

RIVER BOUNDARY DELIMITATION AND THE RESOLUTION OF THE SIR CREEK DISPUTE BETWEEN PAKISTAN AND INDIA

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GENERAL BACKGROUND

Sir Creek is a 60-mile-long estuary separating the Pakistani province of Sind from the Indian province of Gujarat,¹ where in April 1965 fighting broke out a few months prior to the commencement of a full-fledged war between India and Pakistan.² Consequently, British Prime Minister Harold Wilson managed to convince both nations to cease fighting and create a tribunal for the resolution of the greater Rann of Kutch boundary dispute.³ The Sir Creek boundary became contentious after the resolution of the Rann of Kutch dispute between the two countries through arbitration undertaken by the Indo-Pakistani Western Boundary Case Tribunal, which was constituted pursuant to the agreement of June 30, 1965.⁴ The ad hoc tribunal delivered its award on February 19, 1968,⁵ and awarded India 90% of its

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† Special thanks to Professor Steven Ratner for his guidance and unstinted support, Judge Bruno Simma of the I.C.J., Professor A. W. Brian Simpson, Professor J. Christopher McCrudden and Lubna Anwar.

1. A. G. NOORANI, HENRY L. STIMPSON CENTER WASHINGTON D.C., EASING THE INDO-PAKISTAN DIALOGUE ON KASHMIR: CONFIDENCE-BUILDING MEASURES FOR THE SIACHEN GLACIER, SIR CREEK AND THE WULLAR BARRAGE DISPUTES, OCCASIONAL PAPER 16, 12 (Apr. 1, 1994), available at <http://www.stimson.org/southasia/pdf/occasionalpaper16.pdf> (stating that Sir Creek is in reality a “fluctuating tidal channel.”). See A.S. WISDOM, *THE LAW OF RIVERS AND WATERCOURSES* 56 (Shaw) (2d ed. 1975) (“A tidal navigable river means a river which is subject to the vertical flow and reflow of the ordinary tides and navigable as such.”).

2. E.g., MOHAMMED ARSHAD CHAUDHRY & K.C. CARIAPPA, HOW COOPERATIVE AERIAL MONITORING CAN CONTRIBUTE TO REDUCING TENSIONS BETWEEN INDIA AND PAKISTAN 25 (2001), available at <http://www.cmc.sandia.gov/cmc-papers/sand98-050522.pdf>; NOORANI, *supra* note 1, at 26; Rahul Roy-Chaudhury, *Trends in the Delimitation of India's Maritime Boundaries*, 22 STRATEGIC ANALYSIS, Jan. 1999, available at http://www.ciaonet.org/olj/sa/sa_99ror01.html.

3. Mukund G. Untawale, *The Kutch-Sind Dispute: A Case Study in International Arbitration*, 23 INT'L & COMP. L.Q. 818, 824 (1974); Sandeep Gopalan, *India-Pakistan Relations: Legalization and Agreement Design*, 40 VAND. J. TRANSNAT'L L. 687, 700 (2007).

4. NOORANI, *supra* note 1, at 26. See *Indo-Pakistan Western Boundary (India v. Pak.)*, 17 R. Int'l Arb. Awards 1 (Perm. Ct. Arb. 1968), available at http://untreaty.un.org/cod/riaa/cases/vol_XVII/1-576.pdf (outlining Pakistan's arguments before the arbitration tribunal).

5. *Indo-Pakistan Western Boundary*, 17 R. Int'l Arb. Awards 1; see also J. Gillis Wetter, *The Rann of Kutch Arbitration*, 65 AM. J. INT'L L. 346, 347 (1971) (discussing generally the boundary dispute between India and Pakistan); see also Untawale, *supra* note 3, at 818 (distinguishing the Sir Creek Boundary Dispute Tribunal from an I.C.J. Judicial Settlement).

claim to the Rann of Kutch, whereas Pakistan was awarded ten percent of the disputed Kutch.⁶ Both nations accepted the decision, but the Indian government was heavily criticized domestically for having agreed to an unwarranted dispute resolution mechanism that resulted in what was perceived by India hawks as an acceptance of an unfavorable outcome.⁷

Interestingly, while presenting their position to the tribunal, the two nations did not contest the westernmost part of the boundary of the Rann of Kutch, which commenced from a point called “Western Terminus” to the head of Sir Creek further to the west.⁸ In addition, both states avoided tabling the issue of the demarcation of the boundary between the top of Sir Creek to its mouth at the Arabian Sea in the southwest before the tribunal.⁹ By avoiding addressing the Sir Creek boundary issue through arbitration, India and Pakistan actually ended up giving birth to the dispute.

Pakistan claims that the reason why both states did not contest the Sir Creek boundary before the arbitration tribunal was because the entire creek until its bank on the Indian side was part of the Sind province of Pakistan.¹⁰ Pakistan supports its position by citing a resolution promulgated by the Government of Bombay on February 24, 1914, before the independence of India and Pakistan.¹¹ The 1914 Resolution sanctioned a compromise between the Government of Sind and the Kutch Darbar over boundary delimitation on the Kori Creek, which lies further east of Sir Creek.¹² The

6. Wetter, *supra* note 5, at 348.

7. Untawale, *supra* note 3, at 836–37 (explaining that the Indian government had to overcome a vote of no-confidence in Parliament before implementing the arbitral award). In addition, while joint demarcation of the boundary was underway, a ruling of the Indian Supreme Court on January 9, 1969, mandated the government’s action that no constitutional amendment was required for the implementation of the award. Subsequently, India has resisted any third party dispute resolution and has indicated a willingness to settle only its outstanding disputes with Pakistan bilaterally under the Shimla Agreement. Agreement on Bilateral Relations, India-Pak., July 2, 1972, 868 U.N.T.S. 71, available at <http://www.indianembassy.org/policy/Kashmir/shimla.htm> [hereinafter Shimla Agreement].

8. *Indo-Pakistan Western Boundary*, 17 R. Int’l Arb. Awards at 12.

9. NOORANI, *supra* note 1, at 26; Bharat Bhushan, *Tulbul, Sir Creek and Siachen: Competitive Methodologies*, S. ASIAN J., Jan.–May 2005, available at http://www.southasianmedia.net/Magazine/journal/7_competitive_methodologies.htm. The Tribunal stated that

[t]his agreement leaves out of the matters submitted to the Tribunal the portion of the boundary along the blue dotted line, as depicted in Indian Map B-44 and the Pakistan Resolution Map, as well as the boundary in the Sir Creek. The blue dotted line is agreed by both Parties to form the boundary between India and Pakistan. In view of the aforesaid agreement, the question concerning the Sir Creek part of the boundary is left out of consideration.

Indo-Pakistan Western Boundary, 17 R. Int’l Arb. Awards at 12.

10. Ashutosh Misra, *The Sir Creek Boundary Dispute: A Victim of India-Pakistan Linkage Politics*, IBRU BOUNDARY AND SECURITY BULL., WINTER 2000–2001, at 91–92, available at http://www.dur.ac.uk/resources/ibru/publications/full/bsb8-4_misra.pdf (citation omitted).

11. *Indo-Pakistan Western Boundary*, 17 R. Int’l Arb. Awards at 338.

12. The origins of the Sir Creek dispute between the ruler of Sindh and the Rao of Kutch is

1914 Resolution was promulgated by reference to Letter Number 5543 dated September 20, 1913, sent by the Secretary to the Government, Bombay to the Secretary to the Government of India, Foreign Department and an attached map, B-44, also known as the 1914 Resolution Map, which was published in 1914.¹³ The 1914 Resolution Map shows a green line running along on the eastern bank of Sir Creek on the Kutch side of the river as the boundary between Sind and Kutch.¹⁴

Pakistan claims that the Sind–Kutch boundary on the eastern bank of Sir Creek was delimited on the basis of a compromise under which the Government of Sind would forego its claim over Kori Creek to acquire ownership over the entire Sir Creek.¹⁵ Therefore, Pakistan argues that the Sir Creek boundary delimitation was not only meant to be on the eastern bank of the river, but was also meant to be permanently fixed under the 1914 Resolution.¹⁶

Conversely, India asserts that consonant with the principle of international law, the *thalweg*¹⁷ is the proper boundary in Sir Creek. India supports this assertion by arguing that Pakistan officially accepted its position when in an official note of May 19, 1958, Pakistan admitted that the 1914 Resolution Map was intended to be no more than an annexure to the 1914 Resolution.¹⁸ Consequently, India extrapolates that the 1914 Resolution, and not the 1914 Resolution Map, is decisive in resolving the Sir Creek dispute.¹⁹ It points to the fact that Letter Number 5543, the basis of Resolution 1192, contains a statement of the Commissioner in Sind, who is also “the predecessor in interest of Pakistan,” as supporting India’s position that the *thalweg* of Sir Creek is the actual boundary in the river.²⁰

In the alternative, India also claims that the 1914 Resolution Map was fully implemented in 1924, when the region was demarcated by pillars.²¹

traced back to a trivial dispute over a pile of firewood lying on the banks of Kori Creek east of Sir Creek that divided the two principalities in 1908. Bhushan, *supra* note 9.

13. NOORANI, *supra* note 1, at 26–27; REAR ADMIRAL HASAN ANSARI & REAR ADMIRAL RAVI VOHRA, SANDIA NATIONAL LABORATORIES COOPERATIVE MONITORING CENTER, CONFIDENCE BUILDING MEASURES AT SEA: OPPORTUNITIES FOR INDIA AND PAKISTAN, OCCASIONAL PAPER NO. 33, 17 (Dec. 2003).

14. ANSARI & VOHRA, *supra* note 13, at 17.

15. NOORANI, *supra* note 1, at 27 n.65.

16. Bhushan, *supra* note 9; ANSARI & VOHRA, *supra* note 13, at 18.

17. NOORANI, *supra* note 1, at 27.

18. *Id.*

19. *Id.*; Bhushan, *supra* note 9.

20. Bhushan, *supra* note 9 (“The letter also quoted the Sindh Commissioner as saying, ‘the Sir Creek changes its course from time to time and the western boundary of the area, which it is proposed to surrender to the Rao [of Kutch] should, therefore, be described as “the centre of the navigable channel of the Sir Creek.””).

21. *Indo–Pakistan Western Boundary*, 17 R. Int’l Arb. Awards at 346–48.

India states that subsequent official maps of the area, such as Map Number B74,²² have the appropriate boundary symbols and substantiate its position that the thalweg is the boundary in the Sir Creek River.²³ India argues that the green line mentioned in the 1914 Resolution Map was only meant for symbolic representation.²⁴ India also claims that the international boundary between India and Pakistan has moved westward into what was originally Pakistani territory because of geomorphic changes in the Sir Creek river as a result of accretion.²⁵

Historically, Sir Creek has been considered a trivial dispute between India and Pakistan. However, both states now view the dispute as being moderately important because the boundary delimitation of the Sir Creek estuary impacts the maritime boundary delimitations of both states.²⁶ It will impact the determination of the Territorial Sea, the Exclusive Economic Zone (EEZ), and the Continental Shelf of both states.²⁷ It is estimated that Pakistan could lose 2,246 square kilometers of EEZ if the thalweg of the Sir Creek is delimited as the boundary.²⁸ Both states also think that the area is potentially rich in petroleum, oil and gas, minerals, and plant life and therefore has potential for commercial exploitation.²⁹

Both Pakistan and India are signatories to and have ratified the United Nations 1982 Convention on the Law of the Sea (UNCLOS),³⁰ but they

22. ANSARI & VOHRA, *supra* note 13, at 17 (noting that experts think the B44 and B74 maps, collectively known as the 1914 Resolution Maps, might differ in content).

23. See Rear Admiral K R Srinivasan, *India-Pakistan Maritime Boundary: Issues and Approach*, COORDINATES, Nov. 2007, at 28, available at http://www.mycoordinates.org/india_pakistan_maritime.php#real (noting that boundary in map B74 runs up the center of the navigable channel); Sajjad Malik, *Pakistan, India Nearing Solution on Sir Creek*, DAILY TIMES NEWS, May 17, 2008, http://www.dailytimes.com.pk/default.asp?page=2008%5C05%5C17%5Cstory_17-5-2008_pg7_1 (noting that India based its argument in part on the 1925 map).

24. Misra, *supra* note 10, at 94–95.

25. Bhushan, *supra* note 9. Natural geomorphic changes in the Sir Creek estuary are predicted as follows:

The orientation of the creek has changed, creating a gap of approximately two kilometers from the point as marked in the 1914 map to the current outflow of the creek; [t]he mouth of the creek has widened; [a]n island has appeared near the mouth of the creek due to siltation, so that the boundary as marked on the 1914 map ends landwards of the tide line.

