, 1932, 300-armed civilians stormed Colombian offices in Leticia, ejected the officials, and raised the Peruvian flag. Although Perú

disavowed any official knowledge of the actions, the Loreto governor had furnished military support, sending Peruvian Regular Army troops under the command of General Oscar H. Ordóñez to occupy Leticia in November 1932. Colombia responded by sending 1500 Colombian Regular Army troops under the command of General Alfredo Vásquez Cobo in a six-vessel flotilla to transit up the Amazon. In the face of war, both nations appealed to the League of Nations. Brazil was requested to reoccupy her outposts and to restore law and order to which Colombia agreed but Peruvian amendments derailed this effort. United States Secretary of State Henry L. Stimson “sent a note to Perú reminding her of her agreement to adhere to the nonaggression resolution voted in the Sixth International Conference of American States at Havana, February 20, 1928, and to the declaration of the American republics denouncing resort to arms, signed at Washington, August 3 1932, and supporting the Brazilian proposal” to reoccupy her positions and to establish a multilateral peacekeeping force in the triangle⁵¹.

In response to this, Perú pledged her support to the Briand-Kellogg and other treaties, but stated that the government of President Luis M. Sánchez Cerro could not be bound by the agreements signed by the previous dictatorial regime. President Sánchez recommended direct negotiations between Colombia and Perú as the only way to resolve their differences and backed this recommendation with a February 14, 1932, Peruvian air force attack on the “Colombian gunboat Córdoba in the Putumayo close to or in Brazilian

⁵¹ Ireland, 1938, *Boundaries*, 200.

waters.”⁵² There was no damage to the gunboat and Colombian Air Force aircraft chased off the Peruvians, however Colombian forces countered by attacking and seizing Tarapacá on February 15th. Situated on the south bank of the Putumayo River, this was clear occupation of Peruvian territory and led to breaking off of diplomatic relations on February 15th.

Anti-Colombian sentiment rose quickly in Lima where angry mobs burned the Colombian Legation, forcing the minister to seek refuge in the Chilean Legation. Remarks made by the Peruvian delegate to the League of Nations regarding the illegality of holding Perú to agreements made by the previous dictatorial regime were so strong that Chile was soon requesting clarification of the meaning with regards to treaties ending hostilities in Tacna and Arica. (See War of the Pacific, below). The sudden realization that it could soon be facing hostilities on two fronts tamed the rhetoric, but not the feelings.

Responding to the crisis,

The League adopted and broadcast a report condemning Perú as supporting invaders, declaring the situation resulting from the presence of Peruvian forces in Colombian territory to be incompatible with the principles of international law, and recommended complete evacuation of the trapezium by Peruvian forces and thereafter the opening of negotiations between the parties upon all their existing problems. The Council set up an advisory committee of thirteen to watch the situation and to report to the Council within three months. The advisory

⁵² Ibid.

committee met on March 18 and invited Brazil and the United States to collaborate in its work.⁵³

Colombia continued aggressive actions south of the Putumayo River, taking Güepi from 300 Peruvian regulars. News of the losses further exacerbated feelings in Lima and on April 30, President Sánchez Cerro was assassinated. The new government of President Oscar R. Benavides, elected in absentia⁵⁴ by the congress on the day of the assassination, traveled to Bogotá on his return to Perú from England where he met with Colombian President Enrique Olaya Herrera. This placed negotiations into motion, but the Peruvian war machine was also in action, sending the cruiser *Almirante Grau* and two submarines through the Panamá Canal en route the Amazon.

With new players in the game for Perú, the League proposed evacuation of the triangle by all troops, and establishment of a League of Nations commission in Leticia to assume control until the area could be resolved. In the first League action in the Western Hemisphere, a commission was established and in place at Leticia on June 23, 1933, under a unique flag, and had established order.⁵⁵

⁵³ *Ibid.*, 202-203.

⁵⁴ Benavides was on a mission of "special friendship" to Great Britain on behalf of the Peruvian Government when he was elected.

⁵⁵ Ireland, 1938, *Boundaries*, 203. The commission consisted of Colonel Arthur W. Brown (United States Army Judge Advocate General Department) First President, Captain Alberto de Lemos Basto (Brazilian Navy), Captain Francisco Iglésias (Spanish Aviator), and Armando Mencía (Cuba) as Secretary).

Negotiations and Peruvian apologies followed for nearly a year, but on June 19, 1934 the area was turned over to Colombian intendance. The border has been considered settled since the 1933.⁵⁶

Both Loreto and Leticia are examples of a border, fought over during a period of period-critical natural resource identification, and of a border in which even after the period-criticality of that natural resource has disappeared, is fought over as a point of national honor. This border clearly falls in the upper left corner of the quadrant.

Table 9 Colombia/ Perú – Leticia Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Colombia/ Perú	3-War	Navigation, Rubber, Immigration	Rubber (Riparian Access)

Ecuador:

In separating from Grán Colombia in 1830, Ecuador found itself in a tight situation, sandwiched in by significantly larger powers: Colombia to the north, Brazil to the east, and Perú to the south. While it desperately wanted to continue as an “Amazon nation”, Perú and Colombia seemed determined to restrict the rebellious departments of Colombia to that portion west of the Andes Mountains. The result has been a bellicose state that only recently seems to have pacified.

⁵⁶ Simmons, 1999, *Territorial Disputes*, 5 (Table)

Iça: (Brazil)

With the establishment of Ecuador, the western-most boundary dispute of Brazil with Colombia transferred to Ecuador. An agreement was signed in Quito in 1853 establishing a border, and removing Ecuadoran sovereign claims to an inaccessible eastern portion of her lands. However, Brazilian sovereignty was never established over this portion of land until agreement with Colombia in 1922.⁵⁷ The border ceased to exist however with the 1941 war with Perú, when Perú seized the Ecuadoran holdings along the Iça River. Figure 14 depicts the border.

As the border was inaccessible and void of recognized natural resources, it falls in the lower right corner of the quadrant.

Table 10 Ecuador/Brazil–Iça Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Ecuador/ Brazil	0-No Conflict	None	None

Oriente-Mainas (Perú)

The Perú-Ecuador Border has been one of the most problematic in the history of South America. While other boundaries have been settled or allowed to lapse into benign neglect, this border was only settled in 1998. As one author pointed out, “Apologists for Ecuador could track the matter in an unbroken line from the realm of Atahualpa through the Audiência of Quito to the Republic of the Equator; in the Land of the Incas, however, the

⁵⁷ Ireland, 1938, *Boundaries*, 116-117.

affair has been historically one of many arising from the collapse of the once majestic Viceroyalty of Perú .”⁵⁸ Figure 15 illustrates this contested area.

Beth Simmons recently pointed out:

Perú and Ecuador are long-time rivals with a history of war; seemingly perpetual border skirmishes with intermittent periods of latency; and extensive third-party involvement, including mediation, guarantor status, and specific efforts at binding arbitration, one of which resulted in a comprehensive border settlement until recently. The case thus illustrates many aspects of the dispute settlement process available to states, the enduring success of which will be tested in the coming years.

⁵⁹

From Ecuador’s separation from the Grán Colombia confederation in 1830, until its war with Perú in 1941, there were repeated attempts by both countries to resolve their border.⁶⁰ In 1854 and again at the conclusion of the War of the Pacific, Ecuador attempted to resolve debts by offering contracts to British firms for resources and land in the contested

⁵⁸ David H. Zook, Jr., *Zarumilla-Marañón, The Ecuador-Perú Dispute* (New York: Bookman Associates, Inc. 1964), 11.

⁵⁹ Simmons, 1999, *Territorial Disputes*, 8.

⁶⁰ Ireland; 1938, *Boundaries*, 219-230; Simmons, 1999, *Territorial Disputes*, 9-14. Treaties include: Treaty of Friendship and Alliance, July 12, 1832; Treaty of Peace, Friendship, and Alliance, January 24, 1860 (signed under Peruvian naval blockade); Quito Convention of August 1, 1887; Quito Convention of May 2, 1890; Quito Protocol of June 5, 1890; Lima Protocol, January 21, 1904; Quito (Ponce-Castro) Protocol, June 21, 1924; Protocol of July 5, 1835, Treaty of 1936, Rio Protocol of 1942, Corollary to the Rio Protocol of 1946, Brasilia Presidential Treaty of 1998. Armed conflicts occurred: Angotera, July 1903; Torres Causano, July 1904 (70 Ecuadoran Troops attacked 40 Peruvian Troops, suffering 20 casualties and retreating; In 1910 Perú mobilized 22,000 troops, Clash at Huaquillas, October 1932; 1981, 1993, 1995. Binding Arbitrations solicited: Queen Regent Maria Cristina (for Alfonso XIII) of Spain, 1887, withdrew in November 1910; Franklin Delano Roosevelt, 1935, Rio Pact 1994.

areas.⁶¹ More than 35 bloody conflicts erupted during the first century of Ecuador's existence, but the reasons for the conflicts remain vague.⁶² Natural resources in the region such as uranium, gold, and tin have never factored into the major export commodities of Ecuador. This is, in part, due to the inaccessibility of the deposits to major lines of communication. By 1936, there was agreement on a line, although nationalistic differences prohibited the ratification of that agreement too. Then:

Major clashes broke out on the border in 1941 and continued for four months. Perú's military prevailed in that confrontation, and in early 1942 the two sides signed the Rio Protocol, the first mutually ratified treaty in more than a hundred years to attempt to establish the boundary. That agreement generally followed what was known as the "Status Quo line of 1936," which both Perú and Ecuador had agreed to, even though it meant a territorial loss to Ecuador of some five thousand square miles.

On January 29, 1942, the governments of Brazil, Argentina, Chile, and the United States also signed the Rio Protocol, indicating their willingness to guarantee its observance and execution.⁶³

As a result of its war with Perú in 1941, navigable access to the Amazon was lost, but here again there is little of commercial importance to Ecuador located in the area that

⁶¹ Ireland, 1938, *Boundaries*, 220-221.

⁶² Zook gives a complex and detailed account of the conflict up until about 1942 and the Rio Protocol, etc.

⁶³ Simmons, 1999, *Territorial Disputes*, 10.

would merit transport via barge down the long winding Amazon River. In settling the dispute, more than 95% of the border was marked, leaving only a remote section of roughly 40 miles that was in dispute. Aerial photography was undertaken by the United States on the six points to resolve the dispute and demarcation began. Then, Ecuador demurred in light of “new geographic evidence” from the continued demarcation, stopping it in 1948. In 1960 Ecuador abrogated the 1942 Rio Protocol, stating that it was irrelevant in light of the 1946 aerial photography. No progress was made in the 1960s and 70s, then fighting broke out in 1981.

...fighting broke out in 1981 (in the “Paquisha Incident”) when Ecuadoran forces attempted to take over three Peruvian military posts in the Condor area. Border violence has been sporadic ever since, usually peaking around January, which coincides with the month that the Rio Protocol was signed. By one count, confrontations between the armed forces of the two countries have occurred in thirteen of the past eighteen years since the Paquisha Incident.

Despite Perú’s proposals to complete demarcation of the border, no agreement had been possible as long as Ecuador rejected the Rio Protocol and Perú insisted on it as the framework for a settlement.⁶⁴

The next incident came with a major flare in hostilities on January 26, 1995 when Perú and Ecuador moved more than 5,000 troops into a 55 square mile zone around the Tiwintza military base in the disputed zone of the Condor Mountains. Although only lasting

⁶⁴ Ibid., 11.

19 days, casualties were between 200 and 1500, with nine Peruvian and two Ecuadoran jets lost, and at a cost of an estimated billion United States dollars. Six Peruvian divisions were deployed on the coastal plain, facing off against four Ecuadoran brigades. "With naval fleets on alert, high-performance fighter bombers forward-deployed, and armies from both sides engaged in combat in the Cenepa region, escalation seemed a distinct possibility in February, 1995."⁶⁵

On February 17th, 1995, Ecuador and Perú signed a cessation of hostilities, drawn up by Brazil and guaranteed by the United States and Argentina. Minor clashes occurred in March, May and September 1995 while final negotiations continued. The Ecuadoran success in the 1995 conflict, coupled with the weak Peruvian economy and apparent desire for peace on both sides, gave President Fujimori of Perú and President Sixto-Durán of Ecuador the most flexible positions in decades. Most notably, President Sixto-Durán could agree to negotiate within the framework of the Rio Protocol of 1945, turning from Ecuador's abrogation of it without political consequences since the country had a much better standing after the war than in previous conflicts. Conversely, President Fujimori could act and cease hostilities in light of the guarantors' presence on the ground to enforce the cease-fire. On October 29, 1996, the two parties signed the Santiago Agreement committing them to addressing the remaining impasses. Both sides made what they considered to be major concessions prior to the talks. First, as demanded by Perú, they were conducted in

⁶⁵ Ibid., 12.

accordance with the Rio Protocol, and secondly they admitted a territorial dispute, denied by Perú prior to 1995.

The concessions increased communications between the two countries, but as of this writing have not gone far towards increasing confidence, with both sides in a regional arms race, increasing and modernizing their air and ground forces. Discussions into 1998 continued, centering on Ecuadoran demands for free navigation on the Marañon River to the Amazon, and Perú's insistence on enforcement of the boundary from the Rio Protocol. Through the determined efforts of the two countries and the binational conventions set up as a result of the 1997 accord, these final issues were laid to rest in 1998.

Beth Simmons in her examination of this conflict notes three major contributors to this conflict resolution. First was the willingness of the leaders to risk their political fortunes to secure peace. She traces the overtures of the Ecuadoran President Bucaram, and his successor, President Fabian Alarcon Rivera. She notes the courage of Peruvian Alberto Fujimori in not taking advantage of the economic chaos during the demise of the Bucaram administration. In sum, both sides wanted the settlement to work.

Secondly, Simmons notes that public opinion, particularly Ecuadoran public opinion, had softened over the century. By 1975, nearly 3 of 4 Ecuadorian's polled were willing to accept the Rio Protocol border. However, this softening of public opinion did not keep President Bucaram out of exile and in power.

Third, Simmons highlights the role of the guarantors. “Representatives from Argentina, Brazil, Chile, and the United States have taken their responsibilities seriously and were apparently interested in getting the dispute resolved for good.”⁶⁶

The efforts paid off and on October 26th, 1998, Presidents Jamil Mahuad (Ecuador) and Alberto Fujimori (Perú) signed the Brasilia Presidential Act in the presence of the four guarantors, thus settling the border between their two countries.

This border conflict began with Ecuador being denied access to a period-critical natural resource, but it appears to have been fought over more because of historic notions of sovereignty, than in an effort to retain the navigation rights. For the purposes of this study, however, we will place this in the lower left corner of the quadrant.

Table 11 Ecuador/Perú-Oriente-Mainas Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Ecuador/ Perú	3-War	Navigation, tin, uranium, gold	None (Riparian Access)

Perú:

Perú as a Spanish Viceroyalty was once one of the largest colonies in the world. At its height, it contained what is today part of Ecuador, Perú, Bolivia, Uruguay, Chile and Argentina. It was shaved down with the establishment of the Captaincy of Chile and the Viceroyalty of Buenos Aires. Then, in the early independence days of the Bolivarian

⁶⁶ Ibid., 18.

Republics, it lost Bolivia and Ecuador. Its conflicts with Brazil and Bolivia demonstrate that it has attempted to hold fast to its territory throughout its history. Its major conflicts with Ecuador and Colombia are discussed elsewhere in this chapter.

Acre-Madre de Diós (Bolivia)

With Bolivian independence, President Antonio José de Sucre proposed a border to Perú in 1826 that was refused by the Peruvians, perceiving that Bolivia's offer to pay some of Peru's foreign debt as part of the settlement was inadequate given Bolivia's precarious fiscal situation. A treaty of peace was signed between the two countries in 1831, but it only called for a commission to prepare a topographical map of the proposed border area. From 1835 through 1839, Bolivian General Andrés Santa Cruz waged wars in what is today southern Perú and northern Chile, scoring remarkable successes and establishing the confederation of North Perú, South Perú, and Bolivia. His defeat by General Agustín Gamarra with Chileans under command of General Manuel Bulnes at Yungay on January 20, 1839 began his demise, which ended in his resignation as Bolivian President later that year, and his eventual self-exile to Europe in 1845. This period did nothing to resolve a Bolivian-Peruvian border. From 1840 to 1842, Perú attacked into Bolivia and unsuccessfully attempted to reclaim the territory in the Acre-Madre de Diós region. However, under the mediation of Chile, Peruvian forces were drawn back in 1842 and yet another call for joint demarcation was made. From this sprang three treaties of friendship between Bolivia and Perú, 1848, 1863, and 1864, which continued to call for demarcation of the boundaries, but

in fact recognized most of the border and even called for Bolivian construction of a lake-port on Lake Titicaca at which Peruvian steamers could call and conduct commerce. Figure 16 is Ireland's depiction of this contested area.

Bolivian attempts to establish its border with Brazil were protested by Peru in 1867 as injurious to their sovereignty, and never ratified. This set a precedent which eventually materialized in the Bolivian-Peruvian treaty of Alliance of 1873 in which both nations pledged not to undertake border establishment without the involvement of the other. The friendship continued through the War of the Pacific, but no border resolution was undertaken, and only calls for demarcation were contained in the treaty of 1886 with establishment of a boundary along major rivers and along highest peaks. Of course, Chile's input to the Bolivian border process was dominant at the conclusion of the War of the Pacific and spelled out in the Ancón Treaty of Peace of 1883 that ended active hostilities from the War of the Pacific.⁶⁷

Brazil, in attempting to conclude its boundaries with Bolivia, raised the ire of Perú, which successfully protested the Brazilian attempts, as well as the Chilean mandates of 1895.

Minor skirmishes between Perú and Bolivia occurred around customs houses on the Madre de Diós River and over rubber concessions made to Brazil between 1897 and 1902. Clashes were terminated with the La Paz treaty of 1902. This treaty called on Chile to return

⁶⁷ Ireland, 1938, *Boundaries*, 100.

Tacna and Arica, occupied by Chile since the Ancón Treaty of Peace of 1883, to Perú, and fixed a border between Perú and Chile and Bolivia's Carangas Province. Occupation of territories in the Madre de Dios area that occurred repeatedly by both sides through the next 20 years never resulted in serious armed conflict. Finally a protocol of 1909 called for demarcation, which was partially completed. However, the markers were wooden and didn't last long. A protocol of 1912 continued demarcation with iron posts, which did not survive in the area either. Joint Peruvian development of Lake Titicaca fisheries was undertaken in 1935, and the border has remained unmarked but calm with limited jurisdictional conflict since that time.⁶⁸ Beth Simmons indicates in her work that this border remains unresolved, but peaceful because of Perú's concessions.⁶⁹

Although much blood was shed on this border over the 150 years of its contest, the actual fighting has occurred over riparian access and during the period of rubber plantations. It is safe to say that the border becomes hot when period-critical natural resources are evident, and remains largely dormant when they are not. The border falls in the upper left corner of the quadrant.

⁶⁸ *Ibid.*, 95-109.

⁶⁹ Simmons, 1999, *Territorial Disputes*, 5 (Table)

Table 12 Perú/Bolivia Acre-Madre de Dios Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Perú/ Bolivia	2-Saber Rattling & Skirmishes	Navigation, Rubber	Rubber (Riparian Access)

Acre-Purús (Brazil)

The 1777 treaty of San Ildefonso stipulated a boundary between Spanish and Portuguese settlement which would exclude rubber-rich valleys of Alto Yubua and Alto Purús from Perú. Prior to the advent of vulcanization, there was little interest in the area, but by 1840, rubber harvesting was in process, and the area was of increasing interest. A treaty of friendship was signed in July 1841, which called for the amicable and pacific resolution of the area. The Bolivia-Perú war interrupted the execution of this treaty, but with cessation of hostilities, and with the settlement of disputes with Colombia and Ecuador, Peruvian Dictator Ramón Castilla directed negotiations be reopened with Brazil. An 1858 River Convention proposed demarcation with Brazil, but the first attempt failed when the parties could not agree on the line tracing. The second attempt failed when native Indians attacked and killed the survey team as they tried to plant a marker for the beginning of the border demarcation. By 1897, however, most of the marks were in place and agreed upon between the two countries. This harmony would end, however, when the transfer of Acre from Bolivia to Brazil strained relationships with Perú. While Argentina attempted to mediate the disputed border between Bolivia and Perú, Brazil prohibited the passage of arms and ammunition on the Amazon to Peruvian troops in the interior in May of 1904. A convention

of July 1904 eased tensions and called for a joint, armed survey team, to penetrate the contested valleys. The surveys completed and most of the border marked, the final treaty was signed on April 15, 1908, which settled the area.⁷⁰

The border, contested over many years, was unsettled until the demise of the South American rubber industry. It falls in the upper left corner of the quadrant.

Table 13 Perú/Brazil - Acre-Purús Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Perú/ Brazil	1-Diplomatic	Rubber, Navigation	Rubber (Riparian Access)

⁷⁰ Ireland, 1938, *Boundaries*, 123-130.

Maps for Chapter 2

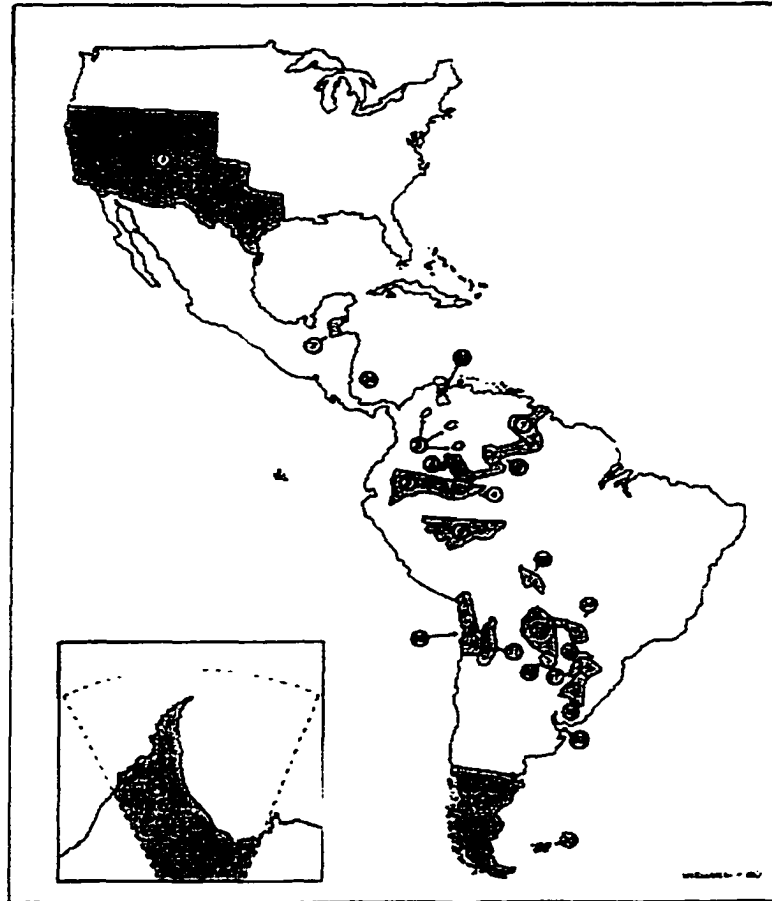


Figure 3: Major Territorial Disputes in the Americas Since Independence¹

¹ Scheina, 1987, *Latin America: A Naval History*, 10. Key: 1- Territories lost by Mexico in wars with Texas and the United States, 1830s and 1840s, 2-Dispute between Great Britain and Guatemala, 3- Dispute among Colombia, Ecuador, and Perú, 4-Dispute between Brazil and Ecuador, 5-Dispute between Brazil and Colombia, 6-Dispute between Brazil and Venezuela, 7-Dispute between Great Britain and Venezuela, 8- Dispute between Colombia and Venezuela, 9&10-Disputes between Bolivia and Brazil, 11-Dispute between Argentina and Chile, 12-Territories won by Chile in the War of the Pacific, 13-Dispute between Bolivia and Paraguay, 14-dispute between Brazil and Paraguay, 15-Dispute between Argentina and Brazil, 16-Dispute between Brazil and Uruguay, 17 & 18-Dispute between Brazil and Uruguay, 19-Dispute between Argentina and Chile, 20-Dispute between Argentina and Great Britain, 21-Dispute among numerous nations, including Argentina and Chile, 22-Dispute between Argentina and Uruguay, 23-Dispute between Colombia and Venezuela, 24-dispute between Colombia and Nicaragua.

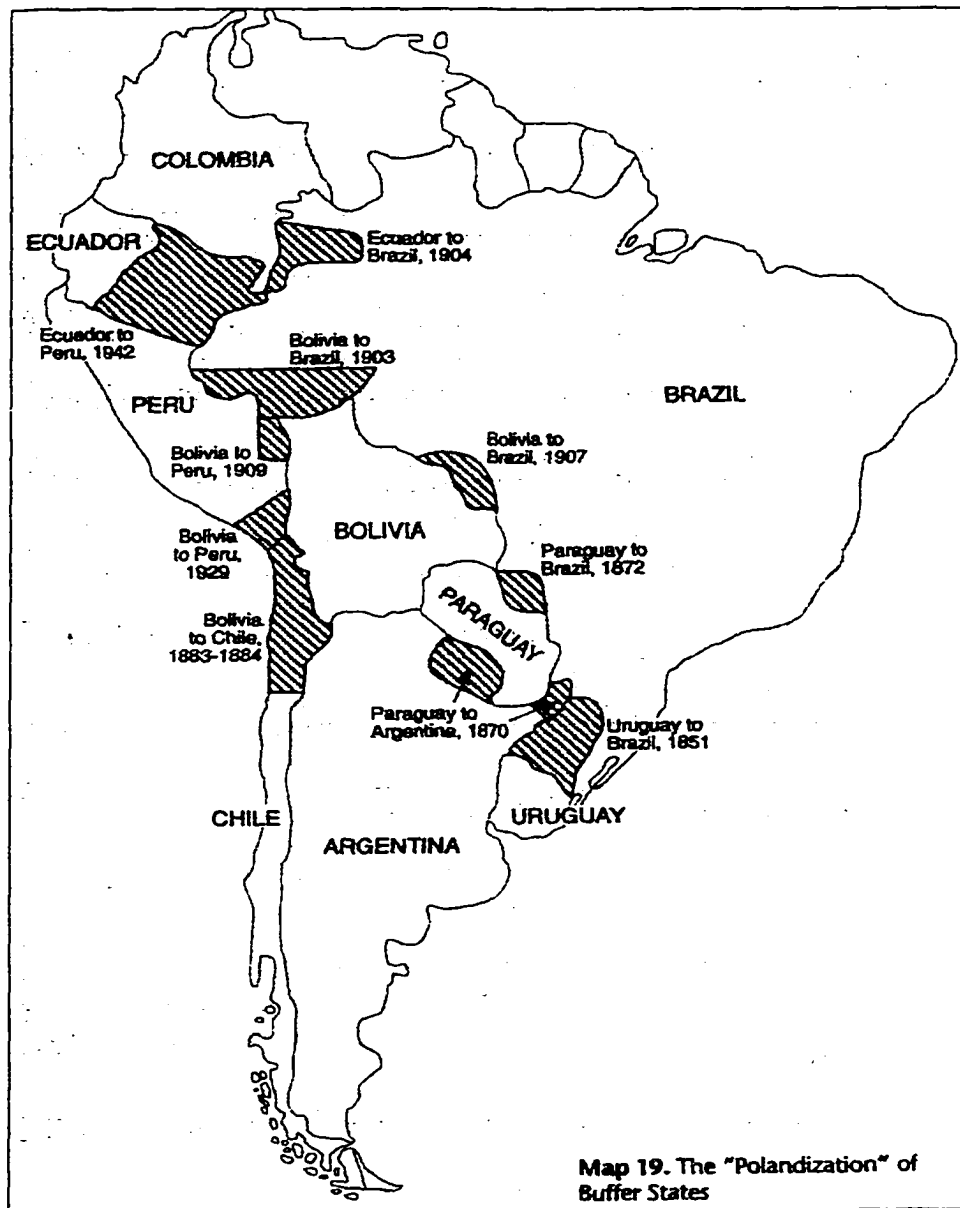


Figure 4 Ceded Territories in South America²

² Philip Kelly, *Checkerboards & Shatterbelts: The Geopolitics of South America* (Austin: University of Texas Press, 1997), 43.

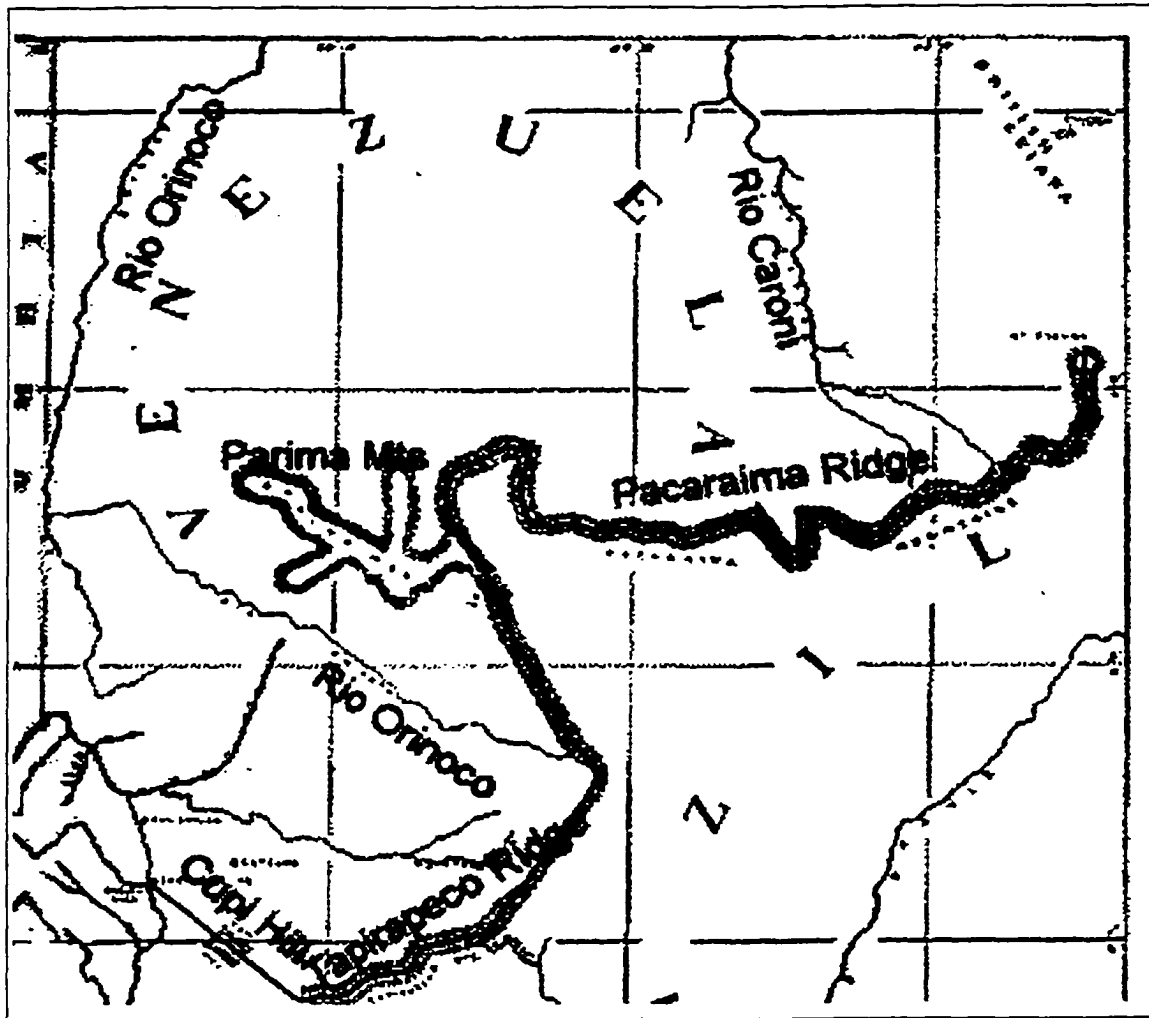


Figure 5 Amazonas Border Conflict³

³ Ireland, 1938, *Boundaries*, 139.

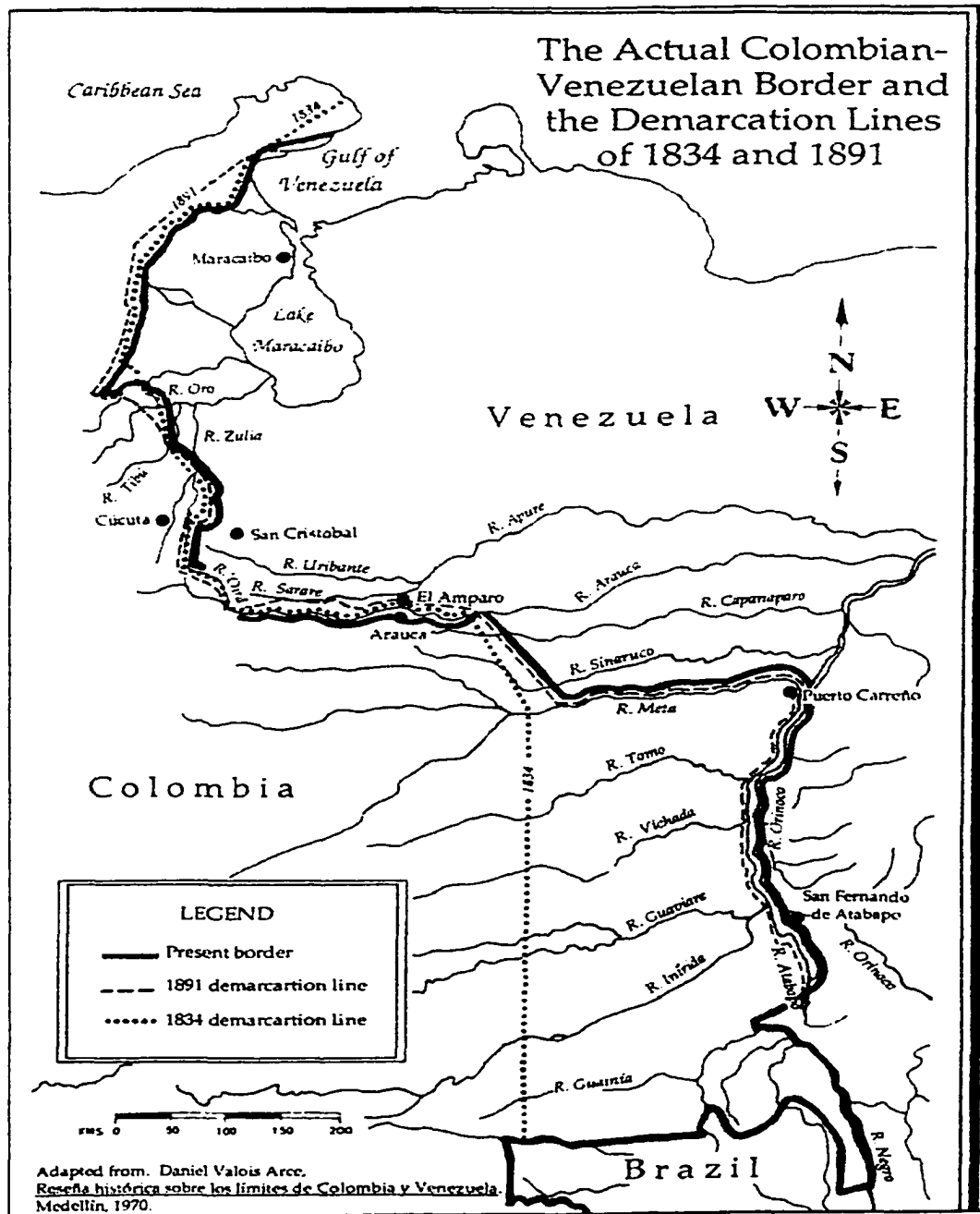


Figure 6 Goajirá- Guainía Border Dispute⁴

⁴ Rausch, 1993, *The Llanos Frontier*, 99.

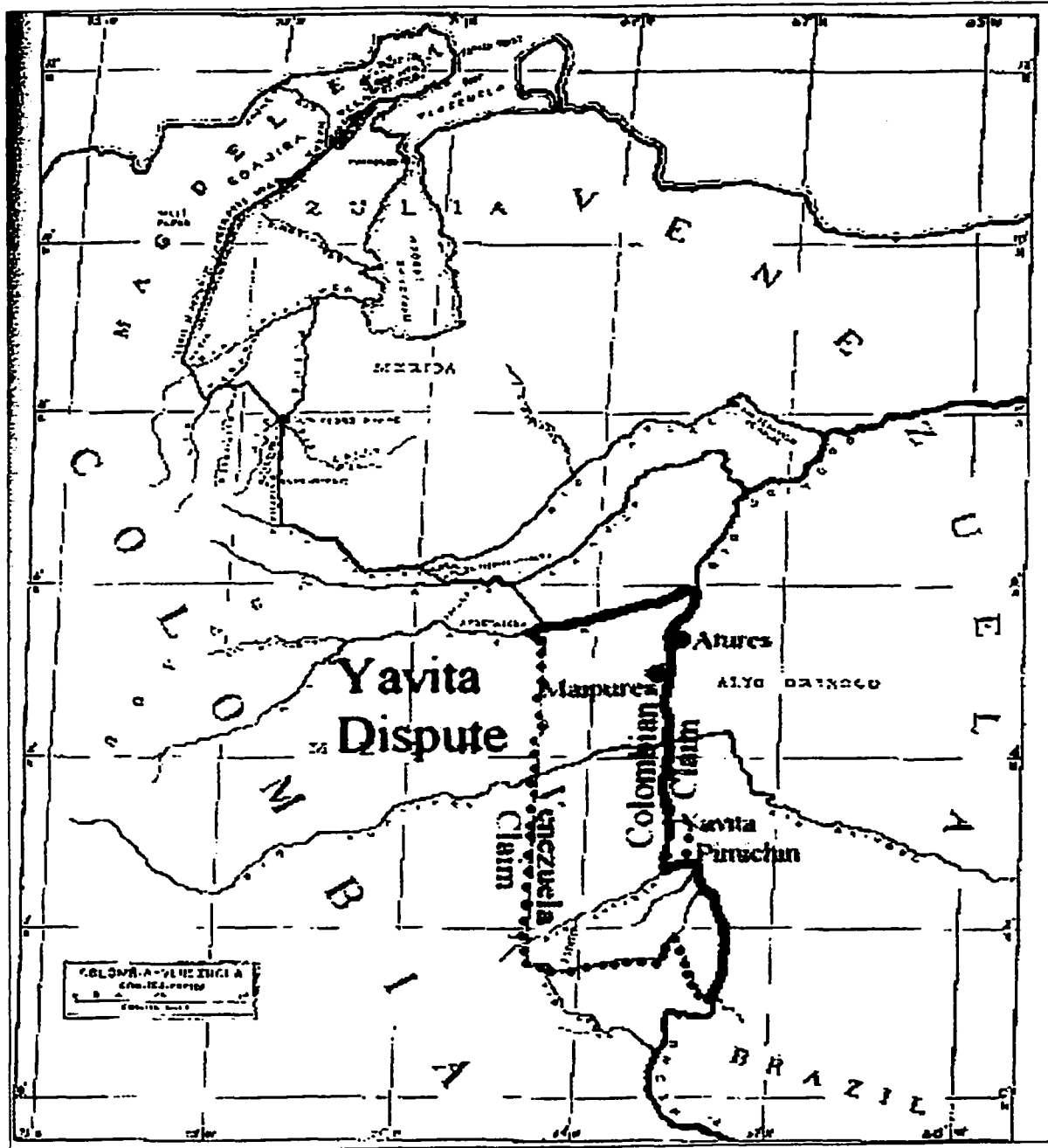


Figure 7 Yávita Border Conflict⁵

⁵ Ireland, 1938, *Boundaries*, 207.

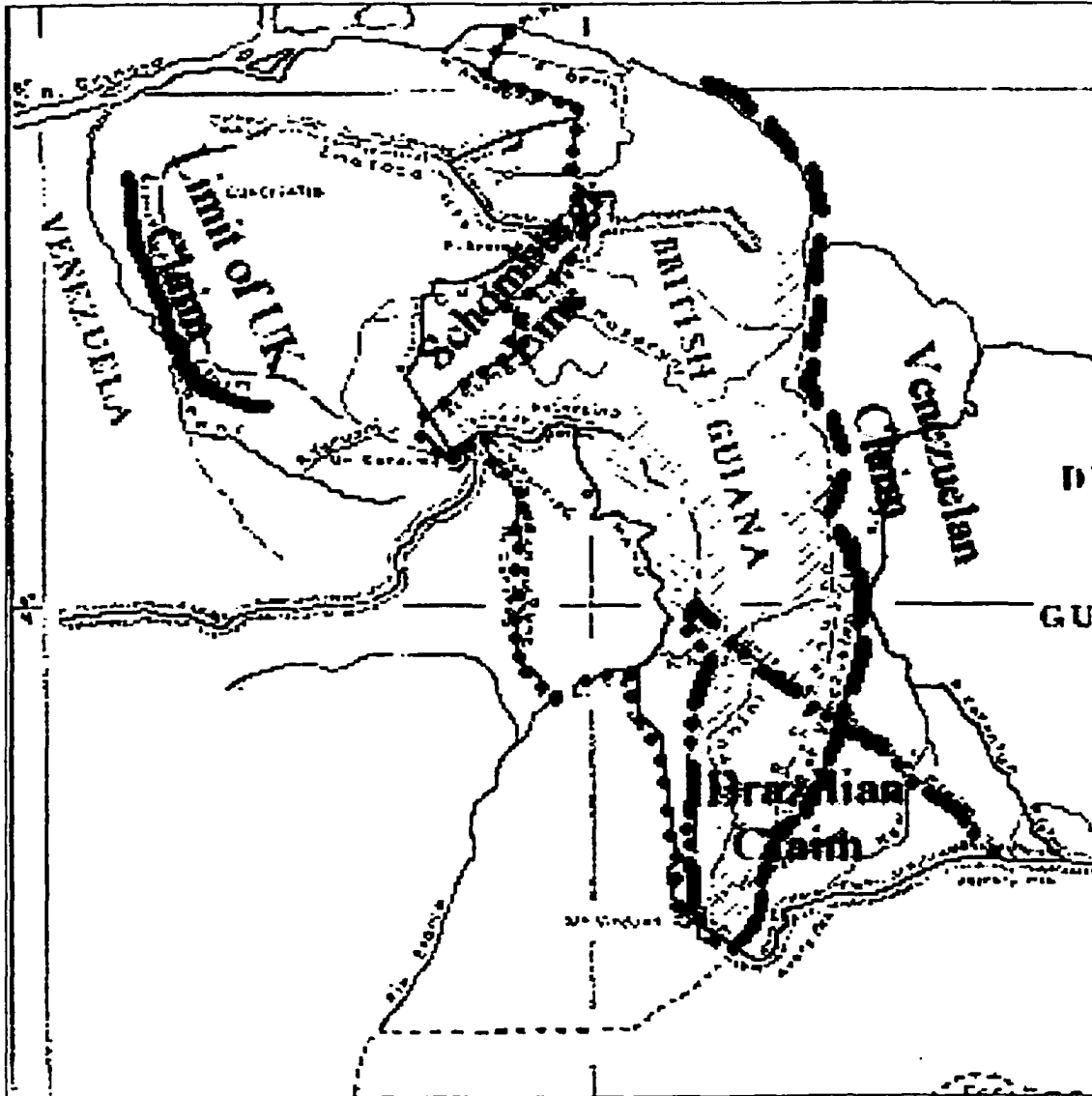


Figure 8 Brazil's Border with British Guiana⁶

⁶ Ireland, 1938, *Boundaries*, 145.

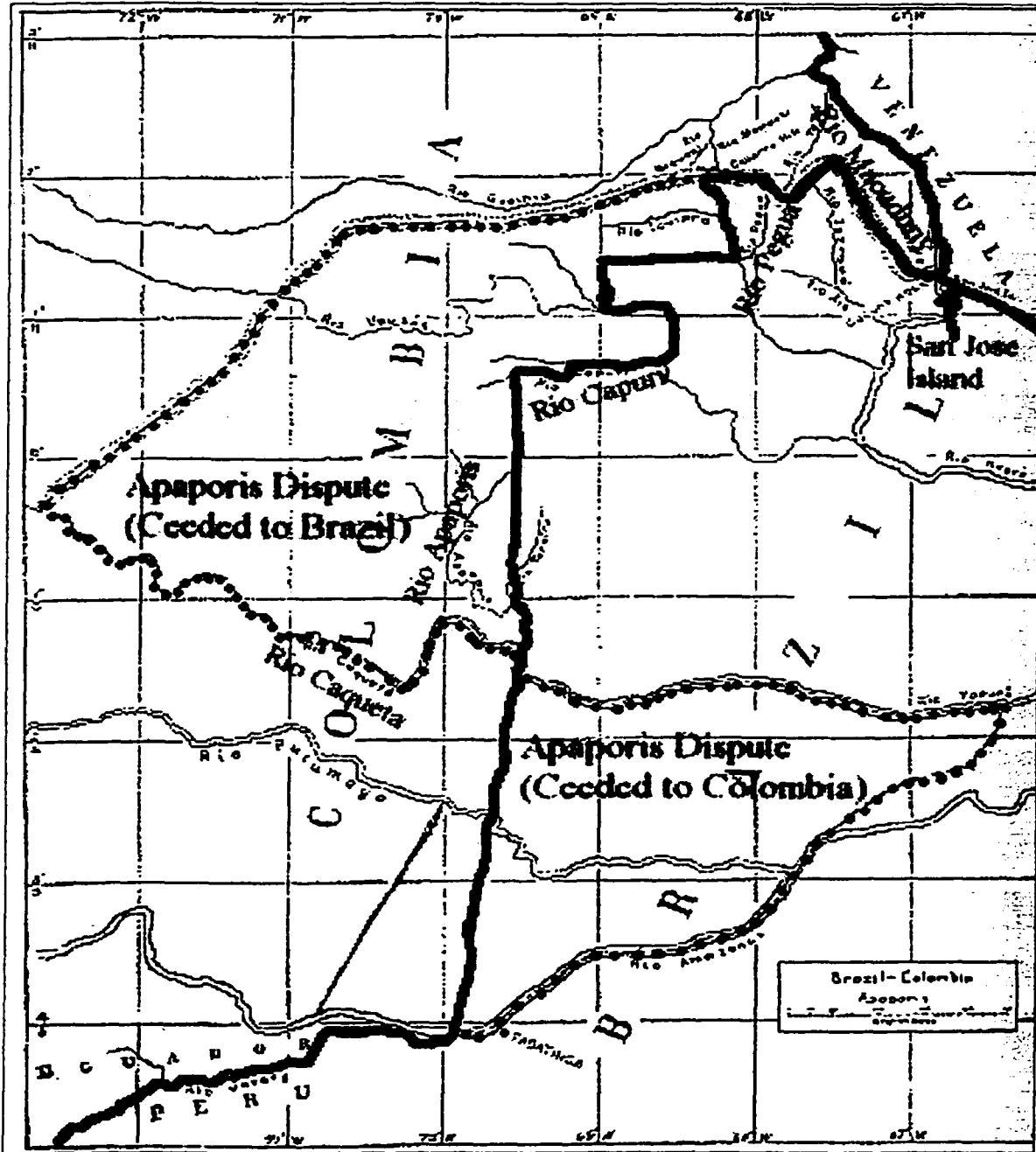


Figure 9 Apaporis Border Conflict⁷

⁷ Ireland, 1938, *Boundaries*, 110.

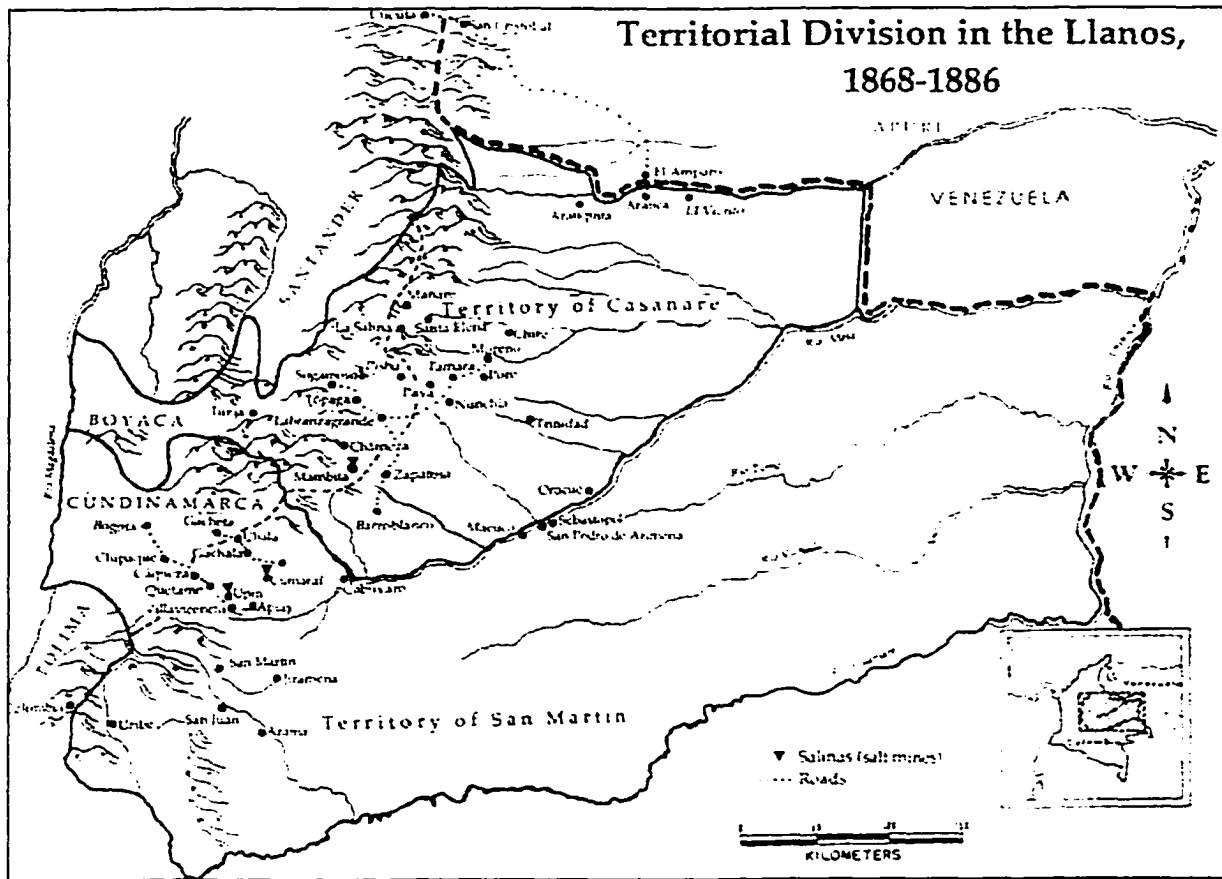


Figure 10 Los Llanos, 1886-1888⁸

⁸ Rausch, 1993, *The Llanos Frontier*, 91.