ANSARI & VOHRA, *supra* note 13, at 18.

26. ANSARI & VOHRA, *supra* note 13, at 18; Bhushan, *supra* note 9.

27. Bhushan, *supra* note 9.

28. AYESHA SIDDIQA-AGHA, SANDIA NATIONAL LABORATORIES, MARITIME COOPERATION BETWEEN INDIA AND PAKISTAN: BUILDING CONFIDENCE AT SEA, COOPERATIVE MONITORING CENTER, OCCASIONAL PAPER NO. 8, (Nov. 2000), available at <http://www.cmc.sandia.gov/cmc-papers/sand98-050518.pdf>.

29. ANSARI & VOHRA, *supra* note 13, at 18; Bhushan, *supra* note 9; Roy-Chaudnury, *supra* note 2.

30. See Oceans and Law of the Sea, Chronological Lists of Ratifications of, Accessions and

have not been able to effectively utilize the elaborate dispute resolution mechanism under the UNCLOS to resolve their maritime boundary disputes.³¹ India has proposed that, pending resolution of the Sir Creek dispute, both countries should bilaterally delimit their maritime boundaries by commencing delimitation from the frontier of their EEZs and then moving inwards to a mutually acceptable point as per the provisions of the Technical Aspects of the Law of Sea (TALOS).³² However, India is averse to any third-party involvement in the resolution of any outstanding dispute with Pakistan.³³ Meanwhile, Pakistan actively advocates third-party involvement in the resolution of the Sir Creek and other territorial disputes with India but is unwilling to delimit its maritime boundary with India if the Sir Creek dispute is not resolved.³⁴ Interestingly, under UNCLOS, if the two states fail to delimit their maritime boundary by 2009, the International Sea Bed Authority can assume control of their continental shelf area.³⁵

Pakistan and India have held various rounds of discussions over the Sir Creek dispute, but no tangible progress has been made.³⁶ The Sir Creek dispute is likely one of the less contentious disputes between the two countries, and the resolution of this dispute might act as a catalyst towards the resolution of all outstanding disputes currently considered intractable between the South Asian neighbors.

Part I of this Article highlights the principles of international law derived from both treaties and customary rules governing river boundary delimitation. The significance for, and the impact on, both international law and the resolution of a dispute, of any prior agreement or an absence of an agreement, between the parties relating to the boundary dispute will be highlighted. A detailed review of the customary international law principles of “Median line” and “Thalweg” with supporting international cases will

Successions to the Convention and the Related Agreements as at [sic] 20 July 2009, available at http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm (last visited Nov. 22, 2009).

31. See United Nations Convention on the Law of the Sea art. 15, Dec. 10, 1982, 1833 U.N.T.S. 397, available at http://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf. [hereinafter 1982 UNCLOS] (establishing a comprehensive set of rules governing the use of the ocean and its resources).

32. B. Muralidhar Reddy, *Joint survey of Sir Creek Completed Ahead of Schedule*, THE HINDU, Jan. 18, 2005, <http://www.hindu.com/2005/01/18/stories/2005011804971200.htm>.

33. Shimla Agreement, *supra* note 7, at 72.

34. See Misra, *supra* note 10, at 92 (noting that Pakistan “insists that the boundary in the Creek must first be delimited in order to establish the point on the land from which a maritime boundary may be defined”); Roy-Chaudhury, *supra* note 2 (noting India’s rejection of Pakistan’s offer to submit the issue to “an international tribunal” for arbitration).

35. Srinivasan, *supra* note 23, at 29.

36. Bhushan, *supra* note 9; but see Malik, *supra* note 23 (reporting that progress has been made on the Sir Creek dispute).

follow. The impact of the processes of avulsion and accretion in the river, which result in changes in river course and other permanent geographical alterations on the legal status and the positioning of the river boundary, will be examined. The status of islands in boundary rivers will also be discussed. Finally, all recent and relevant disputes relating to boundary river delimitation that have either been submitted for arbitration or have been adjudicated by international judicial bodies, such as the International Court of Justice, will be critiqued.

This Article will highlight U.S. domestic case law developed to address river boundary delimitations between the various U.S. states. As a result of observation by the judiciary, there has been comprehensive historical development in U.S. case law on the proper application of principles of international law relative to river boundaries in the domestic context. No other domestic jurisdiction has developed as rich a corpus of law on boundary river delimitation. International law has also been enunciated and further evolved by this contribution and other States have adopted the U.S. judiciary's interpretation of such legal principles.³⁷

The aim of Part II of the Article is to determine the proper boundary in the Sir Creek estuary by applying general principles of international law, treaty, and customary international law, in light of historical contingencies surrounding Sir Creek and recent and relevant judgments of International Courts and Tribunals. In the course of this analysis, specific historical facts such as the status of the creek, resolutions, dealings, and judicial pronouncements concerning the creek, when the whole region was under the British colonial rule, will be detailed. The Article will conclude by mentioning other geopolitical reasons and realities that will have a bearing on whether both parties will be serious in wanting this dispute addressed either bilaterally or via third-party mediation, conciliation, arbitration, or adjudication, keeping in mind not only the relevance of other more important bilateral disputes, but also concerns of a global nature, such as terrorism.

37. "[A] positive decision contributes to state practice and thus to evolving or crystallising a rule of customary international law. National judicial decisions are subsidiary sources of international law under I.C.J. Statute, Article 38 (1) (d) and should be considered alongside other jurisprudence" ALAN BOYLE & CHRISTINE CHINKIN, *THE MAKING OF INTERNATIONAL LAW* 87 (2007).

I. PRINCIPLES OF INTERNATIONAL BOUNDARY RIVER DELIMITATION

A. Numerous Ways in which Boundary Rivers are Demarcated under International Law

Historically, there have been three ways in which river boundaries have been delimited between states. One option is that each state's border extends to its own river bank with the river itself being jointly owned by both states.³⁸

Alternatively, the boundary can be fixed up till the banks of one state, leaving complete sovereignty over the river to the other state.³⁹ This option is usually applied in situations where one State party is more powerful or more experienced in diplomatic dealings than the adjoining State and is able to use its relative authority to extend its international territory to the other state's bank.⁴⁰ This option is also practiced when states on whose bank the boundary is fixed are disinterested in the river⁴¹ or have ceded territory to

38. Article XXVII of the Treaty of Meppen between Netherland and Prussia stated "[i]n all cases where streams or rivers form the frontiers they shall be common to the two States unless the contrary is expressly stipulated" See Treaty of the Borders Between Their Majesties the King of Prussia and the King of the Netherlands, art. 27, June 26, 1816, Prussia-Neth., 3 B.S.P. 729 (1816); A. O. CUKWURAH, THE SETTLEMENT OF BOUNDARY DISPUTES IN INTERNATIONAL LAW 46 (1967).

39. CUKWURAH, *supra* note 38, at 47. The unexecuted Treaty of Peace and Friendship signed on August 10, 1797, between France and Portugal accorded France complete control and sovereignty over the river dividing French Guiana from its Portuguese counterpart in South America. This river was known by the French as Vincent Pinson and by the Portuguese as Calcuene. *Id.* Another example is the Treaty of March 26, 1928, between the United Kingdom and Netherlands over the Odong River in Borneo. Convention between United Kingdom and the Netherlands respecting Delimitation of the Frontier between the State in Borneo under British Protection and Netherlands Territory in that Island, art. II, March 26, 1928, Gr.Brit.-Neth., 128 B.S.P. 323 (1928); L.J. Bouchez, *The Fixing of Boundaries in International Boundary Rivers*, 12 INT'L & COMP. L.Q. 789, 791 (1963) (providing as an example of fixing the boundary of one bank the March 26, 1928, treaty between the United Kingdom and the Netherlands). See also the Treaty of September 18, 1773 between Prussia and Poland under which Prussia had complete sovereignty over the River Netze. *Id.* Under the Boundary Treaty of July 4, 1937, between Iraq and Iran, the boundary ran on the low-water mark on the Iranian side of the bank, with a few exceptions. See generally E. Lauterpacht, *River Boundaries: Legal Aspects of the Shatt-al Arab Frontier*, 9 INT'L & COMP. L.Q. 208, 208-09 (1960). However, under the Algiers Agreement entered into between the two nations in 1975, the river boundary was delimited under the thalweg principle. See generally Thomas A. Geraci, Book Review, 85 AM. J. INT'L L. 232, 233 (1991) (reviewing KAIYAN HOMI KAIKOBAD, THE SHATT-AL-ARAB BOUNDARY QUESTION: A LEGAL REAPPRAISAL (1988)).

40. CUKWURAH, *supra* note 38, at 48; Bouchez, *supra* note 39, at 791. Under the Heliogoland-Zanzibar Treaty of 1890 between Britain and Germany, Germany's agreement to delimit the Orange River's boundary on its side of the river bank was resultant of its inexperience in negotiations relating to colonial matters. Imre Josef Demhardt, *Namibia's Orange River Boundary – Origin and Reemerged Effects of an Inattentive Colonial Boundary Delimitation*, 22 GEOJOURNAL 355, 357 (1990), available at <http://www.springerlink.com/content/r3880v35q1162122/fulltext.pdf>.

41. Bouchez, *supra* note 39, at 791.

another, but retained sovereignty over the river.⁴² The boundary is the lowest water mark level of the bank excluding the contingency of extreme drought, as the bank of the river shifts from water level variations by seasonal changes and rain.⁴³ This method of boundary delimitation is considered inequitable since it generally results in one state losing control and access of a river for all purposes including navigation and water usage.⁴⁴ It was more frequently used in earlier centuries and has not been a preferred method of river boundary delimitation in the last two centuries.⁴⁵

The most commonly used method of river boundary demarcation between states today is to set the boundary at either the median line (ligne médiane) of the river⁴⁶ or around the area most suitable for navigation under what is known as the “thalweg principle.”⁴⁷

The settlement of river boundary disputes in international law is impacted by whether the concerned states or their predecessors have previously entered into an agreement or treaty determining the status of the river boundary. If the concerned states entered into a boundary delimitation treaty, the delineated mode of delimitation in the treaty preempts norms of customary international law.⁴⁸ Even though treaties and customary international rules enjoy equal status under international law, a law that is special in nature preempts a general law under international law (*lex specialis derogate generali*).⁴⁹ Delimitation by median line or thalweg has been preferred under international law when states have no prior agreement on how to delineate the river boundary.⁵⁰

42. For example, under the Spanish American Treaty of 1819, the Red River and all its islands belonged to the U.S. because the boundary is fixed on the South (Mexican) bank. VICTOR PRESCOTT & GILLIAN D. TRIGGS, *INTERNATIONAL FRONTIERS AND BOUNDARIES: LAW, POLITICS AND GEOGRAPHY* 217 (2008).

43. CUKWURAH, *supra* note 38, at 49; *see* Vermont v. New Hampshire, 289 U.S. 593, 619–20 (1932) (the Court defined the low-water mark “as the line drawn at the point to which the river recedes at its lowest stage without reference to extreme droughts”).

44. *But see* Lauterpacht, *supra* note 39, at 230 (arguing that Iraq was not entitled to prohibit Irani vessels “from loading and discharging” at the Irani jetties on the basis that the Shatt-al-Arab River and the jetties were in Iraqi waters).

45. Bouchez, *supra* note 39, at 792.

46. *Id.*; CUKWURAH, *supra* note 38, at 51.

47. CUKWURAH, *supra* note 38, at 49, 51.

48. *Id.* at 51; Bouchez, *supra* note 39, at 799.

49. ANTONIO CASSESE, *INTERNATIONAL LAW* 154 (2nd ed. 2005). *See generally* Statute of the International Court of Justice art. 38 (listing all sources of international law).

50. CUKWURAH, *supra* note 38, at 49, 51.

*B. Median Line and the Thalweg Principle for the
Marking of River Boundaries*

Boundary determinations based on the thalweg principle and median line are both examples of considerations to achieve fairness and equality.⁵¹ The aim is to accord equal rights to the riparian states for the usage of the river.⁵² Hugo Grotius (1583–1645), considered a progenitor of modern law, felt that delimitations on the middle line doctrine were based on the “principle of sovereign equality” between states.⁵³ Grotius had stated that when international rivers are concerned, then “in case of doubt [sovereignty] . . . extends to the middle of the stream.”⁵⁴ Samuel Pufendorf (1632–1694) subsequently guided the equality principle for delimitations by the principle of “proportionality”⁵⁵ in order to avoid impractical divisions of water bodies

51. One commentator states:

This ideal of equal and fair division has been enriched and amplified by other principals and equitable considerations. The thalweg or main channel principle, for example, has been used to guarantee access to and navigation in the waterway to each riparian state, in the sense that equal division of the surface of the water is far less significant than the mutual ability to navigate along the thalweg, where large vessels can travel.

Sang-Myon Rhee, *Sea Boundary Delimitation Between States Before World War II*, 76 AM. J. INT’L L. 555, 586 (1982).

52. Bouchez, *supra* note 39, at 794.

53. Rhee, *supra* note 51, at 556. In *New Jersey v. Delaware*, the United States Supreme Court noted that:

Grotius has this to say (De Jure Belli ac Pacis, Book 2, c. 3, § 18): “In Case of any Doubt, the Jurisdictions on each side reach to the Middle of the River that runs betwixt them, yet it may be, and in some Places it has actually happened, that the River wholly belongs to one Party; either because the other Nation had not got possession of the other Bank, ‘till later, and when their Neighbours were already in Possession of the whole River, or else because Matters were stipulated by some Treaty.”

In an earlier section (§ 16, subdivision 2) he quotes a statement of Tacitus that at a certain point “the Rhine began . . . to have a fixed Channel, which was proper to serve for a Boundary.”

Vattel . . . states the rule as follows: “If, of two nations inhabiting the opposite banks of the river, neither party can prove that they themselves, or those whose rights they inherit, were the first settlers in those tracts, it is to be supposed that both nations came there at the same time, since neither of them can give any reason for claiming the preference; and in this case the dominion of each will extend to the middle of the river.”

New Jersey v. Delaware, 291 U.S. 361, 381 n.5 (1934). See also VATTEL, THE LAW OF NATIONS 120 Book I, Chap. XXII § 266(3) (1797).

54. HUGO GROTIUS, DE JURE BELLI AC PACIS LIBRI TRES, IN QUIBUS JUS NATURAE & GENTIUM, ITEM JURIS PUBLICI PRAEIPUA EXPLICANTUR 132 (James Brown ed., Carnegie Institution of Washington 1913) (1646).

55. S. PUFENDORF, OF THE LAW OF NATURE AND NATIONS 574–76 (Law Book Exchange 2007) (1712); Rhee, *supra* note 51, at 556 (“[T]he sovereignty of each shall extend into the middle in

that were inherently unfair, such as usage by one coastal state to the total exclusion of the other.⁵⁶ The notion of proportionality in comparison to equal delimitation is more deeply rooted in history and European law.⁵⁷

The primary interest protected under the thalweg principle is the navigational freedom of riparian states.⁵⁸ If a boundary river has numerous channels, then the channel most fit for navigation is generally the one used for thalweg determination.⁵⁹ The primary functions of a river should ideally determine which principle of boundary delimitation is applicable.⁶⁰ These functions can conflict,⁶¹ but if navigation is the primary or even a predominant use of the river then demarcation based on thalweg is generally appropriate.⁶² Conversely, if the primary or dominant purpose of the river is for other purposes, such as fishing, or if the river is non-navigable, then a median line delimitation is preferred because it grants both states equal amounts of water⁶³ provided they are granted free navigation in the whole river if navigation is also important.⁶⁴

1. Median Line

In the event that the boundary river is non-navigable, state practice suggests that the middle of the river is recognized as the international boundary⁶⁵ in the absence of an agreement between the nations stating

proportion to the breadth of its land.”).

56. Rhee, *supra* note 51, at 556.

57. *Id.* at 556; *see, e.g.*, Codice civil [C.c.], art. 461 (1865) (Italy); Inseln Allgemeine bürgerliche Gesetzbuch [ABGB] Natürlicher Zuwachs No. 946/1811, § 407 (Austria).

58. *See* Bouchez, *supra* note 39, at 794 (noting that thalweg boundary systems are based on the goal of freedom of navigation); *see* Louisiana v. Mississippi, 202 U.S. 1, 50 (1906) (“[W]henver there is a deep-water sailing channel therein, it is thought by the publicists that the rule of the thalweg applies.”) (citing 1 Martens (F. de) 2d ed. p. 134; Hall, § 38; Bluntschli, 5th ed. §§ 298, 299; 1 Oppenheim, pp. 254, 255” [citations taken verbatim from case]).

59. Rhee, *supra* note 51, at 560.

60. Bouchez, *supra* note 39, at 797 (explaining the various functions of the river apart from navigation including non-navigational transport (e.g., timber floating), fishing, diversion, and domestic and sanitary purposes).

61. *Id.* For example, navigational uses can interfere with fishing or irrigation for which large amounts of water are diverted.

62. Bouchez, *supra* note 39, at 798.

63. *Id.*; *see also* Treaty of Versailles art. 30, June 28, 1919, 225 Consol. T.S. 188 (“In the case of boundaries which are defined by a water-way, the term ‘course’ and ‘channel’ used in the present Treaty signify: in the case of non-navigable rivers, the median line of the waterway of its principle arm . . .”).

64. Bouchez, *supra* note 39, at 798.

65. Frontier Dispute (Benin v. Niger), 2005 I.C.J. 90, 150 (July 12) (“[I]n view of the circumstances, including the fact that the river is not navigable, a boundary following the median line of the Mekrou would more satisfactorily meet the requirement of legal security inherent in the determination of an international boundary.”); ROBERT JENNINGS & ARTHUR WATTS, 1 OPPENHEIM’S INTERNATIONAL LAW 664 (Longman 9th ed. 1992) (1905); STEPHEN C. MCCAFFREY, THE LAW OF

otherwise.⁶⁶ This principle of demarcation is known as the “*medium filus aquae*” rule⁶⁷ and is established under both common and Roman law.⁶⁸ The *medium filus* rule has also been applied in demarcations not involving rivers, for example when highways and fisheries are involved.⁶⁹ The predicament is that the median line in a river shifts when the water level in a river rises or falls because the exact position of the median line varies with the width and inclination of the exposed river banks.⁷⁰ The banks of a river are not uniform but protrude or curve at different water levels. Therefore, in order to avoid uncertainty in ascertaining the median line, state practice is that the shoreline is determined as the mean high water or mean low water mark.⁷¹ During the 19th and 20th centuries, the median line was commonly applied, especially in the case of non-navigable rivers.⁷²

The advantages of using the median line for demarcation are numerous. First, the boundary is stable and does not change in the river as under the thalweg.⁷³ It is also relatively easy to fix.⁷⁴ In addition, both states get to share the waters equally, which is an equitable solution unless the usage of the river is primarily for navigation.⁷⁵

2. Thalweg Principle

Thalweg is a German word that translates to mean “the channel continuously used for navigation.”⁷⁶ Thalweg is a general area and not a specified line.⁷⁷ Under international law, the thalweg is used to demarcate

INTERNATIONAL WATERCOURSES: NON-NAVIGATIONAL USES 71 (Professor Ian Brownlie ed., 2nd ed. 2003). A suggested definition of the median line is “a line equidistant from the nearest points on the shores of the two respective sovereignties; the shore line every point of which is being the line of mean high water” S. WHITTEMORE BOGGS, INTERNATIONAL BOUNDARIES: A STUDY OF BOUNDARY FUNCTIONS AND PROBLEMS 184 (AMS Press 1966) (1940).

66. CUKWURAH, *supra* note 38, at 50.

67. *Id.*; WISDOM, *supra* note 1, at 44; 1 GEOFFREY MARSTON, ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW 481–82 (Rudolph Bernhardt ed., 1992). *But see* Lauterpacht, *supra* note 39, at 219–20 (noting that the meaning of the *medium filum* rule is far from lucid as it can refer to both the median line and the thalweg).

68. CUKWURAH, *supra* note 38, at 50.

69. *Id.*

70. *Id.*

71. *Id.* at 51; BOGGS, *supra* note 65, at 184.

72. Bouchez, *supra* note 39, at 793, 798 (describing how Article 30 of the Treaty of Versailles establishes the median line boundary system for non-navigable rivers).

73. *Id.* at 794; MCCAFFERY, *supra* note 65, at 71.

74. Bouchez, *supra* note 39, at 794.

75. *Id.* at 798.

76. *Id.* at 793.

77. *Id.*

navigable rivers⁷⁸ that are also boundary rivers.⁷⁹ Thalweg has also been defined as “the “downway,” that is the course taken by boats going downstream, which again is that of the strongest current . . . ;”⁸⁰ “the middle, or deepest, or most navigable channel.”⁸¹ “the line of the greatest

78. See, e.g., *Hanes v. State*, 973 P.2d 330, 334 n.4 (Okla. Crim. App. 1998).

[S]treams or lakes which are navigable in fact must be regarded as navigable in law; that they are navigable in fact when they are used, or are susceptible of being used, in their natural and ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water; and that navigability does not depend on the particular mode in which such use is or may be had—whether by steamboats, sailing vessels or flatboats—nor on an absence of occasional difficulties in navigation, but on the fact, if it be fact, that the stream in its natural and ordinary condition affords a channel for useful commerce.

Id.; see also *Brewer-Elliott Oil & Gas Co. v. United States*, 260 U.S. 77, 86 (1922) (holding, in part, that the Arkansas River was non-navigable because the natural state of the river did not provide a channel for useful commerce); *Oklahoma v. Texas*, 258 U.S. 574, 586 (1922) (noting “settled rule” that “navigability in fact is the test of navigability in law”); *United States v. Cress.*, 243 U.S. 316, 323 (1917) (applying same rule); WISDOM, *supra* note 1, at 57 (defining a navigable tidal river as “one in which the tide ebbs and flows.”).

79. *Kasikili/Sedudu Island (Bots. v. Namib.)*, 1999 I.C.J. 1045, 1062 (Dec. 13) (“Treaties or conventions which define boundaries in water courses nowadays usually refer to the thalweg as the boundary when the watercourse is navigable and to the median line between the two banks when it is not, although it cannot be said that practice has been fully consistent.”). Furthermore, the Supreme Court stated:

From a review of the authorities upon international law, it was declared that when a navigable river constituted the boundary between two independent States the interest of each State in the navigation, and the preservation by each of its equal right in such navigation, required that the middle of the channel should mark the boundary up to which each State on its side should exercise jurisdiction; that hence, in international law, and by the usage of European nations, the term “middle of the stream,” as applied to a navigable river, meant the middle of the channel of such stream, and that in this sense the terms were used in the treaty between Great Britain, France, and Spain, concluded at Paris in 1763, so that by the language “a line drawn along the middle of the River Mississippi,” as there used, the middle of the channel was indicated; that the *thalweg*, or middle of the navigable channel, is to be taken as the true boundary line between independent States for reasons growing out of the right of navigation, in the absence of a special convention between the States or long use equivalent thereto . . .

Arkansas v. Tennessee 246 U.S. 158, 169–70 (1918); see also *New Jersey v. Delaware*, 291 U.S. 361, 379 (1934) (“International law today . . . applies the same doctrine, now known as the doctrine of the *Thalweg*, to estuaries and bays in which the dominant sailing channel can be followed to the sea.”); *Arkansas v. Mississippi*, 250 U.S. 39, 43 (1919) (“[T]he boundary must be fixed at the middle of the main navigable channel, and not along the line equidistant between the banks. We regard that decision as settling the law, and see no reason to depart from it in this instance.”); *Louisiana v. Mississippi*, 202 U.S. 1, 50 (1906) (“[T]he principle of the thalweg is applicable, in respect of water boundaries, to sounds, bays, straits, gulfs, estuaries, and other arms of the sea.”).

80. *Lauterpacht*, *supra* note 39, at 221 (citations omitted).

81. *Louisiana v. Mississippi*, 202 U.S. at 49.

depth or the stream line of the fastest current;”⁸² and “the axis of the safest and most accessible channel for the largest ships.”⁸³

Thalweg made its first appearance in the Treaty of Luneville of February 9, 1801.⁸⁴ Subsequently, the thalweg principle has been mentioned in numerous treaties,⁸⁵ international law decisions,⁸⁶ and has been named as the “fairway,” “midway,” “main channel,” “middle of channel,” “middle of stream,” “mid channel of a river,” and as the boundary line in a river.⁸⁷ The use of words such as “middle” in the context of thalweg boundary delimitation, though synonymous with “median” line delimitation in non-navigable river, have not caused much ambiguity, as the context in which the synonymous words are used clarify their scope and meaning.⁸⁸

Delimitation of a river based on thalweg can divide the river unequally between states.⁸⁹ In situations where there are multiple channels of a boundary river, the thalweg of the main channel is generally kept as the boundary.⁹⁰ In order to determine the major branch of the channel “length, size of drainage area, and discharge, preferably in terms of annual volume” are to be considered.⁹¹ Boundary demarcation based on thalweg is a default

82. Lauterpacht, *supra* note 39, at 221 (citations omitted).

83. *Id.* at 216.