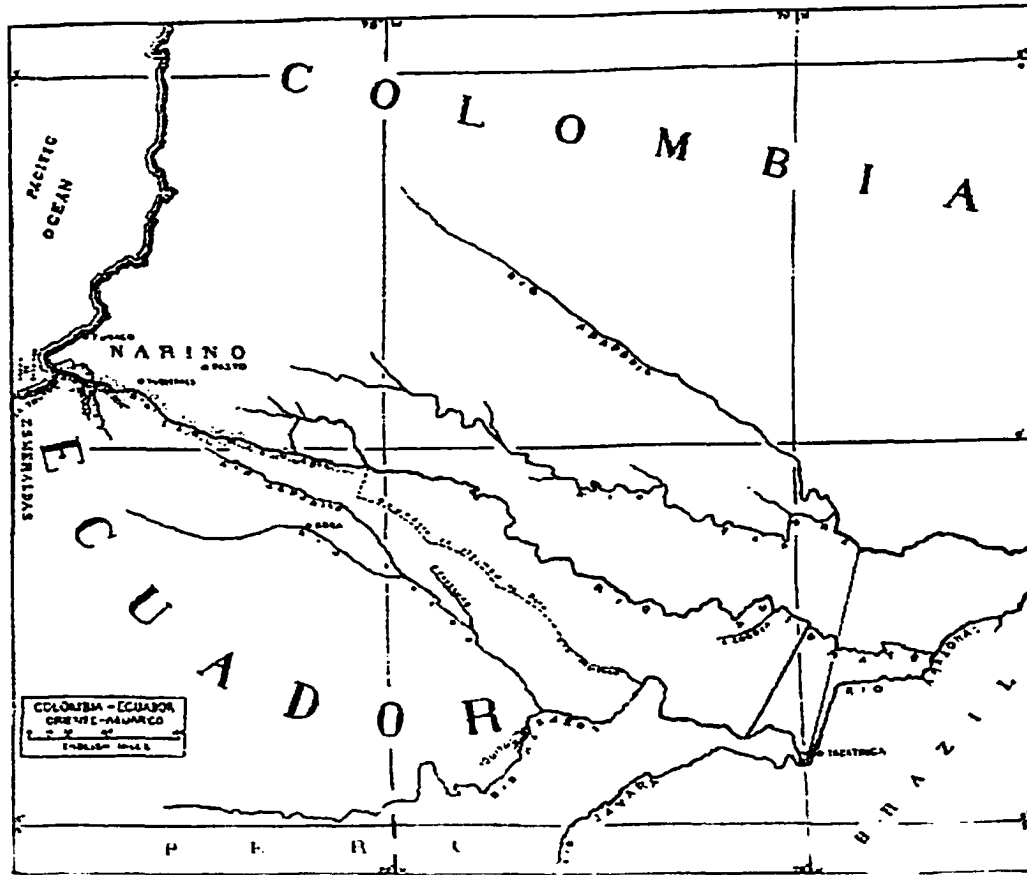


Figure 11 Oriente-Aguarico⁹

⁹ Ireland, 1938, *Boundaries*, 176.

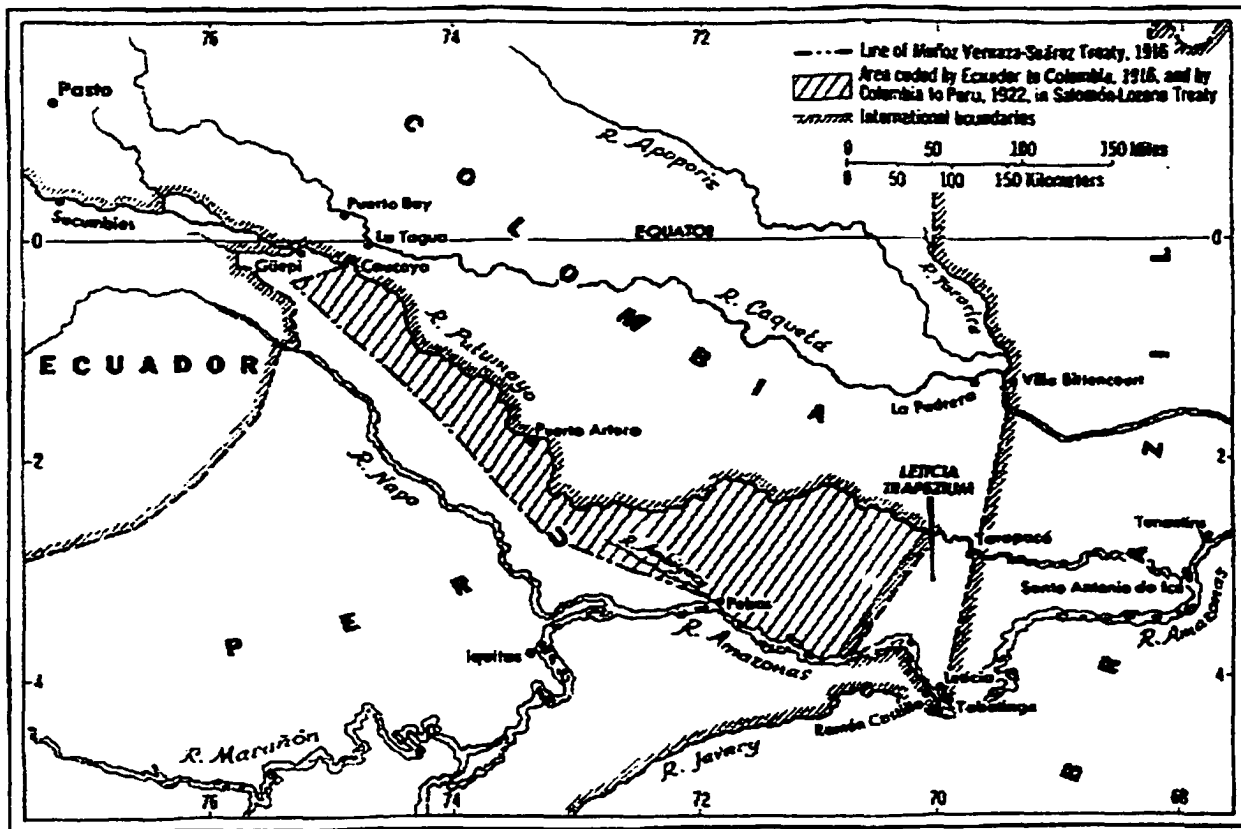


Figure 12 Loreto & Leticia¹⁰

¹⁰ Bryce Wood, *The United States and Latin American Wars; 1932-1942* (New York: Colombia University Press, 1966), Appendix, Map II.



Figure 13 Leticia, 1932-1935¹¹

¹¹ Scheina, 1987, *Naval History*, 123.

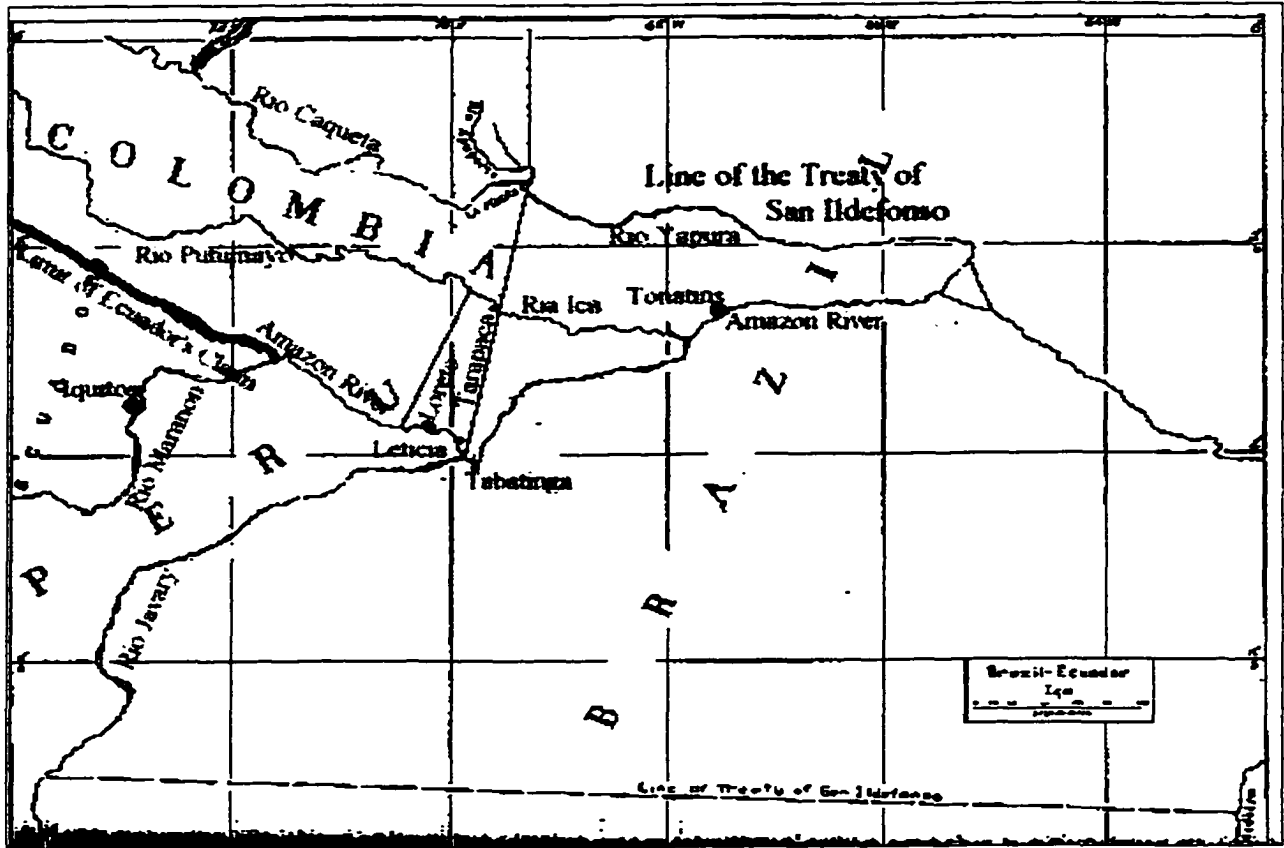


Figure 14 Iça Border Dispute¹²

¹² Ireland, 1938, *Boundaries*, 116.

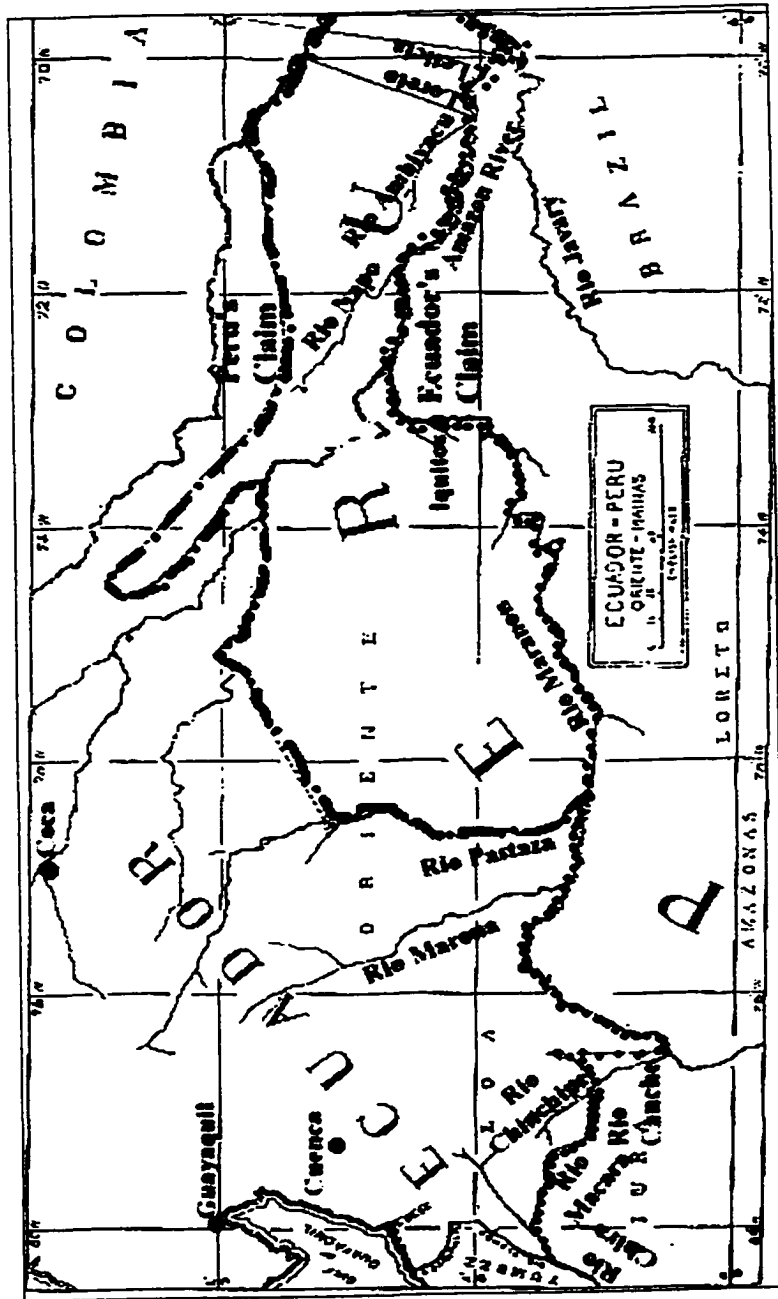


Figure 15 Oriente-Mainas¹³

¹³ Ireland, 1938, *Boundaries*, 220.

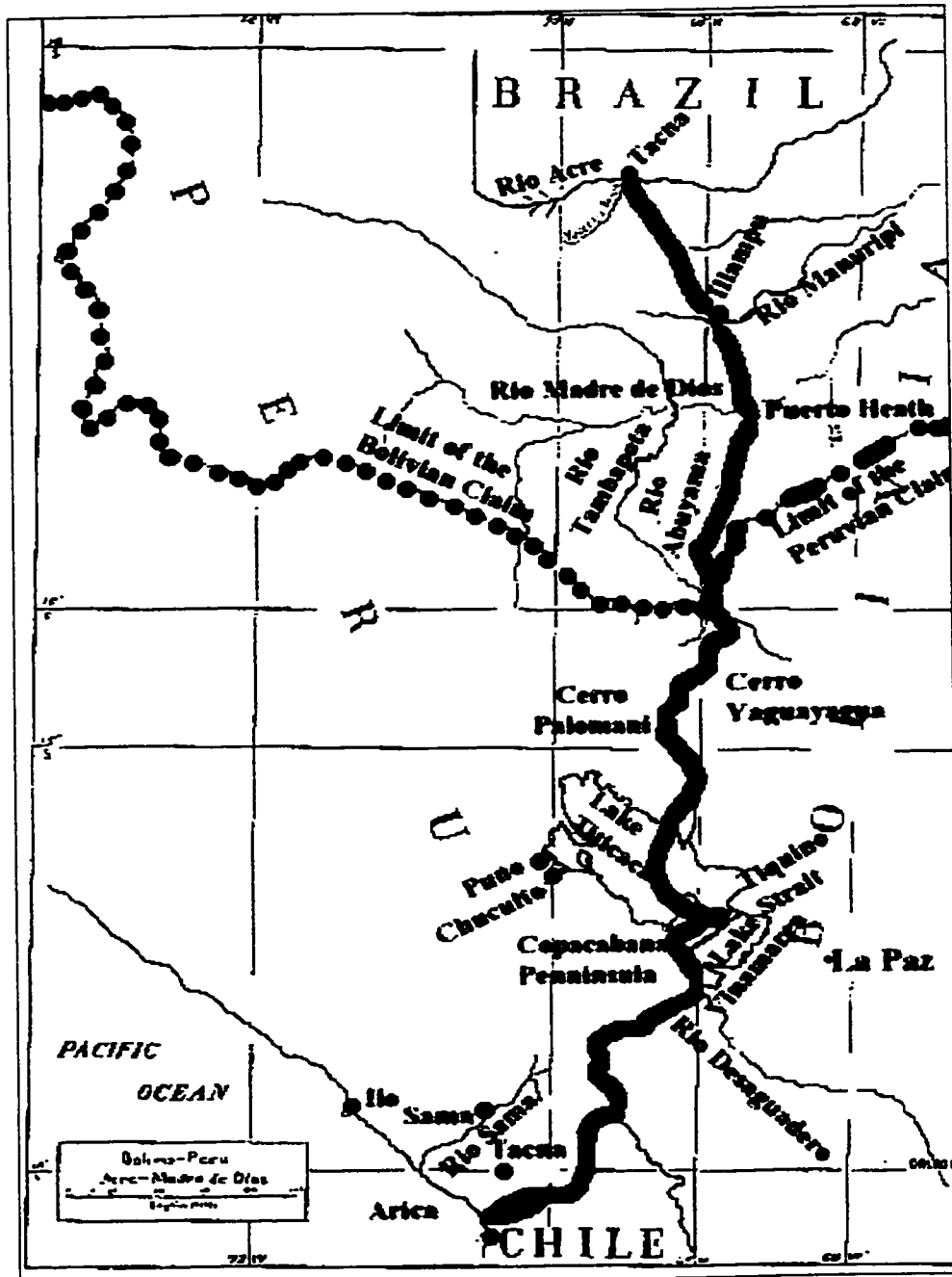


Figure 16 Acre-Madre de Dios Border Conflict¹⁴

¹⁴ Ireland, 1938, *Boundaries*, 96.

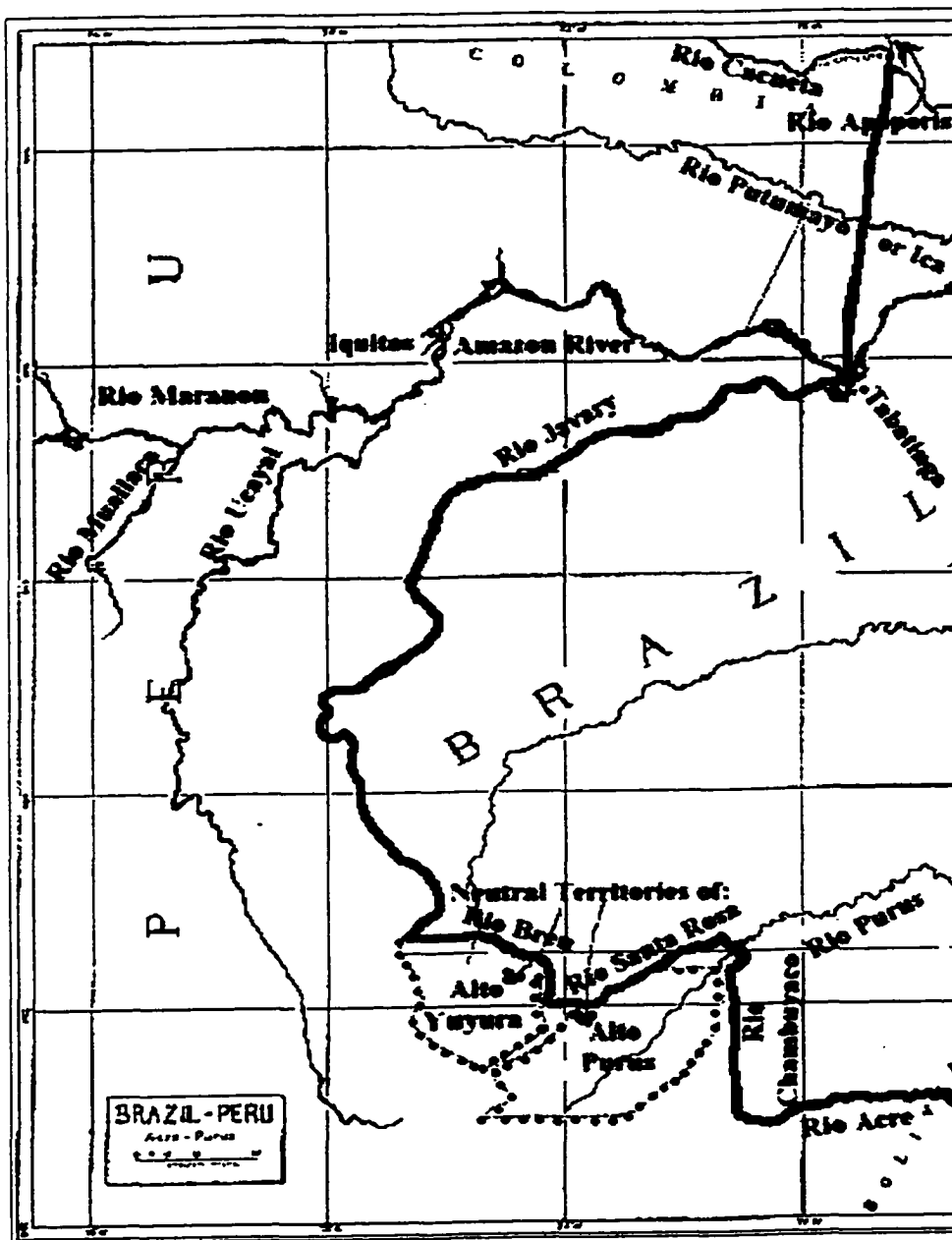


Figure 17 Acre-Purús Border Dispute¹⁵

¹⁵ Ireland, 1938, *Boundaries*, 224.

Chapter 3: Southern Cone Cases of Conflict

Introduction:

This chapter continues the efforts begun in Chapter 2 and, in the same format as that chapter, presents conflicts involving Chile, Argentina, Paraguay and Brazil. As in Chapter 2, conflicts involving Bolivia are contained as part of these conflicts.

Chile:

As odd as it may seem to begin this segment with a bit of Bolivian history, Chile's belligerency is historically linked with the creation of Bolivia and the conflicts and alliances between it and Perú. When in 1825 the troops of General Antonio José de Sucre Alcalá, under the direction Simón Bolívar Palacio, defeated the remnants of Spanish loyalists and declared in August the independence of Upper Perú, the Great Liberator (Bolívar) had a strong confederation of Upper and Lower Perú in mind, not complete independence. The country's name, República de Bolívar¹ honored its founder, but the Republic would soon prove a thorn in his side.²

When Bolívar left Bolivia in 1826, the reins of power were turned over to Antonio José de Sucre, who ruled the country by decree from 1826-1829. As soon as Bolívar left for

¹ Altered three months later to Bolivia.

² Rex A. Hudson and Dennis M. Hanratty, eds. *Bolivia: A Country Study* (Washington DC: Headquarters, Department of the Army, 1989), 17. "Bolívar was outspoken about his doubts as to the ability of Bolivians to govern themselves. He was careful to avoid recognizing Bolivia's independence, always referring to the country as Upper Perú and signing his decrees as dictator of Perú. Only in January 1826, when he turned the country over to Sucre, did he promise that the Peruvian legislature would approve Bolivia's independence."

Peru, Sucre sought border resolution and independence from Peru.³ Confronting the border issue in this manner set him at odds with his predecessor, especially on the question of the Pacific coast of Bolivia. Most assumed that the colonial trading ports and provinces of Upper Perú--Tacna and Arica--would be transferred to Bolivia. In a treaty of 1826, Perú even agreed to hand over Arica, Tacna and Tarapacá with the ports of Arica, Cobija, and 600 miles of coastline. Needless to say, neither the Chileans nor Bolívar accepted that agreement, and it served only to cloud the issue in future negotiations.⁴ Sucre and Bolívar soon found themselves in debate over the issue, locking the quest for Pacific ports in the psyche of Bolivian leadership.⁵

Temporary resolution of the issue appeared soon after the 1829 elevation of a bright Bolivian mestizo officer of Bolívar's forces to the presidency of Bolivia--Andrés de Santa Cruz y Calahumana. A loyal disciple of Bolívar, Santa Cruz invaded Perú in 1835 and established his mentor's long dreamed-of confederation with Perú. Unfortunately, the confederation raised the ire of Chile and Argentina who saw the confederation as threatening the balance of power in the Southern Cone. The Andean War began in 1836 with the Chilean demand that the confederation be broken up. The Chilean navy blockaded Peruvian ports and, in extensive naval and amphibious actions, ranged along the Peruvian coast as far

³ J. Valerie Fifer, *Bolivia: Land, Location, and Politics Since 1825* (United Kingdom: Cambridge University Press, 1972), 37.

⁴ Fifer, 1972, Bolivia, 39.

⁵ Fifer, 1972, Bolivia, 25-45.

north as the port of Callao and succeeded in crushing the confederation in 1841.⁶ In 1843, Perú invaded Bolivia to establish Peruvian dominance over Tacna and Arica, but with the help of troops sent from Colombia by Bolívar, Santa Cruz held on,⁷ even occupying the port of Arica for a short time before being forced back. Santa Cruz continued to rule for eight more years, during which time he pressed for Bolivian possession of the port of Arica and to build the new port of Cobija.⁸

For Bolivia's part, it continued to trade through both Arica and Cobija, and the border question was never terribly contentious. Then, in 1858, Chilean President Montt reopened the question of Bolivian ownership of nitrate-rich Tacna and Arica provinces, but the two nations' differences dragged the negotiations out until the Spanish returned to assert sovereignty over the guano-rich Chincha Islands off the coast of Perú in the 1863.⁹ Though described initially as a scientific mission and later as an effort to protect their Spanish-Basque settlers in Southern Perú, the mission undoubtedly had something to do with the rapid growth of guano export beginning in the 1840s. The Spanish blockade of Valparaiso,

⁶ Robert L. Scheina, *Latin America: A Naval History 1810-1987* (Annapolis, Maryland: Naval Institute Press, 1987), 29.

⁷ *Ibid.*, 28.

⁸ As Fifer points out, Arica's dependence on Bolivian trade from the altiplano was as essential as was Bolivia's need for a Pacific port. The Peruvian concept that Tacna should be part of Perú had no logic as there were no ethnic, political or economic ties between the two.

⁹ Gordon Ireland, *Boundaries, Possessions, and Conflicts in South America* (New York: Octagon Books, 1938), 161 and Fifer, 1972, *Bolivia*, 52.

Caldera, Coquimbo, Herradura, Talcahuano and Tomé on September 24, 1865,¹⁰ succeeded in cementing a secret treaty of alliance on December 5, 1865 between Ecuador, Bolivia, Chile and Perú. Out of necessity, the treaty declared the borders of Bolivia, Chile and Perú; with Perú bordering Bolivia at the Camarones River and Bolivia bordering Chile at the Lao River.¹¹

The January 1866 discovery of major nitrate deposits in the Atacama Desert in the Tacna and Arica¹² provinces changed the complexion of the negotiations. With Spain continuing in a state of war with the alliance, bombarding Valparaiso in March 1866,¹³ Chile undertook to better define its border with Bolivia. On April 10, 1866, the neighboring states undertook an agreement fixing the border along 24° south latitude. However, gross nitrate deposit revenues between 23° and 25° south latitude were to be shared equally between Bolivia and Chile, and the port of Mejillones was to be free of import tax.¹⁴ Spanish fleet actions terminated against Chile on April 14, 1866, and against Perú after the bombardment of Callao on May 2 of that same year.¹⁵ Figure 18 through Figure 21 can be used to better understand the following conflict.

¹⁰ Ireland, 1938, *Boundaries*, 162.

¹¹ Ireland, 1938, *Boundaries*, 162 and Fifer, 1972, *Bolivia*, 55.

¹² Fifer, 1972, *Bolivia*, 55.

¹³ Ireland, 1938, *Boundaries*, 162.

¹⁴ *Ibid.*, 57.

¹⁵ Actual armistice was not achieved until April 11, 1871 with United States mediation between Spain and the Allied Republics of Ecuador, Perú, Chile and Bolivia. Ireland, 1938, *Boundaries*, 162.

Tacna-Arica--The War of the Pacific:¹⁶

On February 14, 1879, Chile declared war on Bolivia. A Chilean task force seized Antofagasta, Mejillones and Caracoles and demanded Peruvian neutrality in the war between the two countries. (See Figure 18 for the locations in this account) By the end of March, the Peruvian-Bolivian alliance was no longer secret and the three nations were at war. The actual fighting was fierce both on land and at sea.¹⁷ By November, Chile had defeated Bolivian and Peruvian troops at the battle of Tarapacá, forcing the Peruvians to retreat to Tacna province, yielding all of the Tarapacá nitrate fields. This ended Bolivian participation and, because of the poor outcome, Danza was forced to flee to Europe in December 1879 taking most of the Bolivian treasury with him.

Chilean forces were far superior on the ground and, despite most contemporary analysis regarding Peruvian and Chilean navies, which placed them at parity; the Chilean ships were newer and faster.¹⁸ In February 1880, 12,000 Chileans landed near Ilo, 80 miles north of Arica, and effectively flanked the Peruvian troops. Marching northeast, the Chileans occupied Moquegua by March 20, 1880, and then drove the Peruvians out of Tarata, which commanded the southwestern passes to the Titicacan upland. From Tarata, Chile attacked south and surrounded the Peruvians at Campo de la Alianza forcing nearly 2,000 Peruvians

¹⁶ The account that follows is distilled from the works of Gordon Ireland, Valerie Fifer, and Robert Scheina.

¹⁷ Scheina notes that at this time, the Chilean Navy was superior in quality to the United States Navy.

¹⁸ Scheina, 1987, *Naval History*, 33.

to fall back to Arica. Peru's troops held out for a month fighting from Arica's rocky coastal crags until they fell to naval bombardment on June 7, 1880.¹⁹

Perú still refused to capitulate, forcing Chile to occupy Lima, which it did on January 17, 1881. With the surrender of the port city of Callao the following day, the fighting came to a close. Chile imposed General Miguel Iglésias as President of Perú and the Peruvian Congress approved the Treaty of Ancón on October 20. In the treaty:

Perú ceded in perpetuity the province of Tarapacá bounded clockwise by the Camarones River, Bolivia, the Loa River and the Pacific Ocean.

Tacna and Arica provinces, bounded clockwise by the Sama River, Bolivia, Camarones River, and the Pacific; would continue under Chilean control for 10 years until such time as a plebiscite of the inhabitants could determine their desires as to which nation they should belong to.

The nation gaining Tacna and Arica was to pay the other 10 million pesos for the loss. War indemnities were laid on Peruvian guano revenues.²⁰

By August 1884, Chilean forces had departed Perú after over two years of occupation. A protocol of April 4, 1884 between Bolivia and Chile abrogated all previous boundary treaties and assumed political control north to the twenty-third parallel. Customs receipts from the area were to be split, 25% to Chile for processing fees, and 75% to Bolivia (of which 40% would be retained for damages suffered in the war and for outstanding loans).

Chilean actions in organizing Tacna and Arica infuriated the Peruvians who, because of the war, were unable to do anything about it. In sum, the result of the War of the Pacific

¹⁹ Ireland, 1938, *Boundaries*, 163.

²⁰ *Ibid.*, 163-165.

was that to the victor went the spoils. The promised plebiscite never came about despite United States encouragement to hold it. In the end, Bolivia ceded its claims to Chile on May 18, 1895 in return for construction of a railroad from Arica to La Paz. When Perú broke off diplomatic relations from March 1901 to October 21, 1905, Chile simply made arrangements with Bolivia for the eventual return of Tacna and Arica to Chilean sovereignty. Railroads were built connecting Tacna and La Paz to Arica for export of minerals, fertilizers and other goods. Over the years, Chile reinforced its sovereignty, expelling Peruvian priests in 1910, and exercising veto over all proposals for the plebiscite when not in its favor.

Finally, after twenty years of continual attempts at negotiation including appeals to the League of Nations and abortive attempts to hold the plebiscite, President Calvin Coolidge issued his decision as arbiter on March 4, 1925. He called for the plebiscite to be held under a commission of three with appeal to the arbitrator, reserving the right to determine the boundaries after the plebiscite. Chile immediately accepted but Perú, fearing a Chilean majority in the area, appealed and was refused.²¹

On September 25, 1925, the Plebiscitory Commission convened and arrangements were made for United States Army junior officers to serve as registrars. Ignoring Peruvian protests that their supporters were being intimidated and excluded, voter registration began

²¹ Chile, knowing that their citizens were the majority in the region, was of course favorable. Perú however, felt that after so many years and having most of its citizens driven out by Chilean persecution that a plebiscite was a sham.

on March 27, 1926. Peruvian officials were absent and most Peruvian voters did not register. Perú began to ship voters in from Callao, but violence ensued and Perú pulled them out. By June 1926, the plebiscite still had not taken place and the initiative was aborted. Returning to the arbiter, now President Hoover, the United States renewed efforts to secure Bolivian ownership of Tacna and Arica but Perú and Chile would have none of it. After reviewing their claims, President Hoover decided in 1929 that the territories should be divided evenly from the coastal town of Concordia, parallel to the Arica-La Paz railroad. On August 28, 1929, Chile returned Tacna to Perú. The settlement left the port of Arica in an odd position, having three customs houses flying Chilean, Bolivian and Peruvian flags near the rail yards where two railheads, arriving from La Paz and Tacna, converge.

For all intents and purposes, the borders are settled. Chile and Bolivia signed a peace treaty in 1995²², effectively ending hostilities between the two countries. Officially, the accord between Perú and Chile cannot be settled without a plebiscite and Perú has failed to accept any proposals to accomplish that since most of the people who live in Arica are Chilean citizens. There have been no clashes in the last 50 years in the area, however, in conversations this author has had with Peruvian Naval officers, there is a craving still smoldering under the surface to retake what is “rightfully” theirs. A quick survey in the Library of Congress attests to the plethora of nationalist literature written about the war, and the strategic planning of all three nations continually discuss how to retake Tacna and Arica.

²² Beth A. Simons, *Territorial Disputes and Their Resolution: The Case of Ecuador and Perú*, *Peaceworks 27* (Washington, DC: US Institute for Peace, April 1999), 5.

For the purposes of this study, this border will be listed in the upper left quadrant of the conflict table. The border has been contested from the start, but tensions elevated with discovery of extractable natural resources to the point where even Spain tried to reassert its sovereignty over the islands off the coast of Peru and Chile. The discovery of this resource, clearly exhaustible, drew individuals into the area from all three countries, and gave all three governments reason to fight to “protect their citizens”. The conflict began to subside to the rhetorical stages when the industry ceased to be a major revenue generator after the 1920s. Clearly, the nitrate industry was a period critical natural resource, and the Atacama desert a valuable resource as long as it contained these valuable deposits.

Table 14 Perú/Bolivia/Chile – War of the Pacific Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Perú/ Bolivia/ Chile	3-War	Guano, Sulfates, Nitrates, Immigration	Mineral Deposits

Argentina:

Argentina is unique among the states of Latin America because of its latent and haphazard birth. Lacking in precious metals and inhabited by the fierce Pampas Indians, it was of little importance to the Spanish Empire until the late eighteenth century. Then, with the Portuguese expanding their empire down the navigable rivers toward the sleepy port of Buenos Aires, the area became increasingly important. With the increasing export of beef and cereal grains from the region, Buenos Aires found itself the seat of the newest viceroyalty and of greater importance. The emergence of the new viceroyalty did not

impress the ranchers outside of the port, and from this grew the fierce “gaucho”²³ independence and regional rivalry that would impede formation of a unified state for almost sixty years.

In foreign policy among the Southern Cone states, Argentina is often identified as one of two “expansionist” states. In reality, the early stirrings of imperialism in the nation were those of the province of Buenos Aires attempting to impose federalism over the independent provinces of the old viceroyalty. As John Lynch has pointed out, it is quite possible that had it not been for the unifying brutality of dictator Juan Manuel de Rosas, Argentina might well have resulted as a group of small independent states instead of the federation of provinces it represents today.²⁴

John J. Finan identifies three strains of continuity in Argentine foreign policy: definition of its borders, prevention of foreign interference in the countries of the former viceroyalty (Bolivia, Paraguay, Uruguay, Argentina), and maintenance of the balance of power vis-a-vis Brazil.²⁵ However, examination of the conflicts in which Argentina has been the instigator reveals a determined drive to control riparian access, increase productive pasture, and more recently, secure mineral-rich areas.

²³ Gauchos are cowboys of the Pampas and the grasslands of the river Plate. Fiercely independent, they are the source of many myths and of nationalist rhetoric in Uruguay and Argentina.

²⁴ John Lynch, *Argentine Dictator: Juan Manuel de Rosas: 1829-1852* (Oxford: Clarendon Press, 1981), 26-29.

²⁵ John J. Finan, “Argentina”, chapter in *Latin American Foreign Policies*, Harold Eugene Davis, Larman C. Wilson, et. al. (Baltimore: Johns Hopkins University Press, 1975) 261-265.

Puna de Atacama (Bolivia):

The General Congress of the Provinces of the Plata declared on May 9, 1825 that the former provinces of the viceroyalty of Upper Perú were free to dispose of their own futures as they deemed appropriate. Under the thinking of Simón Bolívar, all peoples of the Americas should have the right of self-determination and the new nations should conform to the viceregal borders they had during the colonial period. However, the four provinces of the northwestern tip of the Viceroyalty of Buenos Aires had also been part of Southern-most Upper Perú. Of particular difficulty were the conflicting claims on the area referred to as Puna de Atacama. Figure 22 and Figure 24 displays the area.

Puna de Atacama was transferred to the intendance of Salta in the Royal Cédula of February 17, 1807, defended in 1816 from the Spaniards in Upper Perú, and remained under Salta's authority until 1825.

But in 1825 when Upper Perú had been wholly freed, General Miller, the acting president of the department of Potosí (in Upper Perú now Bolivia), in whose district it lay, claimed Atacama from General Juan Antonio Alvarez de Arenales, governor of Salta, and without waiting for Arenales' response issued orders to the commander of the district of Atacama.²⁶

Appealing to Simón Bolívar in Lima, Puna de Atacama was determined to be under the jurisdiction of the 1825 declaration and therefore free to make its own determination as

²⁶ Ireland, 1938, *Boundaries*, 3.

to which country it belonged. Figure 22 shows how the map of the area appeared in the early 20th century and Figure 23 illustrates how the area looks today. The counselors of Tarija, adjacent to Puna de Atacama, decided to join Upper Perú and the Bolivian Congress considered the border dispute settled. However, the boundaries as accepted in Bolivia did not give Argentina control over headwaters of the streams that watered its northern pasture and it disagreed with the border, preferring to claim the highlands to the west. Bolivia on the other hand, found her boundaries shrinking (see Figure 4, Chapter 2 for an understanding of its territorial losses) and was very conscious of the need for access to navigable rivers. Ceding additional watered land was inconsistent with their goals.

Bolivia was again given pause by the wording of article XVI of the Treaty of Offensive and Defensive Alliance of May 1, 1865 that united Argentina, Uruguay and Brazil (the Triple Alliance) against Paraguayan aggression. This article of the treaty claimed the Grán Chaco and the western bank of the Paraguay River up to Bahia Negra for Argentina.²⁷ Attempting to resolve the issue, Bolivian and Argentine negotiators came to an agreement on July 9, 1868 in a Treaty of Friendship, Commerce and Navigation in which both countries agreed to establish a joint commission to settle the boundary between them. The Bolivian Assembly refused the 1868 treaty until such time as the border issue could be better defined. Bolivian complaints initially fell on deaf ears, but with persistence the two countries agreed on February 27, 1869, to form a joint boundary commission after the

²⁷ Fifer, 1972, *Bolivia*, 178.

termination of the Paraguayan War. A mutually agreeable third party would arbitrate points that could not be agreed upon.

With the conclusion of the war in 1870, Bolivia sued for boundary resolution in the Grán Chaco in accordance with the previous year's treaty. Border clashes between police forces and individual settlers in the Grán Chaco led to a meeting and subsequent signing of a protocol on August 29, 1872 which prohibited moving armed forces into the area until the border could be resolved. However, the vagueness of the protocol raised more questions than it settled. Argentina claimed the districts of Potosí and Tarija (part of Bolivia for almost 50 years) as well as the Grán Chaco through the Mojos and Chiquitos territories, the provinces of Santa Cruz and Tarija, and the western bank of the Paraguay up to the Upper Amazon.

Public debate raged in both countries from 1872 to 1878 in nationalistic pamphlets.²⁸ On June 5, 1888, the twenty-second parallel was arbitrarily selected as the dividing line of the Grán Chaco, but left the Puna de Atacama region unsettled. Further negotiations terminated on May 10, 1889 with signature of a protocol delineating the boundary. Specific demarcation was to be at the discretion of two experts (one from each country). When the Argentine Congress ratified the treaty on November 12, 1891, it was only with the concession that the western boundary be moved west to the highest peaks of the cordillera

²⁸ Ireland lists three sources: Samuel Oropeza, *límites entre la República de Bolivia y la República Argentina* (Sure, 1892). Manuel Ricardo Trellis, *Cuestión de Límites entry la República Argentina y Bolivia* (Buenos Aires, 1872). Julio Mendez, *Límites Argentino-Bolivianos en Tarija* (La Paz, 1888).

extending north to the twenty-third parallel. Bolivia agreed without comment²⁹ and thus ceded the inter-mountain plateau, which is today the province of Andes. The agreement was signed on June 26, 1894.

In practice, demarcation proved difficult because of map inaccuracies. Instructions from the agreement were impossible to accomplish because junctions that were to mark turning points in the border did not exist on the ground and two Bolivian settlements were on the wrong side of the border.³⁰ A second international commission was convened and the boundary demarcated on paper as of March 24, 1899. Procedures were established to rectify demarcation difficulties as they arose, but the process of marking the boundary was suspended in 1902 when a dispute between Perú and Bolivia was submitted to Argentina. The anomalies discovered in the initial surveys were rectified in a protocol on January 26, 1904 in which Argentina agreed to cede Yacuiba to Bolivia and a triangle adjoining Pocitos.³¹ Before the treaty could be ratified, Argentina issued its decision on the Peruvian border conflict in 1909 and Bolivia broke off diplomatic relations.

The establishment of the Pan American Union in 1910 and regional pressure to join the union brought Bolivia back to the table. By direction of the treaty of September 15, 1911, demarcation was resumed in May 1912. However, there were still serious geographic

²⁹ Ireland speculates that this may have been to avoid the area falling into the possession of Chile, victor of the War of the Pacific and already possessor of lands formerly belonging to Bolivia.

³⁰ Fifer, 1972, *Bolivia*, 187.

³¹ *Ibid.*, 188.

misconceptions arising from inaccurate maps. Additionally, the Line of 1891 as amended continued to be elusive on the ground.

A further protocol was signed on July 9, 1925 attempting to clarify the border, but demarcation continued to be problematic and both Argentina and Bolivia maintained small forces on the border to attempt to enforce their claims. The coincidence of the termination of the Paraguay War and the discovery of oil in the southern Chaco stimulated Bolivian immigration into Jujuy, establishing a series of colonies bringing roughly 2,700 square miles of the Argentine-sovereign territory under Bolivian administration. When the news hit the Argentine Congress, it heightened concerns and calls for expulsion of the Bolivians from the region.

The concerns were exacerbated by fears that, with the potential discovery of oil in Salta, immigration and similar loss of territorial sovereignty might occur and that any attempt to counter this loss would be met by Bolivian attack. Argentine deputies were further disturbed by reports that federalization of oil pipelines was being undertaken to the benefit of Standard Oil. Argentine Foreign Minister Carlos Saavedra Lamas parried these arguments, noting that the immigration could not be stemmed militarily and that the friction over the border issue was not an administration problem, but rather based on the congressional refusal to ratify the 1925 treaty.

To lessen tensions, Argentina directed the disbanding of its troops along the border, but maintained them in place until gendarmes could be organized to assume the defensive

positions. Final ratification by Argentina of the 1925 limits was not forthcoming until after the Chaco War (see below) had completed and the boundaries between Paraguay and Bolivia were fixed. Formal ratification of the 1925 treaty finally came in 1939.³² Today, the border is not of issue, there being little of industrial or agricultural importance to either Argentina or Bolivia. Simmons, in her review of the *Latin American Border Disputes* lists the border settled since 1925.³³

Again, we see an excellent example of a border that became contentious only with the appearance of period-critical extractable natural resources (Oil). When the border was simply watershed for arable land, the conflict over the border was largely diplomatic. This border, however, was contested over the period of more than 50 years, and did contain Period-Critical Natural Resources, provided problematic immigration problems, and falls in the upper left corner of the quadrant.

³² *Ibid.*, 218; note 2.

³³ Simmons, 1999, *Territorial Disputes*, 5.

Table 15 Argentina/Bolivia – Puna de Atacama Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Argentina/ Bolivia	2-Sabre Rattling & Skirmishes	Watershed, Oil (rumored), Immigration	Oil (rumored)

Los Andes (Chile)

As a result of the May 10, 1889, conference between Bolivia and Argentina, the northern border of the Puna de Atacama was largely resolved. However, the border with Chile was not and on April 17, 1896, Chile and Argentina agreed that Bolivian involvement would be required to settle the disputed area. Agreement proved elusive and talks were suspended on September 17, 1898. Figure 25 displays the topography of the border.

That following November, under United States and British pressure, Chile and Argentina agreed to a ten-day conference in which each side would review the case of the other and the U.S. Minister to Argentina, William I. Buchanan, would arbitrate the dispute. From March 1 through March 9, the delegations met and referred the claims to Minister Buchanan after refusing to consider them. Minister Buchanan met with José E. Uruburu of Argentina and Enrique MacIver of Chile from March 21-24 1899 and they together undertook to draw the line between the British-mediated northern-most point at the twenty-third parallel to the Bolivian-Argentine border. Buchanan's proposal divided the border in to

seven segments with the southern-most point to be referred to the British arbiter of the southern border.³⁴

On January 9, 1903, the two parties signed a convention asking British King Edward to appoint a demarcation commission to mark the intersection of the southern and northern borders. This was amended on November 5, 1903 to make the demarcation group an international commission with disputes arising out of the commission to be arbitrated by His Majesty the King of England. In 1905, the group finished their work placing the line “along the cordillera by the most lofty peaks which divide the waters.”³⁵ Subsequent review of the border noted the impossibility of this claim since the watershed did not necessarily fall along the highest ridgeline. This too was settled in 1939 by the ratification of the 1925 treaties in Argentina.³⁶ Simmons lists this border as settled as of 1899.³⁷

Los Andes is an example of a border that was contested based on its original ill definition and was resolved as the result of other initiatives to resolve borders in the region. Other than watershed, there were no perceived natural resources in the region. As such, it falls in the contested but no period-critical natural resources, or lower-left corner of the quadrant.

³⁴ Ireland, 1938, *Boundaries*, 19-22.

³⁵ *Ibid.*, 20.

³⁶ Fifer, 1972, *Bolivia*, 218, note 2.

³⁷ Simons, 1999, *Territorial Disputes*, 5.

Table 16 Argentina/Chile – Los Andes Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Argentina/ Chile	1-Diplomatic	Watershed	None

Patagonia (Chile)

The Chilean Constitutions of 1823, 1828 and 1833 all claimed the land from the Andes to the Pacific and from Perú to the Cape Horn. During the late eighteenth and early nineteenth centuries, however, the areas in the extreme south remained uncolonized and the borders were not stated. This began to change in 1843 when the Chilean schooner *Ancud* carried a group of settlers to found the fishing village of Puerto de Hambre on the Brunswick Peninsula north of the Strait of Magellan. On December 15, 1847, having heard of the Chilean settlement, the Argentine government claimed the Brunswick Peninsula but, lacking settlements and forces in the area to enforce that claim, took no further action on the issue. In 1849, a more temperate and suitable location for the new settlement was established on the Eastern shore of the peninsula--Punta Arenas. Figure 26 illustrates the area.

Favoring trade and economic expansion, the governments of Argentina and Chile signed a Treaty of Friendship, Commerce and Navigation on August 30, 1855. This treaty recognized the 1810 boundaries of the Viceroyalty of Buenos Aires and the Captaincies General of Chile as the legitimate boundary, and pledged never to resort to arms should disagreements arise between the two over their boundaries, submitting disputes to

international arbitration. Gordon Ireland notes however, that the southern border was uninhabited, populated with inhospitable Pampas Indians, unexplored and therefore not delineated by the Viceroyalty and Captains General governments.³⁸ The border did come into question with the 1870 discovery of commercial grade guano deposits in the Southern Patagonia region and the 1872 discovery of commercial-grade coal along the Atlantic coast of the Brunswick peninsula. As the industrialization of the region accelerated, Chile began to push northward into the Patagonia up to the Gallegos River. Argentina now responded, mobilizing troops into the area. Several attempts to settle the border were made from 1876-1879 with clashes continuing between Chilean and Argentine troops.

With the Pacific War, Chilean resolve on its Patagonia claim began to weaken and there appeared to be some room for negotiation. On July 23, 1881, under the invited mediation of United States Minister to Santiago, Thomas O. Osborn, a Treaty of Settlement was signed establishing the boundary:

...parallel to the cordillera of the Andes, the frontier line to run by the most lofty peaks of said chains which divide the waters and to pass between the slopes which incline to one side or the other; difficulties which might arise from the existence of certain valleys formed by the bifurcation of the cordillera in which the dividing line of the waters may not be clear to be settled amicably by two experts, one named by

³⁸ Ireland, 1938, *Boundaries*, 25.

each party, and if these could not agree, by a third expert named by both governments.³⁹

The Beagle Channel and the Strait of Magellan were agreed to remain neutral forever and open to shipping from all nations.

The actual demarcation of the boundary was not immediately undertaken as Chile was concerned with administration of its northern border with Perú and Bolivia, and Argentina with the domestic restructuring of new liberal government. In August of 1888 a demarcation treaty was finally signed and the problematic demarcation process began 45 days later under the direction of two six-man teams, one from each country. Waterway and lake-ownership required special conferences, which terminated in the protocol of May 1, 1893. Agreement to build a carriage road into the region to facilitate mapping and survey required yet another protocol signed on September 6, 1895.

The biggest problem with this demarcation, as with others mentioned in this chapter, was the assumption that the loftiest peaks of the Andes constituted the watershed. All along the Andean ridge, the watershed lay to the east of the highest peaks. Argentina insisted that the border lie along the line of the peaks, while Chile insisted on the watershed. Disgruntled

³⁹ Ibid., 23. The boundary to the north of the Strait of Magellan was to run basically along high ground from Point Dungeness to Mount Dinero, to Mount Aymond, to the intersection of 52°south 70° west, along the fifty-second parallel to its intersection with the divortia aquarum. Tierra del Fuego was to be divided along the 68°34' west meridian with the islands to the east of that line belonging to Argentina and those to the west to Chile.

by their inability to come to agreements with either Chile or Bolivia,⁴⁰ the two governments tried on April 16, 1896, to engage Bolivia in resolving their disputed boundary. The governments agreed that the treaty of 1881 with its protocol of 1893 were to be strictly adhered to and to refer any disagreements to the King of England. Deadlocked until 1898, the respective delegations drew up their positions and agreed that the highest peaks and the watershed did not coincide. Queen Victoria accepted the position of arbiter for the dispute in 1896 and appointed a commission to review the remaining disputed areas.⁴¹ Queen Victoria's death on January 22, 1901 delayed the proceedings and finally, on March 28, 1902, Edward VII was accepted as arbiter.

Impatient at the delays, and concerned with the border difficulties Argentina was having with Paraguay, Chile and Argentina requested appointment of a new demarcation commission. In both countries, the presses fanned fires of nationalism and war seemed distinctly possible, both Chile and Argentina having forces available.

British diplomatic pressure on both governments kept peace while His Majesty's government expedited their efforts for a quick decision. The King delivered the long-awaited arbitration on November 20, 1902. To both countries' surprise, Edward adopted neither position, instead establishing a compromise boundary between both party's claims.

⁴⁰ See Los Andes segment above.

⁴¹ On October 1, 1898 Chile and Argentina agreed on four stretches of border.

The award added 15,450 square miles to Argentina and 20,850 square miles to Chile.⁴²

Despite this apparent victory for Chile, its press featured articles claiming that the arbiter had exceeded his authority.

Nevertheless, 694 boundary markers were placed along the new line from January to March 1903. The trans-Andean railway, begun in 1886, was opened in 1910, and the touchy issue of hot pursuit by law enforcement officials across the international border was agreed upon and signed on October 13, 1919. At that moment, it appeared that all that remained to be settled to the south was the issue of the Beagle Channel and the Malvinas Islands.

This border remains to be completely settled. As of 1994, two segments referred to as the Ice Fields of Patagonia remained to be settled and were stalled in the Argentine Senate awaiting ratification.⁴³ Rumored oil in the region has continued to raise suspicions on both sides of the other's motives. For this study, however, it is clear that period critical natural resources were perceived as such with the advent of steam transportation and the opening of the southern frontier. Immigration has been at issue since discovery of industrial grade coal in the region. The border remains contested, so the conflict falls in the upper left corner of the quadrant.

⁴² Ireland, 1938, *Boundaries* 24.

⁴³ Simons, 1999, *Territorial Disputes*, 5.

Table 17 Argentina/Chile – Patagonia Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Argentina/ Chile	2-Saber Rattling & Skirmishes	Pasture, Oil, Coal, immigration	Oil, Coal (Riparian Access)

Beagle Channel (Chile):

Following the November 20, 1902 arbitration of King Edward VII dividing the island of Tierra del Fuego and the surrounding islands, activity between Chile and Argentina focused on their claims in the Antarctic, with adjacent conflicts with the British in the Malvinas and with Chile over the Beagle Channel. Chile and Argentina had generally accepted the 1902 decision, except for the Beagle Channel, where the declaration of King Edward was very vague. From 1902 to 1976, repeated appeals to the British to reconsider the issue of the channel went unheeded.

The disagreement centered around three small islands at the eastern entrance to the channel--Picton, Nueva, and Lennox. None was specifically mentioned in the Boundary Treaty of 1881 or in subsequent agreements, and both nations have interpreted the implied meaning of these documents differently. One underlying question is whether Beagle Channel runs to the north or to the west of the islands or ends before reaching the western tip of Picton. There is also the question whether the islands are in the Atlantic or Pacific Ocean. Chile argues that the Pacific includes the submerged Shag Rocks, South Georgia, and South Sandwich Islands, the South Orkneys, and the Antarctic Peninsula. Argentina

maintains that Cape Horn separates the Atlantic from the Pacific.⁴⁴ Figure 27 is a good map of the region.