84. CUKWURAH, *supra* note 38, at 52 (explaining that under this treaty the boundary of the Cisalpine Republic was fixed by the thalweg of the Adige river and the thalweg of the Rhine fixed the boundary between the French Republic and the German Empire).

85. Lauterpacht, *supra* note 39, at 218. Lauterpacht notes that other early references to thalweg are included in the 1827 Boundary Convention between Baden and France, where it was stated that “[t]he *thalweg* . . . is the most suitable channel for downstream navigation at the normal lowest water levels. The line of its course as determined by the deepest soundings is known as the axis of the thalweg.” *Id.* (citation omitted). The thalweg was also referred to in the Act of the European Commission for the Demarcation of the Bulgarian Frontier in 1879. *Id.*

86. *Grisbadarna Case (Nor. v. Swed.)*, Hague Ct. Rep. (Scott) 121, 129 (Perm. Ct. Arb. 1909) (noting “the rule of the *thalweg* or the most important channel . . .”); see CUKWURAH, *supra* note 38, at 53 (noting the mention of thalweg in the arbitral award made by the King of Spain in relation to the boundary dispute between Honduras and Nicaragua).

87. CUKWURAH, *supra* note 38, at 52–53.

88. *Id.*; see *Iowa v. Illinois*, 147 U.S. 1, 8 (1893) (explicating the phrase “middle of the stream” as defined under international law).

89. CUKWURAH, *supra* note 38, at 51.

90. *Id.* at 54–55. *But see* Treaty of commerce and navigation between his majesty the King of Portugal and the Algarves and her majesty the Queen-Regent of Spain, art. VI amending art. IV(a), Sept. 5, 1893, Port.-Spain, 85 B.S.P. 416 (1893) (setting boundary “on the basis that the middle line, starting from the centre of line of the mouth of the river, will descend in the direction of the junction of the ‘thalwegs’ of the two bars”); Bouchez, *supra* note 39, at 796 (pointing out that Article VI of the Final Protocol of March 29, 1895 between Portugal and Spain concerning the delimitation of River Guadiana, where each state possessed its own thalweg and the boundary was determined to be between the two channels).

91. JENNINGS & WATTS, *supra* note 65, at 666 (citations and internal quotes omitted); *Argentine-Chile Frontier Case (Argentine v. Chile)* 16 R. Int’l. Arb. Awards 109, 178 (Perm. Ct. Arb. 1966).

rule and is preempted if the concerned state parties make special agreements to the contrary, which can lay out unconventional modes of delimitation.⁹² In fact, the United Nation Convention on the Law of the Sea allows for such an alternative arrangement.⁹³ The preemption of the thalweg principle can also come through historical title⁹⁴ or where one state acquiesces or renders recognition⁹⁵ to another arrangement via practice, being subsequently estopped from raising the doctrine of thalweg.⁹⁶

There has been a difference of opinion between international law experts on whether the thalweg is to be primarily defined by navigability-based parameters or on physical features, such as the “line of deepest soundings.”⁹⁷ The majority of experts and the United States Supreme Court

92. Convention between Norway and Finland relative to the frontier between the province of Finmark and the District of Petsamo, April 28, 1942, Nor.-Fin., 120 B.S.P. 341 (1924); CUKWURAH, *supra* note 38, at 55; Bouchez, *supra* note 39, at 795 (noting the Finnish-Norwegian Treaty of April 28, 1944, under which the thalweg of the middle stream in the river was designated as the river boundary as a compromise, where initially both states had claimed the thalweg furthest away from their bank as the boundary). *See also* Exchange of Notes constituting an Agreement for the Delimitation of the Riverain Areas of the Boundary between Brazil and British Guiana, Braz.-Gr. Brit.-N. Ir., Oct. 27, 1932, 177 L.N.T.S. 127, 128 (noting the Exchange of Notes of October 27, 1932, November 1, 1932 and March 15, 1940, between the United Kingdom and Brazil under which the thalweg was fixed as the boundary, unless determination of the thalweg was not possible in which case the median line of the channel that offered “the most favourable course for down-stream navigation” was to be the boundary); League of Nations, 16 LEAGUE OF NATIONS OFFICIAL J. 201 (1935) (noting that under the Protocol of Nov 4, 1913, delimiting the Turkish-Persian boundary in the Shatt-al-Arab region, the boundary was primarily fixed on the Iranian bank subject to a few exceptions); Thomas W. Donovan, *Suriname-Guyana Maritime and Territorial Disputes: A Legal and Historical Analysis*, 13 J. TRANSNAT’L L. & POL’Y 41, 51–52 (2004) (chronicling the history of territorial conflict between Suriname and Guyana and positing possible resolutions for competing claims for the New River Triangle); Thomas W. Donovan, *Challenges to the Territorial Integrity of Guyana: A Legal Analysis*, 32 GA. J. INT’L & COMP. L. 661, 721 (2004) (noting the 1799 agreement concerning the Dutch Suriname and the British Guyana by the colonial protectorates of Berbice and Essequibo concerning the Courantyne River, where the boundary was fixed on the west bank (Guyana side)); Lauterpacht, *supra* note 39, at 211 (noting “Protocol relating to the delimitation of the Turco-Persian boundary, November 4, 1913” which set the boundary of Shatt-al-Arab region along “the *medium filum aquae*”).

93. 1982 UNCLOS, *supra* note 31, at 23–26; Donovan, *Challenges to the Territorial Integrity of Guyana*, *supra* note 92, at 721.

94. Donovan, *Suriname-Guyana Maritime and Territorial Disputes*, *supra* note 92, at 93.

95. *Id.* at 82–83; *Louisiana v. Mississippi*, 202 U.S. 1, 53 (1906). *See generally* Land, Island and Maritime Frontier Dispute (El Sal. v. Hond.) 1992 I.C.J. 351, 599 (Sept. 11) (noting that what is “‘always’ true” must give way to “the position in this particular case, in which the maritime area in question had long been historic waters under a single State’s sovereignty”); *Sovereignty Over Certain Frontier Land (Belg. v. Neth.)*, 1959 I.C.J. 209 (June 20) (discussing a border dispute between Belgium and the Netherlands, where Belgium agreed to cede the two disputed plots to the Netherlands); *The Chamizal Arbitration Between the United States and Mexico: Minutes of Meeting of the Joint Commission, June 10, 1911*, 5 AM. J. INT’L L. 782 (1911) [hereinafter *Chamizal Arbitration*] (discussing the border dispute along the Rio Grande River between the United States and Mexico).

96. Donovan, *Challenges to the Territorial Integrity of Guyana*, *supra* note 92, at 714.

97. Lauterpacht, *supra* note 39, at 222.

share the former view,⁹⁸ while the minority of experts hold the latter view, which has been mentioned in boundary delimitation disputes as in the case of Iraq and Syria in the report of the Commission appointed by the League of Nations.⁹⁹

C. *The Impact of Accretion on River Boundaries*

River boundary demarcations based on geographical characteristics tend to be problematic once the river changes its original course and river alterations raise numerous complications under international law pertaining to river boundary determinations.¹⁰⁰ If left to itself, the course of a river changes very slowly due to erosion, water current, or other forces of nature (like rock formation on the river bed).¹⁰¹ Infrequently, the river changes its course drastically due to completely breaking away from its river bed.¹⁰²

Accretion is defined as where one can see progress being made, but cannot recognize it while it is going on.¹⁰³ If a boundary river changes its course slowly with accretion on one bank and denudation on the other then the de facto rule of international law is that the river boundary based on measures such as the median line or the thalweg principle will shift along with the river.¹⁰⁴ Therefore, accretion permanently alters river boundaries, even when the delimited boundary is a river bank which has shifted.¹⁰⁵ Accretion will not alter the status of a river boundary if there is a treaty between the concerned states specifying differently.¹⁰⁶ Such agreements must either be explicit or should come up by necessary implication.¹⁰⁷

98. *Id.* at 217; *New Jersey v. Delaware*, 291 U.S. 361, 379 (1934); *Minnesota v. Wisconsin*, 252 U.S. 273, 281–82 (1920).

99. *Lauterpacht*, *supra* note 39, at 220, 222.

100. *CUKWURAH*, *supra* note 38, at 46.

101. *Id.* at 56–57.

102. *Id.*

103. *Id.* at 58; *County of St. Clair v. Lovington*, 90 U.S. (23 Wall.) 46, 60–61 (1874); *Bouchez*, *supra* note 39, at 799 (“*Accretion*, which is a lateral movement, gradual and continuous in the space sense.”).

104. *See generally* *Nebraska v. Iowa*, 143 U.S. 359 (1892) (discussing in detail the internationally recognized principle that river boundary shifts along with the river if it slowly changes its course).

105. *Lauterpacht*, *supra* note 39, at 223.

106. Treaty of Peace between the Allied and Associated Powers at Germany, June 28, 1919, art. XXX, 112 B.S.P. 1, 27–28 (leaving complete discretion to the Boundary Commission to determine whether boundary changes will occur when a river shifts); *see* *Lauterpacht*, *supra* note 39, at 224 (“[T]he frontier between the two States shall remain unchanged . . . and shall continue to follow the old bed of the Rhine.” (citing the Treaty between Switzerland and Austria of 1924) [citation taken from original]).

107. *Lauterpacht*, *supra* note 39, at 224.

However, it has not been general state practice to retain the original river boundary through agreement despite changes in rivers.¹⁰⁸

On the other hand, states have historically entered into numerous treaties that sanction changes in river boundaries that occur simultaneously with alterations in the river. This has the effect of shifting the designated boundary such as the thalweg or median line,¹⁰⁹ or more infrequently the bank of the river.¹¹⁰ Sometimes such treaties make the boundary change automatic, concurrently adjusting it when a river changes, while at other times the treaty details the point in time when the new boundary (e.g., thalweg) is to be measured and become operational.¹¹¹

It is pertinent to note that artificial changes caused to rivers resulting in accretion consequently causing the thalweg, median line, or banks of a river to shift, do not result in the alteration of the river boundary under state practice.¹¹² However, at times both artificial and natural factors that cause

108. See Bouchez, *supra* note 39, at 801 (discussing instances where treaties explicitly state that the boundary will change when the river is altered); Convention between Norway and Finland Relative to the Frontier Between the Province of Finmark and the District of Petsamo, Apr. 28, 1924, Fin.-Nor., art. IV, 120 B.S.P. 341 (agreeing to preserve original river boundary by preventing as far as possible alteration of the boundary river).

109. Bouchez, *supra* note 39, at 801 (“[T]he line of boundary through River St. Croix shall be a water line throughout and shall follow the centre of the main channel or thalweg as *naturally existing*”) (quoting De Martens, NRG 3, IV, p.191 [citation taken from original]); *id.* (discussing the agreement of June 1, 1934 between the United Kingdom and Siam over the River Pakchan) (citing De Martens, NRG 3, XXX, pp. 107-109 [citation taken from original]); Lauterpacht, *supra* note 39, at 224 (“[T]he boundary lines at any particular time shall be the *thalweg* of the river *wherever the thalweg may be situated at that time.*” (quoting Exchange of Notes between His Majesty’s Government in the United Kingdom and the Government of Brazil Approving the General Report of the Special Commissioners Appointed to Demarcate the Boundary-line between British Guiana and Brazil, 1933, Braz.-U.K., U.K.T.S., 1945, [cmd.] 695 at 12)).

110. Bouchez, *supra* note 39, at 802–03 (“[T]he boundary is established on the right banks of the Tinto and Montagua rivers at mean high water mark, and, in the event of changes in these streams, in the course of time, whether due to accretion, erosion or avulsion, the boundary shall follow the mean high water upon the actual right banks of both rivers.”) (quoting De Martens, NRG 3, XXXI, p. 365 [citation taken from original]).

111. Act of the European Commission, Sept. 20, 1879, art. I, 70 B.S.P. 1282 (1878–1879); Treaty Between the German Reich and the Czechoslovak Republic Concerning Frontier Waterways in the Saxon and Bavarian Sectors of the Frontier and an Exchange of territories at the Frontier, Sept. 27, 1935, Czechoslovakia-German Reich, art. II, 182 L.N.T.S. 267 (1937–1938); Bouchez, *supra* note 39, at 804 (discussing Art. X and XI of the Treaty between France and Baden over the Rhine River) (citing De Martens, NR VII, p. 123 [citation taken from original]).