Chilean marines had been quartered in the islands since 1915 as a trip wire to ensure no Argentine presence in the area. This force went from a few hundred to several thousand troops over the years, and over time Chile has come to accept the disputed islands as a strategic buffer between itself and Argentina.⁴⁵

The British pronouncement, when it did come in 1976, could not have hit at a much worse time for Argentina. In the midst of economic crisis, unable to curb inflation, and with all economic indicators on the downslide, the decision favored Chile. Rumors of oil in the region, coupled with new fields in Patagonia fueled nationalistic calls for resolution. In order to hedge its bets, Argentina allied with Bolivia (admittedly not the best ally) by linking access to the Pacific with the Beagle Channel issue in hopes of leveraging Chile into a more favorable bargaining position.⁴⁶ By December 1978, negotiations with Chile reached an impasse and serious preparations for war began.⁴⁷ Argentine armed forces built up fast and prepared to take the channel by force. Chilean military forces too readied for the

⁴⁴ Scheina, 1987, *Naval History*, 184.

⁴⁵ *Ibid.*, 185.

⁴⁶ *Ibid.*

⁴⁷ Juan Carlos Torre and Liliana de Riz, "Argentina since 1946", *Argentina Since Independence*, Leslie Bethell, ed. (United Kingdom: Cambridge University Press, 1993.), 332-333.

confrontation and maneuvered naval forces into the region. Only Vatican intervention extended in December 1978 prevented war.⁴⁸

An uneasy peace was maintained as the countries negotiated. Argentine naval effectiveness in the Malvinas conflict with Britain was damaged by its maintenance of some of its best craft in the Beagle Channel to assure no Chilean intervention.⁴⁹ In 1984 the Vatican announced that Chile and Argentina had agreed to grant Chile “dry coast” sovereignty over the islands and assure neutral access to the channel. In January 1984, in the face of nationalist opposition, Argentina and Chile signed the Declaration of Peace and Friendship in Rome. In order to guarantee ratification over Peronist opposition, Argentine President Alfonsín staged the first-ever referendum in November 1984. In this vote, over 80% of the voters approved the treaty, which has seemingly put the issue to bed.⁵⁰ While officially accepted, the decision is still chafed at by military and political elites of both countries.⁵¹

There are several interpretations of why the Beagle Channel became important in the 1970s. The most common is that put forward by Juan Carlos Torre, Liliana de Riz,⁵² and

⁴⁸ Scheina’s account of this event is spellbinding. Naval forces from each country formed in large task forces, Air Forces maneuvered into the region and Papal mediation was extended just four hours before the Argentine attack on the islands was to begin.

⁴⁹ Scheina, 1987, *Naval History*, 187.

⁵⁰ Torre and de Riz, 1933, *Argentina*, 346-347.

⁵¹ This observation is derived from personal interviews by this author of both Chilean and Argentine senior naval officers during visits in 1986 and 1987.

⁵² Torre and de Riz, 332.

David Rock⁵³ which states that the Videla junta in Argentina, in an attempt to legitimize their oppressive actions in the war against subversion, resurrected the channel issue to unify public opinion against the British. Alternatively, there is the economic disaster model that can be derived from economic analysis of the period. The Arab oil embargo of 1973 and 1974 wreaked havoc on the Argentine economy, raising the cost of oil imports from 3.1 percent of imports in 1972 to 15.1 percent in 1974. Additionally, in order to subsidize the oil price fluctuation, the Argentine government spent its reserves built up in a short-lived export boom in 1972. When the reserves were spent, deficit spending quickly augmented the public debt. While trying to encourage industrialization, the Argentine economy experienced a 25 percent drop in export earnings in 1975 and the public debt climbed to over \$1 billion dollars.⁵⁴

A clear resolution of this crisis, favorable to Argentina, would allow expansion of oil exploration in the area and held the potential for increased oil revenues at inflated prices. Rumors of new oil finds in the Beagle Channel must have fueled the perceived value of the area. Additionally, in 1981, the Galtieri regime offered the United States naval bases in Patagonia and sent advisory support for the United States fight against the Nicaraguan Sandinista government in exchange for help in building a trans-Patagonia pipeline to aid in

⁵³ David Rock, *Argentina 1516 - 1982* (California: University of California Press, 1985), 369.

⁵⁴ *Ibid.*, 365.

exports.⁵⁵ Evidence abounds that oil exploitation was foremost on the minds of the military dictatorship in attempting to solve its fiscal crisis.

Simmons lists this as a border settled by negotiation⁵⁶ and it has been peaceful. The question arises whether, if oil were discovered in the region and began to be exploited, whether the region would remain calm. In the meantime, the border has been contested, and period-critical natural resources have played into the conflict. As such, it must be listed in the upper left corner of the quadrant.

Table 18 Argentina/Chile – Beagle Channel Summary

	Level of Conflict	Identified Points of Conflict	PCNRs
Argentina/Chile	2-Sabre Rattling & Skirmishes	Fisheries, Navigation, Oil (Rumored)	Fisheries, Oil (Rumored) (Riparian Access)

Malvinas (Great Britain/United States)

Of all the border conflicts in South America, perhaps none are as deep seated and difficult to unravel as that of the Falklands (British) or Malvinas (Argentine) Islands. The conflict has involved Spain, Holland, England, France, the United States, Uruguay, Buenos Aires, and Argentina. To understand its complexity, one must examine the claims surrounding the islands. Approximately 250 miles east of the southern border of Argentina's Patagonia, these islands lie astride the sea lines of communication through the Cape Horn.

⁵⁵ Ibid., 374.

⁵⁶ Simons, 1999, *Territorial Disputes*, 5.

First sighted in 1592 by British Captain John Davis, they were again reported in 1594 by Sir Richard Hawkins, who surveyed the northern shores of the islands--hence the British claim of first ownership. In 1600, Dutch Captain Sebald de Weert modestly named them the Sabaldes.⁵⁷ The first visit to the islands was reportedly buccaneer Captain Cook in 1684, but it was Captain John Strong of the United Kingdom who first sailed through the channel which divides the large east and west islands.⁵⁸ On January 28, 1690 Captain Strong named the passage the Falkland Sound in honor of Anthony, Viscount Falkland, and the islands soon came to be known in British circles by this name. Figure 28 highlights these islands.

The first settlement of the islands occurred in January 1764 when French captain, Antoine Louis de Bougainville, founded Saint Louis on Berkeley Sound. Bougainville took formal possession of the Islands that following April for Louis XV, calling the islands Les Malouines. One year later, Commodore John Byron took possession of the islands for King George III, based on the prior discovery of Saunders Island, and on January 8, 1766, the fort at Port Egmont was established. As evidence of the communications difficulties of the times, it required about a year for the British to discover the French settlement at Port Saint Louis. On December 2, 1766, the British warned the French to leave. To muddy the water a little further, the following year, Charles III of Castille claimed the Malvinas (an Iberianization of the French) for Castille and negotiated payment to Bougainville for the possession. In the

⁵⁷ Ireland, 1938, *Boundaries*, 254.

⁵⁸ The Malvinas or Falkland islands consist of two major islands and over 100 smaller islands round about.

presence of a joint British and French fleet, the colony of Saint Louis was placed under the jurisdiction of the Viceroyalty of Buenos Aires ending the French claims to the islands.

In February of 1768, Spain, viewing the entire island complex as a part of the viceroyalty, ordered its intendance at Buenos Aires to allow no English settlement in his jurisdiction and to expel those already established. In November 1769, a Spanish expedition consisting of the frigates⁵⁹*Santa Catalina* and *Santa Rosa*; and the xebec⁶⁰*Andalusia* sailed from Buenos Aires to Puerto de la Soledad on East Falkland Island. There they squared off with English Captain Anthony Hunt in the frigate *Tamar* and warned him to leave. A lively exchange of letters ensued in the course of which Hunt, on December 10, ordered the Spaniards to evacuate.⁶¹ David Rock points out that the British had practically cut off all Spanish trade routes through the Caribbean by this time, making the Cape Horn route increasingly important to the Spanish empire. The naval fortification in the Falklands threatened this vital link and stimulated the use of armed force to destroy it.⁶²

The following March (1770) Captain Hunt sailed for England and the Spanish frigates returned to Buenos Aires. The Spanish returned again in June with three fresh frigates *Industria*, *Santa Barbara*, *Santa Catalina* and the xebec *Andalusia* augmented by

⁵⁹ A high-speed, medium-sized sailing war vessel of the seventeenth, eighteenth, and nineteenth centuries

⁶⁰ A small three-masted Mediterranean vessel with both square and triangular sails used to ferry cargo and supplies.

⁶¹ Ireland, 1938, *Boundaries*, 255.

⁶² Rock, 1985, *Argentina*, 61.

1400 embarked troops. When they reached Port Egmont, Spanish Captain Juan Ignacio de Madariaga demanded of Captains William Maltby and George Farmer that the English quit the Islands. The English refused and prepared to defend the island but when Madariaga put troops ashore and fired on the blockhouse, the English surrendered.

On Jan 22, 1771, England and Spain signed a reciprocal agreement by which Port Egmont was returned to the British, *status quo antebellum*, its possession not to affect prior right of sovereignty, and a secret agreement by British Government officials was made with the Spanish to evacuate the islands as soon as political opposition could be overcome in the English parliament. On September 15, 1771, Port Egmont was restored to British rule when British forces landed under the command of Captain Stott. The Spanish pressed for the promised evacuation, but the British now claimed that the agreement was for the Spanish to evacuate the islands also. After several years of negotiations, the British garrison finally departed on May 20, 1774, but their attitude was inscribed on a plaque affixed to the blockhouse.

The Falkland islands, with this fort, the storehouses, wharfs, harbors, bays, and creeks there unto belonging are the sole right and property of His Most Sacred majesty George the Third, king of Great Britain, France and Ireland, Defender of the Faith, etc. In witness whereof this plate is set up, and his Britannic Majesty's colors left flying as a mark of possession.⁶³

⁶³ Ireland, 1938, *Boundaries*, 255.

The Spanish had won an apparent victory. Their colony at Soledád continued for many years and Port Egmont was destroyed that same year by direction of the viceroyalty. There was little activity for the next 40 years and on January 8, 1811 the Buenos Aires government decided to discontinue the colony at Soledád due to its maintenance cost. The Governor of Montevideo evacuated the last inhabitant.

However, whaling and the fur trading in seals pelts were growing in importance to the Argentine economy, and the islands provided ideal hunting. On November 6, 1820, Colonel Daniel Jewitt took formal possession of the Malvinas for Buenos Aires, notifying the 50+ settlers and whalers he found on the islands of the change of sovereignty. Pablo Aregusti was appointed governor of the islands in 1823 and the Argentine Confederation granted Jorge Pacheco and Louis Vernet concessions of land on Soledád and the use of fisheries and wild cattle. Vernet eventually bought out Pacheco, was appointed military and political governor of the islands, and granted license to enforce fishing and seal hunting law. Exercising his new office, Vernet decreed on August 30, 1829, that all fishing and sealing was to cease until licenses could be granted. His decree was universally ignored in the islands.

Under continuing pressure to enforce the laws and collect duties, Vernet seized the North American schooners⁶⁴ *Harriet* and two other United States vessels, *Superior* and the

⁶⁴ A fore-and-aft rigged sailing vessel with at least two masts, a foremast, and a mainmast stepped nearly amidships

Breakwater. The latter escaped but was allowed to return to provide security for *Superior*, which moved, under Argentine contract, to a new sealing grounds. *Harriet* was seized and preceded with Vernet aboard to Buenos Aires for trial. *Harriet*'s arrival on November 19, 1831 in Buenos Aires alerted United States authorities to the situation. The United States Consul to Argentina, George W. Slacum, claimed United States right to freely fish the fisheries of the world and denied that the government of Buenos Aires had the right to prohibit it. To reinforce its position, the United States war sloop *Lexington*, under the command of Captain Silus Duncan called in Buenos Aires on December 6, 1831. Captain Duncan declared his intention to sail to the Falklands to protect American lives and property. Mr. Slacum communicated to the Argentine Minister of Foreign Affairs, Manuel de Anchorena, an ultimatum of three days for Argentina to respond to United States demands for suspension of the capture of United States vessels, restoration of the *Harriett* and all her property, and the surrender of Vernet for "trial as a pirate and robber" by the United States or that he be tried in Buenos Aires courts on the same charges.⁶⁵

Argentina counter-claimed that the matter was an internal affair and threatened to formally protest to the United States and do whatever else was necessary to prevent Captain Duncan from threatening the sovereignty of the Falklands. Captain Duncan set sail and arrived at Puerto de la Soledad on December 28, 1831 under the disguise of a French flag. Inviting the governor's two representatives--Matthew Brisbane and Henry Metcalf--aboard,

⁶⁵ Ireland, 1938, *Boundaries*, 257.

he took Brisbane prisoner, allowing Metcalf return ashore. Three days later, Duncan landed with an armed party, “spiked the guns of the fort, seized all the small arms, burned the powder magazine, plundered some of the houses, seized some seal skins from the store of William Dickson, a Dutch merchant, declared the island free of all government,”⁶⁶ and sailed away with Brisbane and six other Argentines in irons. Anchoring off Montevideo, Duncan notified Slacum of his actions and offered to free his prisoners for a formal assurance that he had been operating under United States authority. The assurance was given on February 15, 1832 and the prisoners released.

In an attempt to defuse the situation and assert United States authority, President Andrew Jackson appointed Francis Baylies chargé d’affaires to Buenos Aires in January 1832 and dispatched him aboard the Navy sloop of war *Peacock*.

Arriving in Buenos Aires that June, Baylies delivered Jackson’s demands that the Buenos Aires government disavow Vernet, restore property, and pay indemnities on the grounds that the United States had fished in the islands for over fifty years and that Spain had “exercised no sovereignty over the Patagonian and Fuegian coasts to which Buenos Aires was heir.” A violent exchange between Baylies and Manuel V. de Maza, acting Foreign Minister, elicited only an Argentine demand for “prompt and ample satisfaction, reparation, and indemnity for Duncan’s acts.”⁶⁷ Baylies and Slacum (now sought for arrest

⁶⁶ Rock, 1985, *Argentina*, 63.

⁶⁷ Ireland, 1938, *Boundaries*, 258.

by the Argentine police) departed for the United States aboard the *U.S.S. Warren* on September 25, 1832.

Having closed this chapter, the Argentine government two months later faced the British. On December 20, 1832, the British warships *Clio* and *Tyne* arrived at Port Egmont. The British gave notice that the Islands were still claimed for Great Britain, began reconstruction of its fort, and sent Commander J. J. Onslow out to explore the possession. On January 2, Onslow encountered the Argentine armed schooner *Sarandí*, under the command of José Maria de Pinedo, in the process of installing a new governor over the Puerto de la Soledad.⁶⁸ Onslow requested that the Argentines lower their flag and claimed the Island for Britain. When Pinedo refused the request, Onslow went ashore, lowered the Argentine flag, raised the British flag, and delivered the former to the *Sarandí*. Argentina protested, to which Lord Palmerston affirmed that the actions of Onslow were authorized, restated England's "incontestable rights", and named Port Stanley the capital.

Argentine claims that Soledad had never been under British control were never answered. The Malvinas remained a periodic foreign policy topic in Argentina. In 1839 and 1844, Argentina presented claims for losses to Vernet's property and the United States rebuffed the claim, stating that the area was contested and therefore the United States could not adjudicate the claim. In 1885, in response to the repeated Argentine claims, President Grover Cleveland characterized the Vernet colony as a group of pirates and stated that "the

⁶⁸ The settlers had recently killed the former governor.

[United States] government considered the [Argentine] claim totally groundless.”⁶⁹ Periodic claims were also made to Britain, however with the rise of British investment in Argentina’s transportation infrastructure, coupled with the boom of modernization in Argentina, the British-Argentine relation become more cooperative than adversarial.

This would come to a close however in 1932 when Britain adopted “Imperial Preference” allowing Britain to import as much as it could from its empire and, in return, enjoy highly preferential access to the empire’s markets. In Ottawa, Britain agreed to reduce by five percent-per-year increments its beef and cereals imports from Argentina in favor of Australian beef and Canadian wheat.⁷⁰ In order to counter the possible impact of a drop in beef profits, the Argentine Justo government rushed to negotiate for stability in English beef imports. In 1933, Argentina and England concluded the Roca-Runciman bilateral treaty. Britain agreed to continuing purchasing the same quantity of Argentine beef as in 1932 and to import 15% of that beef from small, private packing plants.⁷¹ In return, Argentina agreed to lower tariffs on 350 British imports and to refrain from imposing duties on coal. Additionally, Britain gained preferential treatment in permit processing.⁷²

⁶⁹ State of the Union Message as cited in Ireland, 1938, *Boundaries*, 259.

⁷⁰ Rock, 1985, *Argentina*, 224.

⁷¹ During the 1920s there was the impression, possibly true, that the large packing houses had fixed prices so that when the market value of beef fell, that they could collectively pass the price to the ranchers. The Argentine government, in order to placate rancher complaints, agreed to this provision. However, the small packing plants produced only enough beef for internal consumption and the agreement was virtually meaningless.

⁷² Rock, 1985, *Argentina*, 225.

Opponents of the treaty rejected the treaty as inimical to the national interests of Argentina, serving only the rancher's interests:

... [A] profusion of new nationalist writers and factions began to appear. For a time the nationalist movement was largely dominated by historians who sought to fuel the campaign against the British. These historical "revisionists" began to reexamine the nineteenth century and to catalog Britain's imperialist encroachments: The British invasions of 1806-1807, Britain's role in the foundation of Uruguay in the late 1820s, its seizure of the Falkland islands in 1833, the blockades under Rosas, the later collaboration between the ruling oligarchy and British business interests--the same "anti-national" alliance that had concluded the Roca-Runciman treaty."⁷³

Despite the Justo government's attempts to mollify the British investor and the cattlemen, the schism in the Congress was increasingly evident. On August 17, 1934 the Argentine Congress appropriated 30 thousand pesos to translate and publish a French text supporting the Argentine claim. By 1935, Justo had to bend somewhat and the first sign of change came in the battle over a transportation monopoly in Buenos Aires. The Anglo-Argentine Transport Company, largest of Buenos Aires' tramway operators, attempted to gain control of independent bus operators in the city and to regain an agreement of guaranteed profits that had existed in the early 1900s. The government conceded on the first

⁷³ Ibid., 230.

demand in writing, but not in execution. The government did not grant the guaranteed profit clause.

In another conflict, the cattle ranchers complained of large meat packers who were colluding together and with the British to pass falling beef profits on to the ranchers. The debate between representatives of the packers and ranchers soon erupted on the floor of Senate where one of the representatives was shot dead.⁷⁴ On February 22, 1935, in angry response to British arrogance, Argentina claimed that anyone born in the Malvinas was an Argentine and attempted to seize British residents and issue Argentine passports to those individuals.

Argentina's January 1936 issuing of a one-peso stamp showing the Malvinas colored as Argentine fanned the flames of anti-British sentiment in Argentine. However, Minister of Foreign Affairs, Carlos Saavedra Lamas, stated the stamp manifested no bellicose intentions and, shortly thereafter, stating that he only hoped the Malvinas would someday be returned to their rightful owner.

The establishment of the United Nations provided Argentina with yet another approach to retaking the Malvinas--internationally orchestrated pressure. In December 1976, Argentina applied for United Nations mediation for the third time and finally received United Nations backing, urging Britain to open talks on the decolonization of the Malvinas. The British continued to insist that decolonization of the islands was a matter of the

⁷⁴ Ibid., 224.

islanders' self-determination. Throughout the next four years, this dogmatic position of the British brewed a storm of great frustration and irritation in Argentina.

In 1981, the rather bland and rough-cut General Galtieri took the reins of government, assuming the offices of President, Junta Member, and Army Commander. One of his first items of business was to draw closer to the Reagan administration, which appeared to be abandoning the Carter Administration policy of identifying human rights as a national interest. General Galtieri visited the Reagan administration twice and agreed to provide counterinsurgency support to Central America.⁷⁵ The perception that Argentina and the United States could do business together was combined with the overt British decision to reduce its South Atlantic presence. This gave rise to hopes that the Malvinas issue might be negotiable.⁷⁶

However, by mid-1982, lackluster economic performance, increasing problems with trade unions, rampant inflation, and general public frustration with the military government were taking their toll. Additionally, Admiral Massert, a much more popular military officer, was beginning to threaten to seize power specifically by attacking the Galtieri administration's ties to Britain. Galtieri had to find some way to unite the people and his

⁷⁵ Juan Carlos Torre and Liliana de Riz, "Argentina since 1946", *Argentina Since Independence*, Leslie Bethell, ed. (United Kingdom: Cambridge University Press, 1993.), 337. "Argentine experts in intelligence and anti-subversive operations were sent of El Salvador, Guatemala and Honduras. The lessons learned during the years of the dirty war were also used to train former Somoza supporters in actions against the Nicaraguan government." However, there is no source of this information cited in their supporting material.

⁷⁶ *Ibid.*, 228.

opponent seemed to be showing the way--with a foreign threat. Three possibilities confronted Galtieri:

1. The Beagle Channel dispute with Chile. Action against Chile might, however, risk a protracted war with possible Brazilian intervention. The potential losses clearly outweighed the gains.
2. Overt assistance to the United States in Guatemala, El Salvador and Nicaragua. This option would be in keeping with the government attack on Communism, however would risk government liberal accusations that the administration was acting as a mercenary for imperialism.
3. Then there was the age-old Falkland Islands problem that had already fired the minds of the militant few and possibly the non-participatory majority. Clearly the latter of the three choices provided the "easiest way". Galtieri calculated that British resolve was too weak, its military capability to fight so far from home too fragile, and that with the promised assistance to squelch revolution in Central America, that the U.S. would at least remain neutral.⁷⁷

On August 2, 1982, Argentina invaded the Falkland Islands. Nationalist fervor and fanatical demonstrations in support of the effort replaced anti-government protests. While Galtieri's plan seemed to work domestically, it was a shallow victory as the Royal Navy

⁷⁷ Rock, 1985, *Argentina*, 375-375.

mobilized and dispatched a naval-marine task force to respond. The United States, frustrated by its inability to diplomatically force a withdrawal of Argentine forces from the islands, gave low-visibility support to the British.

British expeditionary forces arrived in the Malvinas in May 1982 and first bottled up the Argentine Navy, then eliminated the Argentine Air Force, and finally landed forces on the ground to retake the islands. By June 4, 1982 all Argentine forces had surrendered and the Galtieri government fell soon thereafter. A transitional military government was imposed for less than a year, and democratic reforms began to take place as evidenced by the election of Raúl Alfonsín in October 1983.⁷⁸ In November 1984, President Alfonsín attempted to negotiate with Prime Minister Thatcher for the dismantling of new (post 1982 war) defensive installations on the Islands.⁷⁹ The Prime Minister was unwilling to even address the issue. As of the writing of this paper, the Islands are still in dispute, but the two governments are at least again talking.

This contested border initially focused on lines of communication, but became hostile with the recognition that the islands served as whaling and sealing ports of refuge. With the demise of that as the source of income, and the surge in Argentine-British cooperation in the meat packing industry, the period-critical natural resource issues ceased,

⁷⁸ Torre and de Riz, 1933, *Argentina*, 342. Alfonsín won over 50% of the vote.

⁷⁹ *Ibid.*, 347.

and the border drifted to the back burner. With the rise of economic woes, the border became a theme of nationalistic rallying that ended in a disastrous war for Argentina.

Perhaps the most interesting feature of this case, is that the conflict is heated to saber rattling or war, only when natural resources become period critical. This border was contested at gun point when whaling, sealing, and fishing was at stake. When the extractable natural resource—oil—came into play, the contest escalated to war. However, the latest escalation was as much the result of political intrigue from a failing Argentine administration as any natural resource.

The border remains contested to this day. There is clear evidence of repeated influence of period critical natural resources throughout the history of the conflict. While modern conflicts may seem more over sovereignty than resources, the basis of conflict has always been resource driven. The conflict falls in the upper left quadrant.

Table 19 Argentina/ United Kingdom – Malvinas Islands Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Argentina/ United Kingdom	3-War	Fisheries, Whaling, Sealing	Fisheries

Misiones (Brazil):

Figure 29 is Gordon Ireland's depiction of the Misiones dispute. Initial boundaries were approved between Spain and Portugal at the Treaty of Madrid on January 13, 1750. This treaty established the Uruguay River as the boundary. Portugal agreed to withdraw

from Col3nia while Spain agreed to draw back from the seven missions east of the Uruguay in the Ibichuy region. Although the treaty was annulled in 1761, the Jesuits had been expelled from Portuguese soil and would never return.

Spain created the Viceroyalty of Buenos Aires on August 1, 1776 and soon thereafter, on October 1, 1777, the Treaty of San Ildefonso was signed establishing a boundary on the Uruguay River. However, no methods were established to mark the border or to survey the area. When the independent government of Buenos Aires was established in 1810, one of their first actions was to follow-up on the border questions outstanding from the Viceroyalty days.

The first item of business was to establish sovereignty in Misiones and this was accomplished with the erection of Corrientes and Misiones townships, unifying them into the province of Misiones and granting them representation in the constituent assemblies of 1816 and 1824. Likewise, the Brazilian Empire established the township of Palmas in 1838. Preliminary cooperation on matters of trade and navigation between Argentina and Brazil had been in effect since the August 27, 1828 agreement to defend Uruguay from outside aggression. This agreement was formalized in the March 7, 1856 treaty of Peace, Friendship, Commerce, and Navigation signed at Paran3. This treaty reaffirmed the 1828 agreement to defend Uruguay, but further guaranteed that merchant and war ships of both nations could freely navigate the Paran3, Uruguay, and Paraguay rivers within the confines of those countries. Additionally, the island of Mart3n Garc3a was to remain in either Brazilian or

Argentine ownership. A corollary to this treaty was signed November 20, 1857, guaranteeing to all nations free commercial navigation of the three rivers. Since that time, free access to the rivers has not been at issue. The question has been at what point these rivers became sovereign territory.

On December 14, 1857, Brazil and Argentina signed an agreement stating that the Uruguay River was the boundary between them from the mouth of its tributary, the Quarahim, to the mouth of the Pepiri-Guazú at which point the Uruguay entered Brazilian sovereignty. Since the region had not been adequately surveyed, disagreement soon arose over what waterways were the Quarahim River and Pepiri-Guazú. While Brazil ratified the treaties, Argentina modified the river locations to the east, thus increasing its territory and gaining access to the navigable rivers. Brazil never accepted these modifications and, on November 16, 1859, authorized but did not enact the construction of two military colonies in Paraná.

The next round of negotiations occurred in 1876 when Brazil reopened the issue of the boundary. Construction of the military colonies authorized in 1859 was begun in 1880 but contention did not arise until March 16, 1882, when Buenos Aires reorganized the Misiones province into five districts with the capital in Ciudad de San Martín. This violated a tacit agreement not to alter the status quo along the border and resulted in an outpouring of

published debate.⁸⁰ Both parties continued to push for diplomatic resolution and, on September 28, 1885, a Treaty of Exploration between Brazil and Argentina was signed, reaffirming that the boundary should run from the Uruguay to the Iguazú or Río Grande de Curityba Rivers and constituting a mixed commission to map out the region and its rivers, the “Pepiri-Guazú and San Antonio and the two rivers to the east of these known in Brazil as the Chapeco and the Chopim, called by the Argentines Pequiri-Guazú and San Antonio Guazú.”⁸¹ The commission began its work, which lasted six years. As their work drew to a close, a September 7, 1889 treaty of arbitration was signed in Buenos Aires agreeing that disputes that should arise from the commission report would be submitted within one year to the president of a mutually friendly nation for arbitration who would have 90 days to arbitrate them.

Yet another twist would divert the smooth demarcation of the border. On November 15, 1889, the Brazilian Empire collapsed and was replaced by the Republic. The new government, apparently without regard to the previous treaty, undertook new negotiations and on January 25, 1890, yet another treaty was signed, this time dividing the territory across the *divortia aquarum* of the Iguazú and the Uruguay Rivers, making use of natural boundaries and preserving each nation’s settlements. The Argentine Congress ratified the

⁸⁰ Ireland lists three sources: Meliton Gonzalez, *El Límite oriental del Teritorio de Misiones*, (Montevideo-Buenos Aires 1883, 1886) 3 vol.; J. A. Texeira de Mello, *Límites do Brasil com a Confederacao Argentina*, (Río de Janeiro, 1883).; J. M. N. Azambuja, *Question Territorial com a República Argentina*, (Río de Janeiro, 1891) Vol I.

⁸¹ Ireland, 1938, *Boundaries*, 14.

agreement without discussion but the Brazilians did not. Realizing the loss of territory that would result from the agreement, on August 10, 1891, the Brazilian House of Deputies voted against the 1890 agreement 142 to 5.

Meanwhile, the erstwhile survey team completed its labors on September 27, 1891, and a joint petition was submitted to United States President Benjamin Harrison who accepted the position of arbiter on July 2, 1892. The Brazilian and Argentine cases were submitted to the United States Secretary of State on February 10, 1894, and the new president, Grover Cleveland awarded the decision to Brazil on February 6, 1895. The decision recognized the boundary line as the rivers Pepiri (Pepiri-Guazú) and San Antonio. The rivers were defined by Brazil's definition, based on the declarations of 1759, 1777, 1885 and the report of the survey team filed in 1887. The demarcation of the border was an arduous task, requiring several more protocols, but on December 27, 1927, the border was agreed upon by treaty and subsequently ratified by Brazil and Argentina.⁸² The border has remained calm since then.

This border was contested, but no significant period critical natural resources existed. Contention existed over riparian access, but in fact this was resolved early in the contest. Delays remained only because of the internal politics of each country, and issues of territorial loss in the demarcation. It falls in the lower left corner of the quadrant.

⁸² Ibid., 12-18.

Table 20 Argentina/Brazil – Misiones Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Argentina/ Brazil	2-Sabre Rattling and Skirmishes	Navigation Rights	None (Riparian Access)

La Plata (Uruguay):

On August 27, 1828, a preliminary convention of representatives of the Emperor of Brazil and the United Provinces of Argentina⁸³ declared the independence of the province of Montevideo (Cisplatine) in what is today called the Eastern Republic of Uruguay.⁸⁴

However, it declared no boundaries of what should be referred to as the province. The northern-most point of the province was established on December 25, 1828, as the mouth of the Quarahim River, but the remainder of the northern border was left incomplete and the southern border unspecified. Figure 30 and Figure 31 illustrate the extensive river network which lay at the heart of this dispute.

The southern border took on significance with the French entry into a conflict with Argentine dictator Juan Manuel de Rosas. In November 1837 he declared that Frenchmen residing in Argentina must serve in the Buenos Aires militia, sparking protests from France.

⁸³ At this time, the United Provinces of Argentina were not truly united nor did the provinces necessarily accept federalized authority out of Buenos Aires. This led to the border difficulties that followed in that until after the demise of Juan Manuel de Rosas in 1852, many of the actions were neither sanctioned nor participated in by the government making the treaties.

⁸⁴ República Oriental del Uruguay

After months of fruitless negotiation, the French blockaded Buenos Aires on May 10, 1838. They followed up by placing a landing party on the island of Martín García in October of that year, virtually blocking all river traffic from entering either the Uruguay or Paraná Rivers from the Plate River.

United States efforts to break the deadlock failed but British influence as primary trading partner with Buenos Aires facilitated their successful negotiation of the dispute on October 29, 1840.⁸⁵ In this agreement, Buenos Aires agreed to pay indemnities and recognize the independence of Uruguay. France, in turn, agreed to lift the blockade and evacuate Martín García within eight days of the convention's signature. Seizing the moment to control trade on the two rivers, the Uruguayans seized Martín García on September 5, 1845, but were quickly replaced by the British on the twenty-fourth of that month. Using their naval strength, the British evacuated the Uruguayans and blockaded the Argentines, establishing status quo antebellum. However, with the British evacuation of Martín García, the Uruguayans again seized the island. Distrustful of the acquisitiveness of the Argentine dictator, they held the island until his fall and the establishment of a new provisional government on February 28, 1852, returning it to Argentina on March 17.

The fall of Rosas from power marked the transition of power in Argentina from Buenos Aires to the federal government. On October 3, 1852, the government of the

⁸⁵ This is Ireland's reasoning. Robert Scheina states that the dispatch of 4,000 French regulars to Buenos Aires was in fact the issue that drove de Rosas to agree with their logic in the conscription matter. Scheina, 1987, *Naval History*, 18.

Argentina Confederation (against the will of the government of Buenos Aires which desired to control the rivers and their access) issued a decree calling for free navigation and access to the Uruguay, Paraguay and Paraná Rivers from the Plate River. After a year of negotiations with the United States, Britain, and France, three treaties were signed on July 10, 1853 permitting free navigation by all nations of the Paraná and the Uruguay Rivers wherever they belonged to the Confederation. Additionally, the treaties assured that Martín García would never again be held by any power not bordering on the rivers. As such, on April 11, 1854, the Buenos Aires constitution reflected an air of finality about Uruguay's southern border, declaring Argentine territory to be "bounded on the northeast and east by the Paraná, the Plata, and the Atlantic, including the islands of Martín García and others adjacent to its coasts."⁸⁶

The complexity of the situation surrounding the Río de la Plata was highlighted in 1859 in an inter-provincial struggle for power in which the Argentine Confederation requested Brazilian aid in removing Buenos Aires forces from Martín García. That same year, the Argentine Confederation allied with Brazil and Uruguay in order to limit Uruguay's ability to side with one against the other. At the same time, Brazil and Argentina guaranteed the independence and integrity of Uruguay in exchange for Uruguayan neutrality and its pledge not to harbor any revolutionaries. These treaties were never ratified, blocked by Argentine and Brazilian deputies who felt they ceded too much.

⁸⁶ Ireland, 1938, *Boundaries*, 37.

With the close of the Paraguay War in 1870 and the rise of tensions with Chile in Patagonia, a nationalistic siege mentality began to manifest itself in Buenos Aires. In 1875, Argentina insisted on her right to fortify the island of Martín García. Brazil protested that this violated the spirit of the freedom of navigation of the Paraná and Uruguay Rivers specified in the July 10, 1853 treaty. Argentine authorities remained and indeed, did restrict fishing at least once when in November 1907 they detained a small Uruguayan steam fishing boat, giving rise to a diplomatic incident between the countries that threatened for a time to lead to serious conflict.⁸⁷

Subsequent to these difficulties, no armed conflict occurred, but the question of the actual boundary between Uruguay and Argentina remained. Finally, on April 11, 1918, a convention was signed authorizing the Argentine and Uruguayan institutes of military geography to jointly triangulate their frontier-river (Uruguay River) from the mouth of the Quarahim River to the mouth of the Uruguay River in the estuary of the Plate. Prior to this undertaking, the maps of the two did not agree and no agreement could be reached. The actual demarcation of the boundary was not complete until the signing of the treaty and subsequent ratification by Uruguay in 1974.

This is again a case wherein the border is contested, but more from a riparian access point of view. There have never been any period-critical natural resources involved and, as such, the border falls in the lower left corner of the quadrant.

⁸⁷ *Ibid.*, 39.

Table 21 Argentina/Uruguay – La Plata Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Argentina/ Uruguay	2-Sabre Rattling & Skirmishes	Navigation	None (Riparian Access)

Paraguay:

Paraguay, the first of the Latin American colonies to gain independence, has a history of bureaucratic authoritarianism and dictatorship. Without riches, blocked from the Andes by the Chaco's inhospitable terrain, and separated from the Atlantic Ocean by 1,000 miles of treacherous rivers, Paraguay quickly became the backwater of the Spanish colonial empire. As such, Spanish settlers took Guaraní wives, in some cases in harems of 15 to 20, and the mestizo population quickly outnumbered the Peninsulares.⁸⁸ When Spain transferred Paraguay to the administration of the viceroyalty of Buenos Aires, the Paraguayans became concerned, fearing that the Portefios⁸⁹ would quickly attempt to establish control over the relatively autonomous state of Paraguay. The Paraguayans fought off two attempts by Buenos Aires to take over in 1811. During the second, the Peninsular Officers fled fearing defeat. When the Guaraní⁹⁰ persevered, the royalists lost their credibility, their authority, and

⁸⁸ Peninsular refers to European born who immigrated to the Americas. Children of these elite are referred to as *creollos*.

⁸⁹ A reference to citizens of Buenos Aires meaning "of the port."

⁹⁰ A term referring to the Mestizo's of Paraguay, after the language of their Indian wives, members of the Guaraní tribes.

fled from the country. Therefore, in the Battle of Tacuarní, Paraguay gained independence both from Buenos Aires and Spain.

Out of the provisional government, a creollo lawyer--José Gaspar Rodríguez de Francia--emerged and quickly assumed dictatorial powers. To try to eliminate the peninsular elite, he criminalized marriage between peninsulares. To eliminate outside influence, he closed Paraguay's borders to trade and built one of the world's first socialist-utopian societies. He ruled as a benevolent despot for over 29 years. Some historians view him as a Robin Hood⁹¹ while others argue that he did nothing to benefit the "gente idiota"⁹² politically, educationally, or morally.⁹³ However, during his regime, the standard of living gradually rose for the mestizo and the Indian, there was order, and both Argentina and Brazil grew accustomed to its neutral presence. Francia established the supreme importance of preserving the independence and sovereignty of Paraguay and linked it to the responsibilities of the dictator. Upon his death, several months of coups and counter coups followed. Then, in 1841, the Council of 500 picked Carlos Antonio Lopez as dictator.

Lopez's ascension to the helm brought domestic improvement coupled with international disaster. Whereas Francia enforced isolation from the region, closing borders and shooting anyone trying to escape, Lopez wanted free access to the Paraguay and Paraná

⁹¹ Denis M. Hanratty, and Sandra W. Meditz, eds. *Paraguay: A Country Study* (Washington DC: Headquarters, Department of the Army, 1990), 21-23.

⁹² Literally translated—"idiot people". Rodríguez' name for the common folk.

⁹³ Riordan Roett and Richard Scott Sacks. *Paraguay: The Personalist Legacy* (Colorado: Westview Press. 1991), 24-28.

rivers to facilitate trade with Europe and his neighbors. Economically, trade tripled during his reign and to build a society to facilitate this trade, he acted to educate all Paraguayans by constructing over 400 schools. Foreign investment began to appear, but light industry was centered on the defense of Paraguay. For example, an iron factory constructed by the British was producing metal for weapons and the new railroad was laid out to facilitate rapid mobilization of troops.

In international relations, Lopez attempted to bring about a triangular balance of power between Paraguay and its two large and ambitious neighbors. But Lopez did not prove so adroit in international affairs. He “wooed both [Argentina and Brazil], offered little, avoided making tough choices and compromises, allowed controversies and border disputes to smolder, interfered in disputed areas, and angered Argentina and Brazil at the same time.”⁹⁴

Lopez appointed his son, Francisco Solano Lopez, to succeed him. Francisco however did not measure up to his father in any sense. His focus was on establishing Paraguayan control over the Paraguay and Paraná rivers, to define the boundaries with Argentina and Brazil, and to establish, once and for all, the power position of Paraguay. Lopez went too far and his actions united the historical antagonists Argentina and Brazil, with disputed Uruguay in alliance against Paraguay. Three conflicts arose over Paraguay’s

⁹⁴ Roett and Sacks, 1991, *Paraguay*, 28.

borders, all involving access to the rivers: The Chaco Central with Argentina, Apa with Brazil, and Chaco Boreal with Bolivia.

Chaco Central⁹⁵ “The Paraguay War” (Argentina):

With the termination of the war between Paraguay and Argentina in 1811, the border issue remained dormant under Dictator Fráncia. Under Carlos Lopez, diplomatic efforts were undertaken to establish Paraguay’s position in the region. On February 3, 1852, the provisional government of Argentina which assumed power after the fall of dictator Juan Manuel de Rosas entered into a treaty of boundaries, commerce and navigation signed in Asuncion on July 15, 1852. This treaty stated that the Paraná and Paraguay rivers were the boundary between Argentina, Brazil and Paraguay.⁹⁶ Figure 32 depicts the terrain.

It was not until June 4, 1856 that the Argentine Congress approved this treaty, and then it did so withholding approval of the boundaries specified in it. The July 29, 1856 Treaty of Friendship, Commerce, Navigation and Boundaries, provided freedom of navigation for commerce and war ships on the Paraná, Paraguay, and Bermejo Rivers. However, final decision on the boundaries was postponed, as Paraguay continued to claim

⁹⁵ Ireland, 1938, *Boundaries*, 27-34.

⁹⁶ From Brazilian possessions north to six miles above the lower mouth at the island of the Atajo with the island of Yacireta continuing to belong to Paraguay, the island of Apipe to Argentina, and other islands to the country to which they are more closely adjacent. The Paraguay River from its confluence on the Paraná belonged entirely to Paraguay, and the Bermejo was to remain open to both states. A three-mile-wide swath along the western shore of the Bermejo, from its mouth to Atajo Island, was declared neutral with neither state stationing military force in the area. Argentina was to have navigation rights to the Paraguay River and Paraguay received navigation rights to the Paraná. Paraguay was to establish a port on the Pilcomayo River as far up as navigable to provide the shortest overland transportation routes for commerce to Bolivia. Ireland, 1938, *Boundaries*, 32.

jurisdiction over part of the Misiones Province along the Paraguay River from Iguazú to Candelaria.

The September 10, 1862 death of Paraguayan dictator Carlos Lopez and the succession by his ambitious son, Francisco Lopez to the presidency in October, began the build-up of Paraguayan armed forces. By 1864, the Army had grown from 7,000 (1862) to 30,000 men organized in 30 infantry, 23 cavalry and 4 artillery regiments. The Navy was also fortified, acquiring the first steam-powered warship in the region.

One of Lopez's first actions was to attempt to negotiate final settlement of his boundaries with Brazil and Argentina. Lopez claimed the border between Brazil and Paraguay should lie somewhere east of the Paraguay River as far north as the Río Branco. Aware of Lopez's sentiments towards Uruguay, Brazilian President Dom Pedro refused to negotiate with Lopez on the issue.

When in 1864, Uruguayan Blanco⁹⁷ President Atanásio Cruz Aguirre gained power, Brazil threatened invasion if he did not restore order and curtail immigration into its southern province of Río Grande do Sul. Lopez, frustrated by lack of progress in negotiations with Dom Pedro regarding Paraguay's eastern border, offered Aguirre his support. When Brazilian troops sided with Colorado rebels against Aguirre, Lopez seized the Brazilian

⁹⁷ Uruguay was ruled during the mid 19th century by two warring political parties which seized power from each other by the bayonet instead of the ballot. The Blanco party was strongest in the countryside while the citizens of Montevideo supported the Colorado party. Brazil sided with the Colorados and Paraguay countered by siding with the Blancos, in power when Francisco Lopez assumed the dictatorship of Paraguay in 1862.

steamer *Marques de Olinda* as it transited through Paraguayan territory to Matto Grosso, and then attacked the munitions bunkers at Matto Grosso to better arm his troops.⁹⁸ Having declared war on Brazil and augmented his troops with Brazilian ammunition, Lopez turned to support Aguirre but was too late -- Aguirre had fallen. Lopez next decided to attempt to restore Aguirre but his request to Argentine President Mitre to allow his troops to cross Corrientes into Uruguay was refused. This, coupled with Argentina's refusal to recognize Paraguay's borders as stated in the June 4, 1856 declaration, served to highlight Paraguay's weak position in the regional power scheme vis-a-vis Brazil and Argentina.

Aggravated by the lack of resolution on the borders, desirous to secure control over the Paraná and Paraguay rivers, and determined to raise Paraguay's relative standing in the regional balance of power, Lopez annexed Corrientes, captured two Argentine government steamers (*Gualeguay* and *Veinte-Cinco de Mayo*), and declared war on Argentina.⁹⁹ The Paraguayan action forced an alliance of Brazil, Argentina and Uruguay under a secret treaty of May 1, 1865. The "Secret Treaty" declared that upon conclusion of the war, Argentina should be separated from Paraguay by the Paraná River and the Paraguay River up to their meeting with the frontiers of Brazil at Bahia Negra on the west bank of the Paraguay River. This not only would have reclaimed Misiones, but also the entire Chaco from the Bermejo

⁹⁸ Donald E. Worcester, *Brazil: From Colony to World Power* (New York: Charles Scribner's Sons, 1973), 107.

⁹⁹ Ireland, 1938, *Boundaries*, 30.

River up to Bahia Negra. These territorial provisions evoked protest from Perú and other Latin American nations when they became known.

The conflict that followed cost all belligerents dearly. The Alliance was not ready for the military power of Paraguay which, making effective use of riparian and amphibious warfare, advanced without serious opposition down almost to the Uruguayan border. However, the combined mass of Brazil, Argentina, and Uruguay was more than Paraguay could match and the Alliance, also using effective riparian warfare, slowly pushed the Paraguayans back to Asuncion. In his history of naval warfare in Latin America, Dr. Robert Scheina notes that by 1867, increasing impatience in Argentina and Brazil led to replacement of their commanders and the final push for Asuncion. Revolution in Argentina and Uruguay left the brunt of the fighting to the Brazilian navy and Marines. After fierce fighting up the Paraguay River, the Brazilians began occupation of Asuncion on January 1, 1869. Paraguay's Lopez, manning his army with children and profiteers, retreated to the north and held out for an additional 16 months until his death on March 1, 1870 at the battle of Coro Cora.¹⁰⁰ The toll of the war on Paraguay was enormous, taking more than 80% of its male population and rendering it a mere "buffer state between its neighbors".¹⁰¹

The peace treaty of June 20, 1870 with the provisional government of Paraguay again delayed the question of borders. Argentina stated that it would resolve the boundaries

¹⁰⁰ Scheina, 1987, *Naval History*, 27.

¹⁰¹ Atkins, 1989, *Latin America*, 300.

amicably and not exercise the right of conqueror to establish its boundaries. Brazil supported Paraguay in the ensuing boundary negotiations and made its own boundary treaties with Paraguay. Treaties signed on February 2, 1876 resolved most of the disputed boundary, leaving one segment of border in the Chaco Central region, along the Paraná from the Verde river south to the junction of the Pilcomayo River with the Paraná open for international arbitration. Under this agreement, the President of the United States (or another friendly nation should he refuse) would arbitrate the dispute. President Rutherford B. Hays of the United States accepted arbitership on Mar 28, 1877 and on November, 1878 ruled in favor of Paraguay without stating any reason, declaring the Pilcomayo to be the border between the two countries. However, the marshy conditions and lack of navigable depth in the Pilcomayo coupled with the presence of warring tribes of indigenous native Americans made survey of the exact location of the border difficult and the border issue remained unresolved for many years. A September 11, 1905 declaration began the survey of the Pilcomayo River to determine the Hayes border. On April 12, 1921, Argentina submitted the results of the survey of the Pilcomayo River to Paraguay, which acknowledged the survey in March 1925. Further discussions to resolve the border were delayed by the Chaco War between Bolivia and Paraguay from 1932-1938. Final resolution did not occur until hostilities of the Chaco War were terminated and the final treaty settled in 1939.

This border was contested because of the lack of definition of Paraguay's borders in the colonial era, and not over period-critical natural resources. The Paraguay war was the ill-

fated attempt of a misguided leader to establish Paraguay as one of three powers in the Southern Cone and to establish ownership of riparian access to the sea. For Paraguay, this was a critical natural resource, but it is not period critical in that it has always been essential to the nation's existence. Immigration was at issue through this conflict. This conflict falls in the lower left corner of the quadrant.

Table 22 Paraguay: Argentina – Chaco Central (Paraguay War) Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Paraguay/ Argentina	3-War	Navigation, Immigration, Balance of Power	None (Riparian Access)

Apa¹⁰² “The Paraguay War” (Brazil):

The Treaty of San Ildefonso fixed the Spanish-Portuguese boundary northeast of Asuncion to run from the mouth of the Curityba up the Paraná to the Igurey, up the Igurey to its chief source, then by a straight line to the head of the nearest river that empties into the Paraguay, down that river to the Paraguay and up the Paraguay to the Xarayes Lake.¹⁰³ However, after independence, these colonial agreements came into question. Paraguayan dictator Carlos Antonio Lopez refused to allow Brazilian vessels passage through Paraguayan-claimed territories from 1841 to 1846, essentially cutting off Brazil's Matto Grosso province from outside trade. This came to an end with the April 6, 1856 signing of the Treaty of Freedom of Navigation, Friendship and Commerce in Río de Janeiro. This

¹⁰² Ireland, 1938, *Boundaries*, 117-123.

¹⁰³ *Ibid.*, 117.

convention allowed free navigation of the Paraná and Paraguay Rivers and allowed for two armed vessels of less than 600 tons and with less than eight guns from each nation to navigate and enter ports open to foreign flags of each country. This convention was further modified in 1858, removing limitations on the size and armament of naval vessels. Despite these seemingly friendly actions, the boundary between Brazil and Paraguay remained unsettled. When Francisco Solano Lopez assumed the dictatorship of Paraguay on the death of his father on September 10, 1862, his actions to establish borders led to the Five-Years War (often called the Paraguay War described above under the Chaco Central dispute). With regards to the border with Brazil, Lopez wished to establish the border east of the Paraguay and north to the Río Branco. This would effectively remove the southern third of Matto Grosso province from Brazilian control. Figure 33 presents a map of the region.

This sector, although sparsely settled, was a producer of fruits and consumable crops and was valued by Brazil. As has been stated earlier, Paraguay could not prevail against the combined weight of Argentina, Uruguay and Brazil and on the death of Lopez in 1870, Paraguay's provisional government found itself in a compromised bargaining position. Despite this, the Paraguayan representatives to the June 20, 1870 signing of the Treaty of Asuncion, ending the Paraguay War, succeeded in persuading Brazil to accept its reservation on the Paraguayan right to further discussions and negotiations on its boundaries and to preserve the rightful integrity of Paraguay. The Brazilian delegate's declaration that it was

not Brazil's intention to expand its territory, but only to preserve its rightful territories, reopened the question of boundaries.¹⁰⁴

At the formal peace treaty signing between Brazil and Paraguay on January 9, 1872, a parallel treaty was also signed delineating the border, establishing demarcation commissions, and outlining procedures for adjudication of differences by the Uruguayan and Argentine governments. Clearly, Brazil was in the driver's seat with its wartime allies as adjudicators and indeed, the agreed-upon borders dropped the claim on southern Matto Grosso. Actual survey and demarcation began on July 16, 1872 and was finally completed on November 14, 1874. Subsequent agreements have been signed periodically from 1927 to 1931 agreeing on where to mark the border on the rivers (answering the question of where mid-channel was) but for all intents and purposes, this border is settled and fixed by law.

This border was settled as the result of the cessation of hostilities with Brazil. It was settled in the victor's favor, allowing Brazil to keep its fruit-producing land, a critical national resource, but not one that bolsters its exports or would have proved fatal to the nation to lose. In essence, the border was not contested before the Chaco War, and will probably never be contested again. For the purposes of this study, I will place it in the upper right corner of the quadrant, reflecting it as a non-contested border, and as one possessing some natural resources (arable land).

¹⁰⁴ Ibid., 121.

Table 23 Paraguay/Brazil - Apa(Paraguay War)

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Paraguay/ Brazil	3-War	Fruits and consumable crops, Navigation	Consumable Crops, Arable Land (Riparian Access)

Chaco Boreal¹⁰⁵ “The Chaco War” (Bolivia):

Rebuffed by the results of the War of the Pacific, Bolivia found itself cut off from navigable access to the sea. Its only access to the Atlantic was through the small Madeira River port of Cobija, part of the treacherous Amazon River complex. Although the Paraguay River reached western Bolivia, it was practically impassible to river traffic. Complicating the issue was the contentious nature of Paraguay, which controlled the Paraguay River.¹⁰⁶ “Paraguay desired to recover some of its lost national prestige after the War of the Triple Alliance.”¹⁰⁷ Bolivia determined that if it could alter its ill-defined border with Paraguay, pushing its southern boundary south to the more navigable waters of the Paraguay River, it could access the Río de la Plata and the Atlantic Ocean. Beginning about 1930, border clashes increased and the two sides found themselves engaged in a difficult conflict over the marshy, tropical terrain of the Chaco. Bolivia, although greater in strength, was hindered by the overland transportation required to support its armies. Paraguay utilized its extensive

¹⁰⁵ Ibid., 66-95.

¹⁰⁶ Scheina, 1987, *Naval History*, 124.

¹⁰⁷ Atkins, 1989, *Latin America*, 305.

river system and nascent industrial production capability to better equip its smaller forces.¹⁰⁸

Figure 35 diagrams the region.

By 1935 Paraguay was in control of most of the Chaco and, with both sides exhausted, a truce was agreed to. Most of [the truce's] provisions were included in a 1938 peace treaty signed through U.S. good offices. Paraguay, as victor, annexed most of the disputed Chaco area. The financial and human costs were huge for both sides. Some 50,000 Bolivians and 35,000 Paraguayans died in the war."¹⁰⁹

This conflict begs the question of riparian access being a period critical natural resource. It has all the characteristics of one. In this case, Bolivian access to foreign markets had been viewed as tenuous since losing sovereignty over Arica during the War of the Pacific. Inability to regain that sovereignty, coupled with frustrations over Atlantic Ocean access, placed it in a position to willingly go to war. Paraguay too, anxious about its unfettered Atlantic Ocean access, and desirous to tax river traffic as an additional source of revenue, was willing to fight to the death for control of that resource. Clearly, riparian access was a period critical resource for both parties, to the point that it degenerated into one of the bloodiest wars in the region's history. I place this conflict in the first quadrant.

¹⁰⁸ Scheina, 1987, *Naval History*, 123-128.

¹⁰⁹ Atkins, 1989, *Latin America*, 305.

Table 24 Paraguay/Bolivia – Chaco-Boreal (The Chaco War) Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Paraguay/ Bolivia	3-War	Navigation	None (Riparian Access)

Brazil:

After covering so much history about Argentina, it would appear that the Argentines are the only habitual imperialists of the Southern Cone, but this is not the case. As Brazil emerged from its colonial to its imperial stage, it too found the border issue a touchy one, resulting in contention and conflict with most of its neighbors; Colombia, Perú, Paraguay, Uruguay and Bolivia in the course of its development. Brazilian concern with its borders, however, dates back to the 17th century, when Portugal was concerned with the “French Invaders” to the north, as well as the British and Dutch “Intruders.”¹¹⁰ Portugal pushed against the Spanish colonies until the Treaty of San Ildefonso of 1777 established the “limits of Portuguese colonization,” but those limits still did not stop their explorers from pushing further in all three directions as they explored the riparian highways of this large continent. It is no wonder then that conflicts occurred as they continued to push, or be contained in their *uti possedetis juris* boundaries. Figure 36 shows the borders with the French (Amapá), the British (Pírrara), and the Dutch (Tumuc-Humac).

¹¹⁰ Arthur C. F. Reis, *Limites e Demarcações na Amazônia Brasileira, a Fronteira Colonial com a Guiana Francesa* (Rio de Janeiro: Imprensa Nacional, 1947).

Amapá: (France)

Despite repeated attempts to begin colonization of the northern coast of South America, the terrain and climate made it extremely difficult. France tried unsuccessfully to begin colonization in 1643 but was unable to establish a settlement until 1663 when 40 settlers settled Paramaribo. In an attempt to have peace with Portugal, King Louis XIV of France signed with Portuguese King John V an agreement in 1713 stating that France renounced all claim to the Amazon and both of its banks. This agreement did not extend to the coasts, and did not really factor in the unexplored geography of the region. The ambiguity of the terrain created the conflicted border situation between France and the Kingdom of Brazil at its separation from Portugal. The lack of knowledge of the area kept the border unresolved until the 19th century when various treaties were signed which established what is today the accepted border.

There was one conflict along this border when the Brazilians took prisoner a longtime French resident named Trajane and his “gold washers” were sold to Brazilian “adventurers.” “The governor of French Guiana sent the French ship *Bengali* on May 11, 1895, from Cayenne to Couani to obtain Trajane’s release and investigate the situation. Captain Lunier, with a company of marines, landed and marched fifteen miles inland to Mapa, where he and four marines fell in a sharp combat with the adventurers, many of whom were killed and the village destroyed.”¹¹¹ This border was largely resolved in the

¹¹¹ Ireland, 1938, *Boundaries*, 150.

Treaty of April 10, 1897 at Rio de Janeiro. The remaining area near the Tumuc-Humac mountains were resolved in December 1900 with Swiss arbitration, largely in favor of the Brazilians, giving Brazil 30,000 square miles and France 1,000 square miles of the disputed territories with most of the 10,000 inhabitants in the Brazilian area.¹¹²

In retrospect, this border was never contested due to the lack of settlement. Captain Lunier's actions were law enforcement in nature, protecting a French citizen. The border falls in the lower right corner of the quadrant.

Table 25 Brazil/France Amapá Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Brazil/ France	0-No Conflict	None	None (Riparian Access)

Pírara: (Great Britain)

British settlements along the a coast of northern South America continued up the rivers under the guidance of the British Church Missionary Society in an attempt to convert Indians to Lutheranism, and under the guidance of the Royal British Geographic Society's German explorer, Sir Robert Hermann Schomburgh. Settlement and missions continued up the Rupununi River as far as Pírara, and when the two forces met at Pírara, the three citizens decided to claim for Britain the region, as it afforded an excellent position on the line of communication between the coast and the Amazon River. Brazil objected and established a

¹¹² Ibid., 144-151.

small detachment in Pírara, forcing the British to withdraw, and blocking the Indians from following. They replaced the Lutheran mission at Pírara with a Carmelite Priest, the explorer with a “governor”, and provided one soldier in 1838. British Guyana Governor Light sent two emissaries to demand evacuation of Pírara, with a message that the British would send troops if the Brazilian officials did not leave. After a 4 month period in which they awaited instructions from Rio de Janeiro, the promised 40 troops arrived and the Brazilians retired, as did the British, from Pírara. Nothing transpired on the border until after Brazil had settled its borders with the Venezuelans, which left the border with Britain outstanding. Britain obtained most of its claim by the arbitration of France in 1897, but France specifically said that its decision should not prejudice the negotiations between Brazil and Britain. As the 19th century drew to a close, the parties decided to solicit the good offices of the King of Italy as arbiter, which King Victor Emmanuel III accepted. He issued his award on June 6, 1904, establishing most of the border, the remainder being settled by agreement between the foreign ministries of Britain and Brazil on April 22, 1926.¹¹³

Like the Amapá, the border was far too isolated to cause real conflict. Any contention arose out of the vagueness of the border, and the lack of knowledge of the terrain. The border lies in the lower right, with no contest and no period-critical natural resources.

¹¹³ Ibid., 152-158.

Table 26 Brazil/Great Britain - Pírara Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Brazil/ Great Britain	0-No Conflict	Navigation	None

Tumuc-Humac: (Netherlands)

The loss of the settlements at Berbice, Demerara, and Essequibo to the British in 1814 effectively left only one border for the Netherlands to settle, that was the boundary with the Portuguese to the south. Because little settlement of this area had occurred, determination of a boundary was difficult. The award of Czar Alexander III of 1891 fixed the border between Surinam and French Guyana as the Awa and Itany Rivers, which was agreed to in 1905. With the borders between French Guyana, British Guyana, and Brazil settled, the Brazilians proposed in 1906 that the southern Surinamese border be a line between the southern corners of the other two European borders, with fluctuation to allow watershed to the north to be in the territory of Surinam and to the South towards the Amazon to be in Brazil. The protocol was brokered by the Hague, and was settled in 1936.¹¹⁴

There was never any conflict over this border, and no period-critical natural resources to raise conflict. The border lies in the lower right corner of the quadrant.

¹¹⁴ Ibid., 158-160.

Table 27 Brazil/Netherlands - Tumuc-Humac Summary

Contestants	Level of Conflict	Point of Conflict	PCNRs
Brazil/ Netherlands	0-No Conflict	None	None

Yaguarón (Uruguay):

The infamous 1750 Treaty of Madrid, ratified by Spain and Portugal, opened the floodgates along the Yaguarón River as Portuguese troops swept south to the Río de la Plata, driving out the Jesuits and massacring the unprepared Indians. Although annulled in 1761, the actions spawned by the 1750 treaty succeeded in eradicating Spanish rule east of the Uruguay River forever. The southern boundary between Spain and Portugal remained ill defined until the October 1, 1777 Treaty of San Ildefonso. In 1801 Portugal seized Ibichuy¹¹⁵ with the intention of retaining it permanently. The Portuguese named the region east of the Uruguay River Cisplatine province.¹¹⁶ Figure 37 diagrams this area.

Argentina attempted to liberate the province in 1815, supporting guerrilla leader José Artigas¹¹⁷ in attacks against Portuguese fortifications, but was unsuccessful. The next attempt of Argentina to gain control of the eastern bank of the Uruguay River and the pastures of the Cisplatine occurred in 1825 when guerrilla leader Juan Antonio Lavalleja and

¹¹⁵ See Misiones conflict above.

¹¹⁶ Ireland, 1938, *Boundaries*, 132. It was bounded to the north by the Quarahim River, up to the Santa Anna Ridge at the junction of the Santa Maria and the Tacuarembó Rivers, thence to the Yaguaron River, along the southern shore of Lake Mirim, following the San Miguel, and Chuy Streams to the ocean

¹¹⁷ Referred to as Generalísimo José Artiges, Fundador Patriótico de la República Oriental del Uruguay. Artigas is admired as the founder of the modern state of Uruguay, albeit his relationship with the country is more myth than fact.

the “33 Orientales” invaded Cisplatine and declared the “banda oriental”¹¹⁸ incorporated into the United Provinces of Río de la Plata. Argentine acceptance of the possession led to the War between Argentina and Brazil.¹¹⁹ The three-year war that ensued was extremely unpopular in Brazil, viewed by most Brazilians as spending their treasure for Portuguese ambition embodied in their King, Dom Pedro II.¹²⁰ The war coupled with scandal over the sexual exploits of Dom Pedro at home, led to his overthrow in 1828 and the loss of Cisplatine province.

The provisional Brazilian government signed a convention with the provisional Uruguayan government on December 25, 1828, which established a tentative border between the two states along the Quarahim River until the two governments could settle the boundary question. Over the next 20 years, several treaties were signed which created a conflicting perception of the boundary. The boundary treaty between Brazil and Uruguay was finally signed on October 12, 1851, annulling all previous treaties, and establishing the boundary as the Quarahim River to the Santa Anna Ridge, along the Yaguaron River, across Lake Mirim, thence by the San Miguel River to the Chuy Stream and on to the Atlantic Ocean. The treaty litigated in detail the overland boundaries between the two countries, hinging on streams and small villages.

¹¹⁸ Uruguay

¹¹⁹ Covered in detail in the section on “La Plata” above.

¹²⁰ Worcester, 1973, *Brazil*, 74.

In a parallel treaty of the same date, Brazil and Uruguay declared freedom of navigation for the two nations along the Uruguay River and its effluents. Adjustments to the boundary were made in 1857 and 1859 to avoid division of private properties between the two countries.¹²¹ These treaties cover a history of Brazilian dominance over Uruguay. During the early independence period, two warring political parties, the Blancos and Colorados, ruled Uruguay. From 1854 to 1856, at the request of a Uruguayan Colorado President, Brazil sent 4,000 troops to protect Montevideo from the creollos¹²² in the countryside. Indeed, in 1864, it was the Brazilian ultimatum to Uruguayan president Atanásio Cruz Aguiere to restore peace or face Brazilian occupation that began the course of events that led to the Paraguay War.¹²³ (see “Chaco Central” above) The treaty ending the Paraguay War in 1870 pledged combined Brazilian and Argentine support for protection of Uruguayan sovereignty but did nothing to resolve outstanding border issues between Brazil and Uruguay. Subsequent revisions were made in 1913, 1916, 1919, and 1926 addressing various specific issues such as navigation of Lake Mirim, payment of debts, extradition, and connectivity of rail and road transportation across the border. The last border violation occurred in 1903 when Brazilian Colonel Ataliva J. Gomez, mayor of Santana do Livramento, attacked with two detachments of infantry the Uruguayan town of Rivera¹²⁴ to

¹²¹ Ireland, 1938, *Boundaries*, 132-134.

¹²² Country folk.

¹²³ See the “Chaco Central” dispute discussed below.

¹²⁴ Which is across the road from Santana do Livramento. Today, the spot is marked with a monument on the Plaza de Paz, which straddles the border between Brazil and Argentina.

secure the release of his brother who had been arrested and detained by Rivera police. The Uruguayan grenadiers in Rivera easily repulsed Gomez who was immediately removed from command by the federal government of Brazil. Today the border is set by law and peaceful.

In this case, the border area, now the Republic of Uruguay, was of period critical importance in that it had nicely watered grazing lands. The contest over controlling it was in part over control of the grazing lands, and partly in an effort to control the Río de la Plata (Plate River). It lies squarely in the upper left corner of the quadrant.

Table 28 Brazil/Uruguay – Yaguaron Summary

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Brazil/ Uruguay	2-Sabre Rattling & Skirmishes	Watershed, Grasslands	Grasslands

Acre-Abuná (Bolivia):

Largely inaccessible in 1777, the border was only vaguely referenced in the Treaty of San Ildefonso which relied heavily “on the astronomical line and, upon the source and course of the Javari River which were, in fact, virtually unknown.”¹²⁵ At issue was the dominance and ownership of the Madeira River. Portugal moved early on to establish its dominance of this navigable river as part of the Amazon network, building forts along its shores and issuing rules of navigation pertaining to the river. Despite Portuguese westward expansion, Spanish and later Bolivian and Peruvian interest in the northeastern tropical

¹²⁵ Fifer, 1972, *Bolivia*, 95.

jungles of Bolivia was minimal. With no mineral wealth and largely inaccessible to the west, there was no motivation for settlement. Figure 38 and Figure 39 present the Gordon Ireland technical drawing and a more high level and modern map of the area, respectively.

In the 1830s, development of a market for Peruvian bark began to build in Europe, where it was used to extract quinine and other bases for medication. As the trees with the required bark were located in the deep, higher elevation valleys of the eastern Andean slopes ranging from Ecuador down to Bolivia, Amazon River navigation became important in cutting transportation costs. La Paz soon became a focal point for the bark arriving on mule and llama trains from the mountain slopes. Yet there was no conflict along the borders of Perú and Bolivia, despite the fact that the bark was continually flowing across it.¹²⁶

In the 1840s, a grandiose Bolivian plan was spawned in partnership with French Guyana to tame the Beni River and to gain access to the Madeira River. Brazil viewed this plan suspiciously and closed the Amazon to the expedition, fearing that it was just a ruse to extend French Guyana's southern border to the great river. Nothing further occurred in the largely uninhabited region until -- in an attempt to keep Bolivia out of the Paraguay War -- Brazil opened negotiations that led to the Bolivian-Brazilian treaty of Amity, Limits, Navigation and Commerce, signed in March 1867. By the end of 1867, "...an oblique line,¹²⁷ drawn from the Mamoré-Beni River confluence to the source of the Javari..." was agreed to

¹²⁶ Ibid., 109.

¹²⁷ Called the Munoz-Neto line after the signers to the treaty.

as the boundary.¹²⁸ Brazil gained 90,000 square miles in the deal, and agreed to underwrite the construction of a railway around the Madeira-Mamoré falls, the only obstacle to free Bolivian navigational access to the Amazon basin. Circumventing the rapids would provide Bolivia access to the Atlantic Ocean and open its northeast to settlement and exploitation.¹²⁹

American Colonel George Earl Church, Civil War veteran and railway engineer, was hired by Bolivia and authorized by Brazil in 1868 to construct the railway which would reportedly shorten the shipment of Bolivian and east Peruvian goods to the USA and Europe from 180 days to 30, and reduce the cost of transportation by 25%. Unfortunately, the terrain was difficult, the climate unfavorable, capital tight,¹³⁰ and the whole project abandoned after Church was sued and another contractor failed in 1874.

The settlement of Acre accelerated with the discovery of rubber in the region; however, the inaccessibility of the region made the cost of the crude rubber very expensive. The initial areas of rubber extraction in Bolivia were remote and far from each other. While the southern regions could reach rivers, rumor about the lower Beni River forced transport from the northern region over a 700-mile circuitous overland route. The 1880 survey of the lower Beni River by American Doctor Edward Heath dispelled these rumors and the two regions were connected by river navigation.¹³¹ With the combination of the two regions, it

¹²⁸ Fifer, 1972, *Bolivia*, 101.

¹²⁹ *Ibid.*, 103.

¹³⁰ *Ibid.*, 109. Fifer asserts this was due to the Franco-Prussian War of 1870.

¹³¹ *Ibid.* 111.

became an attractive magnet for rubber workers and soon roughly 30,000 Brazilians settled in eastern Bolivia leading to the rubber boom of the 1890s.¹³² As Donald E. Worcester points out, the boundary was not identifiable in the tropical rain forests through which it passed. With the rubber boom of the 1890s, Brazilian settlers pushed west in search of the “golden tree” and if it happened to be on the other side of this imaginary border, so be it and they crossed.¹³³

In fact, neither Brazil nor Bolivia had any way of enforcing their jurisdiction in the region and, needless to say, the oblique line, which was not surveyed and marked until 1896, failed to stop western migration of Brazilian migrants. By 1900 there were an estimated 60,000 Brazilian rubber workers in the Acre region. When Bolivia attempted in 1899 to set up a customs house at Puerto Alfonso along the Madeira River, within its own territory as agreed to in 1867, the workers armed themselves and expelled the customs inspector. Declaring the sovereign Republic of Acre, and taking their cue from the secession of Texas from Mexico and subsequent admission to the Union only 50 years earlier, they applied for admission to the Federal Republic of Brazil.¹³⁴ While neither Bolivia nor Brazil recognized

¹³² Ireland, 1938, *Boundaries*, 45.

¹³³ Worcester, 1973, *Brazil*, 144. Fifer, 1972, *Bolivia*, 110-117. Fifer describes in detail the perilous journey of Bolivian rubber along the Madeira river, in small 30-foot boats (Pelas) with 10 ton slab cargo of rubber which had to be ported around the falls and rapids that Church's railroad had been intended to circumvent.

¹³⁴ Ireland, 1938, *Boundaries*, 45; Fifer, 1972, *Bolivia*, 111; and Robert J. Alexander, *Bolivia Past, Present, and Future of its Politics* (New York: Praeger, 1982), 63.

Acre, Brazil refused to help subdue the uprising and Bolivia found its soldiers and citizens ill suited for military operations or settlement in the lowlands.

Two Bolivian military expeditions were required to finally overcome the rebels in 1901.¹³⁵ Flushing the rebels from the customs house in Puerto Alfonso, the bodies of their leaders were floated down the Acre River to warn other Brazilians not to interfere with Bolivian authority.¹³⁶ Nevertheless, Brazilian immigration continued and Brazil would do nothing to aid Bolivian enforcement efforts in the region.

Out of desperation to stop the westward migration of Brazilians, Bolivia chose a strategy based on the assumption that the United States would intervene with Brazil to defend its national interests. It approved a generous grant of land and sovereignty for rubber harvesting, mineral exploitation, and transportation development to the “Bolivian Syndicate”, a consortium of English and United States entrepreneurs.¹³⁷ This was the “final

¹³⁵ Ireland, 1938, *Boundaries*, 46.

¹³⁶ Fifer, 1972, *Bolivia*, 126.

¹³⁷ Ireland, 1938, *Boundaries*, 46; Fifer, 1972, *Bolivia*, 114; and Alexander, 1982, *Bolivia*, 63. Ireland reports that these concessions included an option for five years to purchase all of the Acre territory for “ten centavos per hectar (2.47 acres)...with the right to navigate freely and undisturbed on all the rivers and navigable waters of the territory and the exclusive right to charge and collect for navigation concessions; with all mining rights in the territory, all Bolivian mining laws being suspended there for the term of the contract; freedom from all tax except ten percent of the net annual profits; the right to construct, maintain, and operate wharfs, railroads, telegraphs, electric power plants, and any other construction the syndicate might think useful, and to maintain a police force; the absolute, exclusive and independent right, power, and authority for thirty years to collect all revenues, taxes, charges and contributions of every kind, and to use all the public or state lands, edifices, property, and rights of all sorts, except those which belonged to Bolivia as a sovereign power, to pay over sixty percent of the revenues so collected to the government and retain forty percent for the syndicate; all so that the condition of the syndicate by the concession should be that of a local government subordinate to the government of the state; the concession not to be transferable to any state or foreign

straw” for the Brazilian settlers and Brazil acted to protect its citizenry. The diplomatic corps of Brazil went on the offensive to warn investors not to become involved in the syndicate due to the unsettled boundaries of the Acre region—claimed by Perú, Bolivia and Brazil.¹³⁸ Brazil refused an invitation by Bolivia to join in the venture and in 1902 closed the Amazon to commerce destined to or originating from Bolivia. United States military intervention to protect its national interests, the cornerstone of the Bolivian strategy, never materialized. Instead, United States, German, French, British and Swiss protests succeeded in reopening the Amazon to their exports¹³⁹ bound for Bolivia, but the river remained closed to Bolivian exports.

In January 1903 the Brazilian colonists in the territory took up arms again...and war between Bolivia and Brazil seemed imminent. After one unsuccessful expedition had been sent, [Bolivian] President Pando, who had previously personally explored the Acre territory, turned over his office to [the] Vice-President...and in person led the campaign from January 26 to August 3, 1903.¹⁴⁰

This time, however, the military campaign was not successful. Pando, having forced a military march of 800 miles in just two months, arrived with so few of the original 1500

government and to be transferable to any other company or syndicate only with the previous approval of the Bolivian Congress.”

¹³⁸ Ireland points out that this was in spite of Brazilian recognition of Bolivian ownership of the Acre in principle in accords signed on February 19, 1895; May 10, 1895; October 30, 1899; and August 1, 1900.

¹³⁹ Except war materials. Ireland, 46.

¹⁴⁰ Ireland, 1938, *Boundaries*, 47.

troops that they could provide no opposition to Brazilian troops in the region. Bolivia was forced to accept Brazil's offer to pacify the territory. This acceptance led to the Brazilian occupation of Acre. Brazil then paid off the syndicate and offered to buy the territory from Bolivia. This being refused, "a modus vivendi was negotiated between Brazil and Bolivia in March 1903"¹⁴¹ which allowed the Brazilian troops in the region to quarter themselves along the Acre River and the Bolivian troops along the Ortón River. Brazil was to collect rubber export duties and split them with Bolivia. Final agreement was formalized in the Treaty of Petrópolis on November 17, 1903. The two countries agreed to the exchange of Acre (73,726 square miles) for a small triangle of 2,000 square miles between the Madeira and Albuna rivers, the payment of an indemnity of £ 2 million, plus the promise to build a railroad through the area to give the rubber exporting area of Bolivia an outlet to the Madeira River, south of the falls.

The Madeira-Mamoré Railroad, completed in 1914, coincided with the end of the rubber boom as the cheaper cost of Far Eastern (Pacific) rubber cut the market value from roughly \$1.60 to 25¢ per pound. The boundary through the Acre was finally fixed in the treaty of 1928; however, the demarcation of the line was difficult. Most of the boundaries lie along rivers. An additional indemnity of £ 1 million was paid in 1928, but the border south of the Acre zone remained a contentious issue until 1958 when the final agreement was reached. The 1958 agreement has never been ratified by Brazil and remains an open issue.

¹⁴¹ Fifer, 1972, *Bolivia*,, 129.

This border has been contested based on period-critical natural resources since the independence period. Immigration has been problematic in this border's history also. It lies in the upper left corner of the quadrant.

Table 29 Brazil/Bolivia – Acre-Abuná Summary.

Contestants	Level of Conflict	Identified Points of Conflict	PCNRs
Brazil/ Bolivia	2-Sabre Rattling & Skirmishes	Rubber, Navigation, Immigration	Rubber (Riparian Access)

Maps for Chapter 3

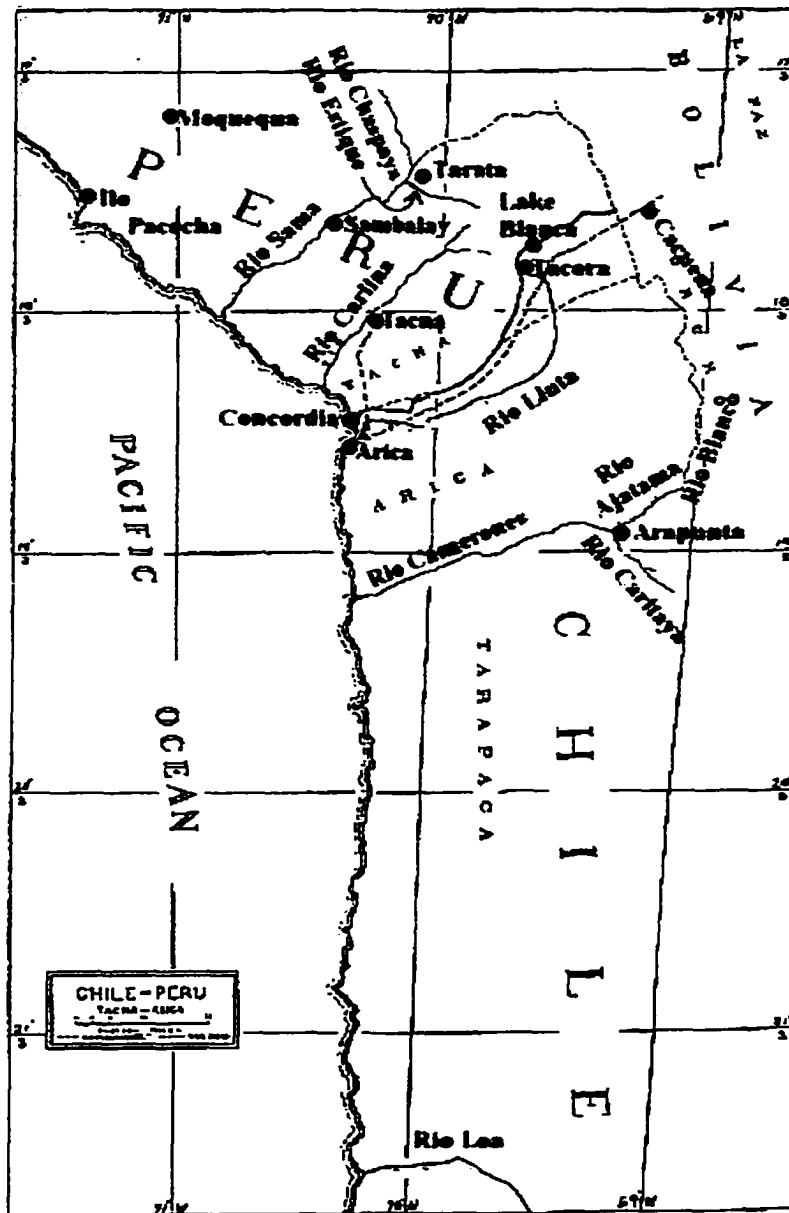


Figure 18 Tacna-Arica Border Dispute¹

¹ Ireland, 1938, *Boundaries*, 161.

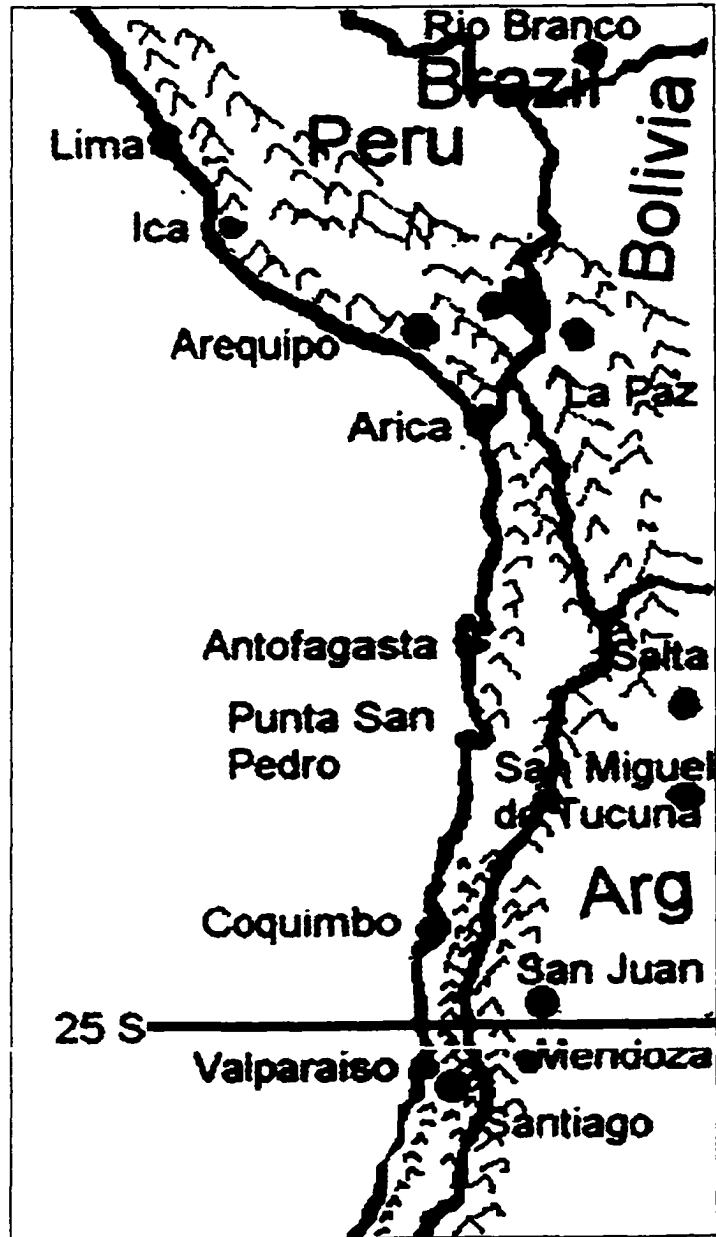


Figure 19 The Contest over Guano and Nitrates²

² Map obtained from Rand McNally Web site. Copyright ©2001 randmcnally.com inc

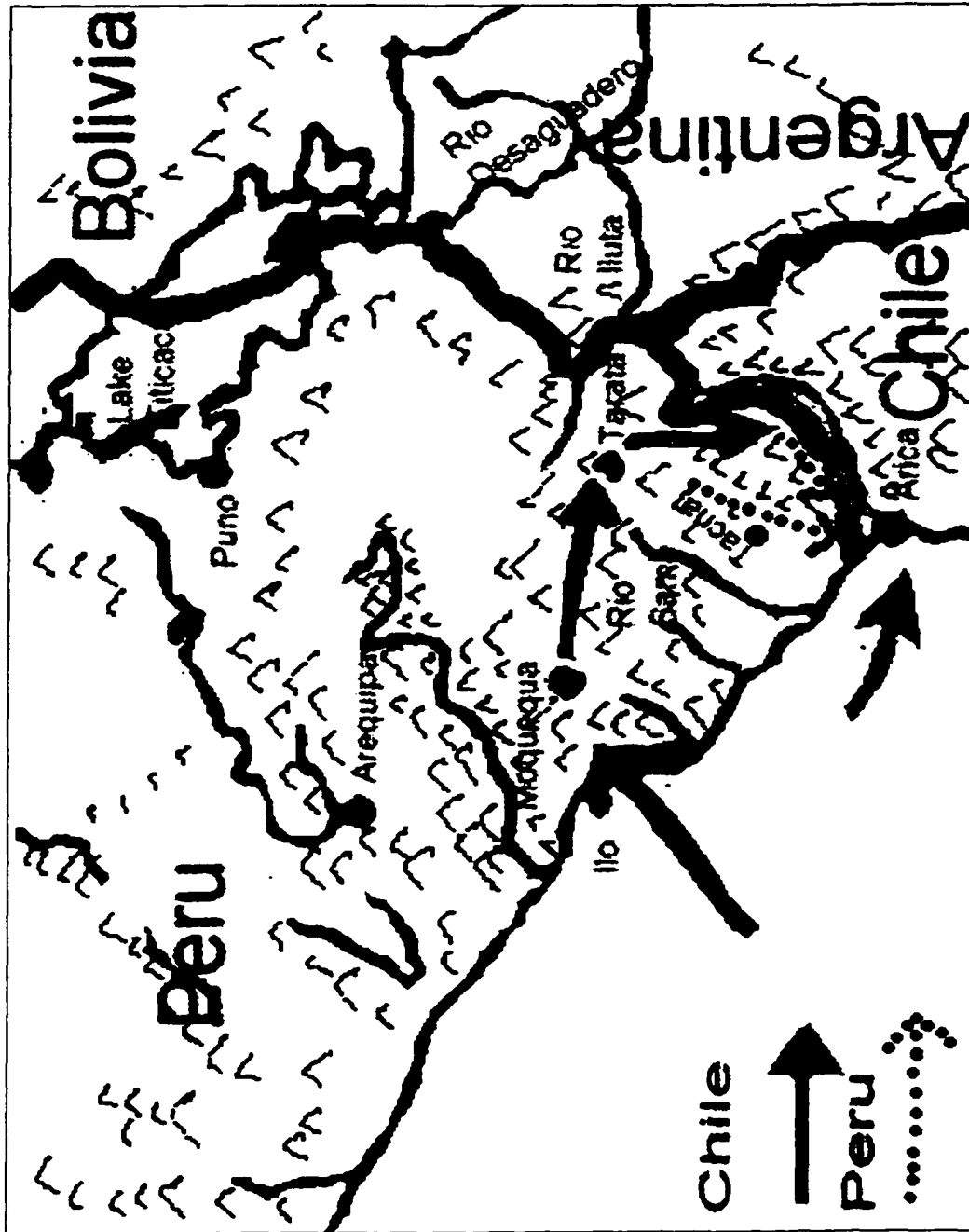


Figure 20 Chilean Campaign - War of the Pacific³

³ Map obtained from Rand McNally Web site. Copyright ©2001 randmcnally.com inc

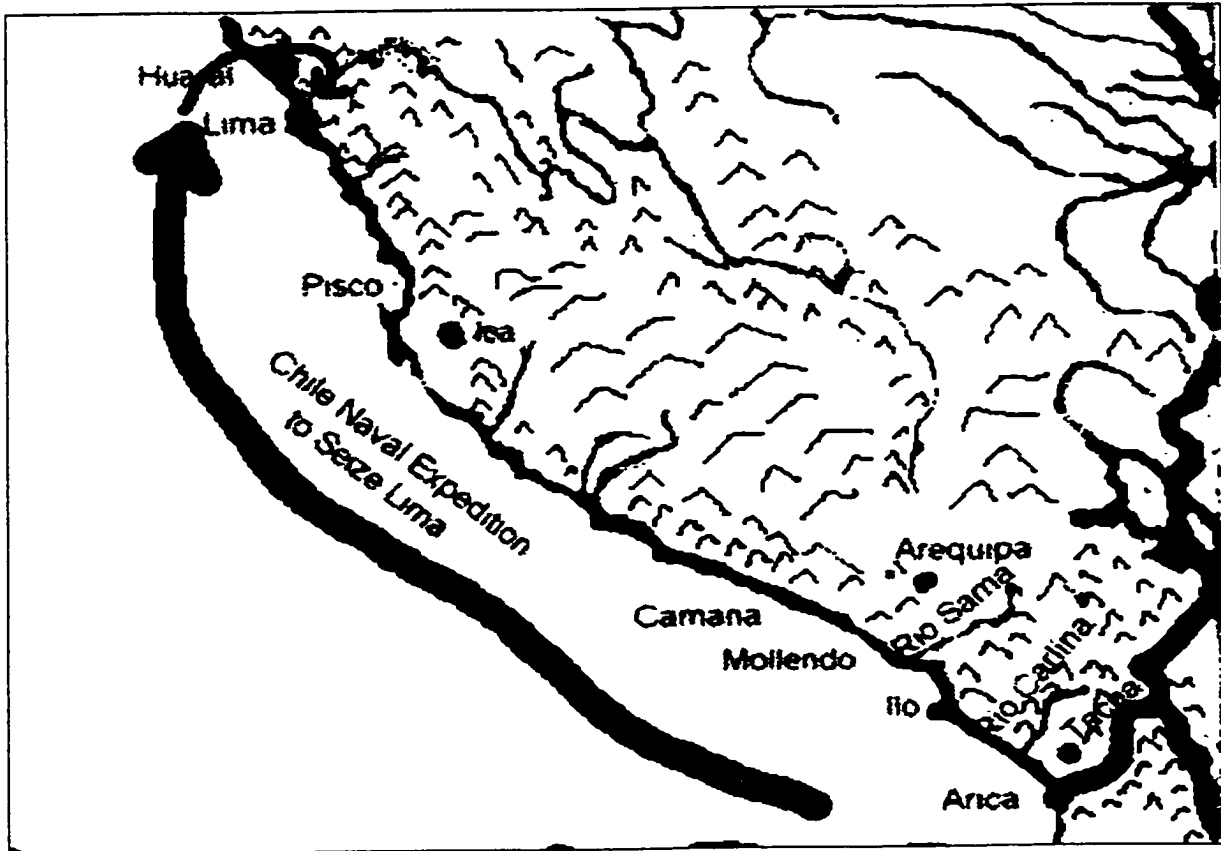


Figure 21 War of the Pacific, Seizure of Callao and Lima⁴

⁴ Map obtained from Rand McNally Web site. Copyright ©2001 randmcnally.com inc

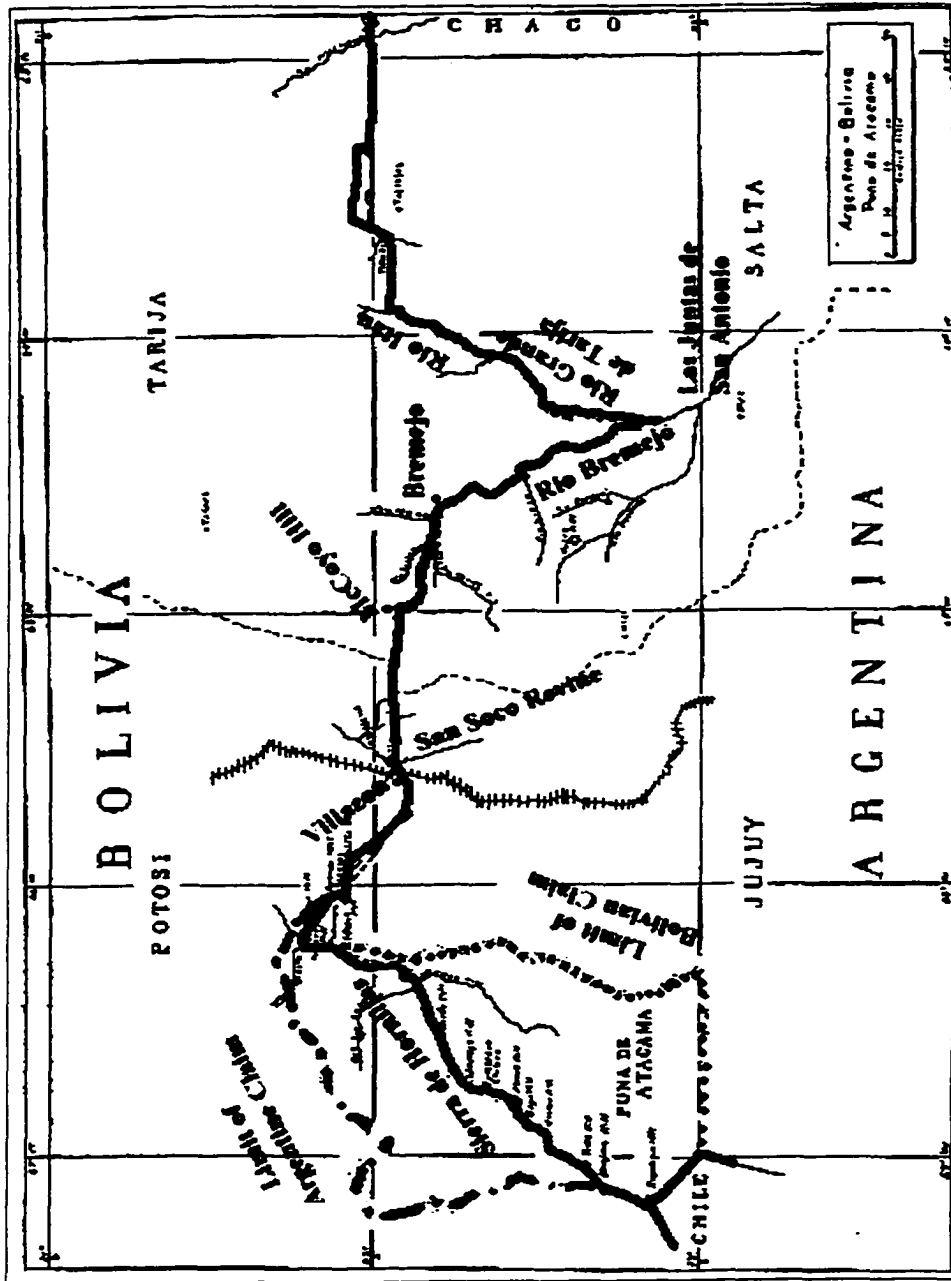


Figure 22 Puna de Atacama Circa 1900.⁵

⁵ Ireland, 1938, *Boundaries*, 2.

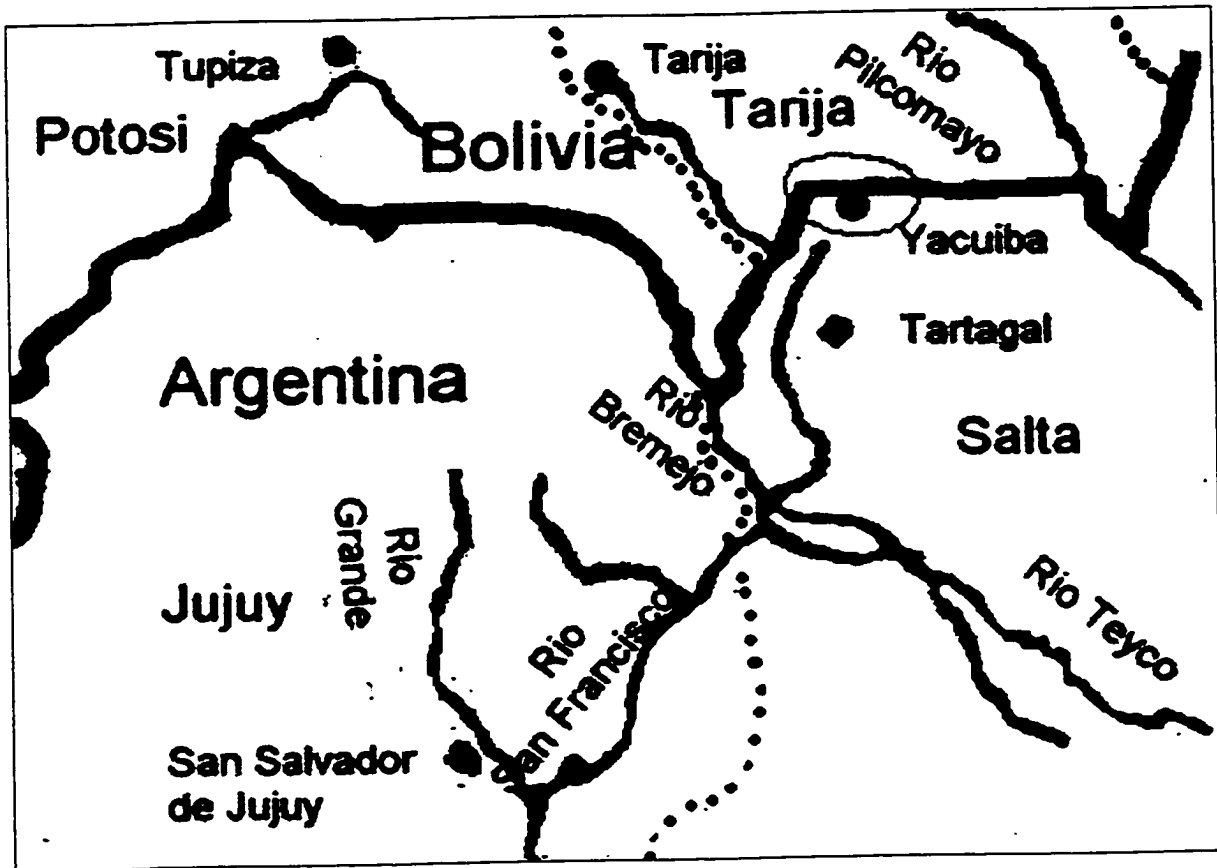


Figure 23 Puna de Atacama Today⁶

⁶ Map obtained from Rand McNally Web site. Copyright ©2001 randmcnally.com inc

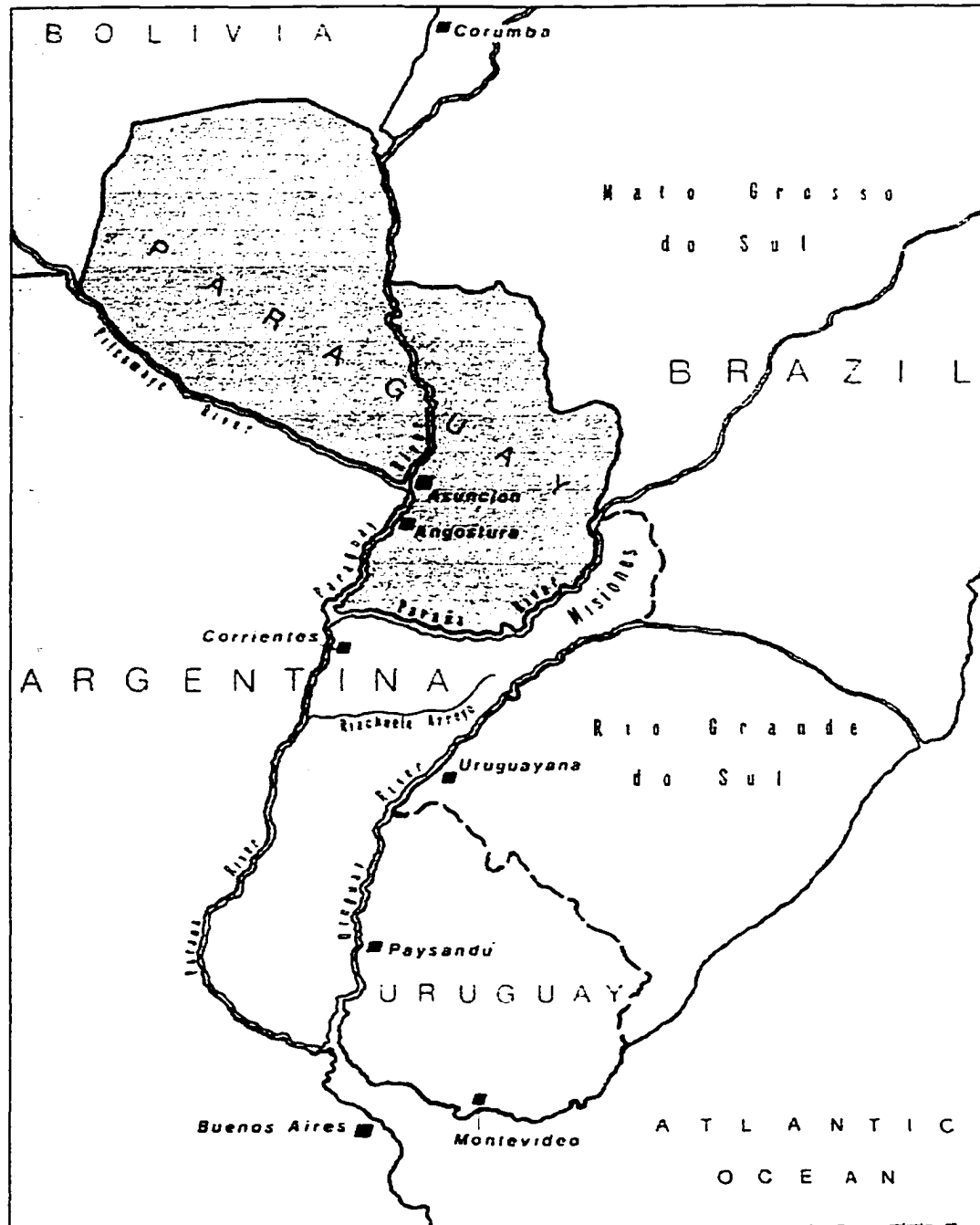


Figure 24 The War of the Triple Alliance (1865-1870)⁷

⁷ Scheina, 1987, *Naval History*, 21.

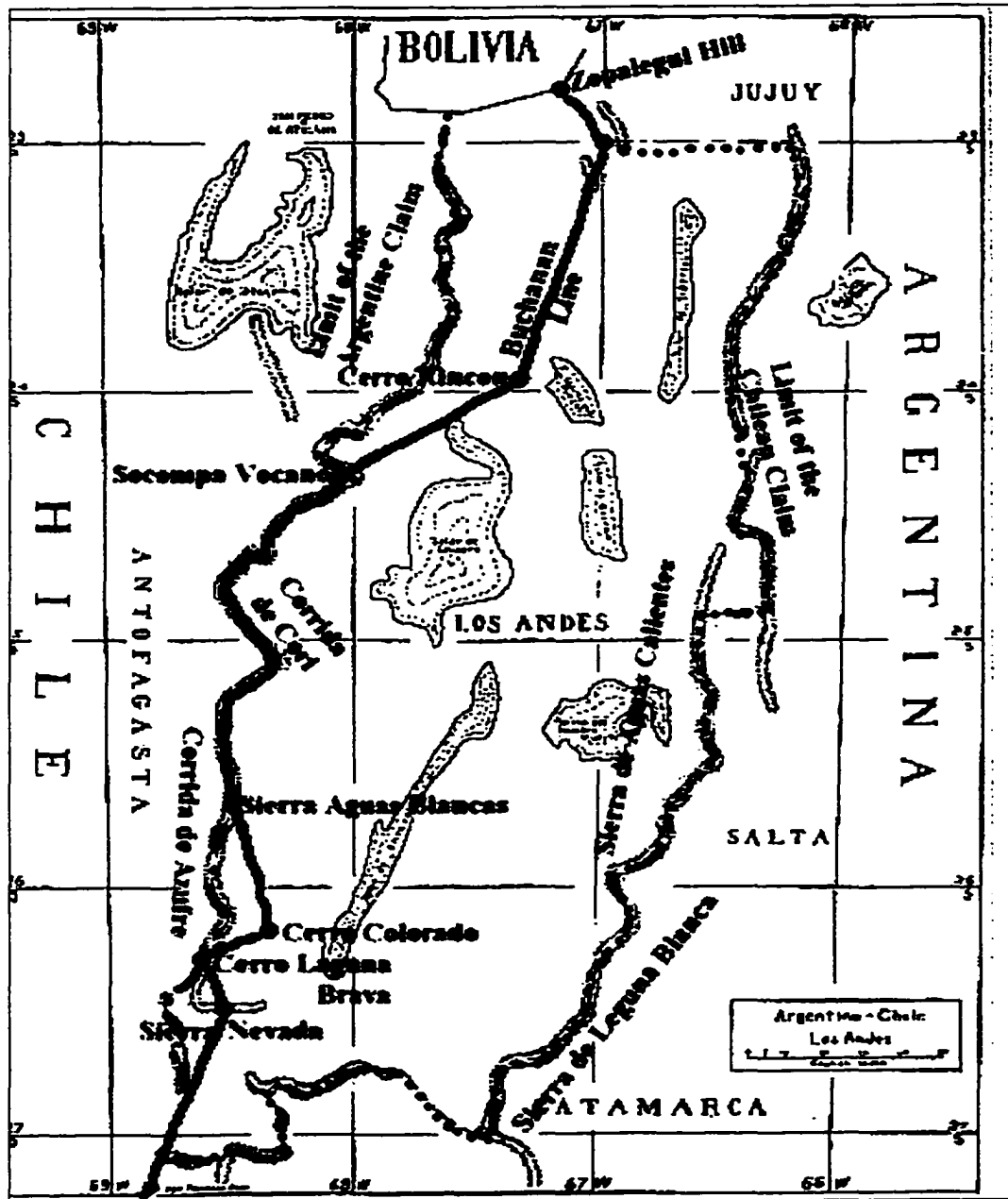


Figure 25 Los Andes Conflict⁸

⁸ Ireland, 1938, *Boundaries*, 18.