112. Traite de Limites entre Leurs Majestés le Roi de Prusse et le Roi des Pays Bas (Treaty of Meppen), June 26, 1816, Prussia-Neth., art. XXVII, 3 B.S.P. 789 (1815–1816); Bouchez, *supra* note 39, at 809 (discussing art. 6 of the Treaty of April 11, 1857 between Turkey and Russia prohibiting alteration of the thalweg by artificial means without mutual consent) (citing De Martens, NRG XX, p. 4 [citation taken from original]); Bouchez, *supra* note 39, at 790 (discussing art. VIII of the Treaty of May 14, 1811 between Prussia and Westphalia) (citing De Martens, NR 1, p. 382 [citation taken from original]); Bouchez, *supra* note 39, at 813 (stating that the Institute de Droit International in its session of 1911 adopted the rule that a state cannot unilaterally allow individuals or corporations, etc., to bring

accretion are present, which makes it extremely difficult to distinguish between causes and assign responsibility between the concerned states for purposes of resolving the dispute.¹¹³

D. The Impact of Avulsion on River Boundaries

The process of avulsion has been defined as “a lateral movement, non-continuous as regards space and instantaneous as regards time. In other words avulsion is of a more sudden nature than accretion.”¹¹⁴ Avulsion preempts the *thalweg* principle of river delimitation.¹¹⁵ It is an established rule of international law that the original boundary line of the river does not change even if the center line of the original channel subsequently shifts due to avulsion.¹¹⁶

The original middle of the channel continues to act as the river boundary but remains subject to change as a result of possible accretion.¹¹⁷ However, if the original river boundary dries up, then the boundary becomes permanent and does not change due to soil accumulation.¹¹⁸ If the original *thalweg* cannot be estimated in the dried bed then the middle of the

out changes in boundary rivers by artificial means); Lauterpacht, *supra* note 39, at 226.

113. Bouchez, *supra* note 39, at 799.

114. *Id.*

115. Lauterpacht, *supra* note 39, at 223–24; *see also* Arkansas v. Mississippi, 250 U.S. 39, 45 (1919) (“This record presents a clear case of a change in the course of the river by avulsion, and the applicable rule established in this court, and repeatedly enforced, requires the boundary line to be fixed at the middle of the channel of navigation as it existed just previous to the avulsion.”); Arkansas v. Tennessee, 246 U.S. 158, 173–74 (1918) (standing for the proposition that despite “the rule of the *thalweg* derives its origin from the equal rights of the respective States in the navigation of the river,” the principle of avulsion still controls); Washington v. Oregon, 211 U.S. 127, 136 (1908) (holding that the boundary centered in one channel of the Columbia River did not change when another channel became the main channel of the river because the boundary is subject only to changes by accretion); Missouri v. Nebraska, 196 U.S. 23, 36 (1904) (holding that the boundary between Missouri and Nebraska must be taken as the middle of the Missouri River as it was prior to avulsion). Furthermore the Court stated:

It is equally well settled, that where a stream, which is a boundary, from any cause suddenly abandons its old and seeks a new bed, such change of channel works no change of boundary; and that the boundary remains as it was, in the centre of the old channel, although no water may be flowing therein. This sudden and rapid change of channel is termed, in the law, avulsion.

Nebraska v. Iowa, 143 U.S. 359, 361 (1892).

116. CUKWURAH, *supra* note 38, at 58–59. *See generally* Nebraska v. Iowa, 143 U.S. 359 (1892) (discussing in detail the internationally recognized principle that the boundary line of a river does not change when the channel shifts due to avulsion and collecting authority supporting same).

117. Lauterpacht, *supra* note 39, at 223; *Tennessee*, 246 U.S. at 173; *State ex rel. Iowa Dep’t of Natural Res. v. Burlington Basket Co.*, 651 N.W.2d 29, 32 (Iowa 2002).

118. CUKWURAH, *supra* note 38, at 59; *Tennessee*, 246 U.S. at 175.

abandoned bed will be determined as the boundary, even if this results in one state's land being diminished.¹¹⁹

The processes of avulsion and accretion and their role in impacting river boundaries under international law can best be elucidated by examining the language of the treaty entered into between the United States of America and Mexico on November 12, 1884, concerning the Rio Grande and the Colorado River.¹²⁰ Article I of the treaty, which relates to accretion, states that

the dividing line shall forever be that described in the aforesaid treaty and follow the center of the normal channel of the river named, notwithstanding any alteration in the banks or in the course of those rivers, provided that such alterations be affected by natural causes through the slow and gradual erosion and deposit of alluvium and not by the abandonment of an existing riverbed and the opening of a new one.¹²¹

Article 2 of the treaty, which relates to avulsion, states that

any other change, wrought by the force of the current whether by the cutting of a new bed or when there is more than one channel by the deepening of another channel than that which marked the boundary at the time of the survey made under the aforesaid treaty, shall produce no change in the dividing line as fixed by the surveys of the International Boundary Commission in 1852, but the line then fixed shall continue to follow the middle of the original channel bed, even though this should become wholly dry or be obstructed by deposits.¹²²

Subsequently, because of alterations in the Rio Grande, the tract of Chamizal formed south of El Paso.¹²³ As a result, arbitration was sought by both states to determine the status of the tract.¹²⁴ On June 15, 1911, the majority of the Chamizal Arbitration Committee held that changes in the Rio Grande in the time period of 1852–1864 were gradual and had been

119. CUKWURAH, *supra* note 38, at 59.

120. Convention Between the United States of America and the Mexico States Touching the International Boundary Line Where it Follows the Bed of the Rio Grande and the Rio Colorado, U.S.-Mex., Nov. 12, 1884, 24 Stat. 1011.

121. *Id.* at Proclamation.

122. *Id.*

123. Bouchez, *supra* note 39, at 806.

124. *Id.*

caused by accretion; as a result any geomorphic changes in the river would cause the modification of the international boundary accordingly.¹²⁵ However, subsequent to 1864, changes in the river were primarily caused by the process of avulsion because of a flood and would not affect the boundary.¹²⁶ The Chamizal tract was accordingly divided between the two states on the basis of the formulation of the Arbitration Committee.¹²⁷

Upon agreement states can decide whether avulsion would affect river boundary delimitations.¹²⁸ Such states have entered into treaties where the altered thalweg continues as a boundary even if river changes were precipitated by avulsion.¹²⁹ States may also enter into treaties under which river boundaries would readjust because of avulsion, but the state having lost land would be compensated with another tract by the state that gained land.¹³⁰ Treaties have also provided for the intermittent readjustment of a river boundary, because of either accretion or avulsion.¹³¹ Some treaties have affirmatively obligated the concerned states to prevent or correct avulsion by artificial works.¹³²

It is pertinent to point out at this juncture that U.S domestic case law has extensively analyzed international law pertaining to river boundaries for purposes of defining both the process of avulsion and accretion and their impact on boundary delimitation.¹³³

125. Commentary, *The Chamizal Arbitration Award*, 5 AM. J. INT'L L. 709, 712 (1911).

126. *Id.*; *Chamizal Arbitration*, *supra* note 95, at 812.

127. *Chamizal Arbitration*, *supra* note 95, at 812.

128. *Shapleigh v. Mier*, 299 U.S. 468, 469–70 (1937). The Supreme Court explains such an agreement between Mexico and the U.S as follows:

The land in controversy was once part of the Mexican State of Chihuahua. In 1926 it was cut by avulsion from the south or right bank of the Rio Grande to the north or left bank, and became part of the United States. By the ordinary rule a change of location resulting from avulsion would have left Mexico still sovereign over the territory thus moved, the center of the old channel remaining as the boundary. Here a different rule applied by force of a convention, proclaimed June 5, 1907 (35 Stat.1863), whereby the boundaries were to shift in the event of future changes

Id. (internal citations omitted).

129. *See, e.g.*, Convention de Délimitation, entre les Pays-Bas et la Belgique, Aug. 8 1843, Belg.-Neth.-Lux., Art. XI § 1, 35 B.S.P. 1207 (1846–1847) [hereinafter Belgium Netherlands Treaty] (agreeing that the thalweg boundary will remain intact even if avulsion occurs); Bouchez, *supra* note 39, at 809 (discussing the Elbe Treaty between Prussia and Westphalia which stipulates that river boundary delimitations will change when there is avulsion).

130. Bouchez, *supra* note 39, at 809.

131. *See* CUKWURAH, *supra* note 38, at 61 (discussing international treaties that provide for readjustment of a river boundary).

132. *See* CUKWURAH, *supra* note 38, at 62–63 (discussing international treaties that mandate states to prevent or correct avulsion); Bouchez, *supra* note 39, at 809–10 (discussing examples of treaties which require that parties address avulsion by artificial means).

133. *See* cases cited *supra* note 115.

E. Status of Islands in Boundary Rivers

State parties can, through explicit agreement, determine the ownership of islands present in boundary rivers.¹³⁴ State practice suggests that states own the islands in a boundary river that lie on their side of the thalweg or median line.¹³⁵ Furthermore, treaties can also specify the status of islands if the thalweg or median line shifts.¹³⁶ However, absent any explicit agreement, some treaties and state practices illustrate that under international law the sovereignty of an island is not affected by a change in the thalweg, even if waters belonging to the other state surrounds the island as a result of the change.¹³⁷

Recognized principles of international law pertaining to islands in boundary rivers are as follows. First, if the thalweg in a river shifts resulting in an island moving from one side of the boundary line to the other, there is no change in the sovereignty of the island.¹³⁸ Second, if an island belonging to one state joins the bank of the other state, then title to the island transfers.¹³⁹ Third, if two islands belonging to different states in a boundary river merge to form one big island, then the island will belong to the state on whose side of the thalweg the island is predominantly located.¹⁴⁰ Fourth, a newly-formed island will belong to that state on whose side of the thalweg the island was formed.¹⁴¹

134. See, e.g., CUKWARAH, *supra* note 38, at 63–64 (discussing agreements which address ownership of islands in boundary rivers); Bouchez, *supra* note 39, at 815 (discussing examples of treaties that include provisions regarding ownership of islands in boundary rivers).

135. See Bouchez, *supra* note 39, at 815 (providing a comprehensive overview on the position of islands in boundary waters).

136. *Id.*

137. See *State ex rel. Iowa Dep't of Natural Res. v. Burlington Basket Co.*, 651 N.W.2d 29, 32 (Iowa 2002) (“[I]f there is a divided river flow around an island, a boundary once established on one side of the island remains there, even though the main downstream navigation channel shifts to the island’s other side.”) (quoting *Louisiana v. Mississippi*, 561 U.S. 22, 25 (1995)); Bouchez, *supra* note 39, at 815 (providing examples of treaties that state that the sovereignty of islands in boundary waters is not affected by changes in the thalweg). The Exchange of Notes between Brazil and the United Kingdom from October 27 to November 1, 1932 comprehensively outlines the status of islands in international rivers and delineates interesting solutions to uncertainties arising from the shifting of boundary lines in rivers containing islands under international law. CUKWARAH, *supra* note 38, at 65. See also Treaty Between the Argentine Republic and Brazil, for Settling the Boundary Between the Two Countries, Oct. 6, 1898, Arg.-Braz., art. IV, 90 B.S.P. 85 (1897–1898) (granting authority to the boundary commissioners to propose changes in ownership of islands).

138. Definitive Treaty of Peace and Amity Between His Britannic Majesty and His Most Christian Majesty, May 30, 1814, art. V, 1 B.S.P. 151 (1812–1814); Belgium Netherlands Treaty, *supra* note 129, at art. XI § 5.

139. CUKWARAH, *supra* note 38, at 65.

140. *Id.*

141. *Id.*; *Kansas v. Missouri*, 322 U.S. 213, 229 (1943) (for Kansas “[t]o show sovereignty by island formation it was necessary to prove that the island formed on the Kansas side of the main channel

*F. Regularity of River Boundary Disputes between
States and their Difficult Resolution*

Conventional principles of international law pertaining to international rivers detailed in this paper are lucid and have not undergone any material change. Recently, however, their application in cases of territorial, river boundary, and maritime disputes has been doubted.¹⁴² River boundary disputes have arisen regularly at more or less constant intervals between states. Some legal scholars would view this trend as evidence of vagueness and ambiguity in international law governing river boundary delimitations.¹⁴³

However, there are many other factors that could contribute towards this trend. Firstly, river boundary disputes are most often inextricably linked with disputes relating to maritime boundary delimitations,¹⁴⁴ which are generally of greater consequence and importance to the concerned states and therefore these states are mostly reluctant to compromise on their respective positions.¹⁴⁵ In addition, maritime disputes are more complex and consequently harder to resolve.¹⁴⁶ In fact, it is convincing to argue that the international law relating to maritime boundary delimitation is vague and inconclusive.¹⁴⁷ Moreover, I.C.J. rulings in cases pertaining to maritime

..."); *Burlington Basket Co.*, 651 N.W.2d at 33. Moreover, in *Burlington Basket Co.*, the court stated: Alternatively, if Keg Island or its predecessors did not exist when Iowa became a state in 1846, the State could prove it acquired sovereign title to the island by showing that the island developed by accretion west of the principal navigational channel, in other words, on the Iowa side of the river. Under this scenario, the island would belong to Iowa as an accretion to Iowa's territory.