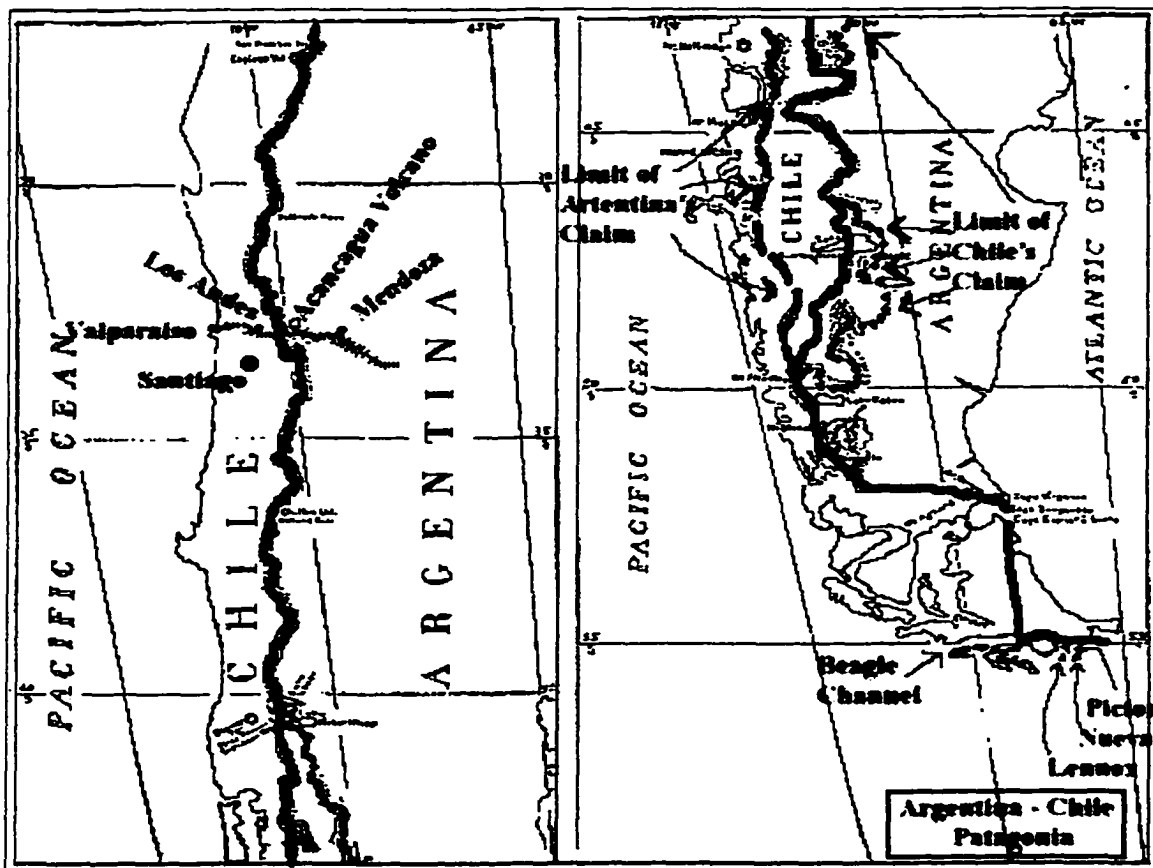


Figure 26 Patagonia⁹

⁹ Ireland, 1938, *Boundaries*, 21.

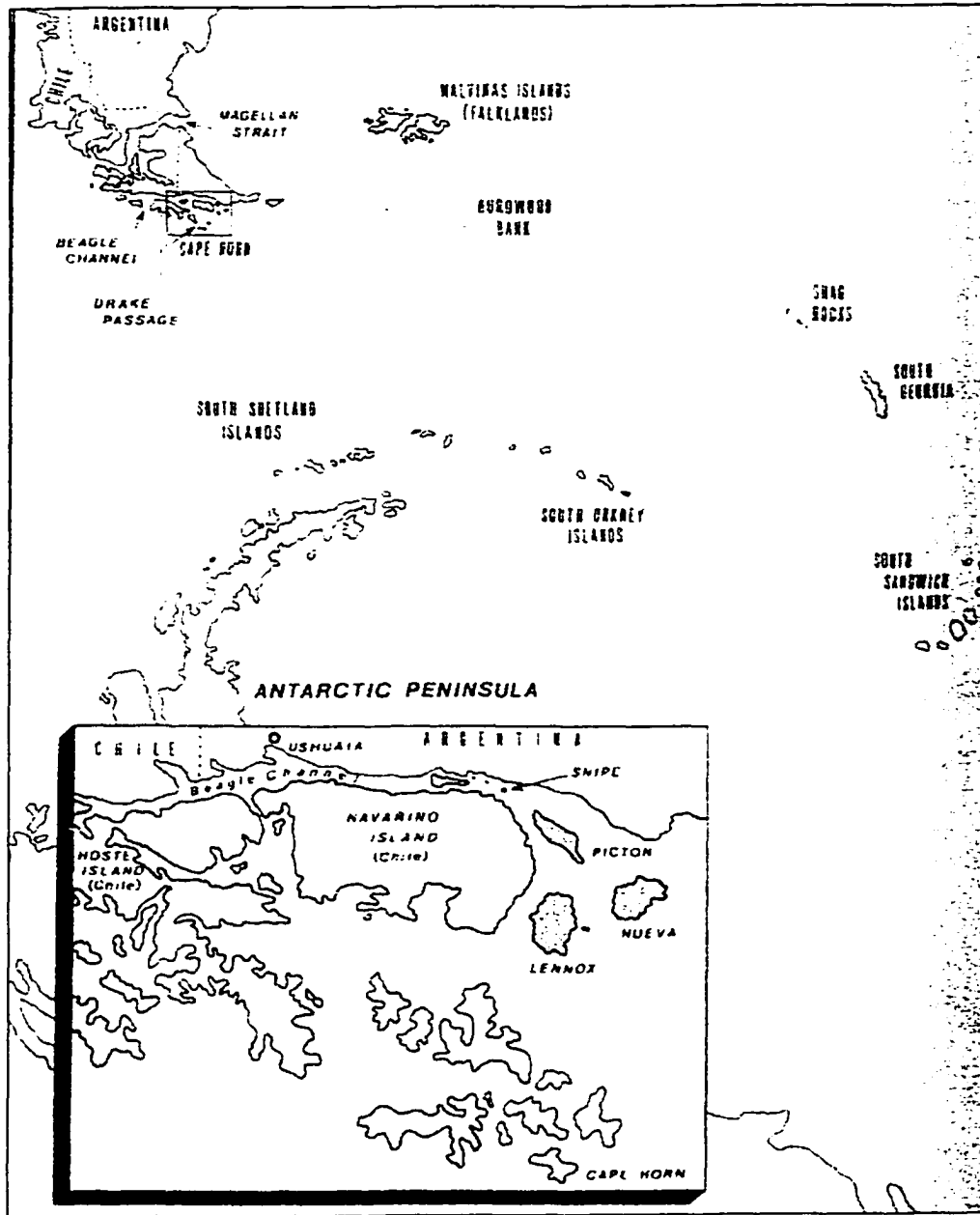


Figure 27 Beagle Channel¹⁰

¹⁰ Scheina, 1987, *Naval History*, 186.

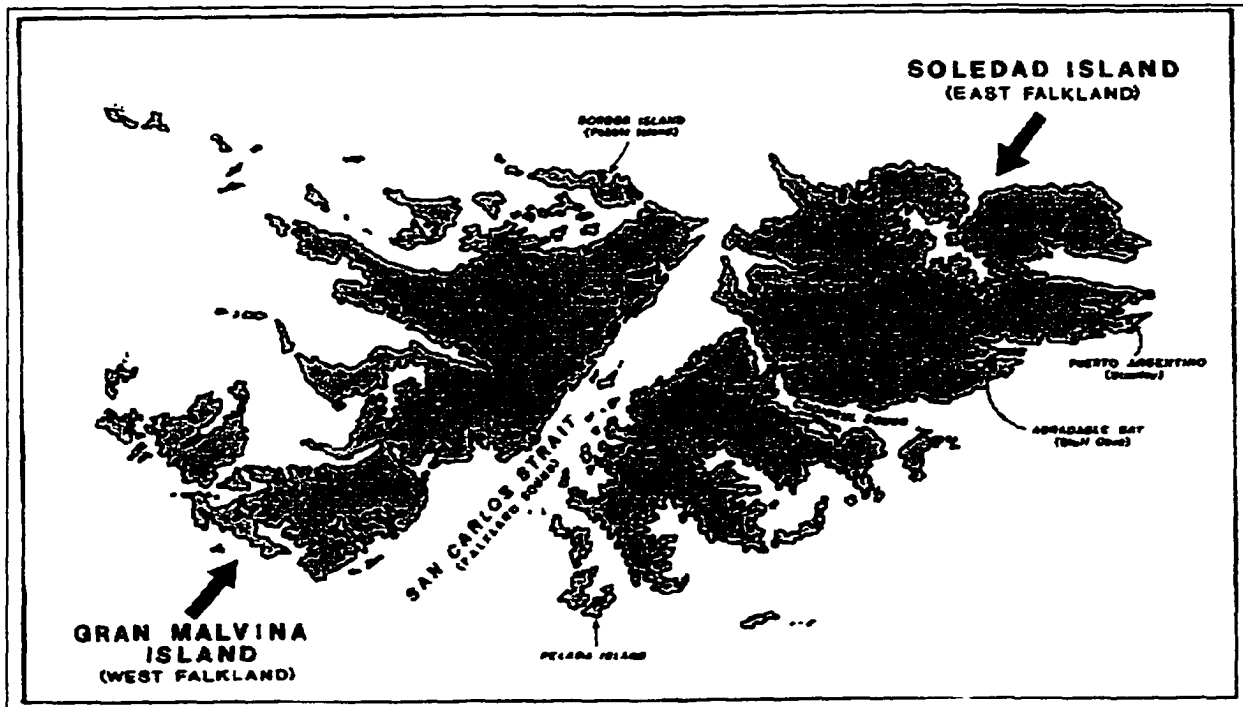


Figure 28 The Malvinas Islands¹¹

¹¹ Scheina, 1987, *Naval History*, 260.

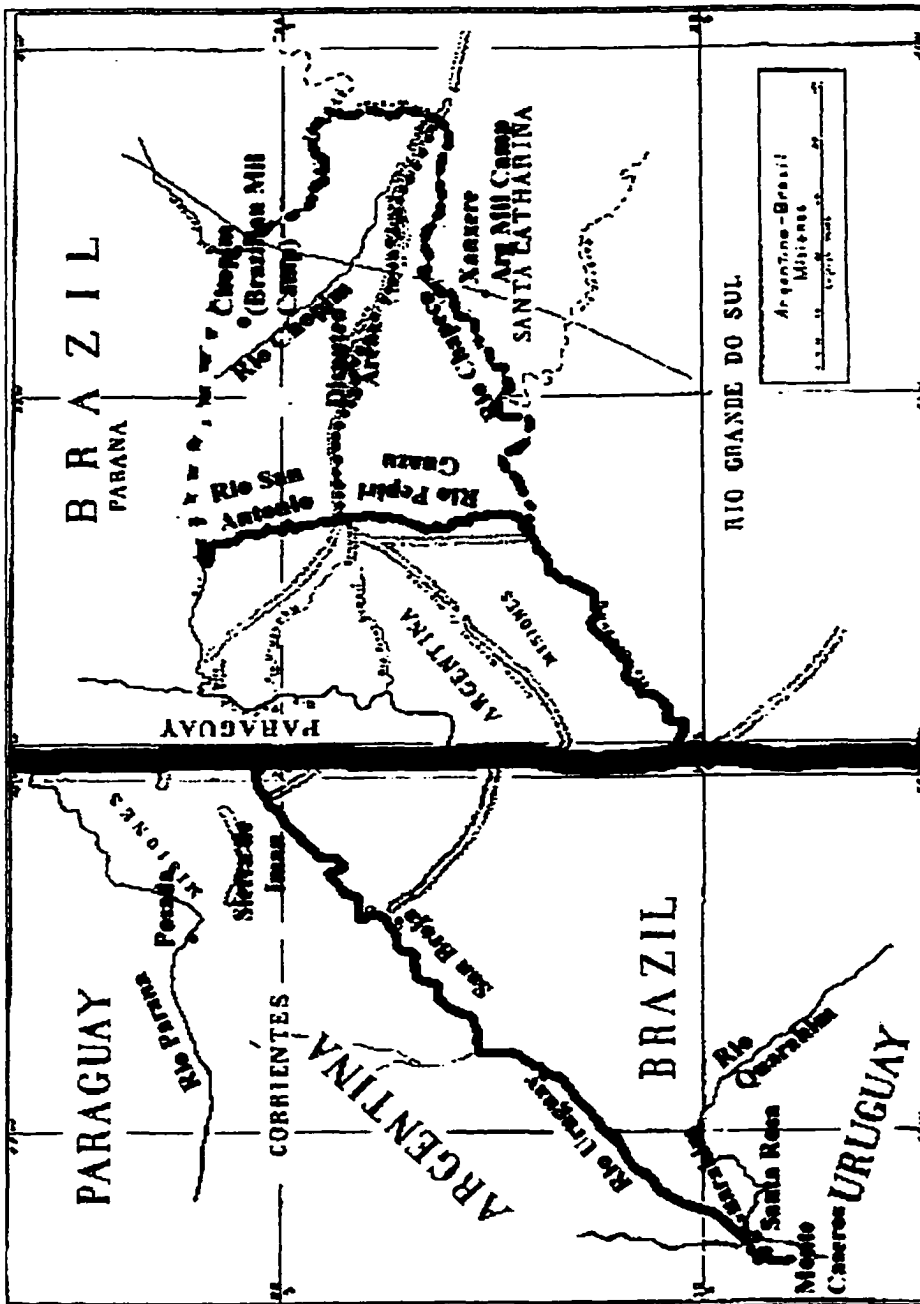


Figure 29 Misiones Border Conflict¹²

¹² Ireland, 1938, *Boundaries*, 11.

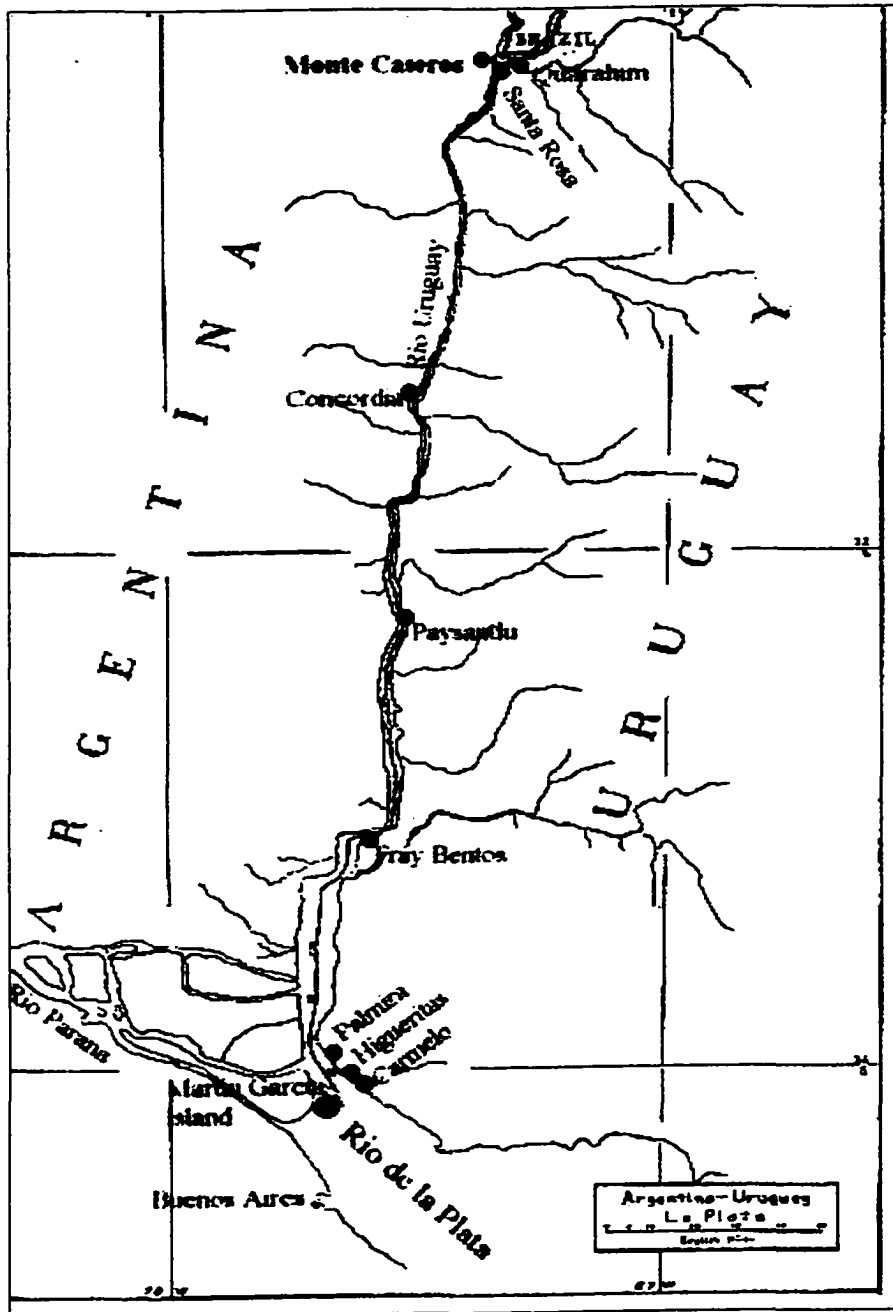


Figure 30 La Plata Border Dispute¹³

¹³ Ireland, 1938, *Boundaries*, 35.

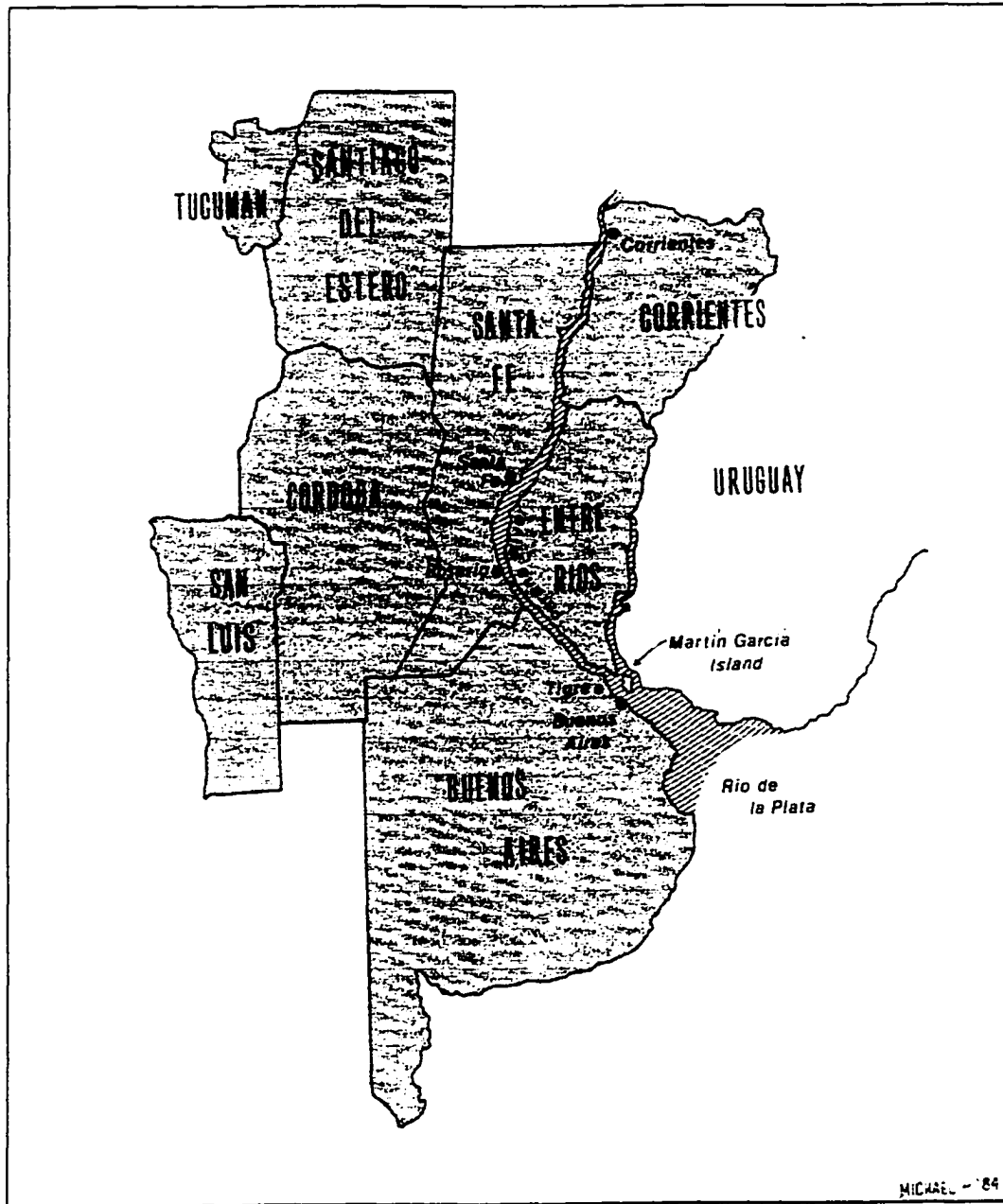


Figure 31 Martín García and the 1890 and 1893 Operations¹⁴

¹⁴ Scheina, 1987, *Naval History*, 58.

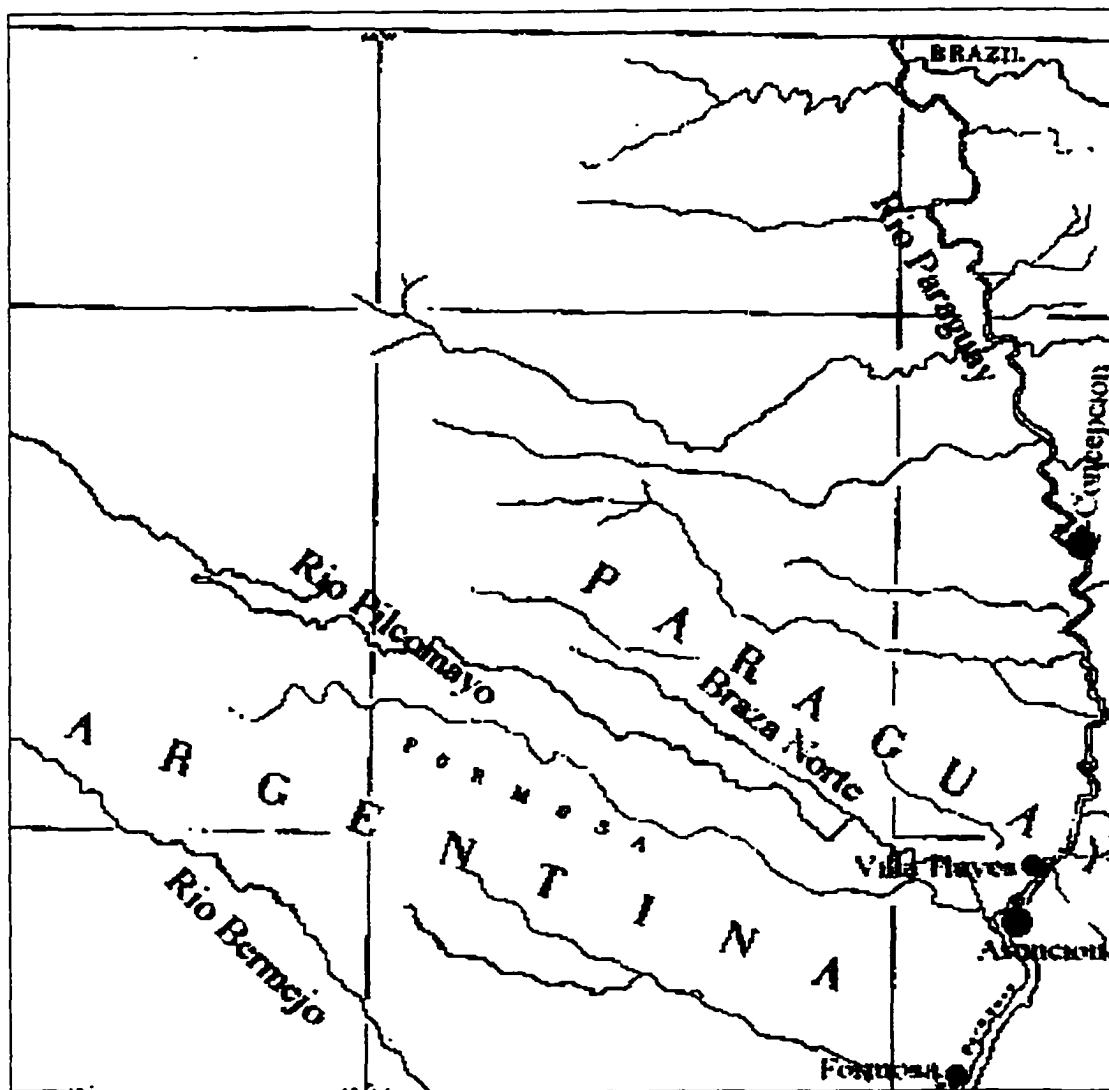


Figure 32 Chaco Central¹⁵

¹⁵ Ireland, 1938, *Boundaries* 28.

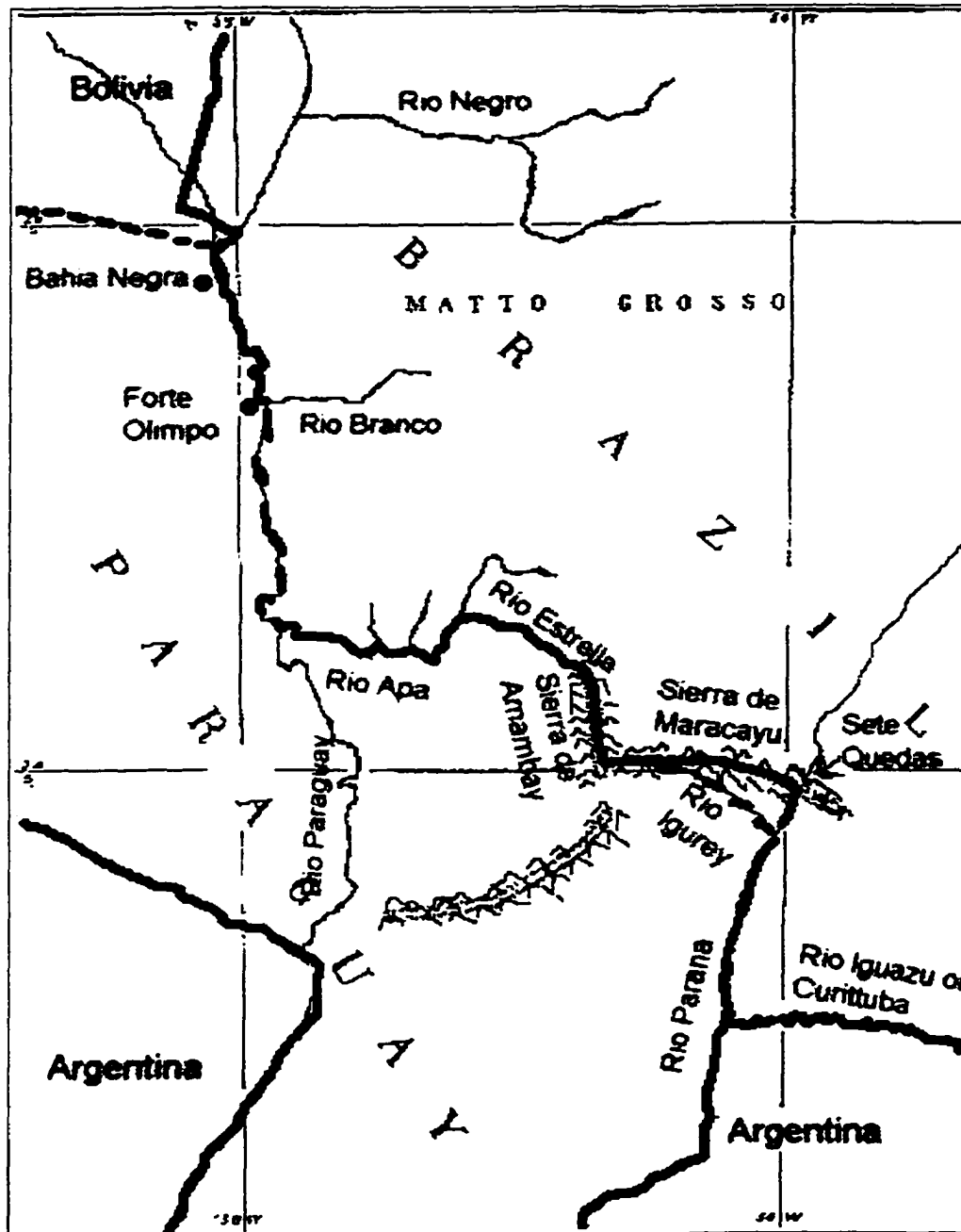


Figure 33 Apa Border Conflict¹⁶

¹⁶ Ireland, 1938, *Boundaries*, 218.

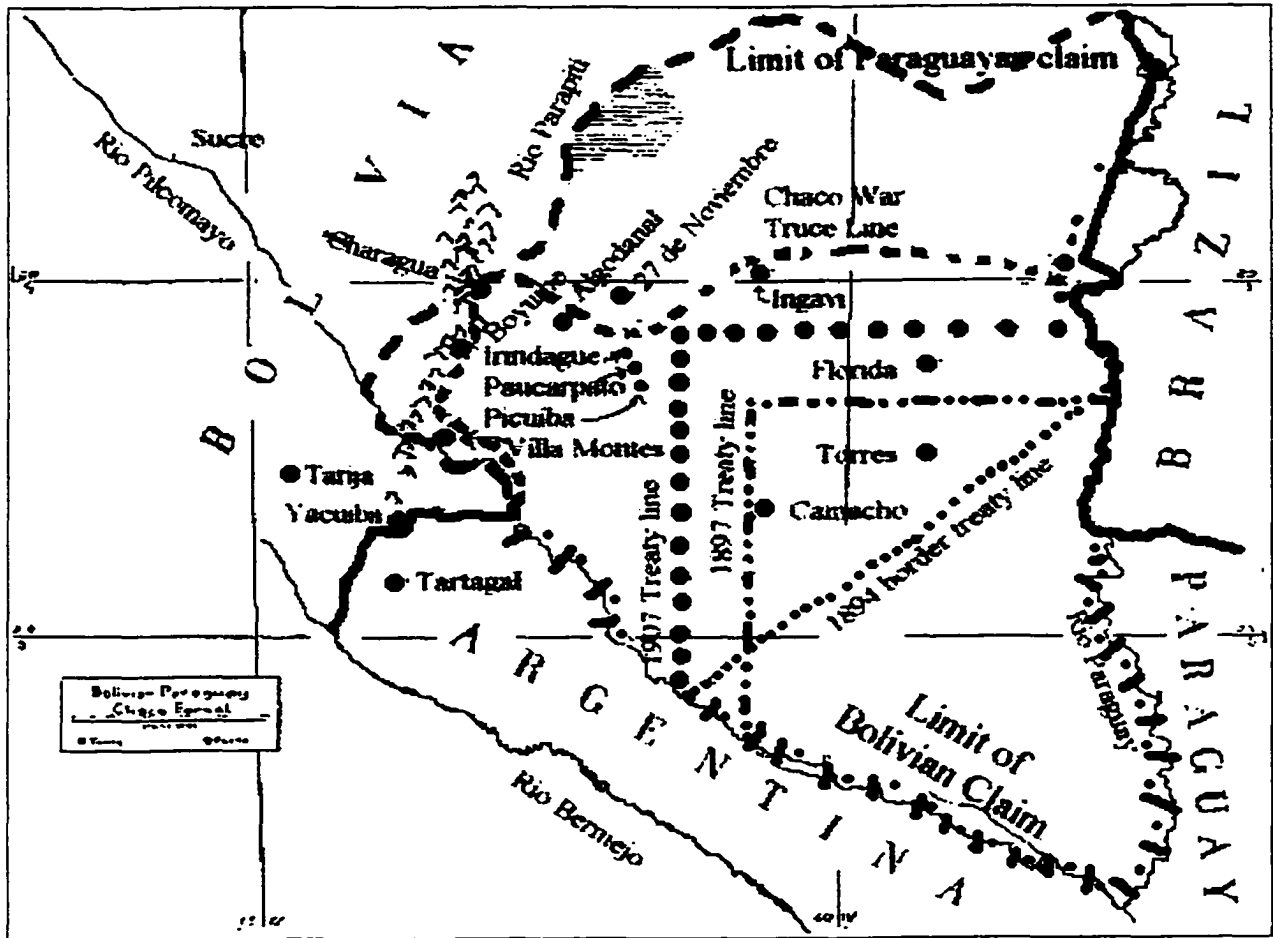


Figure 34 Chaco Boreal Border Dispute¹⁷

¹⁷ Ireland, 1938, *Boundaries*, 57.



Figure 35 Chaco Boreal¹⁸

¹⁸ Scheina, 1987, *Naval History*, 125.

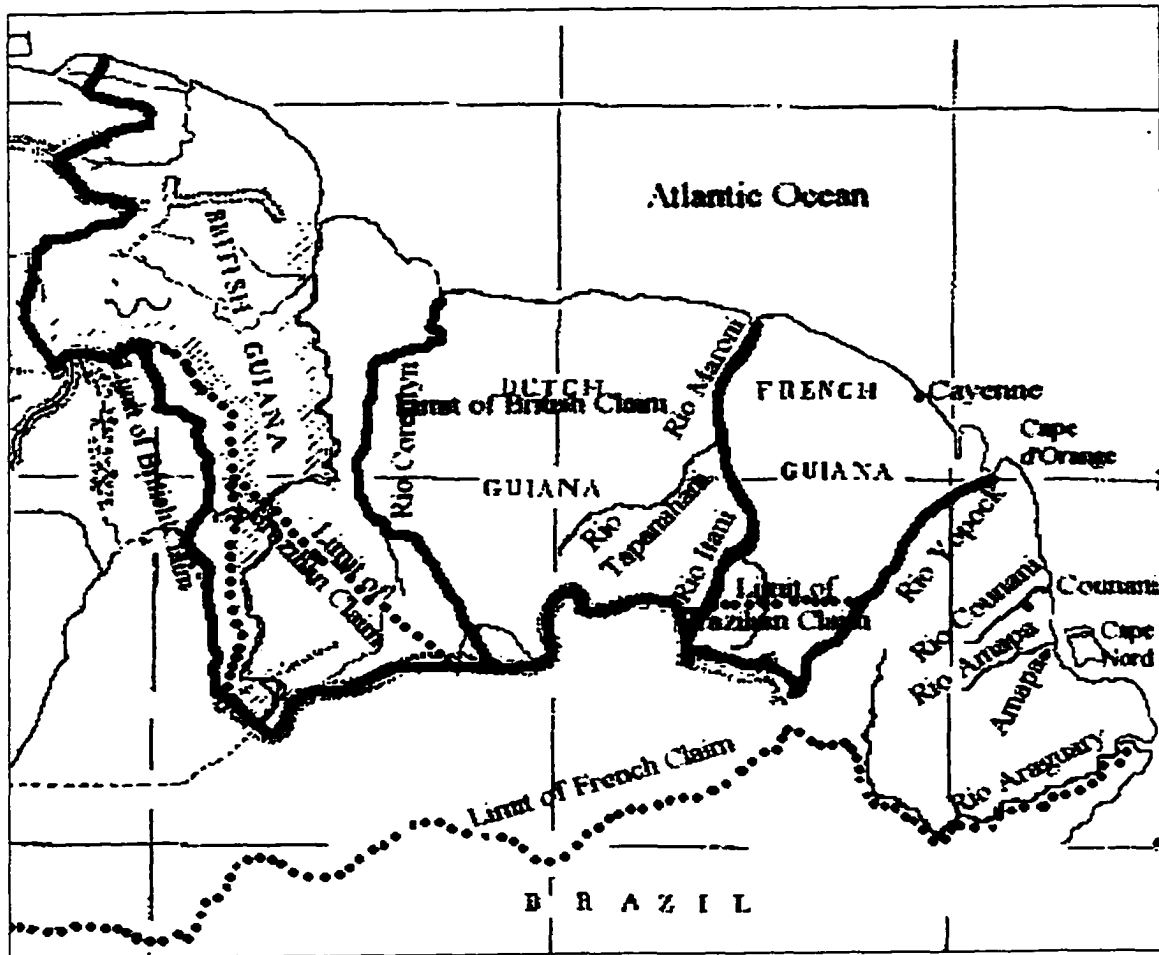


Figure 36 Brazil's Border with the Europeans¹⁹

¹⁹ Ireland, 1938, *Boundaries*, 145.

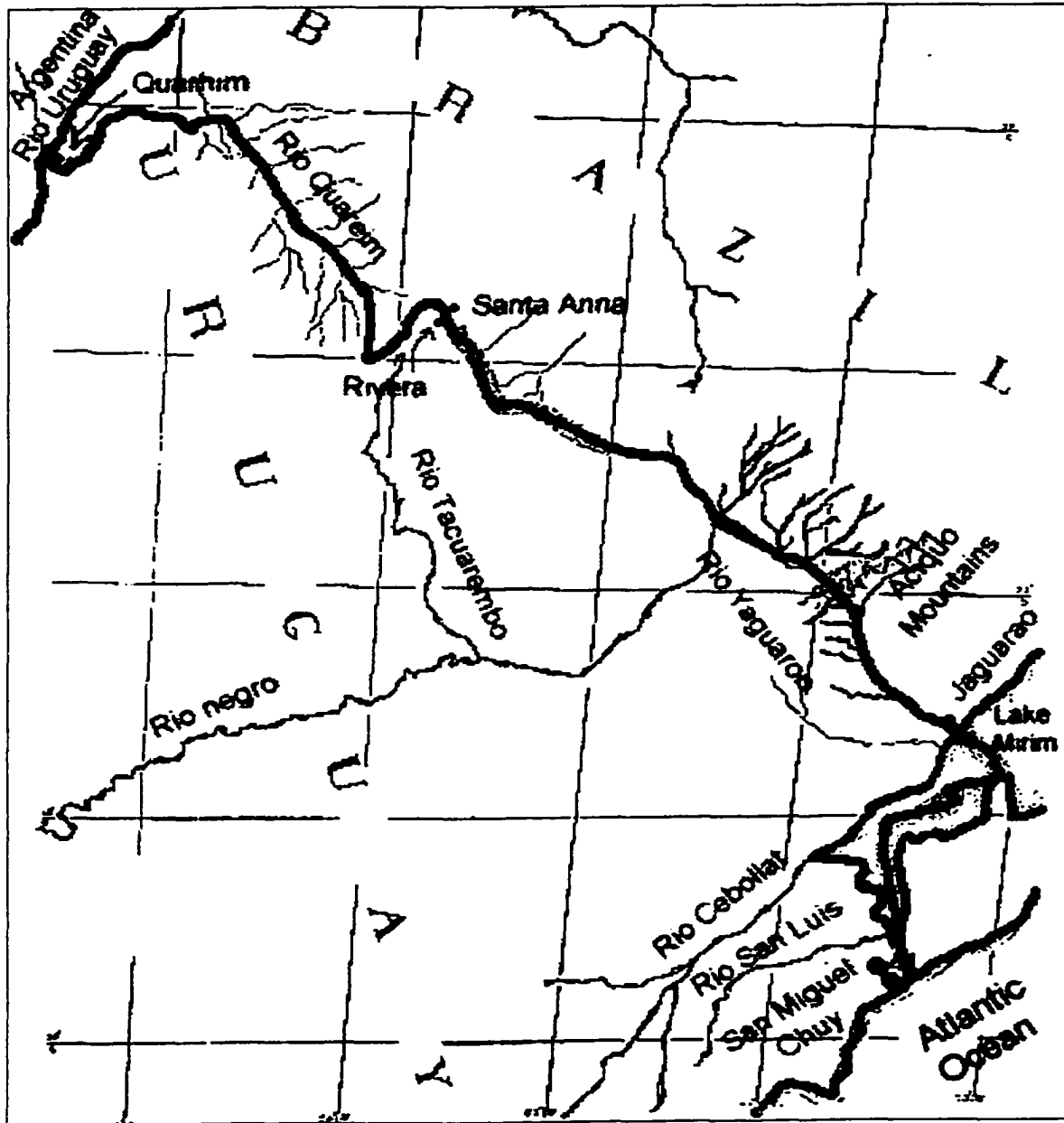


Figure 37 Yaguaron²⁰

²⁰ Ireland, 1938, *Boundaries*, 131.

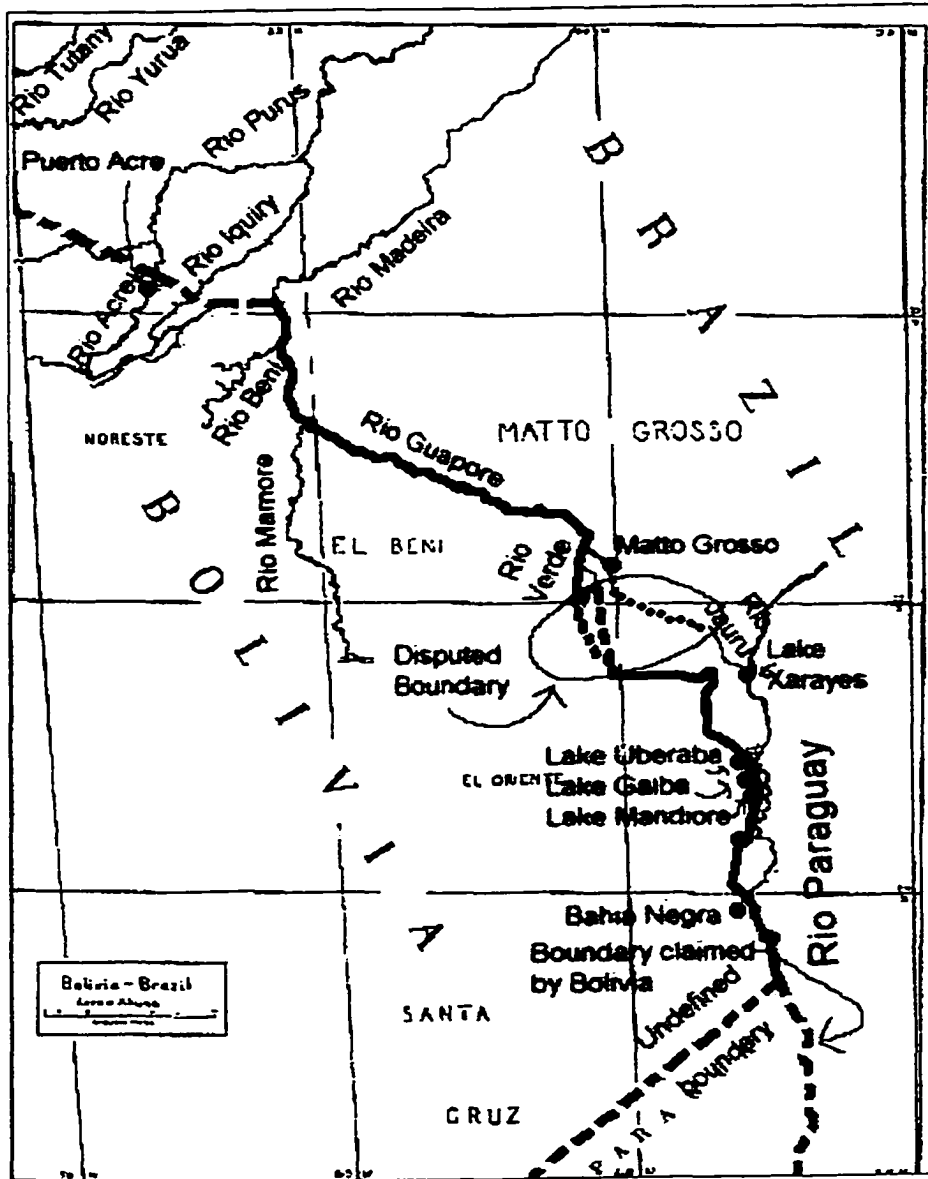


Figure 38 Acre-Abuná Border Dispute²¹

²¹ Ireland, 1938, *Boundaries*, 41.

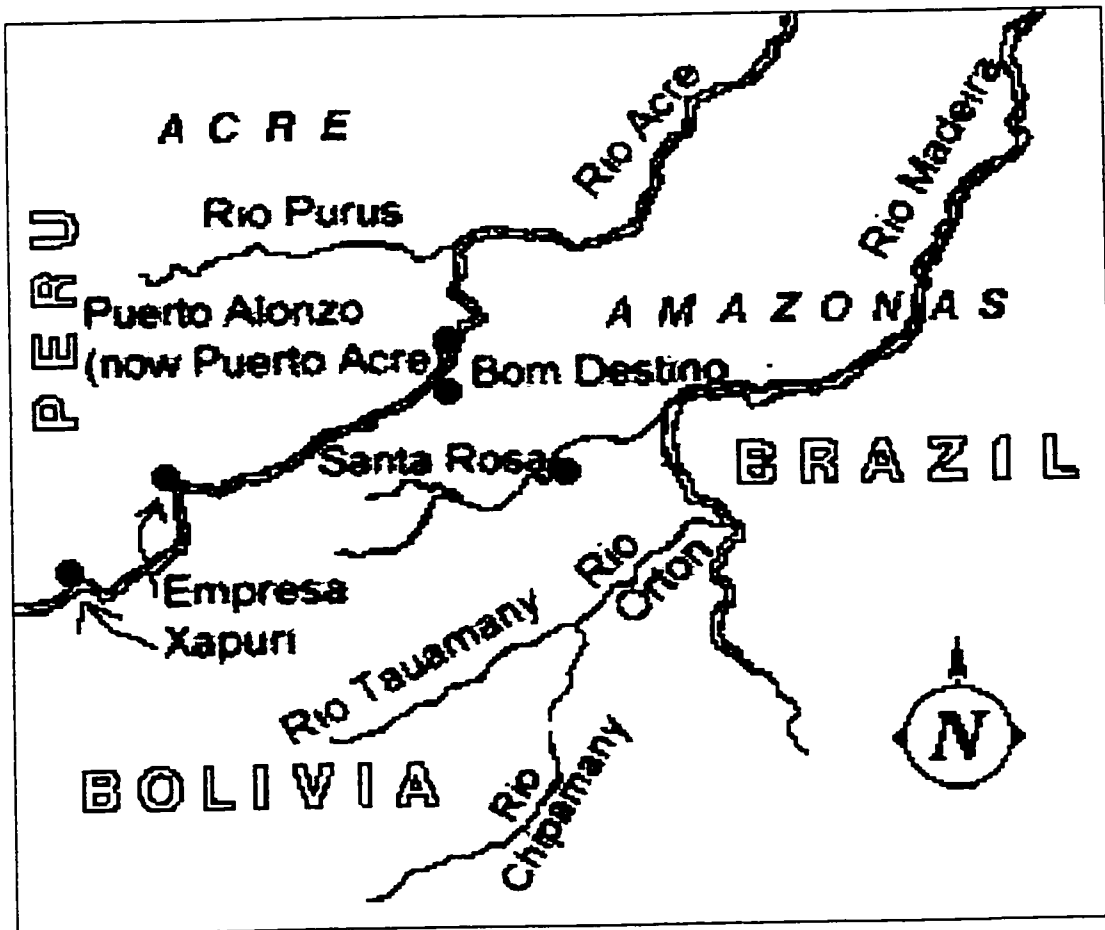


Figure 39 Acre Abuná Border Dispute (Bolivia and Brazil)²²

²² Scheina, 1987, *Naval History*, 120

Chapter 4: Data Analysis

Introduction

As stated in the introduction to this study, we embarked on an exploration of six hypotheses:

1. The likelihood of war to resolve border conflicts increases when period-critical natural resources are present in the contested area.
2. The likelihood of armed conflict increases when riparian access is perceived as a period critical natural resource.
3. The likelihood of war increases when immigration of foreigners into perceived sovereign territory is included in the war milieu.
4. The likelihood of armed conflict increases when technology improvements or market changes elevate valuable natural resources into the definition of period-critical natural resources.
5. The likelihood of armed conflict decreases when technology improvements or market changes transform period-critical natural resources into the non-critical resources.

6. The likelihood of armed conflict increases when extractable natural resources are at stake in a contested border area more than when renewable natural resources are at stake.

In reviewing the 28 borders in Chapters 2 and 3, we placed a summary box at the end of each border in which we listed the contestants, highest level of conflict on the border, natural resources at issue, and whether the natural resources were critical to the state's economy at the time of the contest. These summaries have been combined in Table 30.

Table 30 Case Summaries from Chapters 2 & 3

Common Name	Contestants	HIGHEST LEVEL OF CONFLICT	IDENTIFIED POINTS OF CONFLICT	PCNRs
Leticia	Colombia/ Peru	War	Navigation, Rubber, Immigration	Rubber (Riparian Access)
Loreto	Colombia/ Peru	War	Navigation, Immigration	Rubber (Riparian Access)
Tacna-Arica	Peru/ Bolivia/ Chile	War	Guano, Sulfates, Nitrates, Immigration	Mineral Deposits
Malvinas Islands	Argentina/ United Kingdom	War	Fisheries, Whaling, Sealing	Fisheries
Apa	Paraguay/ Brazil	War	Fruits and consumable crops, Navigation	Consumable Crops, Arable Land (Riparian Access)
Chaco Central	Paraguay/ Argentina	War	Navigation, Immigration, Balance of Power	None (Riparian Access)
Chaco-Boreal	Paraguay/ Bolivia	War	Navigation	None (Riparian Access)

Common Name	Contestants	HIGHEST LEVEL OF CONFLICT	IDENTIFIED POINTS OF CONFLICT	PCNRs
Oriente-Aguarico	Colombia/ Ecuador	War	Navigation	None (Riparian Access)
Oriente-Mainas	Ecuador/ Peru	War	Navigation, tin, uranium, gold	None (Riparian Access)
Acre-Abuná	Brazil/ Bolivia	Saber Rattling & Skirmishes	Rubber, Navigation, Immigration	Rubber (Riparian Access)
Acre-Madre de Dios	Peru/ Bolivia	Saber Rattling & Skirmishes	Navigation, Rubber	Rubber (Riparian Access)
Patagonia	Argentina/ Chile	Saber Rattling & Skirmishes	Pasture, Oil, Coal, Immigration	Oil, Coal (Riparian Access)
Puna de Atacama	Argentina/ Bolivia	Saber Rattling & Skirmishes	Watershed, Oil (rumored), Immigration	Oil (rumored)
Goajira- Guainía	Venezuela/ Colombia	Saber Rattling & Skirmishes	Navigational Access	Oil (Riparian Access)
Yaguaron	Brazil/ Uruguay	Saber Rattling & Skirmishes	Watershed, Grasslands	Grasslands
Beagle Channel	Argentina/ Chile	Saber Rattling & Skirmishes	Fisheries, Navigation, Oil (Rumored)	Fisheries, Oil (Rumored) (Riparian Access)
La Plata	Argentina/ Uruguay	Saber Rattling & Skirmishes	Navigation	None (Riparian Access)
Misiones	Argentina/ Brazil	Saber Rattling & Skirmishes	Navigation Rights	None (Riparian Access)
Acre-Purús	Peru/ Brazil	Diplomatic	Rubber, Navigation	Rubber (Riparian Access)

Common Name	Contestants	HIGHEST LEVEL OF CONFLICT	IDENTIFIED POINTS OF CONFLICT	PCNRs
Apaporis	Colombia/ Brazil	Diplomatic	Rubber, Navigation, Immigration	Rubber (Riparian Access)
Arauca-Yávita	Venezuela/ Colombia	Diplomatic	Coffee, Tropical Woods, Livestock	Agricultural Products (Riparian Access)
Guyana	Venezuela/ United Kingdom	Diplomatic	Sugar Cane, Minerals (gold)	None
Los Andes	Argentina/ Chile	Diplomatic	Watershed	None
Amapá	Brazil/ France	No Conflict	Navigation	None (Riparian Access)
Amazonas	Venezuela/ Brazil	No Conflict	None	None
Iça	Ecuador/ Brazil	No Conflict	None	None
Pirara	Brazil/ Great Britain	No Conflict	Navigation	None
Tumuc-Humac	Brazil/ Netherlands	No Conflict	None	None

Now let us take a look at these data and test the six hypotheses.

Hypothesis 1: The likelihood of war to resolve border conflicts increases when period-critical natural resources are present in the contested area.

There are 28 cases in Table 30, nine of which escalated to war before resolution, nine to saber rattling, five to diplomacy and five that resulted in no historic contest. Figure 40 is derived from these numbers and illustrates that 64% of the cases resulted in bellicose actions as opposed to 36% that were split evenly between diplomacy and borders that involved no real contest because of their isolated and unexplored nature. These cases illustrate that as a body, war and saber rattling seemed to be used about equally in the majority of cases (64%)

whereas diplomacy seemed to be the highest level of resolution in only about 18% of the cases. While our expectations about where the majority of cases would lie were correct, a more detailed examination of the cases does not appear to support the first hypotheses.

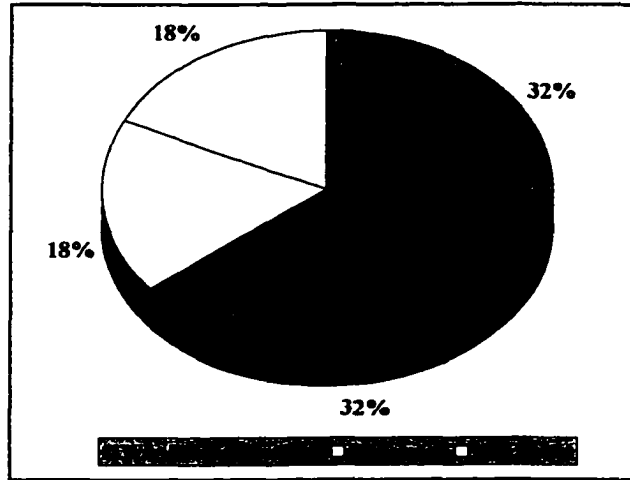


Figure 40 Cases Arrayed by Resolution Category

As discussed in the first chapter, as we arrayed these cases we expected to find that in the absence of period critical natural resources there would be diplomatic resolution or no contest of the borders (quadrants 2 and 4 of the table). We also deduced that with the recognition of period-critical natural resources, the level of tension in dispute resolution would rise through saber rattling in the case of borders where there was no historic contest, to war in the historically contested areas (quadrants 1 and 3 of the table). From a cursory review of South American border history, we concluded that most cases would likely rest in the left column since most borders have been contested.

Table 31 reiterates our expectations and Figure 41 illustrates how we would expect these 28 cases to be arrayed.

Table 31 Expected Array of Case Resolutions

		The Border has been historically:	
		Contested	Non Contested
Are Period Critical Natural Resources Present?	Yes	#4 War	#2 Diplomacy
	No	#3 Saber Rattling	#1 No Contest

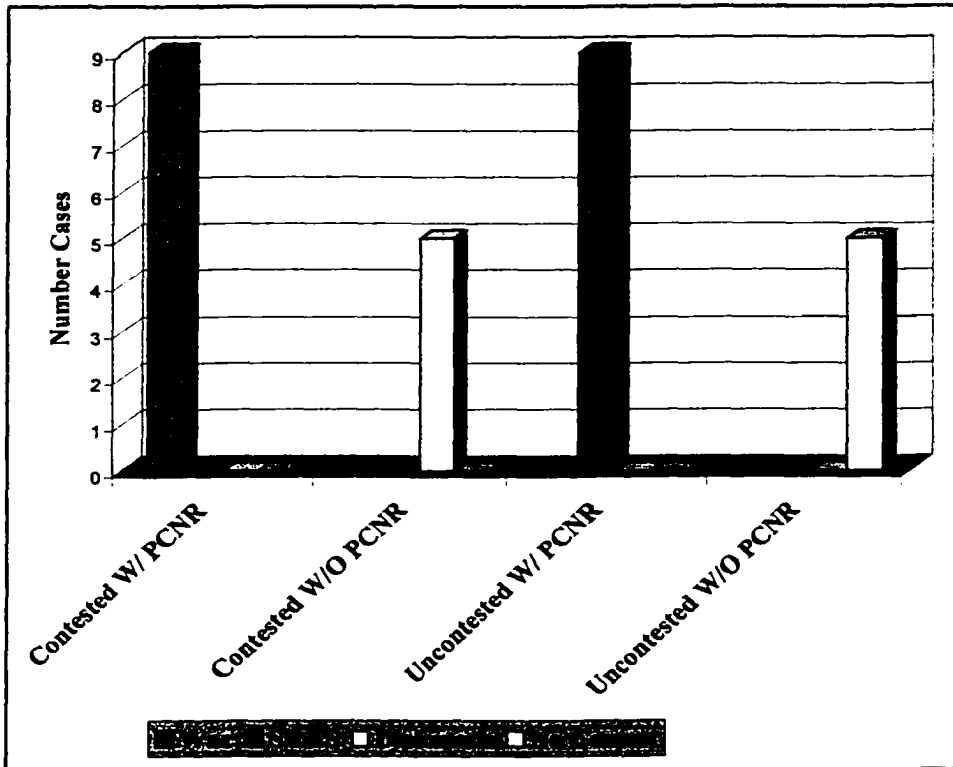


Figure 41 Expected Case Arrays Against Conflict Resolution

Table 32 is loaded dividing the border conflicts out between those with historically contested borders and those without; and those in which period critical natural resources appear to have played a pivotal role in the level of border conflict. Figure 42 shows how the cases fall out with respect to their quadrant of the table. As is evident, nearly half of the cases fall in the contested with period critical natural resources area (quadrant 1) and nearly a third fall in contested borders without period critical natural resources (quadrant 3) This fits in with our expectations.

We expected that the majority of cases in which war was resorted to would fall in quadrant one. However as Figure 43 illustrates, this was not the case. In actuality, half of the cases falling in quadrant one were resolved by saber rattling and an additional 20% were resolved by diplomatic means. Likewise, an equal number of cases (4) in quadrant two were resolved by war while only 25% of the cases were resolved by saber rattling. The only case falling in quadrant three was the Paraguay War, which cost the belligerents so dearly. However, there was no contest over the border prior to the war, and it was fought primarily over riparian access to the Atlantic Ocean. The only quadrant that fully conformed to our expectations was quadrant four, in which we find all five cases of distant, uninhabited borders falling as uncontested and without period critical natural resources.

Table 33 illustrates that over three-fourths of the cases (78%) involved a border contested from independence (quadrants 1 and 2), and over half (53%) involved cases where a PCNR was identified and therefore escalated the conflict.

Table 32 Conflict distribution based on PCNR Presence (Excluding Riparian Access)

<u>Highest Conflict Level = War</u> Loreto (Colombia/Peru) Leticia (Colombia/Peru) Tacna-Arica (Peru/Chile/Bolivia) Malvinas (Argentina/United Kingdom)	<u>Highest Conflict Level = War</u> Apa (Brazil/Paraguay)
<u>Highest Conflict Level = Sabre Rattling & Skirmishes</u> Patagonia (Argentina/Chile) Acre-Madre de Dios (Peru/Bolivia) Beagle Channel (Argentina/Chile) Yaguaron (Uruguay/Brazil/Argentina) Goajira-Guaima (Colombia/Venezuela) Puna de Atacama (Argentina/Bolivia) Acre-Abuná (Bolivia/Brazil)	
<u>Highest Conflict Level = Diplomatic</u> Apaporis (Colombia/Brazil) Acre-Purús (Peru/Brazil) Arauca-Yávita (Colombia/Venezuela)	
<u>Highest Conflict Level = War</u> Oriente-Aguarico (Ecuador/Colombia) Oriente-Mainas (Peru/Ecuador) Chaco Boreal (Bolivia/Paraguay) Chaco Central (Argentina/Paraguay)	<u>Highest Conflict Level = No Contest</u> Amazonas (Brazil/Venezuela) Iça: (Brazil/Ecuador) Amapá: (France/Brazil) Pirara: (Great Britain/Brazil) Tumuc-Humac: (Netherlands/Brazil)
<u>Highest Conflict Level = Sabre Rattling & Skirmishes</u> La Plata (Argentina/Uruguay/Brazil/Paraguay) Misiones (Brazil/Argentina)	
<u>Highest Conflict Level = Diplomatic</u> Guyana (United Kingdom/Venezuela) Los Andes (Chile/Argentina)	

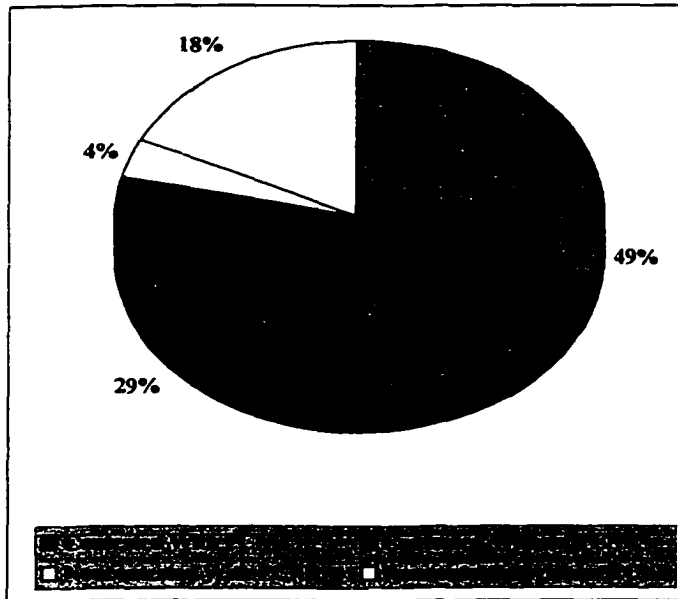


Figure 42 Case Breakouts by Quadrant Without Riparian Access as a PCNR

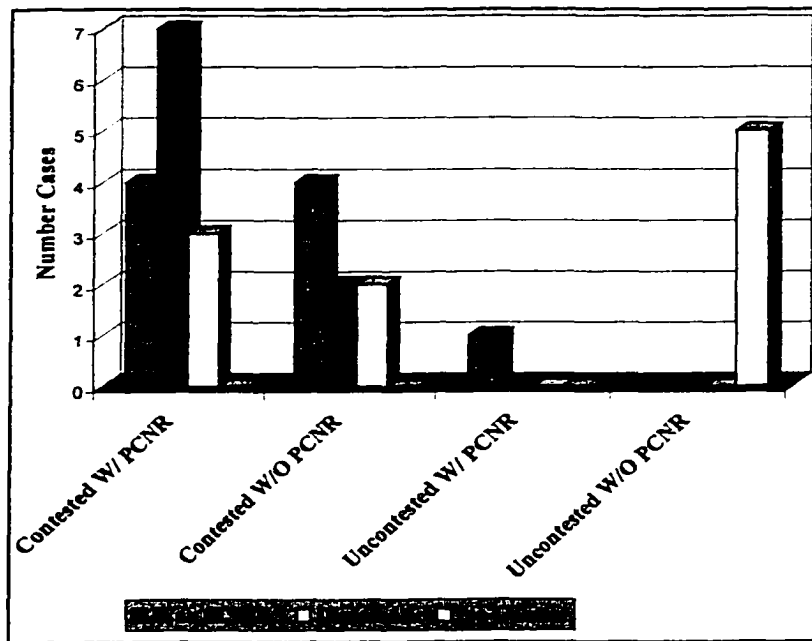


Figure 43 Actual Case Array Against Conflict Resolution Without Riparian Access

Table 33 Actual Arrays of Case Resolutions without Riparian Access as a PCNR

		The Border has been historically:	
		Contested	Non Contested
Are Period Critical Natural Resources Present?	Yes	<p>Expected Outcome = War</p> <p>21% 0% 29% 50%</p> <p>N = 14</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>	<p>Expected Outcome = Saber Rattling</p> <p>0% 100%</p> <p>N = 1</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>
	No	<p>Expected Outcome = Diplomacy</p> <p>0% 25% 25% 50%</p> <p>N = 8</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>	<p>Expected Outcome = No Contest</p> <p>0% 100%</p> <p>N = 5</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>

Clearly, the data suggests that our first hypothesis cannot be confirmed. The likelihood of resorting to war in resolving border conflicts is not necessarily increased when period critical natural resources are present in the contested area. What else might be involved?

As Figure 44 demonstrates, riparian access was involved in 18 of the 28 cases, or 64% of the entire set. The next closest resource is rubber, a distant 18%. In fact, riparian access becomes critical when a state needs to communicate with exterior markets, a necessity in both mercantile and capitalist markets spanning the period of this study. Let's look at hypothesis 2, including riparian access in the mix of period critical natural resources and compare the results with those of hypothesis 1.

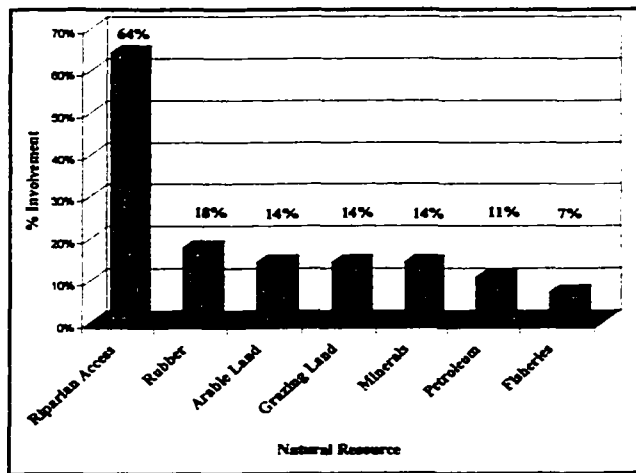


Figure 44 What is at Issue in the Cases?

Hypothesis 2: The likelihood of armed conflict increases when riparian access is perceived as a period critical natural resource.

Table 34 modifies our original loading of the table identifying navigation or riparian access as a PCNR, moving the six cases from quadrant two to quadrant one and one case from quadrant four to quadrant three. Cases that moved are highlighted in blue. Clearly, this change does not affect whether the border was historically contested.

The movement of these cases align data more closely with our expectations, with most of the cases (72%) now occurring along historically contested borders co-located with period critical natural resources. Figure 45 shows that whereas only 53% of the cases fell in areas with period critical natural resources when we excluded riparian access, now 79% of the cases fall there.

Still, the breakout of cases is not in accordance with our expectations. Figure 46 illustrates that while 90% of the war resolutions fall within quadrant one, so do all of the cases of saber rattling. This array and Table 35 appear to indicate that as period critical natural resources are recognized for whatever reason, the border resolution will be bellicose but not necessarily escalate to war. This would also indicate that in the eyes of the decision maker the line between saber rattling and war is a fine line, determined more by the actions of the opponent than by one's own strategies or motives (i.e., the value of the resources at stake, and the dominance of those resources in the national income). We can see from the examples that often the decision to elevate the conflict is one of miscalculated risk rather than a plan.

In the other quadrants, we begin to see more conformity to expectations. Both cases that remain in quadrant two were resolved with diplomacy as expected, and quadrant four remains consistent. However, quadrant three still shows no sign of saber rattling as the highest form of resolution.

Hypotheses 1 and 2 clearly over-simplify the relationships between the three variables (contested border, riparian access, and PCNRs). I will examine this relationship more fully in chapter 5. Still, hypothesis 2 appears to be confirmed, but does not necessarily explain the decision to go to war.

Table 34 Conflict Distributions With Riparian Access as a PCNR.

		The Border has been historically:	
		Contested	Non Contested
Are Period Critical Natural Resources Present?	Yes	<u>Highest Conflict Level = War</u> Loreto(Colombia/Peru) Leticia (Colombia/Peru) Tacna-Arica (Peru/Chile/Bolivia) Malvinas (Argentina/ United Kingdom) Chaco Central (Argentina/Paraguay) Chaco Boreál (Bolivia/Paraguay) Oriente-Aguarico (Ecuador/Colombia) Oriente-Mainas (Peru/Ecuador)	<u>Highest Conflict Level = War</u> Apa (Brazil/Paraguay)
		<u>Highest Conflict Level = Sabre Rattling & Skirmishes</u> Patagonia (Argentina/Chile) Acre-Madre de Dios (Peru/Bolivia) Beagle Channel (Argentina/Chile) Yaguaron (Uruguay/Brazil/Argentina) Goajira-Guainía (Colombia/Venezuela) Puna de Atacama (Argentina/Bolivia) Acre-Abuná (Bolivia/Brazil) La Plata (Argentina/Uruguay/Brazil/Paraguay) Misiones (Brazil/Argentina)	
		<u>Highest Conflict Level = Diplomatic</u> Apaporis (Colombia/Brazil) Acre-Purús (Peru/Brazil) Arauca-Yávita (Colombia/Venezuela)	<u>Highest Conflict Level = No Contest</u> Amapá: (France/Brazil)
Are Period Critical Natural Resources Present?	No	<u>Highest Conflict Level = War</u>	<u>Highest Conflict Level = No Contest</u> Amazonas (Brazil/Venezuela) Iça: (Brazil/Ecuador) Pírara : (Great Britain/Brazil) Tumuc-Humac: (Netherlands/Brazil)
		<u>Highest Conflict Level = Sabre Rattling & Skirmishes</u>	
		<u>Highest Conflict Level = Diplomatic</u> Guyana (United Kingdom /Venezuela) Los Andes (Chile/Argentina)	

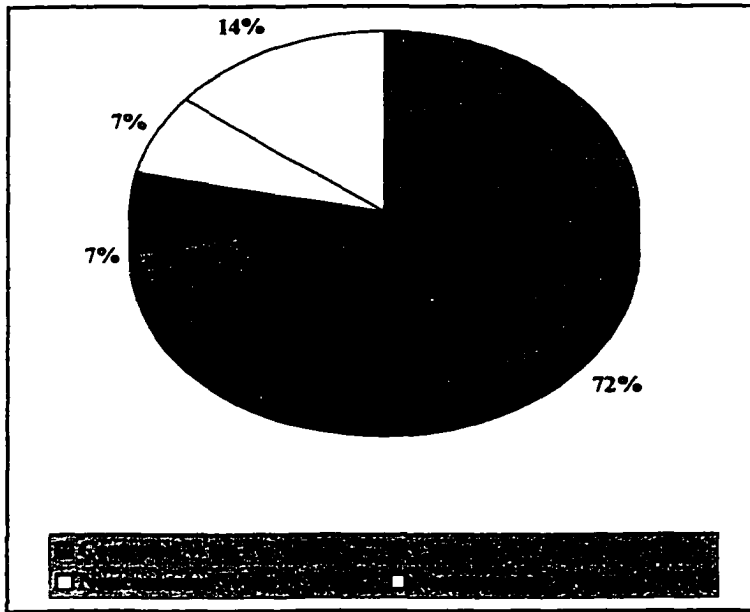


Figure 45 Case Breakouts with Riparian Access as a PCNR

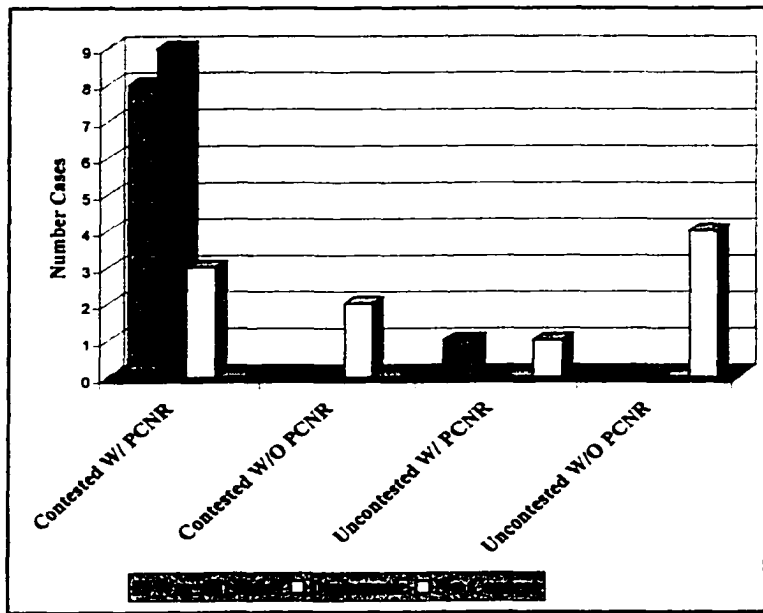


Figure 46 Cases Arrayed Against Conflict Resolution With Riparian Access as PCNR

Table 35 Actual Array of Case Resolutions Including Riparian Access as a PCNR

		The Border has been historically:	
		Contested	Non Contested
Are Period Critical Natural Resources Present?	Yes	<p>Expected Outcome = War</p> <p>15% 0% 48% 45%</p> <p>N = 28</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>	<p>Expected Outcome = Saber Rattling</p> <p>50% 0% 50%</p> <p>N = 2</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>
	No	<p>Expected Outcome = Diplomacy</p> <p>0% 100%</p> <p>N = 2</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>	<p>Expected Outcome = No Contest</p> <p>0% 100%</p> <p>N = 4</p> <p>■ War ■ Saber Rattling □ Diplomacy □ No Contest</p>

Hypothesis 3: The likelihood of war increases when immigration of foreigners into perceived sovereign territory is included in the war milieu..

As discussed in Chapter 1, Professor Homer-Dixon states that renewable natural resource scarcities can lead to problems that destabilize countries and can bring on international conflict. One of his primary concerns is that of immigration. One may ask if immigration exacerbated these conflicts. After all, immigration was at the heart of the War of the Pacific and the Puna de Atacama conflicts. Only eight of the cases involved conflict over immigration. If we consider the entire 28 contested border cases, that would mean that immigration was involved only 29% of the time. However, if we removed the five borders that caused no conflict, we are left with 23 cases of which 35% involved immigration. Yet we are still left with the unanswered question of whether there is a greater likelihood to go to war in cases where immigration is involved. The data do not help us resolve this issue. Of the eight cases which involved immigration, four degenerated into war, and four were resolved by less violent means.

Of the eight cases involving immigration, two cases coincided only riparian access issues (Chaco Central and Loreto). Five conflicts coincided with extractable natural resources (Patagonia- petroleum and minerals, Tacna-Arica- minerals and Acre-Abuná, Apaporis, and Leticia – rubber). In only one case—Puna de Atacama – did immigration coincide with renewable natural resource contention? While this would seem to contradict

Professor Homer-Dixon's arguments, the contest was not so much over a scarcity of grazing land, as much as sovereignty of pasture and related watershed issues.

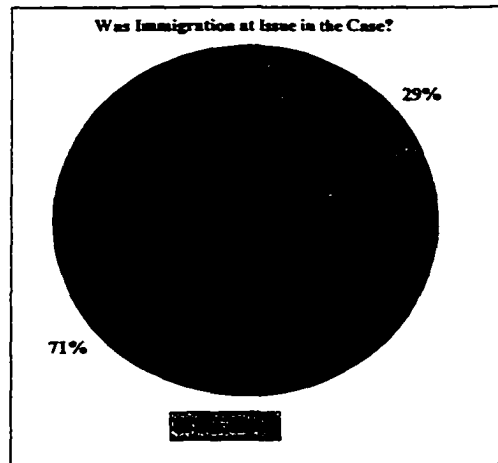


Figure 47 Immigration as a Source of Border Conflict

It seems safe to say that while immigration is an important issue in extractable natural resources conflicts, it is less of an issue in renewable natural resource cases. We therefore find that hypothesis 3 is not supported by the data. The likelihood of war does not increase when immigration of foreigners into perceived sovereign territory is included in the war milieu. We will examine this further in the next chapter.

Hypotheses 4 and 5:

The likelihood of armed conflict increases when technology improvements or market changes elevates valuable natural resources into the level of period-critical natural resources.

The likelihood of armed conflict decreases when technology improvements or market changes transform period-critical natural resources into non-critical resources

If these hypotheses are correct, then there should be a correlation between shifts in technology and levels of conflict. Conveniently, during the period of this study, the

industrial age hit the region and provides us just such a major shift. Transportation technology shrinks distances. What took Mormon pioneers three months to traverse in the best of weather is today easily transited in two days. Additionally, technology increases the ability to transport in bulk. The Panama Canal, opened in 1914, was built to accommodate the largest ships of its day. For many years technology prohibited building ships much bigger than the canal could accommodate, but today the world's oil tankers cannot fit through the waterway, and because of the bulk they can transport, it is economically more profitable to go around the Cape Horn than to break the bulk into numerous ships.

The advent of steam locomotion opened arable lands to grazing and farming and increased communication with other parts of the world. If technology had such an impact on South America, then we should see that the bulk of conflict lies in the period when steam locomotion was being introduced and was at its heyday in South America. For the purposes of this study, we will consider this period to be from the introduction of steam transportation into the region (1860) to the advent of modern commercial air transportation (1950).

In testing these hypotheses, I have divided the cases into those resolved by war and those settled with saber rattling and skirmishes. Figure 48 examines the wars fought in South America. Looking at the seven wars listed, we see that three fall outside of the steam period.¹ While it is safe to say that the most serious wars occur in the steam period, the 57% showing does not really indicate a strong correlation. Next, looking at the border clashes

¹ The grayed out wars are independence related and not considered in this study.

(Figure 49) with saber rattling and skirmishes evident, the picture becomes much clearer. This graphic lists the decades in which the clashes occurred. We see that only four of the 29 (14%) decades fall outside of the steam period. Border clashes have continued to occur along the Colombian/ Venezuelan border, but these have been largely in pursuit of “subversives” and “drug lords,” causing minimal disturbance along the border. Saber rattling continues along the Goajira Peninsula, but in fact there are seldom clashes there today. Border clashes went unreported along the Peru/Ecuador border, but that border was finally resolved with a war. In summary, the probing border clashes that occurred commensurate with the quest for riparian access have all but ceased with the advent of air transportation, modern highway transportation, and pipelines. These alternatives to bulk transport by river have lessened the tensions, making the rivers seem less period critical than before. These two hypotheses test positive. We will delve into these in a bit more detail in Chapter 5.

Dispute	19 th Century										20 th Century										
	10	20	30	40	50	60	70	80	90	00	10	20	30	40	50	60	70	80	90	00	
Independence Period (Paraguay, Argentina)	1811 ◆										Era of Steam Power										
Loreto Dispute (Peru, Colombia)		1828-29 ◆																			
Independence Period (Chile, Peru)			1836 ◆																		
5-Years War, Triple Alliance, or Paraguay War (Paraguay-Argentina, Uruguay, Brazil)						1865-70 ◆															
War of the Pacific (Chile, Peru, Bolivia)							1879-83 ◆														
Acre-Abuna Conflict (Brazil, Bolivia)									1903 ◆												
Chaco War (Paraguay, Argentina, Brazil)												1932-38 ◆									
Oriente-Mainas (Peru, Ecuador)													1941 ◆		1966 ◆		1981 ◆	1994 ◆			
Malvinas (Argentina United Kingdom)																		1982 ◆			

Figure 48 South American Wars by Decades

Dispute	19 th Century								19 th Century							
	30	40	50	60	70	80	90	00	10	20	30	40	50	60	70	80
	Era of Steam Power															
Goajira-Guainía <i>(Colombia, Venezuela)</i>					1874-75 ◆									1963 ◆		
Arauca-Yávita <i>(Colombia, Venezuela)</i>						1880s ◆										
Oriente-Aguarico <i>(Colombia, Ecuador)</i>					1870s ◆	1880s ◆	1890s ◆									
Loreto <i>(Colombia, Peru)</i>								1900s ◆		1920s ◆						
Oriente-Mainas <i>(Peru, Ecuador)</i>	1830s ◆	1840s ◆	1850s ◆	1860s ◆	1870s ◆	1880s ◆	1880s ◆	1900s ◆	1910s ◆	1920s ◆	1930s ◆					
Acre-Madre de Diós <i>(Peru, Bolivia)</i>							1897 ◆	1902 ◆								
Puna de Atacama <i>(Argentina, Bolivia)</i>					1872-75 ◆											
Los Andes <i>(Argentina Chile)</i>					1876-79 ◆											
La Plata <i>(Argentina, Uruguay)</i>			1850s ◆	1860s ◆	1870s ◆											
Chaco Boreal <i>(Bolivia, Paraguay)</i>									1910s ◆	1920s ◆	1930s ◆					
Amapá <i>(Brazil, France)</i>							1895 ◆									

Figure 49 South American Saber Rattling and Skirmishes by Decade

Hypothesis 6: The likelihood of armed conflict increases when extractable natural resources are at stake in a contested border area more than when renewable natural resources are at stake.

In Chapter 1 we hypothesized that when we looked at the cases we would see a correlation between extractable natural resources and hostilities more often than if renewable natural resources are involved. Professor Homer-Dixon says we should watch scarcities of renewable natural resources as a cause of conflict. What do the data from this study portray?

If we look at the body of 28 cases, natural resources are identified in all but six of them as being a source of contention (see Figure 50). Of the 22 cases in which resources were in contention, nine were resolved without resort to armed hostilities (see Figure 51). To test this hypothesis, we may focus on just these 13 cases. As Figure 52 demonstrates, the correlation of extractable PCNRs with armed conflict is more than double that of renewable PCNRs. Hypothesis 6 is supported by the data.

Considering the largely agrarian cultures of South America, it seems rather counter intuitive that more conflicts should occur over extractable natural resources as opposed to renewable natural resources since, with the exception of Chile and Bolivia, the natural resources contributing to national wealth are renewable. On the other hand, extractable resources inspire an “us verses them” mentality. States seem to be saying, “If we don’t get them first, our rival will claim them and we will be shut out forever.”

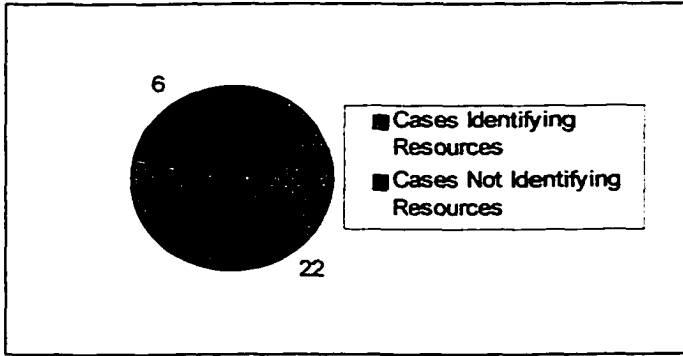


Figure 50 Cases Identifying Natural Resources in Contest

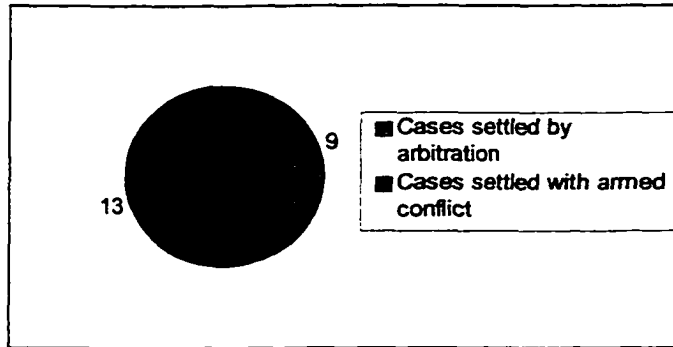


Figure 51 Natural Resource Cases Settled with Armed Conflict

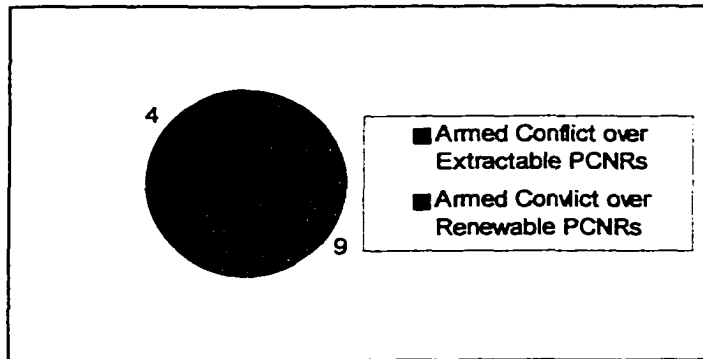


Figure 52 Extractable and Renewable PCNR Cases Correlated With Armed Conflict

From the volumes of information surrounding these cases, it is apparent that the character of conflict is different when one compares extractable and renewable natural resources. In cases where only renewable natural resources are at issue (Apa, Arauca-Yávita, Beagle Channel, Malvinas Islands, and Yaguaron) immigration is never an issue. In these cases, immigration was generally welcomed to “civilize” a wild frontier. If we look at cases where extractable resources are the issue (Acre-Abuná, Acre-Madre de Diós, Acre-Purús, Apaporis, Goajira-Guainía, Leticia, Loreto, Patagonia, Puna de Atacama, and Tacna-Arica) we find that immigration was at issue in seven of the cases (Acre-Abuná, Apaporis, Leticia, Loreto, Patagonia, Puna de Atacama, and Tacna-Arica). Additionally, we see that only Apaporis was resolved diplomatically, while the remainder was resolved by war or saber rattling. So what does that say about the character of conflict when you compare extractable and renewable natural resources?

It appears that with extractable natural resources, there is a propensity to think of the source as *finite*, and thus there is a need to maximize the opportunity to gain from the extraction as quickly as possible. Extractable resources are more easily converted into instruments of prestige and power, and as a solid commodity, more easily leveraged for credits on the open market. Foreigners, attracted by the dreams of quick wealth, immigrate en masse. And, when the resource is exploited, those immigrants move on, leaving abandoned towns in their wake, foreign debts are called in without resources to compensate

for the repayment, and often times the firms controlling the extraction are foreign, limiting the wealth gained by the country.

Renewable natural resources are generally perceived as being inexhaustible. With proper management, arable cropland remains arable for many years. Proper conservation can preserve watershed, and careful dredging can keep rivers navigable. As the cases demonstrate many times over, the willingness of one riparian state to allow another to pass untaxed on its waterways is rare. The draw of immigration is also noticeably more protracted for renewable natural resources. As the cases indicate, the perception of threat from immigrants seems to be a reflection more of elite perceptions of limited quantity and instant wealth than resentment over invasions of sovereignty by “foreigners.”

On this last note, however, we can examine the difference between immigration into the pampas of Argentina, and the Atacama Desert of the Tacna-Arica region. In the former case, immigration was constant and steady. Largely European in origin, the immigrants were viewed as opening the frontier with commensurate wealth for the Buenos Aires elite. The immigrants were basically welcomed, and incorporated into the Argentine land holding society. When Chileans were flooding into Peru’s and Bolivia’s perceived sovereignty on the other hand, they were viewed as robbers of the land’s wealth. Their loyalty to their homeland made it difficult for the Peruvian or Bolivian governments to exercise control over their sovereign territory, and over the disposition of the extractable resources in particular. The inability to enforce order led to abuses of authority on all sides, and that raised the

stakes in the conflict. Obviously, the three nations were contending not just over resources, but also over people and the right to exercise sovereignty over their territories. Yet still, at the heart of the issue lie extractable natural resources and the “us verses them” perception which stated that “if we don’t get them first, our rival will claim them and we will be shut out forever.” The character of the conflict over renewable and extractable PCNRs is therefore quite different. We will examine these cases in more detail in Chapter 6.

Conclusion:

We have examined the six hypotheses of Chapter 1 and have found that hypotheses 1 and 3 failed. Figure 53 summarizes this chapter’s findings. We will examine these failures in more detail in Chapter 5, and attempt to illuminate hypotheses 5 and 6 further in Chapter 6.

Hypothesis	Test Result
The likelihood of war to resolve border conflicts increases when period-critical natural resources are present in the contested area.	Unsupported
The likelihood of armed conflict increases when riparian access is perceived as a period critical natural resource.	Supported
The likelihood of war increases when immigration of foreigners into perceived sovereign territory is included in the war milieu.	Unsupported
The likelihood of armed conflict increases when technology improvements or market changes elevate valuable natural resources to the level of period-critical natural resources.	Supported
The likelihood of armed conflict decreases when technology improvements or market changes transform period-critical natural resources into non-critical resources.	Supported
The likelihood of armed conflict increases when extractable natural resources are at stake in a contested border area more than when renewable natural resources are at stake.	Supported

Figure 53 Summary of Hypotheses

Chapter 5: Aberrant Cases: What Can They Tell Us?

Do Period Critical Natural Resources Really Matter?

We have examined the cases for three independent variables: historically contested borders, PCNRs, and riparian access. We also found that the combination of contested borders with PCNRs did not always lead to war as expected, nor did other combinations of variables necessarily preclude war as an outcome. This suggests that as we might expect, there is something more subtle and complex going on here. In order to better assess the impact of these three independent variables on the propensity to resort to armed conflicts, let us assess each of the variables independently and in all of their possible combinations to see what patterns emerge

Table 36 illustrates the number of cases that correlate with the eight possible permutations of the three independent variables.

Table 36 Independent Variables Correlated With Armed Hostilities

Combination Number	Independent Variables			Peaceful Resolutions		Hostile Resolutions	Percent of Cases
	Contested Border	PCNRs	Riparian Access	"0" No Conflict	"1" Diplomacy		
1	-	-	-	4			None
2	-	-	X	1			None
3	-	X	-	None	None		None
4	-	X	X				5.6%
5	X	-	-		2		None
6	X	-	X				33.3%
7	X	X	-				22.2%
8	X	X	X		3		38.9%

If we examine the cases we find that 82 percent (23 of 28) of the borders were contested. Of the 23 contested borders, 17 elicited (78.3 percent) armed conflict of some sort. Only one case of armed conflict —The Paraguay War with Brazil—was fought

over a historically uncontested border. We will examine that in more detail later in this chapter.

Peaceful resolutions account for 10 of the 28 cases. Borders were resolved without conflict only in cases where the border was not historically contested. In five cases, diplomacy alone was able to resolve contested borders. Of these, three cases were resolved where both PCNRs and riparian access were present. In the latter case, the three cases represent only 27 percent of the cases, the other 73 percent required hostilities to resolve.

The correlation of a contested border with armed hostilities to resolve it is not perfect. Moreover, in a significant proportion of cases involving contested borders (5 of the 23), armed conflict does not occur. In the Latin American cases, contested borders appear to be a necessary condition to bring about armed conflict (saber rattling and skirmishes or war), but alone this is not a sufficient condition. Nor, as we have already seen, is the presence of PCNR inevitably associated with armed conflict, even when borders had been previously contested. What other conditions might contribute to armed conflict?

Separating the variables we can see that there are no overly strong correlations between any single independent variable and armed conflict. The data clearly show that neither contested borders nor PCNRs alone have brought about armed hostilities in all cases. As mentioned earlier, riparian access did bring about a war in an area that was not historically contested, but this was true in only one out of our 28 cases.

Next, let us look at the pairings of these independent variables. The importance of the contested border is highlighted here, in that there is only one case of conflict that occurs without its presence. However, when contested borders are paired with questions of riparian access we can account for 33.3% of our cases. When contested borders are paired with PCNRs, 22.2% of our cases are explained. But the strongest correlation occurs with a combination of all three independent variables. Thirty nine percent of our cases fall into this last category.

The general pattern seems impressive. Armed hostilities of one kind or another seem to emerge most frequently where we find a contested border and a combination of riparian access issues and PCNRs. Less frequently, contested borders plus one or another of the other two variables leads to conflict. If we separate the armed hostility into levels of conflict (SR&S, War), do we find further patterns? Table 37 modifies Table 36 to illustrate the correlations between our independent variables and each of the forms of armed conflict. Here, interestingly, the combination of contested borders and riparian access leads to SR&S in a few cases, but most (55.6%) of the cases involving this level of conflict required the addition of PCNRs to elevate the conflict.

Table 37 Independent Variables Correlated With Levels of Conflict

Combination Number	Independent Variables			Peaceful Resolutions		Hostile Resolutions		
	Contested Border	PCNRs	Riparian Access	"0" No Conflict	"1" Diplomacy	SR&S	War	Percent of Cases
1	-	-	-	4				None
2	-	-	X	1				None
3	-	X	-	None	None	None		None
4	-	X	X					None
5	X	-	-		2			None
6	X	-	X			2		22.2%
7	X	X	-			2		22.2%
8	X	X	X		3	5		55.6%

There is more of a spread of variables when we look at their correlation with war. Four of the nine cases of war occur with a combination of a contested border and period critical natural resources. In two cases, contested borders and riparian access lead to war. It is interesting to note here that the combination of all three independent variable explains only two of the cases resulting in war.

So, as we suspected when hypothesis 1 failed, we have a more complex picture here. Riparian access, when added to the presence of a contested border, tends to lead to the elevation of conflict from the diplomatic realm into the armed hostilities. However, without the presence of a period critical natural resource, it appears that the armed hostilities are less likely to lead to war.

There is another factor that complicates this study, namely the lengthy period of contest over the borders. The resolution of the borders in South America would have appeared much different just fifteen years ago, when the Beagle Channel, Malvinas Islands, Peru and Ecuador, and Gulf of Venezuela were unsettled. The length of these conflicts contributes to the iterative nature of their resolution. It appears that the ebb and flow of the border negotiations were amplified or muted according to the economic importance associated with that border at the time, but also that contested borders could spark intense diplomacy at one point, saber rattling at another, and hostilities reaching the threshold of war at others. Much depended upon how each process was worked out concretely more than the motives which brought parties into conflict in the first place.

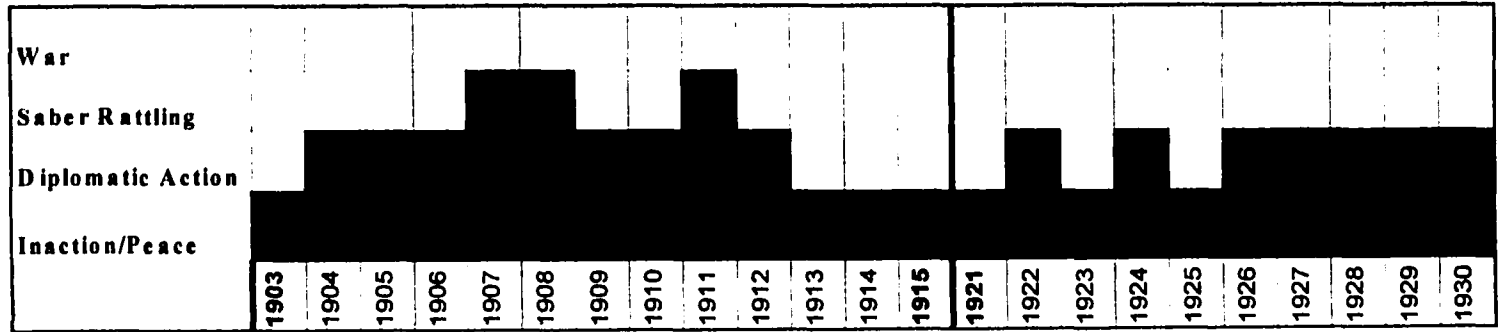
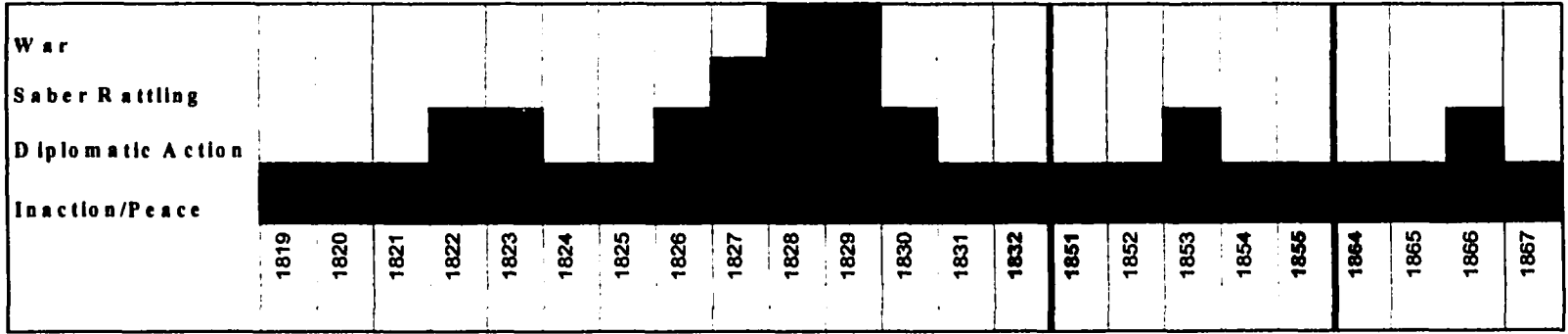
Figure 53 outlines the levels of conflict that existed over the century and a half of contest over the Loreto and Leticia borders. As is evident here, the war occurred in

the early 19th century, and since then the conflict has entered armed hostilities on five occasions -- in 1907, 1908, 1911, 1932 and 1933. A closer look at this case may prove useful for gaining insights into the ways in which conflicts over resources, whether period critical natural resources or riparian access, escalated and de-escalated over time.

Loreto and Leticia, Colombia's Contention with Peru

Colombia's border with Peru was contested from the onset. The contest was a reflection of the contest between two viceroyalties, and was muddied by the conflicting claims of Bolivarian and Nationalist governments of the early 19th century. Careful examination of the conflict reveals an escalating and deescalating series of conflicts. This border contest went on for nearly 100 years. It involved years of slow diplomatic negotiations, derailed by assassinations, coups d'etat, and political intrigue. War failed to resolve the border, and in the end it was skirmishes and saber rattling coupled with forceful League of Nations actions that forced Peru to capitulate. Let us examine the conflict at its important junctures in resolving hostilities.

Figure 54 Levels of Conflict of the Loreto/Leticia Border



The conflicts of 1907 and 1908 appear to revolve around the last gasps of the rubber boom. The Leticia region is isolated from the rest of Colombia and Peru. Among the region's early explorers was Colombian Rafael Reyes who, in conjunction with his brothers Enrique and Nestor, explored the Putumayo River down to the Amazon in 1874. The Reyes brothers established steamboat navigation and quinine factories along the Putumayo and Rafael became famous as a leading anti-slavery advocate in the region.¹ The Colombian presence in the region set in its national mentality a self-image as an Amazon power, and placed it in the position of refusing to accept Peruvian offers to establish their border along the Putumayo River. This point of contention led to failures in negotiations in 1875 and 1876. The Colombian economic bust of 1884 dissolved the Reyes industries in the region, and the jungle soon reclaimed its territories.

In 1904, now General Rafael Reyes was inaugurated as President of Colombia. A self-styled autocrat, he dissolved the General Congress in 1905 and ruled by decree through 1909. Part of his agenda was the opening of the contested area for Colombia.² He alluded to

¹ Jane M. Rausch, *The Llanos Frontier in Colombian History, 1830-1930* (Albuquerque: University of New Mexico Press, 1993), 206.

² Rausch, 1993, *Llanos*, 206. Rausch cites Reyes' 1904 inaugural address. "Our eastern territory, whose incredible wealth has scarcely been guessed at by some sons of Colombia who have adventured into the inextricable labyrinths of those primordial forests or legalized with their own blood our sovereignty in such vast regions, awaits the efficacy of Colombian patriotism, so that through the decided assistance of the entire Nation, the treasures of that zone will be open to the country that some foreigners are exploiting right now in detriment to our rights. Covered with overgrowth (*maleza*), deserted and abandoned as well are the fertile pastures where in a not too distant past numerous herds used to graze. Our roads and transportation today are in worse condition perhaps than in the colonial era, and our isolation from the centers of civilization and progress is, for this reason, greater every day."

this in his 1904 inaugural address, contesting Peruvian encroachments into the region under the leadership of the Peruvian Rubber Company. The region, since the 1890s, had been under the governance of Peru's Iquitos Province, but largely under the control of Peruvian rubber baron Julio Arana. Reyes made his intentions clear by retracting Colombian signature to a May 6, 1904 treaty of arbitration and *modus vivendi*. With tensions escalating, both countries agreed in 1905 to submit the boundary to Papal arbitration after Peru settled its border dispute with Ecuador. The September 5, 1905 treaty was found unacceptable when the Peruvian Assembly examined it because it ceded territory, Peruvian territory. With police units on alert in the contested area, both countries agreed to withdraw and signed a convention reasserting the 1905 treaty agreements, but agreeing to withdraw from the Putumayo River.

By 1907, the largest Colombian concern in the region was Hacienda La Unión, which employed five hundred Indians and collected 60 tons of rubber annually. Julio Arana's Peruvian Rubber Company, on the other hand, employed over 1000 whites and enslaved some 7,000 Indians, and exported 373 tons of rubber annually. In 1907, with both Peruvian and Colombian forces withdrawn from the area, Arana's henchmen sacked Hacienda La Unión. They continued to run unopposed through 1908, killing Colombian whites, blacks, and Indians. The actions raised the ire of Colombians in Bogotá, but both countries remained calm over the incidents. What raised the "domestic dispute" to international attention was the 1908 revelation of Arana's enslavement of the Indians. The

draw to the international stage was set by these atrocities. By 1910, His Majesty's Government (United Kingdom) was calling for an investigation into the British financed Peruvian Rubber Company.³ Reacting to this publicity, the two countries established a joint commission to investigate the cases, but little was accomplished from this. However, it did result in the signing of a treaty of friendship in 1909 calling for demarcation of the border. Peru, undergoing the turbulence of a change of government, was unable to provide membership for the commission, and when the Colombian members moved into the region to begin demarcation in 1911, conflict ensued.

On July 10, 1911, Peruvian forces from Loreto under Major Oscar Benavides attacked Colombian guards under General Isias Gamboa at La Pedrera, forcing their surrender two days later. The Peruvian government ordered its forces to withdraw, and the Colombian government ordered its troops not to advance. This led to the rearming of the region, but with limited troop levels on both sides.⁴ Colombian complaints continued through 1912 about the location of Peruvian troops, but with little result. "Attempts in Lima from May to July 1912 to settle the bases for a new *modus vivendi* came to nothing; and subsequent negotiations for ten years intermittently discussed arbitrations and a direct

³ Rausch, 1993, *Llanos*, 229. Rausch states of British Consul to Pará, Brazil, Roger Casement's findings: "Casement's report confirmed that the company had ruthlessly enslaved Indians, submitting them to refined tortures and corporal punishment and forcing women into concubinage and prostitution. He concluded that between 1900 and 1911 the Putumayo forests had yielded forty thousand tons of rubber at the appalling cost of thirty thousand lives. Casement's findings were confirmed by an American, W. E. Hardenberg, who visited the rubber camps and published a book exposing their horrors entitled *The Putumayo, The Devil's Paradise* (London, 1912)."

⁴ Gordon B. Ireland, *Boundaries, Possessions, and Conflicts in South America* (New York: Octagon Books, 1938), 195-196.

settlement; but no agreement could be reached, and the dispute continued to disturb the relations between the countries.”⁵

Finally, in 1922, Colombian Foreign Minister Fabio Lozano Torrijos and Peruvian Foreign Minister Alberto Salomón Osorio signed a treaty, formally ending all hostilities between them and declaring the southern banks of the Putumayo and Napo Rivers to be Peruvian, and the banks north to be Colombian. With the publication of the agreement, few were happy. Brazil protested that it violated its sovereignty; Ecuador could see that its reliance on Colombia as an ally against Peru was now history; and Peruvian and Colombian parties felt that ceding territory was illogical. Colombia, who wanted Leticia to be Colombian and thus anchor its position as an Amazon power once and for all, was frustrated by Peru’s inability to ratify the treaty and in 1923 appealed to the good offices of the Coolidge Administration to resolve the dispute. United States diplomatic pressure to resolve the dispute was undertaken. The reasons for United States interest in the region may reflect partly an attempt to regain favor in Colombian eyes after the United States support for the independence of Panama. However, it was also a reflection of Secretary of State Charles Evans Hughes desire “to crown his accomplishments in office by settling this tripartite dispute.”⁶ In the frenzied efforts to have the treaties ratified by his departure, Peruvian President Agosto B. Leguía pushed the treaty through the congress and it was signed.

⁵ Ibid.

⁶ Bryce Wood, *The United States and Latin American Wars* (New York: Colombia University Press, 1966), 171. Much of the succeeding narration is taken from Wood’s work which reports, in detail, the

Despite United States Department of State instructions to keep its involvement to one of friendly advisor, Colombian and Peruvian officials perceived the involvement as directed pressure, which exacerbated the situation in the ensuing decade.

The Demarcation Commission set up by the Salomón-Lozano Treaty met from November 11, 1929 to March 14, 1930 and completed the cartographic demarcation of the border. However, public outcry at Leguía's ceding of sovereign territory served as the pivotal action that allowed Colonel Luis M. Sánchez Cerro to consolidate a military-conservative coalition and succeed in ousting Leguía from power. While the military was somewhat neutral on the Leticia issue, the right-wing Civilista party was adamantly opposed to allowing Colombian sovereignty over Leticia. Sánchez's political maneuvering space was thus hedged in by his coalition. When Colombia accepted stewardship of the Leticia "trapezium" on August 17, 1930, it set in motion a cataclysmic cycle which escalated to the brink of war.