Id.

142. See, e.g., Jonathan I. Charney, *Progress in International Maritime Boundary Delimitation Law*, 88 AM. J. INT'L L. 227, 227 (1994) (stating that international maritime boundary law is indeterminate and subject to frequent arbitration).

143. See PRESCOTT & TRIGGS, *supra* note 42, at 221 (noting that some commentators suggest that a lack of consistency in international treaties demonstrates that there is no clear international law for river boundary delimitations).

144. Territorial and Maritime Dispute Between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.) 2007 I.C.J. 120 (Oct. 8), available at <http://www.I.C.J.-cij.org/docket/files/120/14075.pdf>; Arbitration, (Guy. v. Surin.), Hague Ct. Rep. 97 (Perm. Ct. Arb. 2007), available at <http://www.pca-cpa.org/upload/files/Guyana-Suriname%20Award.pdf>; Land and Maritime Boundary Between Cameroon and Nigeria (Cameroon v. Nig.), 2002 I.C.J. 303 (Oct. 10, 2002).

145. See generally Charney, *supra* note 142 (discussing the importance of maritime boundaries in light of international need for stability and predictability and socioeconomic concerns such as natural resource management).

146. See generally *id.* (discussing the fact that numerous states might be involved, and the presence of unique coastal features such as bays, islands, rocks, reefs, and straits and the determination of the territorial sea, the exclusive economic zone, and the continental shelf convolute maritime delimitations immensely).

147. *Id.* at 230.

delimitations are influenced by factors such as equity and the particular facts of the concerned case.¹⁴⁸ These factors make the outcome of future maritime boundary delimitation rulings highly unpredictable.¹⁴⁹

Most often when a state is willing to settle its river boundary without preconditions connected to the resolution of its maritime boundary delimitation, the other state makes the resolution of the river boundary dispute wholly contingent on the resolution of the maritime boundary delimitation.¹⁵⁰ Thus, the existence of and failure to resolve maritime boundary and other extraneous disputes between states impedes the resolution of trivial river boundary disputes.

Secondly, one can argue that it is the application of international law to the complicated facts surrounding each unique river boundary delimitation that is hampering the resolution of such disputes and not obscurity in the corpus of international law pertaining to river boundaries. Unlike boundaries on land, river boundaries are fluid and are not usually permanently marked. They are invisible, intermittently shift, and are hard to measure. In fact, the thalweg is construed as a general area and not as a clearly cut marked line.¹⁵¹ Apart from difficulties in measuring changes in a river's course, there is the additional difficulty of determining whether the river shift was due to avulsion, accretion, or both.¹⁵² The conceptual distinction between these two doctrines might be clear cut, but from an evidentiary perspective it is highly problematic for objective third parties to ascertain whether and to what extent accretion or avulsion was responsible for the alterations in the river, as interested state parties have their own interpretation and version of events, which are hard to verify.¹⁵³

Furthermore, difficulties in interpreting specific treaties that address the status of boundary rivers might account for the difficulty of resolving river boundary disputes between states. A treaty might be vague from its

148. *Territorial and Maritime Disputes Between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.)*, 2007 I.C.J. at para. 287; *Continental Shelf (Libyan Arab Jamihiry v. Malta)*, 1985 I.C.J. 13, 38–39 (June 3); *Guinea–Guinea-Bissau Maritime Delimitation case*, 77 I.L.R. 635, 675–76 (1985); *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.)*, 1984 I.C.J. 246, 293, 298–99, 339–40 (Oct. 12.); *Continental Shelf (Tunis. v. Libyan Arab Jamahiry)*, 1982 I.C.J. 18, 59–60 (Feb. 24).

149. See cases cited *supra* note 148 (applying equitable principles and case-specific factors to maritime boundary delimitation cases).

150. Andre Verani, *Dividing the Sea: The 1982 Law of the Sea Convention, Maritime Caselaw, and the Current Dispute between Guyana and Suriname*, 9 GONZ. J. INT'L L. 48, 49 (2005).

151. Bouchez, *supra* note 39, at 793.

152. See Bouchez, *supra* note 39, at 799–800 (discussing the importance of the distinction between accretion and avulsion in international river boundary disputes).

153. See Commentary, *The Chamizal Arbitration Award*, *supra* note 125 (exemplifying one state Commissioner's interpretation of erosion and accretion impacting the El Chamizal boundary dispute).

inception,¹⁵⁴ or may be rendered incomplete or ambiguous for not accounting or inadequately accounting for contingences such as subsequent changes in the course of a river.¹⁵⁵ Possible reasons for obscurity in some treaties is a consequence of past colonial history, rule, and power dynamics.¹⁵⁶ One argument is that western colonial powers occupying lands intentionally left some of the treaties relating to river boundary demarcations vague and unclear in order to avoid conflict between themselves or for other strategic interests.¹⁵⁷ This could also possibly be due to lack of interest in determining an exact boundary, probably because of vast territorial holdings.¹⁵⁸ Another argument is that until the previous century, knowledge of geographical features around the world was inadequate and boundary demarcations were often based on vague and inaccurate maps.¹⁵⁹ Hence, with the development of accurate maps and most recently satellite imagery, many boundary disputes are now surfacing.¹⁶⁰

A related reason for the birth of river boundary disputes is that some newly liberated states are discontent with and do not recognize boundary demarcation undertaken by their colonial masters.¹⁶¹ These states maintain that the related boundary demarcations are often vague and more importantly do not take account of geopolitical realities existing at the time of independence or are not based on present day equitable considerations.¹⁶² These states have inherited such borders under the principle of *uti possidetis juris* (by law) or *de facto* (in practice),¹⁶³ which is an established

154. See generally Arthur R. Hinks, *Notes on the Technique of Boundary Delimitation*, 58 GEOGRAPHICAL J. 417 (1921) (discussing the difficulties of boundary delimitation). For example, the Rio Grande boundary delimitation in the Treaty of Guadalupe Hidalgo of 1848, between the U.S. and Mexico, and the 1890 Treaty between Germany and Britain in the River Chobe were vague. PRESCOTT & TRIGGS, *supra* note 42, at 220.

155. PRESCOTT & TRIGGS, *supra* note 42, at 220.

156. See CUKWURAH, *supra* note 38, at 98 (noting that existing patterns of boundary delimitation are derived from colonial times).

157. See *id.* at 98–99 (stating that it was common practice in colonial times to leave river boundary demarcations vague).

158. See *id.* at 98–102 (discussing how the role of the British in the Shatt-al Arab Boundary Delimitation between the Ottoman Empire and Persia under which the river boundary was defined ambiguously is often highlighted in academic discourse as an example of colonial interests advanced indirectly).

159. PRESCOTT & TRIGGS, *supra* note 42, at 191.

160. *Id.* at 191–214.

161. For example, after Lesotho gained independence in 1966, Lesotho contested its boundary with South Africa that was demarcated a century before. PRESCOTT & TRIGGS, *supra* note 42, at 92.

162. CUKWURAH, *supra* note 38, at 99.

163. Frontier Dispute (Benin v. Niger), 2005 I.C.J. 90, 108 (July 12) (“[T]he rules and principle of international law applicable to the present dispute include the principles of State succession to the boundaries inherited from colonization, that is to say, the intangibility of those boundaries”) (internal

international law doctrine and has attained the status of a norm of customary international law.¹⁶⁴ Under *uti possidetis*, a country gaining independence inherits the original borders of the predecessor state.¹⁶⁵ Mostly such borders, including river boundaries, were delimited based on the vested interests, expertise, and power relationships of colonial empires, which had no correlation with the customs, culture, historical title, or conduct (*effectivités*) of the indigenous people.¹⁶⁶ At times, border delimitations were a product of compromise between colonial powers and local governments and were arguably intended to be temporary or were procured under duress.¹⁶⁷

Many decolonized states that share a river boundary have attained independence from either the same colonial power that has partitioned a bigger territory,¹⁶⁸ or through two states gaining independence separately from two different colonial rulers. Though the dynamics and decisions to demarcate the particular border might be different in the two situations, the commonality is that in both circumstances the dealings, aspirations, and the will of the people or government of the decolonized nations has not been properly accommodated for in determining the subsequent status of the borders.¹⁶⁹ Such borders were mostly fixed by colonial rulers with their own primary interests, such as expansionism, in mind.¹⁷⁰ The boundaries were delimited at different points in time, with factors such as relative strength of

quotes omitted); *Frontier Dispute (Burk. Faso. v. Mali)*, 1986 I.C.J. 554, 566, 586–87 (Dec. 22); Sikander Shah, *An In-depth Analysis of the Evolution of Self-Determination Under International Law and the Ensuing Impact on the Kashmiri Freedom Struggle, Past and Present*, 34 N. KY. L. REV. 29, 34 (2007).

164. Steven R. Ratner, *Land Feuds and their Solutions: Finding International Law Beyond the Tribunal Chamber*, 100 AM. J. INT'L L. 808, 811 (2006).

165. Steven R. Ratner, *Drawing a Better Line: Uti Possidetis and the Borders of New States*, 90 AM. J. INT'L L. 590, 590 (1996).

166. For example, the division of Somali and Masai homelands in Africa. PRESCOTT & TRIGGS, *supra* note 42, at 313. Algerian President Chadly in 1983 declared African boundary troubles as “delayed action bombs left by colonialism.” *Id.*

167. For example, the 1893 Durand line border agreement between British India and the Emir of Afghanistan, which is the present boundary between Pakistan and Afghanistan, was signed under duress and vociferously contested by Afghanistan. Afghanistan also argued that the Durand Line ceased to exist in 1947 when British India dissolved. PRESCOTT & TRIGGS, *supra* note 42, at 324–26; W. P. S. Sidhu, *Why the Durand Line is Important*, THE INDIAN EXPRESS, Nov. 1999, <http://www.expressindia.com/news/ie/daily/19991116/ie19059.html>.

168. See PRESCOTT & TRIGGS, *supra* note 42, at 333–36 (discussing the establishment of Pakistan and India as independent states resulting from the decolonization of British India).

169. See, e.g., *id.* at 335 (discussing the boundary delimitation process between India and Pakistan which was facilitated by Great Britain).

170. See CUKWURAH, *supra* note 38, at 98 (noting that colonial powers often made boundary delimitations according to expansionist principles).

colonial powers, prowess in diplomatic negotiations, and numerous other extraneous reasons accounting for border determinations.¹⁷¹

An additional reason for the incessant germination of river boundary disputes between states is the fact that the decolonization process has continued.¹⁷² Furthermore, former socialist republics in Europe have disintegrated into smaller nations. The creation of new states has subsequently given birth to river border disputes and might continue doing so in the future. Such boundary disputes may not surface for years after their conception. This is because a considerable passage of time is involved for states to realize the existence of a dispute, and to identify specific disagreements concerning boundary demarcations. Moreover, additional time is required for states to realize that the resolution of boundary disputes cannot be accomplished through informal mechanisms and the more formalized methods of dispute resolution under Article 33, Chapter IV of the U.N. Charter relating to the pacific settlements of disputes must now be employed.¹⁷³

Some states dispute river boundaries decades after becoming independent.¹⁷⁴ One possible reason for this occurrence can be attributed to states having been initially disinterested in demarcating boundaries in rivers and estuaries of insignificant value. However, recent developments such as discovery of natural resources in a river or technological developments enhancing the ability of states to extract such resources, evolution in international maritime law and national security concerns have resulted in the boundary river becoming fundamentally important to the related states.¹⁷⁵

Nebulous river boundaries are not only a source of friction and dispute among states when there is disagreement over delimitation, but can also become a source of conflict involving aggression.¹⁷⁶ Confrontation and even armed attacks can result when states with or without using force allege that foreign vessels have infringed their territorial sovereignty by crossing

171. For example, the Heligoland–Zanzibar Anglo–German Agreement of 1890 separating South Africa from South West Africa (now Namibia) under which the German bank rather than the Thalweg of the Orange river was agreed upon as the boundary is blamed on German inexperience in colonial matters and the anti-colonial sentiments espoused by the German official in charge of negotiations. Demhardt, *supra* note 40, at 358.