During the midnight hours of August 31/September 1 1932, "a group of armed Peruvians forcibly, but without bloodshed, took control of the hamlet of Leticia. Ambassador Dearing reported immediately that 'Apristas captured an *Intendente*, four

exchange of notes and instructions given from the United States Department of State to its representatives in the process, and from foreign governments to their officials.

employees and only one Gendarme.’ The action took the government in Lima completely by surprise, according to its own account.”⁷

Sánchez Cerro protested his ignorance of the incident to United States Consul Dearing, “stating he believed it was ‘a political plot intended to embarrass the Government, distract attention and prepare the way for an Apri-Communist outbreak in Lima.’ He was said to have ‘convinced the Colombian Minister he will cooperate with him in every possible way to prevent the incident from becoming serious’.”⁸

However, Sánchez never would publicly denounce the incursion, and did little to resolve the situation. Wood’s analysis of the issue reflects Sánchez’s limited maneuver room, and there is ample evidence that he risked uprisings and instability should he attempt to reverse the situation. There was a group, the Junta Patriótica, operating in Loreto, which indicated that it would revolt if Sánchez failed to back the taking of Leticia. The Junta was composed of several aggrieved Peruvian merchants who were upset at having to pay Colombian tariffs in Leticia.⁹

It is also possible, according to Wood’s work, that Sánchez was trying to take advantage of the situation to renegotiate the Salomón-Lozado Treaty. His analysis seems sound. The remoteness of the region made the unopposed action possible. Likewise, Sánchez probably calculated that the difficulties attendant with conducting military

⁷ Wood, 1966, *Latin America Wars*, 175.

⁸ *Ibid.*

⁹ *Ibid.*, 179.

operations in the region would preclude Colombian opposition and place Peru in a position to demand renegotiation of what was viewed as an illegitimate treaty.

Wood writes:

Making this filibuster possible were the frontier conditions and corresponding political attitudes in Loreto: the weakness of the Colombian government in Leticia itself, where there were stationed only a prefect, three or four clerks, and a half-dozen "guards," and the initial passivity of the Peruvian army officers in Iquitos, which changed literally overnight into support for the expedition, with the dispatch to Leticia, on September 2 of the gunboat *América*, carrying supplies for Vigil's adventurous band.

For both countries Leticia was a remote area. Trans-Andean communications were extraordinarily difficult, and the only way either could bring heavy military equipment to the region was by way of the Amazon. Leticia was 1,700 miles from Pará at the mouth of the river, and from Pará to Barranquilla, the nearest port in Colombia, the distance was about 2,200 miles. From Callao, the port of Lima, the voyage via the Panama Canal to Leticia covered almost 5,500 miles. Overland, from Lima to Iquitos, it was possible to send lightly armed soldiers successively by train, automobile, muleback, canoe, and launch in a minimum of seventeen days, while the few available light planes made the trip in two days. Colombia had no way of reaching Leticia except by way of the Amazon or by seaplane, since Peruvian forts controlled stretches of the upper Putumayo and there were no Colombian airfields in the region. Peru had some five hundred soldiers

in and near Iquitos, and two armed river vessels, while Colombian forces were nonexistent after the fall of Leticia.¹⁰

Actions of September 1930 made it clear that both countries were heading for war. Peru dispatched a mission to Japan to buy weapons, and Colombia floated a loan to build up its armaments.

Ambassador Dearing became concerned when he learned from 'the most trustworthy authority that Peru is determined upon having war with Colombia over the Leticia incident, or having her way,' and he asked whether he should 'make any new representations' to Peru. The Department, however, felt that 'we should avoid the appearance of taking any initiative in the matter of representations to Peru or of attempting to mobilize Latin American opinion against Peru. If such an impression were to be gained the effect might be contrary to the Department's desires that the incident be kept within the proper bounds.'¹¹

As war preparations continued, Peru began to appeal for support from all corners. First, in September 1932, Peru sent a note to Colombia, listing her reservations with the Salomón-Lozando Treaty, namely that it was made with an ousted dictator, that it ceded sovereign territory, and suggesting a conciliation commission. The Peruvian suggestion that the treaty was null because Colombia could not control its people in Leticia astounded the

¹⁰ Ibid., 180.

¹¹ Ibid., 188.

diplomatic community. Assistant Secretary of State, Francis B. White, objected to Peru's position in an early interview with the Peruvian Ambassador to the United States, Manuel de Freyre y Santander. "White replied that he 'personally thought the Peruvian point of view, as expressed by him, was astounding, and that on the basis he set forth, namely that his Government could not control its people there, any international agreement might be overthrown.'"¹²

Peru's approach to the Pan American Union followed. It generated a call by Dr. Leo S. Rowe, Director General of the Pan American Union, for United States leadership in settling the crisis. Secretary White, however, demurred, "I did not feel that the United States alone should make any declaration in the matter; we are not the sole guardian of peace in South America, and there is no reason why we should always jump in and assume such a role. Such action on our part might well be resented in other parts of South America."¹³

In his attempts not to appear to side with Peru in the dispute, White's efforts raised the resentment of the Colombian Minister to the United States, Enrique Olaya Herrera, who commented that the "Department of State could settle the Leticia controversy, if it so desired, in forty-eight hours."¹⁴

In November of 1932, Peruvian Regulars occupied Leticia. Colombia dispatched 1,500 regular army troops to transit around the Atlantic coast and up the Amazon to Leticia.

¹² Ibid., 189.

¹³ Ibid., 186.

¹⁴ Ibid., 193.

The action led to Peruvian cries for protection of the Peruvian citizens of Leticia. Realizing that it was headed for war, Peru appealed to the Hague in January 1933, but was rebuffed. Colombia appealed to the signators of the Kellog-Briand Pact to remind Peru of its obligations not to seize territory by force, and to renounce war as a means of settling the dispute. Meanwhile, the Colombian expedition was at Teffe, Brazil, awaiting orders. The League of Nations recommended Brazil occupy the area while the border could be mediated. Under the suggestion, Peru would withdraw her forces, and Colombian control would be established. Colombia accepted, the United States concurred, and Peru refused. Colombia attacked and seized Tarapacá on the south bank of the Putumayo River on February 15, 1933. As has been covered in Chapter 2, the hostilities were ended with the assassination of Peruvian President Sánchez, and the subsequent reelection of President Benavides. Ironically, it was that same Benavides who, as a Major, had led the 1911 attack on Leticia.

This may lead us to ask whether it required an international regime such as the League of Nations to end the conflict. G. Pope Atkins feels that the League of Nations was merely a front for United States actions.

On the surface the League action in the Leticia affair might appear to have been successful, but in fact the United States played the leading role in its settlement. In 1933 Colombia appealed to the League Council to settle its decade-old argument with Peru over the ownership of the small Amazon River town of Leticia and the surrounding area. The international body established a special Administrative Commission for the Territory of Leticia, consisting of representatives

from Spain, Brazil, and the United States. The commission administered the Leticia area for about a year in 1933-1934—the first police action in the history of general international organization—while mediation between the disputants was carried on. In 1934 sovereignty was awarded to Colombia. Neither the United States nor Brazil was a member of the League at the time; Brazil was closely aligned with the United States, and Spain was unassertive in the matter. Consequently, the United States controlled the commission of an international body to which it did not belong. Furthermore, the League was ignored in the protocol terminating the conflict, in which Colombia and Peru referred to their “historical, social, and sentimental ties” as members of the “American community.”¹⁵

However, Bryce Wood’s assessment of the importance of the League of Nations differs.

In the Leticia affair the League’s action consisted of the appointment of a commission to direct what amounted to a reoccupation of Leticia by Colombian troops; this was an operation for which the American states were then organizationally unprepared and which neither Brazil nor the United States cared to undertake. The League served the dual function of barely saving face for the government of Peru and of freeing Brazil and the United States from responsibility for an action that would assuredly have been an historic and never-forgotten source of Peruvian resentment.¹⁶

¹⁵ G. Pope Atkins, *Latin America in the International Political System*, 2^d Ed. (Bolder, Co: Westview Press, 1989), 240-241.

¹⁶ Wood, 1966, *Latin American Wars*, 8-9.

The case of Leticia serves to demonstrate our point that the iterative nature of these conflicts makes them difficult to categorize. Clearly, depending on when you look at this conflict, the assessment of its meaning could differ substantially. The elevation of the conflict from tense diplomacy to war was clearly the miscalculation of Peru's President Sánchez. As the crisis escalated toward war, it became difficult for Sánchez to regain control of the situation, and in the end it required his death and the umbrella of an international organization to resolve the dispute.

In summary, we can modify the first hypothesis into three, reflecting the subtlety of the issues:

- The likelihood of armed hostilities in resolving contested borders increases when riparian access is one of the issues.
- The likelihood of war in resolving contested borders increases when Period Critical Natural Resources are present.
- The iterative nature of conflict along historically contested borders provides numerous opportunities for miscalculations that may inadvertently escalate the hostilities beyond the control of the belligerents.

Now, let us look at the other hypothesis that was unsupported by the data, namely, concerning the coincidence of immigration and conflict.

Does Immigration Matter?

This hypothesis appeared to be unsupported by the data. Let us consider immigration as an independent variable, just as we did the variables in the first hypothesis. Table 38 illustrates the addition of immigration as an independent variable. Clearly, immigration without an historically contest border never resulted in conflict. Additionally, unlike PCNRs and Riparian Access issues, which seem to contribute to hostile resolutions, the presence of immigration contributed to hostile resolution less often than its absence. (seven as opposed to eleven cases).

Table 38 Immigration Correlated to Hostile Resolutions

Combination Number	Independent Variables				Peaceful Resolutions		Hostile Resolutions SR&S	Percent of Cases
	Immigration Issues	Contested Border	PCNRs	Riparian Access	"0" No Conflict	"1" Diplomacy		
1	X							None
2	X	X						None
3	X		X					None
4	X			X				None
5	X	X	X				1	11.1%
6	X	X		X				5.6%
7	X		X	X				None
8	X	X	X	X		1	2	22.2%
9					4			None
10		X				2		None
11			X					None
12				X	1			None
13		X	X				1	11.1%
14		X		X			2	27.8%
15			X	X				5.6%
16		X	X	X		2	3	16.7%

In keeping with our previous efforts, let us see if there is a pattern if we isolate the levels of conflict between SR&S and War. Again, no clear pattern appears. We may perhaps say that immigration when combined with riparian access is slightly more likely to lead to war, however, it appears only in conjunction with PCNRs with the exception of one case.

war, however, it appears only in conjunction with PCNRs with the exception of one case. We can safely say that immigration appears to contribute to hostilities at times, albeit not as a deciding factor in any case. As was demonstrated in the Pampas and Atacama cases, immigration played an important role, spurred by the presence of PCNRs. While immigration cannot be said to be a deciding factor, it remains one that must be studied in cases of border conflict.

One of the industries, which spurred the most rapid and dramatic immigrations in Latin America, was the rubber trade. To illustrate the impact that immigration has on a nation's economy, let us examine the rubber trade in Brazil along the Amazon.

Agricultural products are generally combined under the classification of renewable natural resources. While one may harvest the wheat or cattle off the grasslands, the resource – grasslands – is renewable. Rubber, on the other hand, was never considered an agricultural crop, *per se*. In fact, rubber extraction had a dilatory effect on agricultural development, drawing labor from the fields to the extraction sites. Examining the rubber extraction industry of the 1850s and 60s, Richard Pace notes that the industry halted agricultural development in Gurupá, Brazil.

The discovery of a method to vulcanize rubber (treating rubber chemically to increase its elasticity and strength) and the development of innovative industrial uses for the material led to a boom in rubber extraction. The Amazon was the principal producer of raw rubber into the twentieth century. Export increased 500 percent and the value 800

percent as vulcanization opened the way for the tire industry supporting first bicycles, and then autos between 1850 and 1880. Amazon rubber accounted for nearly 50 percent of the world market.¹⁷

Pace relates how rubber extraction bled citizens away from Gurupá to work the trees, but also how it changed the town itself. Figure 55 illustrates the growth of this small town during the rubber boom and the precipitous drop in 1920 at the rubber bust.

Year	Population	Year	Population
1842	715	1872	2794
1848	1019	1920	300
1856	2207		

Figure 55 Gurupá Population During the Rubber Boom¹⁸

The draw of labor away from the agricultural sector was apparently of great concern to the rural elite. In an 1860 visit to Gurupá, Brazilian President Sá “noticed that residents had abandoned whole blocks of houses and gone to the interior to collect rubber. President Sá, like many traditional elites, was critical of rubber extraction. He felt extraction blocked economic progress by scattering the population and drawing labor away from agriculture.”¹⁹ The golden years increased Amazon population by 400 percent, drawing immigrants from drought-stricken northeastern Brazilian provinces.

¹⁷ Richard Pace, *The Struggle for Amazon Town, Gurupá Revisited* (Boulder, Co, Lynne Rienner Publishers, Inc., 1998), 73.

¹⁸ Extracted from Pace, 1998, *Amazon Town*.

¹⁹ Pace, 1998, *Amazon Town*, 75.

Unlike Leticia, Peru, where rubber baron Julio C. Arana Hermanos enslaved Native Americans, imported Caribbean black labor, and generally ran unchecked for many years, the Brazilian style of exploitation was vested in many small and medium size holdings. Large owners soon dominated the trade by controlling the trading posts and credit brokers.²⁰ These merchants prohibited laborers from subsistence farming, and dominated their time with rubber harvest. Additionally, the pyramid scheme implemented by these merchants passed debt servicing to the laborer, keeping them deep in debt. However, Brazilian riparian and trading infrastructure soon came to dominate the extraction industry along the Amazon River and its tributaries up into Leticia. This structure remained in tact throughout the golden age of rubber extraction, and helped establish Brazil as an economic powerhouse.

In the Acre region between Brazil and Bolivia and Peru, Brazilian dominance of the rubber trade brought the regions into conflicts, which were not ended until the demise of the extraction industry. At that time, Brazilian immigrants withdrew from the inhospitable region, easing tensions and allowing resolution of the borders.

²⁰ Pace, 1998, *Amazon Town*, 68. "Part of the turmoil of this period was resistance to the evolving labor relations. With the end of the Directorate a new system of labor control, centered on the commercial trading post, replaced the mission system. The trading post became the main reference point for the emergent campesinato [rural entrepreneurs], who were scattered about geographically by the demands of extraction and subsistence agriculture.... [They] depend on the trading post and the world system to supply them with certain foods, tools, medicines, and industrial goods. This was a legacy of the mission system. In exchange for these goods the camponeses provided extracted and agricultural products. Since currency was scarce in the region throughout the nineteenth century, exchange occurred through a system of credit and debt known as *aviamento*.... The trading post usually maintained a trade monopoly with workers that enabled the merchants to manipulate prices. This combination of price manipulation and credit control often left the camponeses in perpetual debt. In some cases the exploitative system resulted in debt-peonage and conditions of bare survival for the workers.

In Colombia, the result of the rubber trade was immigration by small entrepreneurs into the Leticia region, adding to the vagueness of the border area between Colombia and Peru. The uncontrolled settlement of the region made resolution of the conflict more difficult.

While Brazil, Colombia and Peru enjoyed the golden age of rubber extraction the British worked in Asia (Ceylon) to establish rubber plantations. By 1910 their efforts began to pay off. Plantations in Malaya, Ceylon, India, Burma, Borneo, Siam and the Dutch West Indies produced about eight percent of the world supply of rubber, establishing these bases as important contributors to the world's rubber supply. The ease of access to shipping quickly and dramatically cut costs of the rubber and undercut Amazon rubber products.²¹

Pace cites four reasons Brazilians resisted the plantation system, which apply to other South American countries as well.

- The perceived enormity of the rubber stocks in the hemisphere blinded the owners to the possibility of reduced productivity and more costly transportation required to extract the crude rubber.
- It was difficult to entice labor to cultivate trees in light of the higher paying extraction jobs available.

²¹ Ibid., 80.

- Opportunity costs and capital requirements were extremely high in establishing plantations.
- The huge profits enabled the merchants as opposed to the landholding class to dominate the trade and the regional political economy.²²

By 1913 Asian rubber surpassed Amazonian rubber, and by 1919 Pacific island plantations controlled 90 percent of the world market. Additionally, the price of rubber dropped from \$3.00 per pound in 1910, to \$0.60 in 1915, and bottomed out at \$0.19-0.23 per pound in 1923. By 1913 47 credit houses had failed, and the associated businesses were failing as well. Gurupá immediately plunged into depression. As Figure 55 illustrates, the drop in population was dramatic.

In the face of extractable resource booms, the draw on unskilled labor is strong. But this generator of immigration is transitory. As the case of Gurupá demonstrates, the draw down of labor is extreme, sudden, and generally detrimental to a stable economy in the surrounding regions. As evidenced in Leticia, extractable natural resources draw immigration of cheap labor during the extraction boom, and leaves pockets of displaced nationals in its demise. These pockets of “foreigners” may cloud border issues. As was evidenced in the Leticia affair, and as we shall see in examining the War of the Pacific in Chapter 6, immigration may also be used as a rationale for moving to conflict. But does it

²² Ibid., 81.

cause conflict? It appears from this limited sample that the presence of a state's citizens in a contested area does not cause conflict, but is used to justify actions that are often hostile.

Conclusion

In this chapter we have examined the two unsupported hypotheses and found that the first was too simplistic, and the second may focus on a symptom of the discovery of extractable natural resources rather than on the source of conflict. We have noted that the likelihood of elevating diplomatic resolution through saber rattling and on to war seems to increase when one adds the presence of riparian access issues, and then PCNRs, respectively. We have demonstrated that there is no significant correlation between immigration and violence without being combined with other variables. Additionally, we have seen that the addition of immigration to the variables does not significantly alter the outcomes of the correlations without immigration.

In Chapter 6 we shall examine the character of the conflicts involving renewable and extractable resources; and uncontested borders.

Chapter 6: Illustrative Cases and Conclusions

Introduction

In an attempt to demonstrate findings in more detail, we have selected several cases to examine more closely. We will first examine the only case of war fought over an uncontested border, the Paraguay War. Then, to examine the difference between conflict over extractable and renewable PCNRs, we will examine the economics associated with the War of the Pacific and of selected Argentine conflicts in an attempt to derive some of the defining characteristics of the two. Next, to look at the importance technology plays in the transformation of natural resources to PCNRs, we'll examine the case of the exploitation of the Colombian Llanos borders with Venezuela. Lastly, we'll attempt to draw some conclusions.

War over an uncontested border: the Paraguay War

Paraguay was the only case in which Napoleonic ambition or power politics seems to have driven the war. Argentina, in alliance with the Uruguayan Blanco political faction, laid siege to Montevideo from 1841 to 1851 in an effort to subdue the Uruguayan Colorados, allied with Britain, France, and forces opposed to Argentina's dictator Juan Manuel de Rosas. In an attempt to remove Rosas, the British and French squadrons blockaded Buenos Aires from 1845 to 1850, and supported the Colorados with supplies. In the end, Rosas and the Blancos fell, but not until Brazil, assured of favorable border resolution with Uruguay for their cooperation, came to the aid of the Colorado alliance. "In 1851 Brazil forced a treaty upon Uruguay in which the latter renounced an earlier claim to almost half its national

territory along the northern frontier. Brazil thereafter expanded into the territories of each of the remaining seven contiguous states except Peru, but it did so through peaceful diplomatic negotiations.”¹

The 1853 treaty, which ended the conflict, guaranteed Paraguay free navigation of the Paraná River, and its borders with Brazil and Argentina were settled by treaties in December 14, 1857 and July 15, 1859 respectively. However, these treaties were not ratified when Paraguayan dictator Francisco Solano López came to power in 1862. López had dreams of empire.

The fall of Argentina’s Rosas in 1852 left the Uruguayan Blancos with nowhere to turn but Paraguay. As the country was in no military shape to support anybody, the Blancos soon fell from power. Solano was acutely aware that he had lost an opportunity, but was unaware that the resulting treaty of friendship between Brazil and Argentina settled the Yaguaron dispute between Uruguay and Brazil and set up a triple alliance of Uruguay, Brazil and Argentina.

One of López’s first actions after coming to power was an attempt to consolidate his borders and to assert sovereign rights over the Pilcomayo, Paraná and Paraguay rivers, including the confluence of the Paraná and Paraguay Rivers south to Corrientes. (Figure 56) Such claims were first dismissed by Brazil and Argentina as bluster, but López created a war machine that included fortifications at Itapitú and Humaitá, which controlled the Paraná

¹ G. Pope Atkins, *Latin America in the International Political System*, 2nd Edition (Boulder, Co, Westview Press, 1989), 299-300.

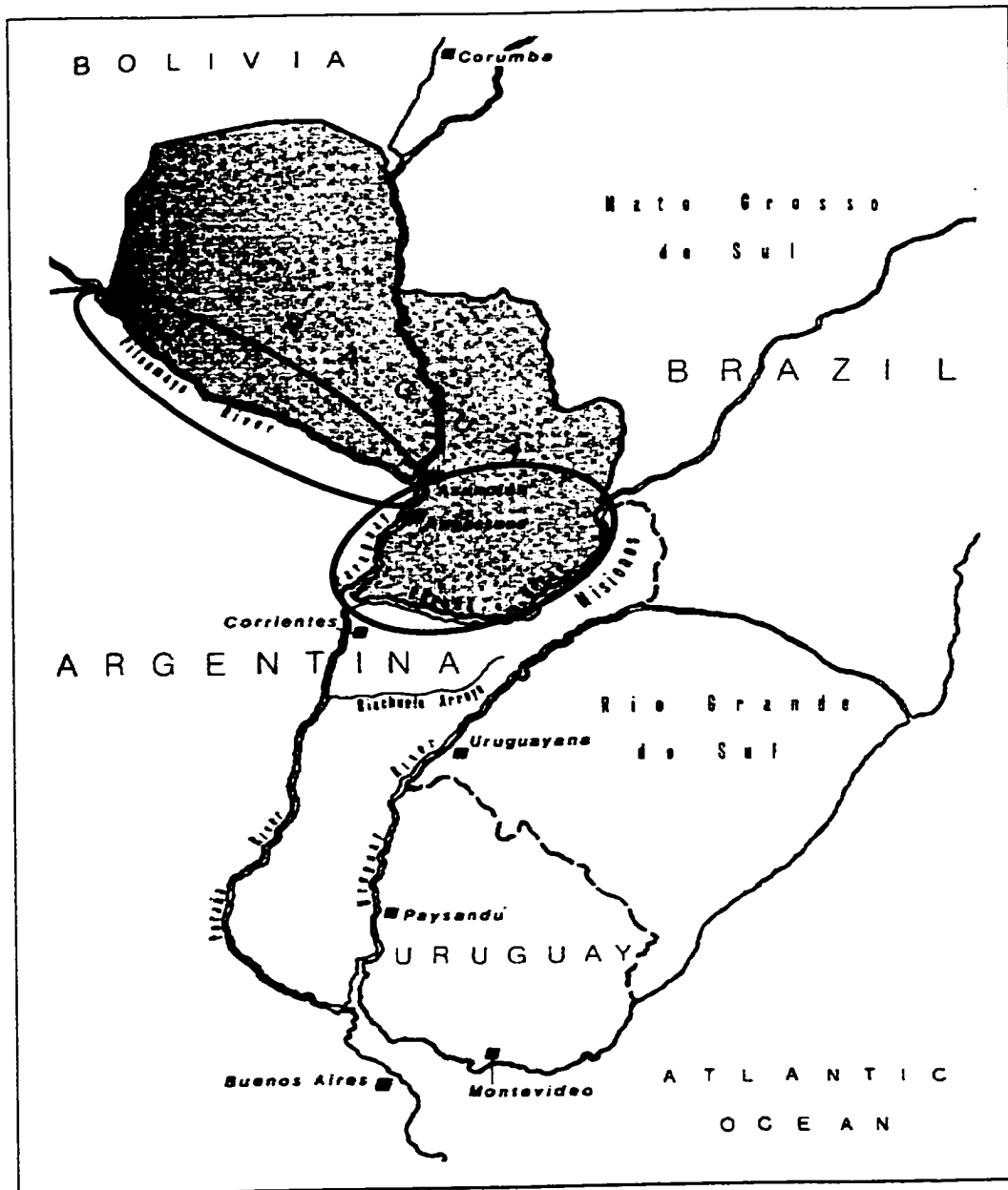


Figure 56 Area to be Controlled by Paraguay²

² Scheina, 1987, *Naval History*, 21.



Figure 57 Brazilian Riparian Operations and Paraguayan Strong Points³
 River confluence and the Paraná River for over two years. (Figure 57) This enabled him to pursue military action from 1865 to his death at the battle of Coro Cora on March 1,

³ Ibid., 24.

1870.⁴ In the end, Paraguay gained nothing from the conflict. Paraguay retained free navigation, and its borders were not altered. So what is the difference between this and other conflicts?

As opposed to the other conflicts that resulted in changed boundaries, this one did not. Another difference is the brevity of the conflict. Whereas the other 17 cases that resulted in armed hostilities to resolve lasted from 50 to 150 years, this one lasted only 5. While it may seem trivial to mention these differences, it may prove helpful in managing expectations of policy makers. There are insufficient cases to generalize about the implications of this case, but it appears that when historically contested borders are concerned, there may be something that makes them especially difficult to resolve, and the conflicts may be more protracted. In the case of an engineered conflict such as this, in which the border is made contested to justify war, it may result in a shorter conflict than might otherwise be expected.

Next, we will look at an example of war that is focused on extractable natural resources.

War over Extractable Period Critical Natural Resources: A Brief Economic History Leading to the War of the Pacific

The War of the Pacific, albeit principally a war over control of the mining industry between Bolivia, Peru and Chile, was dramatically affected by immigration into the region. The Crisis of the 1870s began with a poor balance of trade: “Chile imported more than she

⁴ This account is drawn from the Atkins, 1989, *Latin America*, 299-300, Scheina, 1987, *Naval History*, 20-27, and Thomas E. Skidmore & Peter H. Smith, *Modern Latin America*, 3rd ed. (New York, Oxford University Press, 1992), 71, 149-150, 152.125.

exported in 1870, 1874, 1875, and 1877. She lost most of the European wheat market to new international competition; and the London price of copper in 1878 was 60 percent of its value in 1872.⁵ The resulting credit crunch reduced the ability of Chile to import and resulted in capital flight. The value of the peso in London dropped from its decades-steady 44-48 pence down to 37 pence by 1878. On June 30, 1878, the national bank informed the government that its paid-up capital amounted to only 24.6 percent of liabilities.

Peru on the other hand was mired in traditional agrarian economy. Peons were tethered to villages and estates. In the cities, guilds controlled the labor. "Until 1868 Peruvian mining laws allowed any individual to claim two estacas (one Peruvian estaca equals 20,795 square meters) of nitrate land. Individual members of a family or business enterprise would each register a claim in order to combine them into a single holding."⁶ In the 1860s mules were still being used to transport the nitrates to ports and rail construction didn't begin until 1868.⁷ The lack of Peruvian infrastructure was a boon to the Chilean support economy. Valparaíso surpassed Callao as the principal port on the west coast in 1835, and by 1842 it had become the principal nitrate commerce center. By the 1870s, seventy five percent of nitrate sales were processed through Valparaíso.⁸

Chilean immigration commenced in earnest during the late 1860s, and between 1868 and 1872 some 25,000 Chilean peones immigrated to Peru. Several Chilean entrepreneurs

⁵ Michael Monteón, *Chile in the Nitrate Era, The Evolution of Economic Dependence, 1880-1930* (Wisconsin, University of Wisconsin Press, 1982), 19.

⁶ Thomas F. O'Brien, *The Nitrate Industry and Chile's Crucial Transition, 1870-1891* (New York, New York University Press, 1982), 7.

⁷ O'Brien, 1982, *Nitrate Industry*, 8.

⁸ *Ibid.*

became principal miners in the region and brought technological innovations that greatly increased productivity. Chilean Pedro Gamboni Vera's invention that allowed extraction of iodine from the guano using steam fueled the boom of the industry.⁹ The 1868 earthquake that destroyed the Chilean port of Iquique had the unexpected result of dropping nitrate exports by nearly 25 percent, but more than compensating for the loss in quantity with a price boost of more than 25 percent. Chile continued to prosper in other mining sectors. The Caracoles silver discovery of 1870, coupled with a prosperous agricultural export market, increased the availability of domestic investment capital.

Conversely, in Peru, interest rates were running about 25% because of a lack of investment capital.¹⁰ The dynamic Chilean export trade to Tarapacá (see Figure 19 in Maps for Chapter 2) facilitated penetration of the region and Peru's rigid economic structure could only add mass labor to the nitrate region.¹¹ With continued stagnation of the Peruvian economy, landed and military elites began to siphon off state nitrate profits and, as such, became linked to the continuation of the nitrate trade.

The third party to the economic competition of the region was foreign investment. European investment and integration into the nitrate market was already great when the Chilean and Peruvian investments began.¹²

The European's (*sic*) advantage came in their access to international credit, and the pursuant pricing advantages. Europeans had

⁹ *Ibid.*, 8.

¹⁰ *Ibid.*, 7.

¹¹ *Ibid.*, 12.

¹² *Ibid.*, 14.

significantly more internal credit, and this resulted in lower credit rates on venture capital. Additionally, they controlled marketing of their products whereas the Peruvians and Chileans had to market through these same avenues. Therefore, with higher costs of capital and increased middle-man costs in getting commodities to market, their products cost more than their European competitors. Additionally, inexperience in international banking and book keeping, coupled with naive and inefficient management made them more reactive to market fluxuations (*sic*), and made personnel retention through boom and bust periods much more difficult.¹³

Just East of the Tarapacá region was Bolivian Antofogasta. Sodium nitrate deposits drew British-Chilean investment into this region. As early as the 1860s, sodium nitrate began to displace Peruvian guano as fertilizer for Europe, and the discovery in Tarapacá, Peru, of sodium nitrate fueled investment and a boom in mining. In 1878, when the Bolivian military government tried to collect taxes on the nitrates exported out of Antofogasta, it was opposed not by Peru, but by Chile.

In an earlier border dispute, Chile and Bolivia had signed a treaty in which Bolivia promised not to impose new taxes on Chileans in Antofagasta. Valparaiso merchants cited this clause in asking Santiago for help against the Bolivian tax increase. The Bolivians argued that they were not taxing Chileans. The mining enterprises were controlled by British capital and therefore excluded from the treaty's provisions. When the Bolivian authorities tried to collect the higher taxes from the

¹³ *Ibid.*, 17.

Antofagasta Nitrate and Railway Company, its English manager fled. The Bolivians appropriated the company for nonpayment.¹⁴

Between 1870 and 1873 the surplus of fertilizers in Europe grew from 6,750 to 52,510 tons, dropping the average price from £15 per ton in 1872 to £12.5 in 1874. This compounded with a rise in transport costs driven by increased port labor wages to the point that Chilean *oficinas* could not make a profit by 1873. "By the end of 1874, the Chilean thrust into the Tarapacá industry had been blunted. Of the ten original nitrate corporations, two were bankrupt, five had stopped production, and the remaining were in serious financial trouble. By contrast, their larger European rivals expanded and intensified their control of nitrate production."¹⁵

Throughout this period, Peru's rigid social structure froze capital and prohibited its participation in the nitrate market, resulting in their exclusion from the competition. This rigidity also excluded them from the international market such that in the end, Chile's Antofogasta Company, in partnership with a British firm, was able to overcome this European-based economic exclusion.

Peru, carrying an enormous foreign debt, searched for ways to pay off the burden without restructuring the elite-controlled economy. On May 28, 1873, in an attempt to gain control over its export markets, Peru decided to nationalize the Tarapacá nitrate industry with particular emphasis on the Antofogasta Company. Peru hoped to hedge its debt against the expected income from the fields, giving it leverage in refinancing its foreign debt and

¹⁴ Monteón, 1982, *Chile*, 20

¹⁵ O'Brien, 1982, *Nitrate Industry*, 24.

free up capital both for infrastructure development and for elite pockets. As it did this, prices dropped in the world market, and the expected revenues never materialized. Numerous attempts to refinance Peru's foreign debt without commensurate economic reform eventually resulted the transfer of its nitrate producing regions to foreign control.¹⁶

Chile also suffered from increasing demands for decreasing nitrate revenues. Annual export growth declined from 7.2 percent between 1850 and 1860 to 0.6 percent between 1860 and 1870.¹⁷ Despite declining nitrate export revenues of the 1870s, Chilean planners expected growth to continue at the healthy seven percent, and planned infrastructure and social program expansion at that level. Borrowing against that expectation, Chile soon found itself unable to pay their loans. Land transfer in kind was undertaken, but with little effect. "Chile's export economy, grounded in a traditional society that deemphasized innovation, was reaching its developmental limits."¹⁸

Another area of difficulty centered on the boom economy of extractable natural resources. By 1870, mining, primarily copper, accounted for 60 percent of Chile's total exports. Agricultural exports, once a strong factor in Chile's income, now accounted for only 30 percent. Additionally, with increased productive efficiency brought about by industrialization, only a small minority of the population generated the majority of Chile's income. Wealth, once distributed across a rural elite, now lay in the accounts of the mining barons. "The decline of mining would mean the disintegration of the cornerstone in Chile's

¹⁶ *Ibid.*, 34.

¹⁷ *Ibid.*, 45.

¹⁸ *Ibid.*, 46.

traditional socioeconomic edifice. By 1878, with copper prices down by 33 percent in only five years, economic disintegration was shaking the fiscal foundations of the Chilean State.”¹⁹

Attempting to satisfy foreign debts, Chile transferred ownership of mines to foreign interests, expecting to maintain an income flow from mining tariffs to offset its losses. But, with tax revenues dropping because of falling market prices, Chile turned to a new administration.

The fates were not kind to President Pinto after his September 18th, 1876 inauguration. During his first months in office, the world price for copper fell by 20 percent and Chilean copper exports by 16 percent with the drop for semi-smelted metal falling as much as 50 percent. Silver exports remained at barely one-third of their 1874 level. Debt service was 33 percent of government revenues by 1877 and with the state unable to deliver planned infrastructure upgrades, the climate turned belligerent. Between 1876 and 1878, the country’s croplands underwent months of drought punctuated by torrential rainfall.²⁰ By 1878, exports of wheat and flour had dropped by well over one-third of those of 1873. Approximately 300,000 laborers were thrown out of work, the pace of business slowed, and the price of food soared....”²¹ Banks, allowed to lend more than their assets, began to fold in 1878. The resulting trade gap with Europe (United Kingdom) led to a shortage of specie, and

¹⁹ Ibid.

²⁰ . In 1877 a sudden trebling of precipitation washed away roads, submerged rail lines, and destroyed livestock and crops

²¹ Simon Collier and William F. Sater, *A History of Chile, 1808-1994* (UK, Cambridge University Press, 1996), 125.

thus banks were allowed to substitute paper money for legal tender resulting in approximately 35 percent inflation, the beginning of inflation that was to run through the middle of the next century. To eliminate the shortfall, Pinto slashed the budget, added a 10 percent surcharge on imports, dismissed public employees, beached naval ships and dismissed Army and National Guard units. Despite his attempts, rural unemployment continued to rise, with a commensurate rise in urban flight and the resulting rise in crime.

Simultaneously, in attempts to secure additional raw material sources, "Chile... extended its limits to the north.... Chilean entrepreneurs, often in partnership with British interests, were increasingly penetrating the nitrate regions of Bolivia and Peru in the Pacific Desert area, particularly from the 1860s on."²² Chilean President Pinto used Peruvian "mistreatment of Chilean workers" as his justification to call for war.

The first portents of impending international crisis came from Bolivia. Two main issues caused friction: the delineation of Bolivia's border with Chile, and the status of Chilean miners living in Bolivia. Since this border ran through the Atacama Desert, one of the world's driest and least populated wastelands, neither country seemed unduly concerned over the exact location of the frontier until the discovery of silver, guano, and finally nitrates suddenly made the Atacama extremely valuable. Both nations now began to vie vigorously to control the desert. In 1874, after a great deal of acrimonious wrangling which almost degenerated into war, the border was fixed at 24°South latitude. This agreement stipulated that Bolivia would not raise taxes on the Chilean *Compañía de Salitres y Ferrocarril de Antofagasta* that largely controlled raw material exports from the Atacama. But in December

²² Robert K. Alexander, *The Tragedy of Chile* (Westport, Connecticut: Greenwood Press, 1978), 7.

1878, the rise of Sergeant Hilarión Daza to the dictatorship of Bolivia changed the situation. He refused to recognize the treaty and immediately raised taxes on the *Compañía*. “Daza fully expected that Chile would again “strike its flag as it did with Argentina”.²³ He took confidence in the secret Peru-Bolivia defense treaty of February 1873; assured that the combination of Peru’s not insubstantial fleet and their combined armies could bring quick victory.²⁴

As in the case of Peruvian President Sánchez Cerro in Leticia (see Chapter 5), the initial spark came not from a confluence of contested borders and PCNRs so much as a change of government and miscalculation by naïve leadership. However, this history does illustrate the economic underpinnings that led to the perceptions of the need for war. It also demonstrates what was said in Chapter 5 about immigration. The presence of Chilean citizens in the Atacama region was essential to allowing Chile’s call for war. The individuals in the region were more concerned with their profits than their nationality, but Chilean access to tax revenues from resource exports guaranteed intervention into the crisis climate of the 1870s. As we saw in Chapter 3, once Chile mobilized its resources, it made short work of defeating Bolivia and Peru.

Of note is the character of this conflict. The border, although contested from colonial times, was settled amicably as long as the region was of little importance. The addition of technology to raise the output of the region, coupled with the ever-increasing Peruvian and Chilean dependence on these revenues to fuel their national economies quickly elevated the

²³ H. Daza to S. Zapata, February 6, 1879, in Pascual Ahumada Moreno, ed., *La Guerra del Pacifico*, 9 vols. (Valparaiso, 1884-1890), I, 93. As cited in Collier and Stater, 1996, *Chile*, 128

²⁴ Collier and Stater, 1996, *Chile*, 127-128.

region from sleepy backwater to strategic imperative in a short span of just 20 years.

Throughout the literature it seems apparent that all parties knew that the resources would some day be exhausted, which led to the urgency exhibited by the parties to control the resources.

Now let us examine the case of renewable natural resource-based economy. For this examination, we will look at the economics involved in expanding Argentina's borders and attempt to distill from it some understanding of the character differences between this and the case of Chile.

War over Renewable Period Critical Natural Resources: A Brief Economic History of Argentina

Colonial Argentina did not resemble today's Argentina. It was comprised of four major, semi autonomous sub-regions: Buenos Aires, the Northeast²⁵, North²⁶ and Northwest.²⁷ (The Pampas and Patagonia were not yet useable due to the extreme distances from Buenos Aires and the hostile native inhabitants.) Economic historian Laura Randall

²⁵ Laura Randall, *A comparative Economic History of Latin America 1500 – 1914*, Vol 2: Argentina (New York: Institute of Latin American Studies, Columbia University, 1977), 6. Córdoba, San Luis, La Rioja, Mendoza and San Juan, economically tied to Chile, the region was prosperous, drawing revenues from the silver trade routes from Potosí and the trade routes between Chile and Buenos Aires. Prosperity was based on the trade in “textiles, wines, brandies, tallow, sugar, wheat, corn, rice, dried fruits, yerba maté (a leaf from which a beverage containing caffeine is made), leather, bullion, and European imports.”

²⁶ Randall, 1977, *Comparative Economic History*, 7. Tucumán, Salta, Jumjuy, and Santiago del Estero were economically tied to Peru. What prosperity there was in the region came from breeding mules for Peruvian Mines. “In addition to mules, the North supplied cloth, rice, cotton, oxcarts, wines, and wheat in exchange for...medicine and Spanish products.” Indians were rented to the mines, and Negro slaves used for labor in the area.

²⁷ *Ibid.* Corrientes, Misiones, and Paraguay smuggled Peruvian silver and Argentine agricultural products to Rio Grande do Sul, Brazil; in exchange for European imports and produce entering through the Kingdom of Brazil.

notes that the Argentine interior was mostly self sufficient, with Buenos Aires serving as a middleman in controlling domestic and international trade.²⁸

During the mid 18th Century, Portugal, expanding south from its bases in Brazil, succeeded in the establishing Colônia do Sacramento in what is today southwestern Uruguay. Opposite Buenos Aires across the Rio de la Plata, it quickly became a contraband capital in the region. “Andalucian merchants were said to have preferred illegal trade since the loss from seizure of contraband was less than the cost of taxes on legally traded merchandise.”²⁹ The Spanish capture of Colônia do Sacramento from Portugal removed trade restrictions from Buenos Aires and catapulted it into a position to control external trade for the region. This geographic position elevated it to a viceroyalty in 1776. The increased entrepreneurial freedoms fostered by the Spanish Viceroyalty status engendered a spirit of innovation in technology and trade. Historian Jonathan Brown states that this innovation:

...increased the efficiency and scale of certain manufacturing, cheapening the finished product, widened the consuming market, and vastly enlarged the use of raw materials. In turn, industrial demand induced growth in international trade and strengthened the commercial ties between manufacturing countries and regions of raw material production like the La Plata.... Specifically, developments in the leather and woolen industries of the United Kingdom and of the northeastern United States stimulated imports of Argentine hide and

²⁸ Ibid.

²⁹ Ibid., 12.

wool and focused the socioeconomic development of the Río de la Plata on the production of these pastoral staples.³⁰

The emergence of the new viceroyalty did not impress the rural landowners. *Porteños*³¹ remained the middlemen, and out of this rivalry between Buenos Aires and the rest of Argentina grew the fierce “gaucho”³² independence movement that impeded formation of a unified state for almost sixty years. As Laura Randall so eloquently put it, at the moment of independence

Argentina was little more than a port with a hinterland of cattle in back of it. Trade dominated Argentine thought because trade was the most important economic topic debated in Europe at the end of the eighteenth century. Argentina imported the debate—which was only partly relevant to Argentine conditions—along with the pots, pans, and textiles that Europe provided. Intellectually as well as economically, Argentina was not a nation, but a small city on the distant outskirts of the European capitals. In Argentine economic theory, policy and practice, the era of nation building took place after independence was achieved.³³

Post-colonial Argentine economic history breaks down into four phases: post-colonial export (1816-1850), post-industrial revolution (1850-1930), import-substituting industrialization (1930-1960), and modern (1960-present). Consolidation of internal control and establishment of formal borders marked the first two phases. As such, most of the

³⁰ Jonathan C. Brown, *A Socioeconomic History of Argentina, 1776-1860*, (UK: Cambridge University Press, 1979) 50-51.

³¹ Citizens of Buenos Aires.

³² Gauchos are cowboys of the Pampas and the grasslands of the river Plate. Fiercely independent, they are the source of many myths and of nationalist rhetoric in Uruguay and Argentina.

³³ Randall, 1977, *Comparative Economic History*, 23.

conflicts also occurred in the first two phases, and what conflicts have occurred subsequently can be traced to those initial conflicts. Until the latter part of the 20th century, these phases have all been marked by a drive to increase pasture, control riparian access, increase world market share for Argentine agricultural products, and consolidate territory. We will examine economic development during these first two phases in more detail in an attempt to differentiate somewhat the character of renewable natural resource conflict as opposed to that of extractable natural resources as presented in the War of the Pacific.

Post Colonial Export (1816-1850): For Argentina to survive as an independent state, it required expanding frontiers, cheaper modes of transport, and expanding external markets for its goods.³⁴ This requirement was self evident to Argentina's founders. During this turbulent era, the infamous dictator, General Rosas, forcibly united the provinces and landlords into one nation. Economically, the period was marked by agricultural expansion, establishment of a Creole aristocracy, and the replacement of Spanish with British markets for raw-material exports. Expansion began slowly moving north and northwest from Buenos Aires along long-established trade routes to Upper Peru and the Uruguay and Paraná rivers. The large expanses of grasslands in the Pampas remained largely untouched until after Rosas eliminated the Pampas Indians as a threat.³⁵ The Andean border of northwestern Argentina was ill defined, generally referring to a "line drawn along the tallest peaks" as the

³⁴ Héctor Pérez Brignoli, "The Economic Cycle in Latin American Agricultural Export Economies (1880 - 1930)", *Latin American Research Review*, 1980), 8.

³⁵ "Juan Manuel de Rosas", *Historia Latinoamericana*, Accessed 20 November 2001, in Contenidos.Com. <http://www.contenidos.com/historia/rosas/5.htm> Rosas began a joint campaign with Chile in 1833, which was directed at eliminating rebellious tribes along the Andean range. By 1834, the Indians threat had been eliminated. The Pampas laid open to European settlement and over 10,000 Indian warriors were dead.

border. However, as settlement approached those ill-defined portions of the border, conflict became common as new nations clashed in attempts to clarify their borders, but PCNRs were not an issue for Argentina yet as beef was just emerging as an important export. Technology of the early 19th Century limited the ability of any nation to export meat products.

One of the biggest stimuli of economic growth was the Industrial Revolution. Numerous technical innovations immigrated to Argentina, which fueled productivity through the 1860s and dramatically expanded the country's world market share in beef, wool and wheat.

The emergence of meat salting technology in the 1780s made export of beef products commercially feasible, facilitating mass production of salted beef products and conversion of the byproducts into exportable products such as tallow, bone ash, and hides. The first *saladero*³⁶ (meat salting plant) appeared in Buenos Aires in 1810, at the same time as independence.

³⁶ "The saladero introduced a factory system into a rudimentary pastoral economy....The hide was deftly removed and taken to a separate section of the plant where it was salted, dried, and treated with arsenic to preserve it from moths and grubs. The lean, stringy meat was peeled off in long strips an inch or two thick. By one process these strips were soaked in brine for a month and then packed in barrels between layers of salt to be used in sailing ships. More common in the Río de la Plata was the preparation of dried salted meat for the slave plantations in Brazil and Cuba. The strips were briefly dipped in brine, spread on a hide, covered lightly with salt and another hide, and the process repeated until the pile reached the height of several feet. When the resultant pressure had removed some of the liquid, the strips were taken outside to dry in the sun on racks. Almost two months of repeated salting, stacking, and drying produced a hard, greyish substance that was easily transported and could last a year without serious deterioration. The remains of the carcass ended up in caldrons of boiling water where the fats were extracted and packed in tubes as grease and tallow. Into this portion of the saladero also disappeared sheep and horses whose hides and fats were, at that time, their only commercial assets. Little was wasted. Bones and refuse fed the fires and reappeared to be exported as bone ash. Hoofs yielded gelatin and oils. Even items such as horns and horsehair contributed as much as 5 per cent of the total value of exports." Randall, 1977, *Comparative Economic History*, 15.

The *saladero* required increasing numbers of cattle, which drove the expansion of grazing lands towards ill-defined borders. They also required massive amounts of salt imported from Seville, Spain, until an armed expedition established a source of salt in Patagonia. The discovery raised Patagonia's importance from frozen wasteland to valuable frontier. The discovery also dropped the price of salt by as much as two-thirds,³⁷ lowering end product costs and increasing demand for Argentine cattle products. The increased demand continued to drive expansion of grazing lands, further pushing them west, and eventually south into the Pampas.

The industrial revolution raised demand for Argentine products other than salted beef. Leather was used not just for shoes and clothing, but also for machine belts in factories, couplings for steam engines, and upholstery for rail cars. "[T]he British leather industry's growth surpassed the population increase. The population of Great Britain rose by 1.5 percent yearly, and the value of leather production grew annually by 3 percent. The per capita consumption of leather goods thus doubled between 1815 and 1850.³⁸ Footwear production efficiency was increased by introduction of centralized shops, standardized sizes, and sole presses. However, the real time saver was the 1850's introduction of the Singer sewing machine for attaching soles to uppers. "In Massachusetts alone, production of shoes increased steadily--15 million pairs in 1837 to 34 million in 1855."³⁹ Leather products continued to expand as the population of the industrialized Europe drew down the land

³⁷ *Ibid.*, 14.

³⁸ Jonathan C. Brown, *A Socioeconomic History of Argentina, 1776-1860* (UK: Cambridge University Press, 1979) 53.

³⁹ *Ibid.*, 55.

available for cattle production. In the United States, cattle production moved west; however need still outstripped productive capacity.

Table 39 demonstrates the dramatic rise in imports by both the United States and United Kingdom, and the commensurate increase of Argentine inputs into this boom.

Table 39 United States and United Kingdom Imports of Argentine Hides, 1826-1860⁴⁰

Great Britain Total			United States Total	
Hide Imports (Pounds Sterling*)	Argentine Percentage	Years	Hides Imported (Dollars*)	Argentine Percentage
1.4	n.a.	1826-30	2	26
1.7	n.a.	1831-35	3.6	27
2	n.a.	1836-40	3	16
2.8	n.a.	1841-45	3.4	26
2.7	n.a.	1846-50	3.5	21
1.9	22	1851-55	6.5	21
2.9	19	1855-60	10.3	19

* Millions of Pounds Sterling and Dollars

Sources: Werner Schlote, *British Overseas Trade from 1700 to the 1930's*, trans. by W. O. Henderson and W.H. Chaloner (Oxford, 1952), p. 142; and Great Britain Statistical Office, *Annual Statement of the Trade and Navigation of the United Kingdom with Foreign Countries and British Possessions* (London 1855-1862). Report of Commerce and Navigation of the United States, in *Executive Documents* of U.S. Senate and House of Representatives, 1827-1861.

Wool too benefited from the industrialization of the spinning industry. The Jacquard loom led to dramatic production increases with commensurate cost reductions for woolen goods. United States census figures show a 300 percent increase in woolen value between 1840 and 1860. Lower cloth prices led to diversification of use. Soon rug making became popular as the costs of production dropped. The 1845 introduction of the Bigelow power

⁴⁰ Ibid.. 59.

loom jumped production from 6 to 21 meters per day.⁴¹ Table 40 illustrates the increase in wool exports.

Table 40 British and American Imports of Raw Wool From Argentina 1827-1860⁴²

Years	Great Britain	United States
1827-30	80,941	155,956
1831-35	1,162,806	1,320,634
1836-40	2,382,692	3,723,130
1841-45	6,153,276	17,725,732
1846-50	5,155,498	14,614,973
1851-55	7,161,782	17,037,834
1856-60	8,131,765	18,462,799

Sources: Archibald Hamilton, "On Wool Supply," *Journal of the Statistical Society of London*, Vol.33 (Dec. 1870), p. 505; Thomas Southey, *The rise, Progress and Present State of colonial wools* (London, 1848), p. 331; Great Britain Statistical Office, *Annual Statement of Trade and Navigation of the United Kingdom with Foreign Countries and British Possessions*, (London 1855-62); and U.S. Treasury, "Report of Commerce and navigation of the United States," in *Executive Documents* of U.S. Senate and House of Representatives, 1828-61.

Initially, these wools were inferior, but the 1830 introduction of the "Simpson Burpicker" to remove the pampas burrs and grasses from the wools elevated them into the world market. Other animal byproducts were also in demand, tallow for soap and candles, horns for combs and tool handles. The Napoleonic wars obstructed trade from the east, increasing demand for Argentine products. Argentine imports were also increasing." French ships arrived with fine clothing, perfumes, and wines, and Genoa and Cádiz sent out Italian and Spanish wines. From Hamburg and the Baltic came iron goods, gin and stockings; Portugal sent salt and Brazil contributed sugar."⁴³ Table 41 illustrates the dramatic overall increase in Argentine exports during the early decades of its birth and as the agricultural

⁴¹ *Ibid.*, 62.

⁴² *Ibid.*, 82.

⁴³ *Ibid.*, 78.

lands opened up with commensurate increases in technological advances which facilitated production.

Table 41 Average Annual Argentine Pastoral Exports 1811-1860⁴⁴

Average annual exports of pastoral goods from Buenos Aires 1811 - 1860					
	1810s	1820s	1830s	1840s	1850s
Cattle hides	574,460	624,101	798,564	2,303,910	1,762,356
Salted meat (tons)	984	1,498	9,860	21,092	19,048
Raw wool (tons)	150	252	2,106	6,158	10,116
Tallow, grease (tons)	1,294	380	2,078	9,542	7,766
Horsehide	114,898	296,889	31,903	163,022	158,220
Sheepskins (doz)	na	na	78,002	101,047	382,922
Nutria skins (doz)	9,149	14,939	107,908	28,160	7,856
Horsehair (tons)	108	428	812	1,182	1,148

However, the increase in production highlighted the need for improved infrastructures in Argentina. It was imperative to move products to market, and that required riverboat and rail transportation. As Buenos Aires grew, so did the development of sophisticated trading structures into the eastern Andes and up the Paraná River.⁴⁵ Brown describes the difficulty in moving products to market in the 1830s and 40s.