172. For example, Namibia gained independence on March 21, 1990 from South Africa. BACKGROUND NOTE: NAMIBIA. U.S. DEPT. OF STATE (2009), available at <http://www.state.gov/r/pa/ei/bgn/5472.htm>.

173. See CUKWURAH, *supra* note 38, at 137 (stating that under Article 33, direct negotiation is the preferred settlement method).

174. For example, India and Pakistan are currently disputing the Sir Creek boundary, even though the states gained independence decades ago. See, e.g., *India, Pakistan discuss Sir Creek, maritime boundary*, RXPG NEWS, May 18, 2007, https://www.rxpgnews.com/Pakistan/India-Pakistan-discuss-Sir-Creek-maritime-boundary_28553.shtml.

175. PRESCOTT & TRIGGS, *supra* note 42, at 231.

176. *Id.*

over to their side of the river without prior authorization.¹⁷⁷ The ascertainment of claims raised by the involved states is frequently hard to verify and this determination becomes convoluted when the actual delimitation of the boundary itself is ambiguous.¹⁷⁸ Frequently, innocent civilians such as fishermen bear the consequences of the alleged violations of territorial sovereignty in disputed rivers.¹⁷⁹

Incidents which had the potential of threatening international peace and security were witnessed when the Iranian Revolutionary Guard Corps (IRGC) twice captured British military personnel at different points in time in the Shatt al-Arab waterway, which delimits the water boundary between Iran and Iraq.¹⁸⁰ In June 2004, eight British military personnel serving in the coalition forces were captured by IRGC in the Shatt al-Arab waterway on charges of having illegally entered Iranian waters by being found on the Iranian side of the thalweg.¹⁸¹ On March 23, 2007, in a similar fashion, IRGC seized 15 British sailors of the British Royal Navy from *HMS Cornwall* in the Shatt al-Arab for again being allegedly found on the Iranian side of the thalweg.¹⁸² Both these incidents sparked diplomatic tensions and freezing of ties between the two nations and had the potential of escalating into a more serious and wider conflict, especially in light of the already fragile relationship between many western nations (spearheaded by the United States) and Iran over Iran's alleged clandestine development of nuclear weapons.

G. Recent International Law Decisions Relating to River Boundary Disputes

A review of recent and relevant decisions of international courts and tribunals strongly suggests that conventional international legal norms

177. *Pakistan to free Indian Fisherman*, BBC NEWS, Mar. 8, 2005, http://news.bbc.co.uk/2/hi/south_asia/4328611.stm.

178. *See, e.g., id.* ("Out on the sea, there are no markings to indicate the borders between the two countries.").

179. *India Arrests Pakistani Fishermen*, BBC NEWS, July 22, 2006, http://news.bbc.co.uk/2/hi/south_asia/5205574.stm.

180. Simon Henderson, *Incident in the Shatt al-Arab Waterway: Iran's Border Sensitivities*, POL'Y WATCH OF THE WASHINGTON INST., June 28, 2004, <http://www.washingtoninstitute.org/templatesC05.php?CID=1757>; Bernard Zand, *Powder Keg at Shatt al-Arab*, DER SPIEGEL, Mar. 28, 2007, <http://www.spiegel.de/international/world/0,1518,474518,00.html>.

181. Henderson, *supra* note 180; *UK Sailors 'Admit Iran Incursion'*, BBC NEWS, June 23, 2004, http://news.bbc.co.uk/2/hi/middle_east/3828377.stm. *See generally* Lauterpacht, *supra* note 39 (providing a comprehensive background of the Shatt al-Arab boundary dispute).

182. Pepe Escobar, *British pawns in an Iranian game*, ASIA TIMES ONLINE, Mar. 29, 2007, http://www.atimes.com/atimes/Middle_East/IC29Ak06.html; Zand, *supra* note 180.

governing river boundary delimitation have not undergone any realizable change.¹⁸³ The doctrines of the median line, thalweg, accretion, and avulsion are recognized and applicable in their particular context, subject to the overriding principle of states mutually consenting explicitly or implicitly to a different arrangement.¹⁸⁴ It is pertinent to point out that international courts and tribunals have avoided confronting an evident conflict between the principle of *uti possidetis* and these conventional principles of international law.¹⁸⁵ Even though such principles continue to enjoy the status of customary international law and their effect on river boundaries is established, in the event the I.C.J. is forced to address this conflict, it would in all likelihood uphold the supremacy of *uti possidetis*.¹⁸⁶

International judgments have lucidly upheld the supremacy of the principle of *uti possidetis juris* and *uti possidetis de facto* which is established through colonial *effectivités* (conduct), as colonial powers divide and create borders.¹⁸⁷ However, international adjudicative bodies are extremely demanding and stringent that they be convinced from an empirical perspective that states have provided sufficient evidence to prove that post colonial *effectivités* concerning boundary rivers have been adequately exercised.¹⁸⁸ These courts or tribunals have also been excessively critical of doctrines such as prescription, recognition, acquiescence, and other equitable considerations such as estoppel on the basis of which states claim sovereignty over boundary rivers and its constituent islands.¹⁸⁹ The international courts and tribunals have not questioned the foundational basis, applicability, or validity of these doctrines, but have demanded a very high burden of proof from the concerned states to validate their legal title on such grounds.¹⁹⁰

Moreover, when states have ventured to prove legal title of ownership on equitable considerations or *effectivités* by trying to displace title established by treaty entered into by colonial powers and then inherited

183. See PRESCOTT & TRIGGS, *supra* note 42, at 216–20 (discussing application of the principles of delineation of river boundaries).

184. *Id.*

185. See Shah, *supra* note 163, at 34 (discussing the international community's hesitation to undermine *uti possidetis*).

186. *Id.*

187. Frontier Dispute (Burk. Faso. v. Mali) 1986 I.C.J. 554, 566, 586–87 (Dec. 22).

188. *Id.* at 586–87.

189. PRESCOTT & TRIGGS, *supra* note 42, at 219–20 (noting that international tribunals generally disfavor application of equitable principles in boundary disputes).

190. For example, Nigeria's failure to establish acts "*a titre de souverain*" or "*effectivités*" to the I.C.J. See Pieter H.F. Bekker, *Land and Maritime Boundary between Cameroon and Nigeria*, 97 AM. J. INT'L L. 387, 391 (2003) (stating "the rule that preference will be given to title where there is a conflict between title and *effectivités*").

under *uti possidetis*, they have failed.¹⁹¹ The I.C.J. has expressly stated that preference will be given to title over *effectivités*.¹⁹² The I.C.J. has also rebuked arguments made by colonized states, after having gained independence, that their colonizing states lacked the legal authority to enter into treaties demarcating their borders.¹⁹³

Interestingly, in contrast to the inflexible stance taken by the courts in relation to river boundaries that have been historically classified as land boundaries, international adjudicative bodies have taken a much more receptive and flexible approach when faced with claims of title made by states on equitable considerations or other similar doctrines in relations to international maritime boundaries.¹⁹⁴ For example, state sovereignty over maritime islands on the basis of post-colonial *effectivités* was recognized by the I.C.J. where evidence of such conduct was found adequate by the Court and no title could be asserted and proven on the basis of *uti possidetis juris* or colonial *effectivités* establishing *uti possidetis de facto*.¹⁹⁵

A possible reason for this difference in approach exhibited by the I.C.J. can be reflected upon. State practice and international law governing river boundary delimitation is developed, simple in character, and relatively easy to apply. Conversely, maritime boundary delimitations are extremely complicated because of the presence of unique coastal geography.¹⁹⁶ In addition, there is an absence of clear guidance from state practice,¹⁹⁷ and international maritime law, even according to the I.C.J., is indeterminate.¹⁹⁸ As a result of this indeterminacy, international courts and tribunals enjoy a lot of freedom in reaching a resolution which, in their view, is most desirable. In the absence of concrete legal principles and state practice in relation to each unique case of maritime delimitation, international

191. *Id.*

192. *Id.*

193. The I.C.J. rejected Nigeria's argument that Great Britain was not in a position to delineate its boundary with Germany in respect of Nigeria under the Anglo-German Treaty of March 13, 1813 and that Cameroon inherited sovereignty over the Bakassi Peninsula under the principle of *uti possidetis*. *Id.* at 390.

194. *See, e.g.,* Pieter Bekker & Ana Stanic, *The I.C.J. Awards Sovereignty over Four Caribbean Islands to Honduras and Fixes a Single Maritime Boundary between Nicaragua and Honduras*, ASIL INSIGHTS Vol. 11, Issue 26, Oct. 17, 2007, <http://www.asil.org/insights/2007/10/insights071017.html> (noting that the court applied equitable principles in a maritime boundary dispute).

195. *Id.* at 227–28.

196. *See* Srinivasan, *supra* note 23.

197. Charney, *supra* note 142, at 227–28.

198. *See* Continental Shelf (Tunis. v. Libyan Arab Jamahirya), 1982 I.C.J. 18, 60 (Feb. 24) (stating that no rigid rules exist in international law “as to the exact weight to be attached to each element in the case”).

adjudicative bodies understandably have had the proclivity to render decisions on equitable considerations.¹⁹⁹

Another reason why international courts and tribunals have relied on equitable consideration in resolving international maritime disputes is the fact that unlike the international law of transnational river boundary delimitation, which is derived from customary international law and state practice primarily developed during colonialism with the interests of a few colonizing nations in mind, the laws relating to maritime boundary delimitations rely on numerous recently promulgated multilateral treaties.²⁰⁰ These modern conventions were drafted with the consensus and input of the majority of states of the global community and as a result are relatively balanced and fair handed. Such conventions explicitly direct international courts and tribunals to try to achieve an “equitable solution”²⁰¹ and also to account for “special circumstances.”²⁰²

Moreover, international courts and tribunals have exercised broad discretion when delimiting maritime boundaries, because in most cases the concerned maritime region has not been historically delimited by colonizing states. In such circumstances the principle of *uti possidetis* is not invoked and consequently international adjudicative bodies are not constrained in ways that can produce a judgment, which is inequitable or not in consonance with present day realities. In contrast, river boundaries have almost always been delimited previously by colonial rulers invoking the principle of *uti possidetis*. As enunciated, the recognized international law principle of *uti possidetis* is viewed as protecting international peace and security by providing border stability and upholding territorial integrity. In order to avoid the infringement of states’ territorial integrity and the resulting ramifications, international courts and tribunals have been resistive to any attempts by states arguing for different river boundary delimitation on equitable considerations. This point can be further substantiated by the fact that historically rivers, in comparison to maritime waters, have been recognized as territory conventionally owned and occupied by a state and therefore more appropriately come within the ambit of state territoriality and sovereignty.

In the case of international rivers, it would be logical to conclude that

199. *See id.* (stating that it would be “impossible to achieve an equitable solution in any delimitation without taking into account the particular relevant circumstances of the area”).

200. *See, e.g.,* Charney, *supra* note 142, at 227; *see also* 1982 UNCLOS, *supra* note 31, at 127–35.

201. Charney, *supra* note 142, at 227.

202. 1982 UNCLOS, *supra* note 31, at 26; Arbitration (Guy. v. Surin.), Hague Ct. Rep. 97, ¶ 306 (Perm. Ct. Arb. 2007), available at <http://www.pca-cpa.org/upload/files/Guyana-Suriname%20Award.pdf>.

the areas where international courts and tribunals have taken a more liberal, expansive, and equitable approach in rendering decisions, they have not challenged the traditional doctrine of territorial integrity substantively. These include matters of riparian rights in boundary rivers where the I.C.J. has made accommodations for environmental and developmental concerns.²⁰³ The United Nations General Assembly adopted the United Nations Convention on the Law of Non-Navigational Uses of International Watercourses (Water Convention) on May 21, 1997,²⁰⁴ which has not been ratified by enough state parties to enter into force.²⁰⁵ The Water Convention is one of the few multilateral treaties concerning water management in international boundary rivers, equitable utilization, use of fresh water, and ecological protection and management.²⁰⁶ Importantly, the Water Convention does not in any direct manner challenge or contravene the conventional doctrine of territorial sovereignty.

To illustrate the aforementioned analysis, a brief synopsis of cases entertained by the I.C.J., the PCA, and other tribunals involving river boundary delimitations follows.