Expansion in the port's [Buenos Aires] foreign trade stimulated use of wooden sailing vessels for carrying bulk freight from Uruguay, Paraguay, and the riverine provinces of Argentina. Imported canvas sails hoisted on masts of native timbers enabled craft to tack up the shallow rivers against the currents. Two-masted brigantines with square-rigged sails and broad, single masted smacks carried payloads weighing more than fifty tons. Some craft, like schooners and scows were shallow drafted and roomy freight carriers, and others, like toe sloop with main and jib sheets, were narrow and sleek.... Traditional

⁴⁴ Ibid., 80.

⁴⁵ Ibid., 95-96.

sailing vessels of modest size, therefore, bound the territories of the river basin into a regional commercial system whose hub was the port of Buenos Aires.⁴⁶

Domestic inland transportation of the 1820s was either by mule train or by cart train—the latter mode being more efficient as demonstrated in Table 42. Yet most of this transportation served only to provide domestic consumption in 1829, with only 1 in 14 carts carrying export goods.⁴⁷ However, during the 1820s and 30s, the cattle industry grew by leaps and bounds. *Saladeros* worked from December to March and would process as many as 150,000 head of cattle monthly in the 1830s. With the spread of ranching south, so did the stockyards.⁴⁸

Table 42 Mule and Cart Transportation in Argentina Around 1830⁴⁹

Average Capacity of Inland Transportation, 1830				
		Mule-Train	Cart Train	
Men		9	22	
Animals		82	120/15 Carts	
Capacity		8	24.5 Metric Tons	

Delivery of overland freight at Buenos Aires, 1829				
	Number	Total Freight (Tons)	Cargo per animal (kg)	Cargo per man (kg)
Cart Train	45	1,055	205	1,129
Mule Train	10	78	91	866

To compensate for the lack of efficient overland transportation, the provinces increased their use of riparian transport. The provinces were well served by the Paraná and Uruguay Rivers as depicted by Figure 58, and as Table 43 demonstrates, the increased uses of rivers for transport during the first half of the 19th Century greatly increased their value to

⁴⁶ Ibid., 98.

⁴⁷ Ibid., 107.

⁴⁸ Ibid., 113.

⁴⁹ Ibid., 102,103.

the growing nation. Brown further demonstrates that from the second half of 1832 through the first half of 1842, 73 percent of the interior's goods were for export, while only 7 percent were artisan products and only 20 percent for domestic consumption. This shift of destination for agricultural production, coupled with the increased importance to Argentina, Uruguay, Brazil and Paraguay of riparian access, elevated the river system to PCNR status and served as the catalyst for the Misiones, La Plata, Chaco Central, Apa, Yaguarón and Acre-Abuná conflicts.

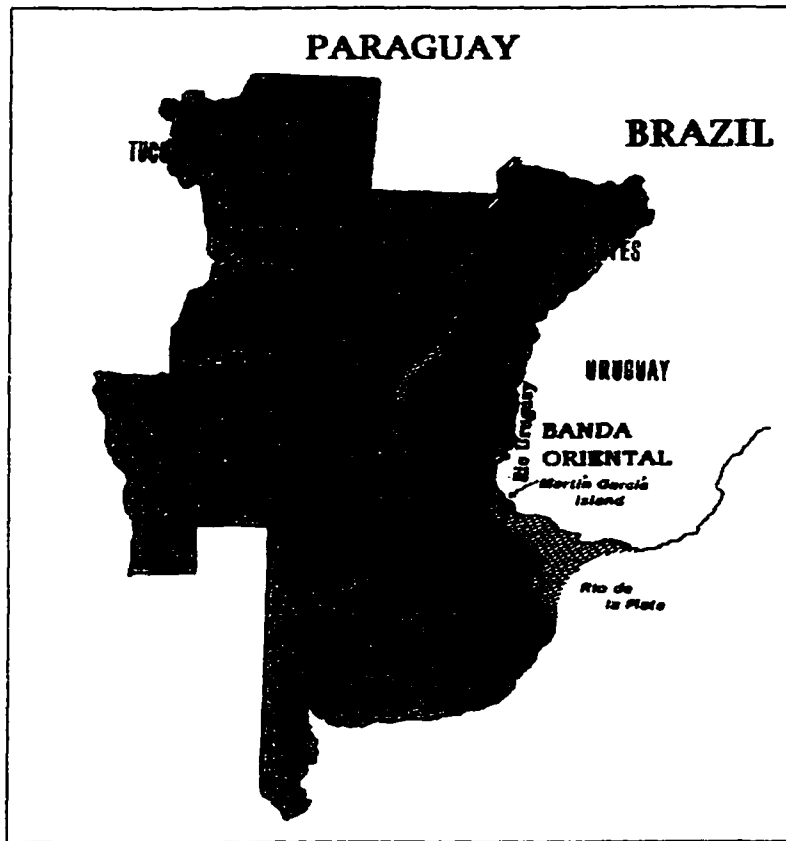


Figure 58 Rivers of Newly Independent Argentina⁵⁰

⁵⁰ Scheina, 1987, *Naval History*, 58.

Table 43 Riverine Traffic During the First Half of the 19th Century⁵¹

	1810	1820	1830	1840	1850	1860
Banda Oriental	60.6	53.3	57.7	77	33.7	41.2
Entre Ríos	24.7	16.7	23.6	11.5	35.4	20.8
Santa Fe	8.4	10	8.8	8.3	24.1	16.8
Corrientes	3.1	10	3.8	1.6	5.2	9.1
Paraguay	1.6	-----	-----	-----	-----	6
Others or Unknown	1.6	10	6.1	1.6	1.6	6.1

* Tons of Cargo

As Argentina emerged out of the industrial revolution, it was in a good position to take advantage of infrastructure improvements such as steam power, steamboats, and railroads.

Post Industrial Revolution (1850-1930): The introduction of the railroad and steam power coupled with the elimination of the Pampas Indians fueled a dramatic expansion of agriculture into the Pampas. The cattleman became king as more efficient means of transporting and storing beef increased his ability to get products to market. Introduction of deep-freezing increased beef's marketability as a food product in Europe, expanding the drive to produce more of the product. The Southwestern Argentine borders were ill defined, referring to unsurveyed territories and ridgelines. Border conflicts during this period were common in concert with the drive toward the exterior reaches of the Republic. Now, however, they were also being complicated by discoveries of industrial grade coal in Patagonia as well as fisheries conflicts with the United Kingdom over whaling and sealing. Nevertheless, beef production is predominant throughout most of the period, with wheat and

⁵¹ Ibid., 213.

wool combining to make up nearly half of Argentina's exports. Figure 59 illustrates the composition of Argentine exports throughout the 20th Century.

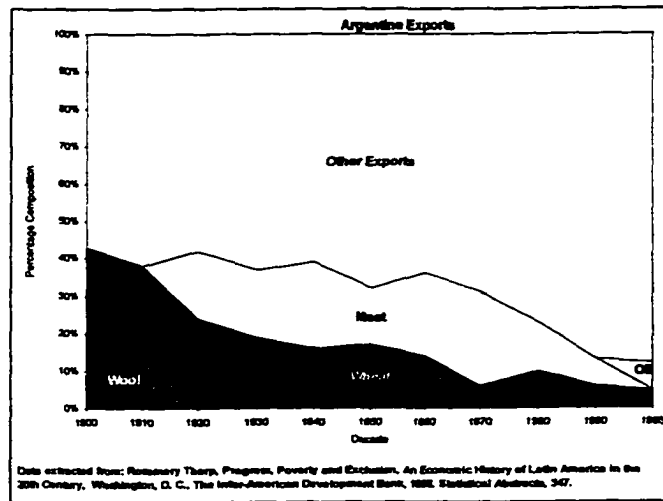


Figure 59-- Argentine Exports in the 20th Century⁵²

In 1857 Buenos Aires inaugurated its first short line railway; by 1900, 16,100 kilometers of track existed and by 1914 the total was at 34,500 Km.⁵³ Steam power cut freight rates both on land and on the Paraná River and by 1914 river shipping rates had dropped 600% since the 1850s. By 1910, rail carried 71 million people and 37 million tons of cargo annually.⁵⁴ The railway had pushed into Patagonia, opening the high desert to sheep ranching.

The explosion of technology was felt in other agricultural areas. By 1910, Argentina had expanded wheat cultivation some 20 million hectares and was exporting 2 million tons

⁵² Rosemary Thorp, *Progress, Poverty and Exclusion. An Economic History of Latin America in the 20th Century* (Washington, D.C: The Inter-American Development Bank, 1998) 347.

⁵³ *Ibid.*, 225.

⁵⁴ *Ibid.*, 226.

of wheat and 111,000 tons of milled flour. Water pumps and machinery aided irrigation and mitigated effects of drought. Barbed wire fences aided land management.

Technology also increased the usefulness of products, especially for edible beef products. Refrigeration increased demand for beef and the last Saladero was shut down by 1900. By 1914 *frigerificos*⁵⁵ (deep freezing factories) were processing 368,986 metric tons of chilled beef and 58,688 tons of chilled mutton annually.

While the technology needed prior to industrialization of Argentina was primitive and did not require much capital or knowledge investment, post industrialization technology needed financing, and that capital came from foreign sources. By 1910 40% of British investment in Latin America was in Argentina. French and American financiers were also heavily involved in the purchase, installation, and running of the new technology. While the natives remained in charge of the agricultural sector, they became dependent on the foreign-dominated transportation and service sectors of the economy.⁵⁶ Table 44 illustrates the growth of Argentina's economy between 1880 and 1914.

Table 44 Indicators of Economic Growth, Argentina 1880 - 1914⁵⁷

Indicator	Annual Growth*
Population	3.5
Urbanization	5.4
Railroad trackage	10.6
Wheat exports	9.9
value of exports	15.2
value of imports	6.8
manufacturing product	9.3
GDP	5
* Annual Growth Rate in Percent	

⁵⁵ Refrigeration Processing Plants.

⁵⁶ Brown, 1979, *Socioeconomic History*, 228-229.

⁵⁷ *Ibid.*, 230.

Flour milling, meatpacking, wine processing, and sugar refining became the dynamic industries of the area and by 1914 these four food-processing industries commanded 10 percent of all industrial capital, 12 percent of the laborers, 18 percent of the motive power, and 35 percent of the production. "...[M]uch of the sugar-refining and especially the meatpacking industries remained under the control of foreign managers, who had little interest in spreading their technologies to other domestic industries."⁵⁸

The combined effects of technological improvements were dramatic. "Tapping unexploited natural resources, coupled with lack of competition by neighbors and facilitated by a dramatic lowering of maritime freight costs due to steam power made export of these materials to the northern hemisphere possible. As a result, there was a remarkable influx of new capital and investment in the region."⁵⁹

An Initial Character Comparison: Extractable and Renewable Conflict

Let us look at the conflicts in which Argentina has been a contestant. Table 45 illustrates that as technology opened up new frontiers, natural resources became period critical and elevated the conflicts from the no-contest, or limited diplomatic relations, into the more tense relationships that led to saber rattling and war. Half of the conflicts occurred between the 1840 – 1920 industrialization years of Argentina.

⁵⁸ Ibid., 231.

⁵⁹ Roberto Cortés Conde, "Export-Led Growth in Latin America: 1870-1930", *Journal of Latin American Studies*, Vol 24, Quincentenary Supplement 1992 (UK: Cambridge University Press), 163-179.

Table 45 Argentine Conflicts Since Independence

Common Name	Years of Contact	Opponent	Highest Level of Conflict	Natural Resources
Malvinas Islands	1831, 1936, 1976, 1982	UK	War	Renewable
Chaco Central	1856, 1865, 1878, 1921, 1939	Paraguay	War	Riparian Access
Beagle Channel	1915, 1976, 1984	Chile	Saber Rattling & Skirmishes	Renewable
La Plata	1828, 1840, 1854, 1859, 1918, 1974	Uruguay	Saber Rattling & Skirmishes	Riparian Access
Misiones	1816, 1857, 1876, 1885, 1890, 1927	Brazil	Saber Rattling & Skirmishes	Riparian Access
Patagonia	1845, 1885, 1902	Chile	Saber Rattling & Skirmishes	Extractable
Puna de Atacama	1870, 1925, 1932	Bolivia	Saber Rattling & Skirmishes	Extractable
Los Andes	1899, 1925	Chile	Diplomacy	None

The Patagonia region of Argentina was not in dispute until the discovery of industrial grade coal in the region drew Chileans around the southern tip of the Andes into southern Patagonia. Of the two 20th Century Argentine conflicts, Beagle Channel, albeit contested for many years based on fishing claims, almost caused a war when oil was rumored to be in the area. The Falklands/Malvinas war served as a feeble attempt by the embattled Galtieri regime to divert popular attention away from Argentina's economic woes by focusing attention on an historic sovereignty dispute with the United Kingdom.

Herein lie the differences between extractable and renewable resources. Extractable resources do run out, or become irrelevant, as did the nitrate industry of northern Chile and the rubber industry of eastern Peru. Agricultural resources are not perceived as exhaustable, and while they push frontiers, they do so gradually as the economy can absorb the increased production.

Immigration increases and decreases with the fortunes of extractable resource.

Renewable resources tend to draw gradual immigration. For example, as the grazing lands of

Argentina were opened, immigration gradually increased, and often drew people who identified with the country in which they settled.

Technology determines whether a natural resource is period critical to the ruling elite.

As noted earlier in the discussion of the War of the Pacific, that conflict was not in the works prior to the discovery of period-critical mineral resources (silver, then guano, and then nitrates). Technological improvements increased the ability to extract iodine and refine the nitrate that led to its being able to meet world demand. But alone, this technology would not have allowed for the transport of the bulk required to the consumers. The need for cheaper transportation led to construction of railways, steam locomotion, and steamships, capable of transporting the materials in sufficient bulk to meet the world market demand. Not until after world demand for nitrates dried up did Chile allow Bolivia to regain unrestricted rail access to the Pacific.

The rubber industry provides another example. While there was ample labor to extract the product, the ability to transport it to market was restricted. Unlike the guano and nitrate industries where technology was applied both to extraction and transportation, in the rubber industry it was only applied to the transportation out of the Amazon basin. This opened the way to the scientific cultivation of rubber in Asia, and the demise of the Amazonian industry. So it is clear that the need to get products to market was a driver of technology, and that the technological response made growth in South America possible. But can we say the same thing for renewable natural resources?

Looking at the Argentine example, the answer is clearly positive. But the technological responses to the need to move products to market are not restricted to one

nation. As the names of the innovations attest, the technologies were imported to the Argentine market as opposed to homegrown, and with them often came foreign financing. Economist Hans Singer argued that there was an uneven distribution of the gains from foreign trade and that, in fact, “foreign investments in the export sector are not part of the domestic economy, but represented an enclave belonging to the countries of the centre which received its benefits.” Singer argues that when looking at modern South American economies, we see a dual economy, with a modern sector linked to central countries [industrialized countries] and a more traditional sector linked to the domestic economy with the two differentiated by levels of productivity and efficiency.⁶⁰ We shall examine the case of Colombia’s Llanos region and the conflict with Venezuela and see if we can draw any conclusions relevant to the technology argument.

Establishing the Border in the Colombian Llanos

The Llanos region of Colombia along its southeastern frontier was largely unknown in 1845 and the conservative governments since independence felt no compunction to explore or expand into that area. But in 1849, when the Liberal Party came into power, a change in philosophy was about to occur. “The Liberals...believed that one reason for New Granada’s lack of economic growth was that large and potentially rich portions of its territory were virtually unknown. While 90 percent of the population lived in the Andean core, the Magdalena Valley, much of the Pacific and Caribbean coast and the immense

⁶⁰ Hans Singer, “The Distribution of Gains Between Investing and Borrowing countries”, *American Economic Review, Papers and Proceedings*, Vol XL (May 1950), 573-485. cited in: Cortés Conde, 1992, *Export-Led Growth*, 165.

Llanos and Amazonia regions remained nearly empty.”⁶¹ In order to open lands for continued development of tropical agriculture and to employ its illiterate, surplus labor force, the Liberals turned to opening the frontier, concentrating on transportation along the Magdalena River and expansion of tobacco exports.⁶² While the Liberal reforms were destructive to established Andean colonies, they began a slow but steady emigration of peasants onto the plains south of the Meta River.

Colombian Liberal reforms⁶³ disestablished the state tobacco monopoly, abolished slavery, accelerated division of Indian lands, expanded civil liberties, eliminated the death penalty for political offences, decentralized the tax revenue structure, elevated government control over the Catholic Church, and eliminated the ecclesiastical courts of the Catholic Church. The Liberals’ push to expand their agricultural industry by growing tobacco was closely paralleled by the encouragement of steam navigation of the Magdalena River. The combination of the two elevated Colombian tobacco to New Granada’s largest exchange earner.

Tobacco income fluctuated between 100,000 and 200,000 pesos annually in the mid 1840s and increased to more than 5 million pesos annually in most years between 1850 and 1875. By 1878 production was on the wane, sapped by the declining quality of the Colombian leaf and competition from Java and Brazil, but not before it had stimulated

⁶¹ Jane M. Rausch, *The Llanos Frontier in Colombian History 1830-1930* (Albuquerque, NM, University of New Mexico Press, 1993), 61.

⁶² Rausch, 1993, *The Llanos*, 61.

⁶³ Rausch, 1993, *The Llanos*, 62. “Supporters of López [the Liberal President] believed that individuals left alone to pursue their intellectual and material interests would contribute to the progress of civilization and the well-being of society in general.”

the economy, stabilized navigation on the Magdalena, and prepared the way for the transition to coffee.⁶⁴

At the same time, steam navigation was proving beneficial to the remote economy of Casanare, New Grenada's second poorest province. There, the trade was in cattle. Arauca City, in Colombia and El Amparo in Venezuela became wealthy as transshipment points for the cattle industries of the high plains. "Ships sailing from Ciudad Bolívar up the Orinoco and the Arauca rivers unloaded their cargos at these two ports, and from there the merchandise was shipped to the interior."⁶⁵

Wind propulsion limits maneuverability, but steam propulsion made navigating shallow waters possible, and with the advent of steam, riparian access began to penetrate up the Meta River. Exploration was accelerated by the 1856 Colombian decree that all rivers were open and free to navigation, but bureaucratic bumbling and indecision over the border killed the progress in 1860.⁶⁶ However, Liberal visions of steamboats transiting up and down the Meta River continued to spur attempts to establish a Meta Steamboat Company for another two decades.⁶⁷

Ill definition of the border, coupled with Venezuelan intransigence over river navigation on the Orinoco and Colombian inability to successfully promote interior steam navigation of its rivers stifled the growth of the agricultural industry in the high plains. It seems clear that technology alone will not spur exploitation of natural resources, renewable

⁶⁴ Rausch, 1993, *The Llanos*, 62-63.

⁶⁵ *Ibid.*, 70-71.

⁶⁶ *Ibid.*, 76.

⁶⁷ *Ibid.*, 96.

or extractable. And conversely, without expanding development in a region, technology may not be drawn to the area. By the time the border was settled by the Swiss arbitration of March 4, 1922, the momentum to exploit the region had been eclipsed by the discovery of oil in Venezuela and cultivation of coffee in Colombia. Steam navigation on the rivers was never really effective and colonization of the high plains was only marginally successful.

The Colombian border reinforces the observations of hypotheses four and five. Technology did enable some exploitation of the high plains, and elevate a renewable resource (tobacco) to the level of a PCNR. The technological ability to extract oil, and the wealth available through that exploitation demoted agricultural income from PCNR. The wealth available through coffee cultivation in the Andean highlands of Colombia soon drew attention away from the Venezuelan border. When that happened, border resolution was accomplished, albeit slowly.

The Character of Conflict, Extractable Vs. Renewable Natural Resources.

I wish to make a few observations about the differing character of conflict when renewable resources are in contest as opposed to extractable resources. Figure 60 highlights these points:

Extractable PCNRs	Renewable PCNRs
Immigration Uninvited	Immigration Invited
"Get Rich Quick"	"Long-Term Investment"
Time to exhaust resources viewed as relatively short	Resources viewed as unexhaustable
Domestic Use not developed	Domestic consumption absorbs some of the slump in the world economy
Correlation to SR&S	Correlation to SR&S
Correlation to War	Correlation to War
Genesis of Conflict is time-identified	Genesis of conflict is often vague

Figure 60 Conflicts over Extractable Vs. Renewable Resources

Generally speaking, when an extractable natural resource is identified, those who stand to make the profit from it are hesitant to invite others to partake of the riches. For example, with the identification of the commercial importance of guano, and then nitrate fertilizers, the Atacama Desert rocketed from dry wasteland to important generator of capital. The possibilities of getting "rich quick" drew immigrants for Bolivia, Peru, and Chile. But in fact, the capacity of individual miners was insufficient to generate adequate quantities of minerals to lift themselves out of credit servitude. Part of the draw is the view that if one fails to act quickly, then the resource will become exhausted.

A second aspect of extractable resources is that they are generally exported. Domestic refinement of the minerals was not developed to any degree, and domestic production using the refined products was even less developed.

These aspects of extractable natural resources are clearly opposite of those of renewable natural resources. If we look at the case of Argentina, immigration was invited. Immigrants from Europe flocked to the pampas. Instead of looking at the land as a

possibility to get rich quick, the individuals were often interested in making a living off the land for themselves and for their families. Large land holdings had to be farmed by someone, and the labor force was available to be employed. Whereas technology reduced the need for labor needed to mine extractable resources, technology enlarged the land that could be farmed and at least initially, increased the need for labor, thus spurring increased immigration.

The time to exhaust renewable resources is also not viewed as limited as in the case of extractable. Unlike extractable natural resources, there is a domestic market for renewable natural resources. This ameliorates somewhat the responsiveness to international market slumps.

So how do the two types of natural resources compare when we look at hostilities? Table 46 illustrates that fifteen conflicts involved PCNRs, twelve of which (80%) elevated to armed hostilities. Of the 12, eight were over extractable resources as opposed to four over renewable natural resources, and of each of these, riparian access was involved in six of the eight over extractable resources and half of the four over renewable natural resources.

Table 46 Extractable Vs. Renewable Natural Resources and Conflict.

PCNRs	Contested Border	Riparian Access	"0" No Conflict	"1" Diplomacy		Armed Hostilities		
E			None	None				None
E	X					2		None
E		X	None	None				None
E	X	X		2		6	5	3
R			None	None				None
R	X					2		None
R		X				1		None
R	X	X		1		1	2	2

While the sample is too small to make generalizations, it would seem that conflict is more likely to occur over extractable natural resources than renewable ones. Of the eight cases which resulted in armed hostilities over extractable natural resources, six were settled with saber rattling as opposed to war. Of the four cases involving renewable natural resources, half elevated to war. While confirmation of this trend would require a much broader study of the cases, it may be that concern over destroying extractable natural resources in the course of armed hostilities, leading to an earlier exhaustion of the resource, may ameliorate the level of violence.

Yet another matter which clouds the differences between renewable and extractable resources is that in the long history of these conflicts, there is often the presence of both noted in the contested border. In the case of the Malvinas and Beagle Channel conflicts, both started over fisheries issues, and ended in war when the possible presence of oil was discovered. Likewise, in Patagonia, when industrial grade coal is noted in the region, the area is hotly contested, whereas without that extractable resource, it appears to be resolvable by diplomatic means.

News reporting is replete with examples of this sort of combining of old and new conflicts. For example, an Argentine Liberal Party analysis of the Beagle Channel “concludes with several final reflections, “indicating first that the Beagle zone - potentially rich in oil, krill, minerals and drinking water resources - in addition to being an important transit route between the Atlantic and the Pacific...,”⁶⁸ is essential to the strategic interests of

⁶⁸ “Argentine Radicals Urge Acceptance of Beagle Agreement”, *La Nacion*, Buenos Aires 14 Aug 84, Lexis-Nexis, BBC Summary of World Broadcasts, August 20, 1984, Monday.

Argentina. Likewise, in the Malvinas Islands conflict, fisheries initiated the conflict between Argentina and Great Britain led to the 1833 seizure of the islands. What elevated it to war status was not a conflict over fisheries, but rather the rumored presence of oil, and a need by the Argentine administration to unite a divided country against a common foe. A survey of the world press during 1982 – 1985 reveals the omnipresence of the resources argument in the non-aligned movement. Russia's TASS wrote that the United States was, "guided by a desire to seize positions in that strategic region rich in natural resources. Now the British government is "paying the bill" for American aid..."⁶⁹ France's Le Monde also highlighted the resource argument. Quoting a former Peron aide, it reported that "They are important...on account of their oil and protein resources, and also because they enable the vectors to be traced setting out our rights in the Antarctic." Geopolitical claims, such as that they were indispensable for "controlling the south Atlantic" were generally dismissed as in the case of Oscar Camilion, the junta's former Foreign Minister: "They control access neither to the Antarctic nor to South Africa, but only to our country."⁷⁰

Chinese press assessments, that it was required to introduce oil into the mix to justify a war, were in line with the findings of this paper.

The Malvinas Islands, which the British call the Falkland Islands, are located in waters between the South Atlantic and Antarctica. The islands consist of two larger islands and more than 100 small reef

⁶⁹ Ruslan Knyazev, "Falklands: United States Company to Search for Oil on Continental Shelf", Tass in Russian for abroad 1535 (and in English 1645) gmt 4 Jan 85, Lexis-Nexis, BBC Summary of World Broadcasts, January 8, 1985.

⁷⁰ Charles Vanhecke, "Coming to terms with defeat – the Argentine way", LE MONDE; June 13, 1982, 12.

islands with an area of about 12,000 sq.km, and are currently inhabited by more than 2,000 people. There is abundant peat and also lead, silver, iron, coal and other mineral resources on the Malvinas Islands. In the past few years, rich petroleum resources have been discovered under the sea around the islands. The islands' economy is mainly animal husbandry, producing wool and leather.”⁷¹

To raise renewable natural resources to a level that merits fighting, generally speaking it seems necessary to tie it to an extractable resource. Without doing so, the conflict seems less urgent and does not rise to the level where fighting seems to be the answer.

As has been made clear in this paper, the difficulty in looking at long-standing border conflicts is determining where to start looking. Most of these conflicts began prior to independence, and were rooted in conflicting claims of distant landlords. One cannot help but notice that in the case of extractable natural resources, the genesis of the actual armed hostilities is rather easily identified. Conversely, it is difficult to see the genesis of the conflict over renewable natural resources. The latter seem to simmer longer and as such, may well merit closer scrutiny.

Conclusion: What does all this portend for the 21st Century?

While it is fine to study history, to make it of value we should try to deduce strategies in which we learn from the past to make improvements in relations of the future. While some would argue the diminishing importance of physical boundaries today, all recognize the emergence of socio-cultural and economic boundaries that seem to be

⁷¹ “Chinese Account of Falkland Islands Imbroglia”, Peking home service 1100 gmt 5 Apr 82 BBC Summary of World Broadcasts, Thursday, April 8, 1982, Lexis-Nexis.

defended with equal ferocity. What can we learn from these cases to better relations between states in the future?

Identification of PCNRs is important to determining what is and is not negotiable.

We have seen that when a natural resource becomes critical to a state, its existence on a historically contested border can raise the conflict over that border to levels over which wars are fought. We have an example of when war has been fought over uncontested borders because riparian access has been at issue. So what relevance does this have for United States foreign policy today?

Identification of critical natural resources which are in nascent stages of development in a state is perhaps more important than understanding the ideological thinking of that state. Throughout the cold war and the United States -Soviet conflict, ideological alignment was used to justify support for belligerents by both sides. The result was the type of thought expressed by Kenneth Waltz wherein peace was viewed as the result of nuclear domination and parity between two super powers. The problem with this level of thinking is that it obscures the sources of war in the world today. Military strategies to counter such threats, exemplified by the technologies employed in satellite surveillance and precision missiles, make it nearly impossible to respond to crises such as the Malvinas. In that case, the United States was without options, caught in a dilemma between its NATO and its RIO alliances, and caught unawares to the point that its response was disorganized and ineffective.

There is no question that oil is a PCNR of the last half of the 20th century. Identification of its presence in contested borders should set off red flags in American foreign policy circles and preemptive mitigation strategies should be undertaken. But this is

not all. Technology today moves so rapidly that what may not have been recognized as a natural resource last week could become a nascent PCNR next week. For example, biological resources of which there is a rich abundance in much of Latin America is perhaps the main area where this observation will play out. American intelligence analysts need to focus more effectively on these nascent technologies and tie them to contested areas to identify potential areas of conflict.

Identification of the types of PCNRs is important to the resolution of conflict.

A corollary to the above is the importance of recognizing the type of natural resource involved. If riparian access is not critical to the movement of cargo to the world market, then it ceases to be something that a war might be fought over. If however, we relegate that to an unimportant issue, and the water becomes critical to colonization and exploitation of an extractable resource, we may see the control of that river vaulted into a period-critical role—something to fight over. Thus, identifying what is becoming period critical to a nation may enable preemptive international regime actions which will promote peace or at least mitigate the propensity for conflict.

Identification of technology impacts on state revenues is of vital importance to peace.

Without steam transportation, the rivers along contested borders were simply convenient markers of international borders. With the introduction of steam, the rivers became period critical to the bordering nations and were the cause of all wars and nearly all skirmishes studied in South America. The water is renewable, the technology requiring the water is period critical. If tomorrow someone were to identify a way to extract energy from sand, it is feasible that the ill-defined deserts of Africa could become highly contentious.

The second corollary to the first observation is that the relationship of technology to renewable natural resources is essential in determining when those resources might be perceived as period critical.

Lines of communication, be they physical or electronic, are important to preservation of peace.

Much in the same light as the consideration of technology mentioned above, the rivers served as important lines of communication. In the days preceding the telegraph, rivers were the only way to move mails into the regions we have discussed. Today electronic lines of communication and their related currency of information are essential to the financial infrastructure of nations and the physical well being of the citizenry of the world. Actions which may impede a state's access to those lines of communication are as likely to cause conflict as did attempts to control the riverine lines of communication at the end of the 19th century. If we are to guarantee our access to these lines, it behooves the United States to ensure the "free and unlimited access" of all to them.

Sovereignty over people is an issue much of the time. Negotiators should consider what impact change will have on the citizens of the affected states.

Lastly, people's allegiance to a state may not align with the political geography accepted by the world. Leticia serves as a bloody and bold reminder that just because two foreign ministers agree to draw a line on the map, doesn't mean that Colombians will become Peruvians or vice versa

Today's boundary negotiations do not revolve so much around political geography as much as the intellectual geography of human society. Nationalist claims over the intellectual landscape may cause conflicts of unimaginable proportions if we are not careful to discern

where allegiances lie. As I write this, my country is embarked on a “war against terrorism.” While giving lip service to the understanding that we are fighting against terrorism, we are attacking a state who gives refuge to someone we feel is a terrorist, threaten others who harbor those we consider terrorists, and question the civil libertarian values on which our country is based. In so doing, we ignore the intellectual boundaries that we have fought to establish for over two hundred years.

If we are to achieve peace in human society, understanding allegiances is essential. In the post-Westphalian order, allegiance to nation is assumed. In the Leticia affaire, we saw where cavalier border declaration ignored citizen allegiance. In that case, the new border displaced only a few hundred people, yet subsequent skirmishes led to violence that caused national mobilization of two countries. But as recent events in Africa and the Middle East have demonstrated, there are many in this world that hold no allegiance to any particular state, rather giving allegiance to a belief or faith. If we do not examine and attempt to understand allegiances, and attempt to protect the ability of people to maintain their allegiances, we may look to a repeat of Leticia on a grander scale.

As I stated in the beginning of this paper, my hope was to find certain correlations that might prove helpful to intelligence analysts and intellectuals in evaluating the bellicose potential of international boundaries. I have attempted to do so and hope that the findings of this paper spur discussion and searches for additional understanding of border conflict. I wholly realize that I have sidestepped the civil war issues evident in the world today. That field deserves further study to determine if it is not misalignment of political boundaries vis-à-vis intellectual boundaries which is at the their root.

I believe that identification of PCNRs will aid in the prevention and mitigation of border conflict, both political and intellectual. It is my hope that studying these relationships will contribute to conflict avoidance. Perhaps someday we might achieve FDR's last written goal, that rather than avoiding war, we might understand its genesis and avoid the beginnings of war.

Bibliography

- Adamson, Alan H. *Sugar Without Slaves; the political economy of British Guiana, 1838-1904*. New Haven, Conn: Yale University Press, 1972.
- Alexander, Robert J. *Bolivia Past, Present, and Future of its Politics*. New York: Praeger, 1982.
- . *The Bolivarian Presidents: Conversations and correspondence with Presidents of Bolivia, Peru, Ecuador, Colombia and Venezuela*. Westport, Conn: Praeger, 1994.
- Alexander, Robert K. *The Tragedy of Chile*. Westport, Conn: Greenwood Press, 1978.
- Alisky, Marvin. *Peruvian Political Perspective*. Tempe, Az: Arizona State University Press, 1975.
- Alvarez, Alejandro. *The Monroe Doctrine: Its Importance in the International Life of the States of the New World*. New York: Oxford University Press, 1928.
- “Argentina and the Falkland Islands”, *BBC Summary of World Broadcasts* (4 May 1982), Lexis-Nexis.
- “Argentine Radicals Urge Acceptance of Beagle Agreement.” *La Nación*. Buenos Aires (14 Aug 84) , from *BBC Summary of World Broadcasts*. “Part 4 The Middle East, Africa and Latin America.” *LATIN AMERICA AND OTHER COUNTRIES* (20 August 1984), Lexis-Nexis.
- Arbalza, Norman D. *Mars Moves South: The Future Wars of South America*. New York: Exposition Press, 1974.
- Atkins, G. Pope. *Latin America in the International Political System*. 2^d ed. Boulder, Co: Westview Press, 1989.
- Azambuja, J. M. N. *Questión Territorial com a República Argentina*. Rio de Janeiro, 1891.
- Barbier, Edward and Thomas Homer-Dixon. *Resource Scarcity, Institutional Adaptation, and Technical Innovation: Can Poor Countries Attain Endogenous Growth?* Toronto: American Association for the Advancement of Science, University of Toronto, 1996.
- Bari, N. Argentina, “Dissent in Argentina.” Letters To The Editor, *Manchester Guardian Weekly* (30 May 1982), Lexis-Nexis.

- Bethell, Leslie. *Argentina Since Independence*. UK: Cambridge University Press, 1993.
- Brignoli, Héctor Pérez. "The Economic Cycle in Latin American Agricultural Export Economies (1880 - 1930)." *Latin American Research Review*, 1980.
- Brown, Jonathan C. *A Socioeconomic History of Argentina, 1776-1860*. UK: Cambridge University Press, 1979.
- Bueno de Mesquita, Bruce. *The War Trap*. New Haven: Yale University Press, 1981.
- Cardoso, Fernando H. and Enzo Faletto. *Dependencia y Desarrollo en América Latina*. Mexico, 1969.
- Caillavet, Chantal and Ximena Pachón C. *Frontera y poblamiento: Estudios de historia y antropología de Colombia y Ecuador*. Santafé de Bogotá: Instituto Francés de Estudios Andianos, Universidad de los Andes, 1996.
- Cariola Sutter, Carmen and Osvaldo Sunkel. *La historia económica de Chile, 1830 y 1930: dos ensayos y una bibliografía*. Madrid: Ediciones Cultura Hispánica, Instituto de Cooperación Iberoamericana, 1982.
- . *Un siglo de historia económica de Chile, 1830-1930*. Santiago: Editorial Universitaria, 1960.
- Carpio Castillo, Rubén. *Geopolítica de Venezuela*. Caracas: Editorial Ariel-Seix Barral Venezolana, 1981.
- Carr, Edward Hallett. *The Thirty Years Crisis, 1919-1939*. New York: Harper and Row, 1939.
- Ceresole, Norberto. *Geopolítica de Liberación: Argentina, El Grupo Andiano, y las Naciones del Plata.*, 1972.
- Child, Jack. *Geopolitics and Conflict in South America: Quarrels Among Neighbors*. New York: Praeger, 1985.
- "Chinese Account of Falkland Islands Imbroglio." (5 April 1982), *BBC Summary of World Broadcasts* (8 April 1982), Lexis-Nexis.
- Cleveland, Grover. *Presidential Problems*. New York: The Century Co., 1904.
- Collier, Simon and William F. Sater. *A History of Chile, 1808-1994*. UK: Cambridge University Press, 1996.

- "Colombia and Venezuela Sign Document to Solve Bilateral Problems." *BBC Summary of World Broadcasts* (8 March 1990), Lexis-Nexis.
- Copeland, Dale C. "Economic Interdependence and War: A Theory of Trade Expectations." *International Security* (Spring 1996). 5-41.
- Coronil, Fernando. *The Magical State, Nature, Money, and Modernity in Venezuela*. Chicago, IL: University of Chicago Press, 1997.
- Cortés Conde, Roberto. "Export-Led Growth in Latin America: 1870-1930." *Journal of Latin American Studies*. UK: Cambridge University Press. Vol. 24, Quincentenary Supplement 1992.
- Cortés Conde, Roberto and Stanley J. Stein, eds. *Latin America: A guide to economic history, 1830-1930*. Berkeley, University of California Press, 1977.
- Curtis, William Eleroy. *Venezuela: a Land Where it's Always Summer*. New York: Harper & Brothers, 1896.
- David, Wilfred L. *The Economic Development of Guyana, 1953 – 1964*. Oxford: Clarendon Press, 1969.
- Davis, Harold Eugene and Larman C. Wilson. *Latin American Foreign Policies and Analysis*. Baltimore: Johns Hopkins University Press, 1975.
- de Bellis, Bernardeo Quagliotti. *Constantes Geopolíticas en Iberoamérica*. Uruguay: Geosur, 1979.
- _____. Uruguay en el Cono Sur. 1974.
- de Mello, J. A. Texeira. *Límites do Brasil com a Confederação Argentina*. Rio de Janeiro, 1883.
- "Falklands Crisis 'Beginning to Smell of Oil'." *Telegraph Agency of the Soviet Union* (22 April 1982), *BBC Summary of World Broadcasts*, Part 1 The USSR; A. The USSR; A. International Affairs; 1. General and Western Affairs. (23 April 1982).
- Fernandez, Edgar Oblitas. *Geopolítica y Geografía en América Latina (Cono Sur)*. Sucre, Bolivia: Editorial "Tupac Katari", 1983.
- Fifer, J Valerie. *Bolivia: Land, Location, and Politics Since 1825*. UK: Cambridge University Press, 1972.
- Finan, John J. "Argentina." *Latin American Foreign Policies*. Harold Eugene Davis, Larman C. Wilson, et. al. Baltimore: Johns Hopkins University Press, 1975.

- Fuenzalida Villegas, Humberto. *La conquista del territorio y la utilización de la tierra durante la primera mitad del siglo XX*. Santiago: Universidad de Chile, 1952.
- Gilpin, Robert. *War and Change in World Politics*. Cambridge: Cambridge University Press, 1988.
- Gleick, Peter H. "Water and Conflict: Fresh Water Resources and International Security". Edited by Sean M. Lynn-Jones and Steven E. Miller. *Global Dangers: Changing Dimensions of International Security*. Cambridge, Mass: The MIT Press, 1995.
- Gonzalez, Meliton. *El Límite Oriental del Teritorio de Misiones*. Montevideo-Buenos Aires 1883, 1886, 3 vol.
- Graham, Robert. "Gulf of Venezuela talks with Colombia to restart in August." *BBC Monitoring Latin America – Political* (July 28, 1989), Lexis-Nexis.
- Habeeb, William Mark. *Power and Tactics in International Negotiations: How Weak Nations Bargain With Strong Nations*. Baltimore: The Johns Hopkins University Press, 1988.
- Hanratty, Dennis M. and Sandra W. Meditz. *Paraguay: A Country Study*. Washington, DC: Headquarters, Department of the Army, 1990.
- Hansen, Robert W. *The Future of Intelligence and the Central Intelligence Agency*. Bureau of Intelligence and Research, Department of State. Author's notes from a presentation at a symposium presented at Catholic University of America (19 April 1995).
- Herman, Donald L. *Democracy in Latin America: Colombia and Venezuela*. New York: Praeger, 1988.
- Homer-Dixon, Thomas. "Across the Threshold: Empirical Evidence on Environmental Scarcities as Causes of Violent Conflict." an unpublished paper submitted to *International Security* (May 1993).
- "Environmental Scarcity, Mass Violence, and the Limits to Ingenuity." *Current History* (Nov 1996): Vol. 95; Issue 604; 359-365.
- "Environmental Scarcities and Violent Conflict: Evidence From Cases." *International Security* (Summer 1994) Vol. 19; Issue 1; 5-40.
- "On the Threshold: Environmental Changes as Causes of Acute Conflict." *International Security* (Fall, 1991): 76-116.

- Horowitz, Joel. *Argentine Unions, The State and the Rise of Peron, 1930-1945*. California: University of California, 1990.
- Hudson, Rex A. *Peru: A Country Study*. Washington DC: Library of Congress, 1993.
- Hudson, Rex A. and Dennis M. Hanratty. *Bolivia: A Country Study*. Washington, DC: Headquarters, Department of the Army, 1989.
- Hurtado Ruiz-Tagle, Carlos. *De Balmaceda a Pinochet*. Santiago: Ediciones Logos, 1988.
- Ireland, Gordon B. *Boundaries, Possessions, and Conflicts in South America*. New York: Octagon Books, 1938.
- James, Henry. *Richard Olney and his Public Service*. Boston: The Riverside Press Cambridge, 1923.
- Jeffrey, Henry B. and Colin Barber. *Guyana, Politics, Economics and Society: Beyond the Burnham Era*. Bolder, Colo: Rienner Publishers, 1986.
- Kaysen, Carl. "Is War Obsolete? A Review Essay." In *Theories of War and Peace: An International Security Reader*, ed. Machael E Brown et. Al. 448-463. Cambridge, Mass.: MIT Press, 1998.
- Kelly, Philip. *Checkerboards & Shatterbelts: The Geopolitics of South America*. Austin: University of Texas Press, 1997.
- Keohane, Robert O. *After Hegemony*. New Jersey: Princeton University Press, 1984.
- _____. *International Institutions and State Power*. Boulder, Colorado: Westview Press, 1989.
- _____. *Neorealism and its Critics*. New York; Columbia University Press, 1986.
- _____. *Neorealism and World Politics*. New York: Columbia University Press, 1986.
- Kirsch, Henry W. *Industrial Development in Traditional Society: The conflict of Entrepreneurship and Modernization in Chile*. Gainsville: University Presses of Florida, 1977.
- Knyazev, Ruslan. "Falklands: United States Company to Search for Oil on Continental Shelf." (4 Jan 85) from *BBC Summary of World Broadcasts*, "Part 1 The USSR; A. International Affairs; 1. General and Western Affairs (8 January 1985), Lexis-Nexis.
- Lagos Carmona, Guillermo. *Las fronteras de Chile*. Santiago: Empresa Editora Zig-Zag, 1966.

- Levy, Marc A. "Is the Environment a National Security Issue?" *International Security* (Fall 1995) 35-62.
- Lipschutz, Ronnie. *When Nations Clash*. New York: Balinger Publishing Company, 1989.
- _____. Abstract of "Ore Wars: Access to strategic materials, international conflict, and the foreign policies of states." *Dissertation Abstracts International*; Jan 1989, 1952.
- Londono, Julio. *Geopolítica de Suramerica*. 1977.
- Lowi Miriam R. "Bridging the Divide: Transboundary Resource Disputes and the Case of West Bank Water." In *Global Dangers: Changing Dimensions of International Security*. Eds. Sean M. Lynn-Jones and Steven E. Miller, 118-143. Cambridge, Mass.: The MIT Press, 1995.
- Lynch, John. *Argentine Dictator: Juan Manuel de Rosas: 1829-1852*. Oxford: Clarendon Press, 1981.
- Mamalakis, Markos J. *The Growth and Structure of the Chilean Economy: from independence to Allende*. New Haven, Conn: Yale University Press, 1976.
- Mansfield, Edward and Jack Snyder. "Democratization and War." *Foreign Affairs* (May/June 1995):81.
- Marini, Cesar José. *La Crisis en el Cono Sur*. 1984.
- Martin, Luis. *The Kingdom of the Sun: A Short History of Peru*. New York: Charles Schribner's Sons, 1974.
- Mattos, Carlos de Meira. *Geopolítica e teoria de fronteiras: fronteiras do Brasil*. Rio de Janeiro: Biblioteca do Exército Editora, 1990.
- McBeth, B. S. *Juan Vicente Gomez and the Oil Companies in Venezuela, 1908-1935*. Great Britain: Cambridge University Press, 1988.
- Mendez, Julio. *Límites Argentino-Bolivianos en Tarija*. Bolivia: La Paz. 1888.
- Monteón, Michael. *Chile in the Nitrate Era, The Evolution of Economic Dependence, 1880-1930*. Wisconsin: University of Wisconsin Press, 1982.
- Moreno, Pascual Ahumada, ed. *La Guerra del Pacifico*, 9 vols. (Valparaiso, 1884-1890), 1:93.
- Morgenthau, Hans. *Politics Among Nations*, 5th ed. New York: Alfred A. Knopf, 1973.

- “Navy considers building hull of first of eight new frigates in Germany.” *BBC World News Roundup* (4 November 2000), Lexis-Nexis.
- Nuñez, Enrique Bernardo. *Juicios sobre la historia de Venezuela*. Caracas: Concejo Municipal del Distrito Federal, 1976.
- O’Brien, Thomas F. *The Nitrate Industry and Chile’s Crucial Transition, 1870-1891*. New York: New York University Press, 1982.
- O’Donnell, Guillermo. *Bureaucratic Authoritarianism: Argentina, 1966-1973, in Comparative Perspective*. California: University of California Press, 1988.
- Olson, Elizabeth. “Menem’s Accounts Frozen.” *New York Times* (5 October 2001), Lexis-Nexis.
- Ormè, John. “The Utility of Force in a World of Scarcity.” *International Security* (Winter 1997): 138-167.
- Pace, Richard. *The Struggle for Amazon Town, Gurupá Revisited*. Boulder, Co.: Lynne Rienner Publishers, Inc., 1998.
- Pacheco, Jorge Torrealba. *Limites y Tensiones Fronterizas en la Subregion Andiana*, 1973.
- Percival, Val and Thomas Homer-Dixon. “Environmental Scarcity and Violent Conflict: The Case Of South Africa.” *Journal of Peace Research* (1 May 1988, Vol. 35; Issue 3): 279-298.
- Peru. Comision Demarcadora de Limites Peruano-Bolivianos, The Royal Geographical Society (Great Britain), Carnegie Endowment for International Peace. *Reports of the British Officers of the Peruvian Commission; diplomatic memoranda and maps of the boundary zone, edited for the government of Peru by the Royal Geographical Society of London*. Cambridge: Cambridge University Press, 1918.
- “Peru-Ecuador Conflict One of Many Simmering Border Disputes.” *The Associated Press* (31 January 1995), Lexis-Nexis.
- Pitts, Mary Anne. *Economic development in Chile under two growth strategies, 1925-1968*. New York: Garland Publisher, 1987.
- “President Perez on deep-water port; budget and other issues.” *BBC Summary of World Broadcasts* (4 February 1992), Lexis-Nexis.
- Rabkin, Rhoda. “How ideas Become Influential: Ideological foundations of export-led growth in Chile, 1973-1990.” *World Affairs* (Summer 1993). 3-25.

- Randall, Laura. *A Comparative Economic History of Latin America 1500 – 1914*, Volume 2: Argentina. New York: Institute of Latin American Studies. Columbia University, 1977.
- Rausch, Jane M. *The Llanos Frontier in Colombian History 1830-1930*. Albuquerque, NM: University of New Mexico Press, 1993.
- Reis, Arthur C. F. *Limites e Demarcações na Amazônia Brasileira, a Fronteira Colonial com a Guiana Francesa*. Rio de Janeiro: Imprensa Nacional, 1947.
- Rock, David. *Argentina: 1516 – 1982*. California: University of California Press, 1985.
- Roett, Riordan and Richard Scott Sacks. *Paraguay: The Personalist Legacy*. Colorado: Westview Press, 1991.
- St. John, Ronald Bruce. *The Foreign Policy of Peru*. Colorado: Lynne R. Lehner Publisher, 1992.
- Sandoval, Santiago Jordan. *Bolivia y el Equilibrio del Cono Sudamericano*, 1979.
- Sanfuentes V., Andrés. “Perspectivas económicas de Chile.” *Revista de Economía Latinoamericana*. Caracas: Banco Central de Venezuela V13 (1978), 193-214.
- Sater, William F. “Chile and the world depression of the 1870s.” *Journal of Latin American Studies* (May 1979), 67-99.
- . “Economic Nationalism and Tax Reform in Late Nineteenth-Century Chile.” *The Americas* (October 1976). 311-335.
- Scheina, Robert L. *Latin America: A Naval History 1810-1987*. Annapolis, MD: Naval Institute Press, 1987.
- Simons, Beth A. *Territorial Disputes and Their Resolution: The Case of Ecuador and Peru*. Peaceworks 27. Washington, DC: US Institute for Peace, April 1999.
- Singer, Hans. “The Distribution of Gains Between Investing and Borrowing Countries.” *American Economic Review, Papers and Proceedings*. (May 1950) 40:473-485
- Skidmore, Thomas E. and Peter H Smith. *Modern Latin America*. 3d ed. New York: Oxford University Press, 1992.
- Soares, Alvaro Teixeira, *História da formação das fronteiras do Brasil*. Rio de Janeiro: Biblioteca do Exército, 1973.

- “South American Border Conflict Heats Up.” *Catholic New Times* (25 February 2001), Lexis-Nexis.
- Thorp, Rosemary. *Progress, Poverty and Exclusion. An Economic History of Latin America in the 20th Century*. Washington, D.C: The Inter-American Development Bank, 1998.
- Torre, Juan Carlos and Liliana de Riz. “Argentina since 1946.” *Argentina Since Independence*. Leslie Bethell, ed. UK: Cambridge University Press, 1993.
- Travassos, Mario Travassos. *Aspectos Geográficos Sul-Americanos*,. 1978.
- Trellis, Manuel Ricardo. *Cuestión de Límites entry la República Argentina y Bolivia*. Buenos Aires, 1872.
- United States. Commission to Investigate and Report Upon the True Divisional Line Between Venezuela and British Guiana. *Report of the Special Commission Appointed by the President, January 4, 1896, to examine and report upon the true divisional line between the republic of Venezuela and British Guiana, Transmitted by the President to the Senate on January 21, 1898, with reports from the Secretary of State and the acting Secretary of the Treasury*. Washington, D.C.: Government Printing Office, 1898.
- Valenciano, Eugenio O. *Los Comites de Frontera*, 1989.
- Vanhecke, Charles. “Coming to Terms with Defeat – the Argentine Way”, *LE MONDE*; (13 June 1982), Lexis-Nexis.
- Vasquez, John A. *The Power of Power Politics*. New Jersey: Rutgers University Press, 1983.
- Comisión Presidencial para Asuntos Fronterizos Colombo-Venezolanos. *Hacia una política para la frontera con Colombia*. Caracas: La comisión, 1991.
- Walt, Stephen. *The Origins of Alliances*. New York: Cornell University Press, 1987.
- Waltz, Kenneth. *Foreign Policy and Democratic Politics*. Boston: Little Brown, 1967.
- _____. *Man, The State, and War*. New York: Columbia University Press, 1959.
- _____. *Theories of International Politics*. New York: McGraw-Hill, Inc., 1979.
- Westing, Arthur, ed. *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action*. New York: Oxford University Press, 1986.

- Wilgus, A. Curtis. *Argentina, Brazil and Chile Since Independence*. New York: Russell and Russell Inc., 1963.
- Will, Robert M. "The Introduction of Classical Economics into Chile." *Hispanic American Historical Review* Vol 44 (Feb 1964). 1-21.
- Wood, Bryce. *The United States and Latin American Wars; 1932-1942*. New York: Colombia University Press, 1966.
- Worcester, Donald E. *Brazil: From Colony to World Power*. New York: Charles Scribner's Sons, 1973.
- World Bank. Latin America and the Caribbean Regional Office. *Suriname Economic Memorandum*. Washington, D.C.: The World Bank, 1985.
- Yarrázaval Larrain, José Miguel. *La política económica del Presidente Balmaceda*. Santiago: Academia Dhilena de la Historia, 1963.
- Zook, David H Jr. *Zarumilla-Marañón, The Ecuador-Perú Dispute*. New York: Bookman Associates, Inc. 1964.