1. The Case Concerning Kasikili–Sedudu Island (Botswana v. Namibia)

On December 13, 1999, the I.C.J. decided that the island in the Chobe River, known as Kasikili in Namibia and Sedudu in Botswana, belonged to Botswana under the delimitation principle of the “line of deepest sounding.”²⁰⁷ Namibia and Botswana mutually consented to the Court’s jurisdiction in making its determination on the basis of international law and the Court’s specific understanding of the Anglo–German Treaty entered into on July 1, 1890,²⁰⁸ which delimited territory in regions of Africa. The Anglo–German Treaty demarcated the colonial frontier of Great Britain and Germany in this region on the basis of the main channel in the Chobe River. The Court determined that the confusion over title to the island in the

203. See *Pulp Mills on the River Uruguay* (Arg. v. Uru.), 2006 I.C.J. 19 (July 13) (discussing the “need to safeguard the continued conservation of the river environment and the rights of economic development of the riparian States”); *Gabcikovo–Nagymaros Project* (Hung. v. Slov.), 1997 I.C.J. 7, 77–78 (Sept. 25).

204. MCCAFFERY, *supra* note 65, at 301.

205. A minimum of 35 states are required for the treaty to come into force. PRESCOTT & TRIGGS, *supra* note 42, at 222.

206. MCCAFFERY, *supra* note 65, at 301–22; Cf. The Convention of 31 May 1976 on the Regulation of Water Management Issues of Boundary Waters, available at <http://www.gabcikovo.gov.sk/doc/prop/agreement-draft-02-04-01a.htm>; PRESCOTT & TRIGGS, *supra* note 42, at 222.

207. The Kasikili/Sedudu Island is 3.5 square kilometers in area. *Kasikili/Sedudu Island* (Bots. v. Namib.), 1999 I.C.J. 1045, 1108 (Dec. 13).

208. *Id.* at 1053.

Chobe River stemmed from the definition of the phrase “main channel” agreed upon in the treaty. The Court determined that this phrase had not been adequately defined in the treaty.²⁰⁹

Botswana contended that the main channel in the river ran north of the Kasikili/Sedudu Island. Conversely, Namibia argued that the main channel ran south of the island. The Court determined that the island belonged to Botswana, as the main channel in the river ran north of the island. The Court made this determination by considering the flow, depth, and width of the channel, as well as its navigability and the bed profile configuration in the river.²¹⁰ The Court rejected an alternate argument forwarded by Namibia that it had title to the island on the basis of the principle of prescription for having exercised sovereign jurisdiction over the island from the beginning of the 20th century.²¹¹

2. Frontier Dispute (Benin v. Niger)

Former French West African colonies Benin and Niger obtained independence in 1960.²¹² On July 12, 2005, the Chamber formed by the I.C.J. delimited the disputed river boundary between these two nations.²¹³ The Chamber upheld the principle of *uti possidetis juris* maintaining the immutability of boundaries fixed by colonial rulers at the time of independence.²¹⁴ However, the Chamber added that assessments in delimitation were to be influenced by current “physical realities,” such as the “possible appearance or disappearance of certain islands in the stretch concerned.”²¹⁵ Benin argued that the boundary followed the left bank of the Niger River. However, the Chamber agreed with Niger and determined that the river boundary followed the line of the deepest sounding of the main navigable channel at the time of independence.²¹⁶ The Chamber, in looking to conform to *uti possidetis juris*, duly considered evidence of the effective exercise of authority practiced by the colonial power during its rule, under the principle of “*effectivités*.”²¹⁷ The court may use this evidence in the

209. *Id.* at 1061.

210. *Id.* at 1065–71.

211. *Id.* at 1105–06.

212. Joshua Castellino, *Territorial Integrity and the “Right” to Self-Determination: An Examination of the Conceptual Tools*, 33 *BROOK. J. INT’L L.* 503, 555 (2008).

213. Frontier Dispute (Benin v. Niger), 2005 I.C.J. 90, 108 (July 12).

214. *Id.*

215. *Id.* at 109.

216. *Id.* at 121, 133.

217. This test of “colonial *effectivités*” has been defined as “the conduct of the administrative authorities as proof of the effective exercise of territorial jurisdiction in the region during the colonial period.” Frontier Dispute (Burk. Faso v. Mali), 1986 I.C.J. 554, 586 (Dec. 22). *See also* Territorial and

absence of proof of legal title to determine ownership.²¹⁸ The Chamber determined there was a *modus vivendi* that the main navigable channel of the river constituted the river boundary,²¹⁹ and subject to one exception the line of the deepest soundings in the Niger River was delimited as the frontier.²²⁰

To comply with the principle of *uti possidetis juris*²²¹ and in order to decide the legal status of the contested islands, the Chamber set out to determine the thalweg of the Niger River as it existed at the time Benin and Niger gained independence.²²² It decided not to consider the current location of the thalweg, which since independence could have potentially shifted due to accretion. This decision of the Chamber is arguably a deviation from the international law principle of the fluid nature of the thalweg as the river boundary, on the basis of the argument that a thalweg boundary in a river is only a default rule. Under this view, an explicit or implicit agreement between the parties can preempt this principle. *Uti possidetis juris* and *effectivités* akin to such agreements are rules of international law that override the default rule of thalweg and its fluidity. However, this perceived inconsistency of the decision with the customary norm of the thalweg fades away if one views the Chamber's determination concerning the thalweg as only a means to the end of determining the status of the contested islands in the river and not the location of the river boundary.

Legal scholars critical of the principle of *uti possidetis juris* would argue that the Chamber's statement that physical realities had to be taken

Maritime Disputes Between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.), 2007 I.C.J. 120, 46–47 (Oct. 8); Frontier Dispute (Benin v. Niger), 2005 I.C.J. at 90; Pieter H.F. Bekker, *The 2005 Record of the International Court of Justice*, 5 CHINESE J. INT'L L. 371 (2006) (discussing developments occurring in the I.C.J. during 2005 which included application of the “*effectivités*” test).

218. Frontier Dispute (Benin v. Niger), 2005 I.C.J. 90, 127 (July 12). The Chamber also stated that it is “unnecessary to look for any *effectivités* in order to apply the *uti possidetis* principle, since *effectivités* can only be of interest in a case in order to complete or make good doubtful or absent legal titles, but can never prevail over titles with which they are at variance.” *Id.* at 149. However, *effectivités*, though subordinate to the principle of *uti possidetis*, if proven will determine the status of the river boundary preempting the default rules of river boundaries such as the thalweg and median line principle, if conflicting. On the western sector of the disputed boundary, the Chamber determined that the boundary followed the median line in the non-navigable River Mekrou. The Chamber did not consider *effectivités* as it felt that the evidence of the competent authorities of the colonial administration was sufficient to prove colonial borders at the time of independence. *Id.* at 150.

219. *Id.* at 132.

220. *Id.* at 135.

221. *Id.* at 133; Fabio Spadi, *The International Court of Justice Judgment in the Benin–Niger Border Dispute: The Interplay of Titles and ‘Effectivités’ under the Uti Possidetis Juris Principle*, 18 LEIDEN J. INT'L L. 777, 789 (2005).

222. *Frontier Dispute (Benin v. Niger)*, 2005 I.C.J. at 22.

into account in the determination of the boundary, seemingly erodes the supremacy of the *uti possidetis juris* principle. These critics would argue that even though the Chamber only mentions the creation of new islands as instances of changing physical realities,²²³ changes in a river due to alteration of the thalweg as a consequence of accretion would also be an instance of changed physical realities in light of the Chamber's judgment.

Objectively speaking, the apparent conflict between the principle of *uti possidetis juris* and the thalweg cannot be clearly resolved by reviewing the judgment of the Chamber.²²⁴ However, the apparent confusion stemming from the Chamber's judgment does not impact the final outcome of the case relating to the status of islands determined at the time of independence. This is because even when a river boundary shifts because of accretion-based changes of the thalweg, the legal status of an island in the river is not impacted by such shifts under international law. This is the case, even though an island might come to be situated in foreign territory, subject of course to the exception of the island merging into the bank of the other State.

Nonetheless, the fact that the Chamber delimited the river boundary by specifying exact coordinates²²⁵ seems to strongly support the claim that the Chamber meant to freeze and permanently fix the river boundary at the time of independence and uphold the supremacy of the principle of *uti possidetis juris*.

The Chamber utilized the thalweg in existence at the time of independence to award islands between the thalweg and the left bank of the river to Niger and between the thalweg and the right bank to Benin. Consequently, the contentious island of Lete Goungou was awarded to Niger.²²⁶

3. Maritime Boundary Dispute (Suriname v. Guyana)

The Corentyne is a boundary river separating Suriname and Guyana. Since the location of the land boundary terminus identifies the maritime boundary in the region, the Corentyne has been a source of dispute for purposes of delimiting both the river and the maritime boundary.²²⁷

The source of the dispute can be traced back to 1936 when the British

223. *Id.* at 108–09.

224. *See Spadi, supra* note 221, at 792–94.

225. *Frontier Dispute (Benin v. Niger)*, 2005 I.C.J. at 135.

226. *Id.* at 140.

227. Doodnauth Singh, *Comments on the Guyana-Suriname Boundary Dispute*, 32 GA. J. INT'L & COMP. L. 657, 660 (2004).

and the Dutch formed a mixed commission to delimit their respective boundaries in this area. The mixed commission determined that the whole river was under Dutch control and set the west bank of the river as the boundary.²²⁸ The British acquiesced in this decision.²²⁹ However, in 1962 the Dutch government offered the thalweg as the boundary in the Corentyne.²³⁰ Inconclusiveness concerning this boundary remained following the independence of Guyana and Suriname. Suriname, previously a Dutch colony, gained independence in 1975, whereas Guyana gained its independence from Great Britain in 1966.²³¹ Suriname maintained that the whole river was under its sovereignty, and Guyana contended that the thalweg was the boundary in the Corentyne.

On September 17, 2007, a five-member arbitration tribunal, established under Annex VII of the 1982 Law of the Sea Convention (LOS), supported Suriname's position and determined that the land boundary terminus was located on the western Guyanese side of the river bank.²³² The tribunal maintained that Suriname had a right of access to the whole river. As a consequence, special circumstances had been offered under Article 15 of the LOS Convention.²³³ The tribunal determined that in order to accommodate Suriname's navigational access to the whole river, the maritime boundary between the states had to be adjusted accordingly.²³⁴ The tribunal added "special circumstances that may affect a delimitation are to be assessed on a case-by-case basis, with reference to international jurisprudence and State practice."²³⁵

4. Land and Maritime Boundary Dispute (Cameroon v. Niger)

The I.C.J. determined that the Anglo-German agreement of 1913 effectively determined the river boundary between Cameroon and Nigeria in the Akwayafe River as being the thalweg in the navigable channel northeast of the Bakassi peninsula in accordance with Articles XVIII through XXI of the stated agreement.²³⁶ Cameroon's position was accepted

228. Donovan, *Suriname-Guyana Maritime and Territorial Disputes*, *supra* note 92, at 57–58.

229. *Id.*

230. *Id.* at 60.

231. Stephen Fietta, *Guyana/Suriname*, 102 AM. J. INT'L L. 119, 120 (2008).

232. Arbitration (Guy. v. Surin.) Hague Ct. Rep. 97 (Perm. Ct. Arb. 2007), available at <http://www.pca-cpa.org/upload/files/Guyana-Suriname%20Award.pdf>.

233. *Id.* at 99.

234. *Id.* at 97.

235. *Id.* at 95–96.

236. Land and Maritime Boundary Between Cameroon and Nigeria (Cameroon v. Nig.), 2002 I.C.J. 303, 428–29 (Oct. 10); Bekker, *supra* note 190, at 393.

by the Court that the Bakassi peninsula belonged to Cameroon as it lay on the German side of the boundary and Cameroon inherited this peninsula under the principle of *uti possidetis juris*.²³⁷ The Court rejected Nigeria's argument that Britain had no title to the Bakassi peninsula and hence had no legal power to cede this territory.²³⁸ On August 14, 2008, Nigeria officially withdrew from the Bakassi peninsula and transferred control to Cameroon.²³⁹

5. Territorial and Maritime Boundary Dispute (Nicaragua v. Honduras)²⁴⁰

On October 8, 2007, the I.C.J. delimited the maritime boundary and determined the status of certain islands in the Caribbean Sea between Nicaragua and Honduras.²⁴¹ The Court recognized the determinations made by a mixed boundary commission established in 1962, which had completed the boundary demarcation line and placement of boundary markers.²⁴² Furthermore, the mixed boundary commission confirmed the arbitral award of King Alfonso XIII of Spain awarded on December 23, 1906, under which the boundary line from the mouth of the Coco River at Cape Gracias a Dios to Portillo de Teotecacinte was drawn on the basis of the thalweg principle.²⁴³

The court directed both states to come to an agreement over the present location of the mouth of the Coco River.²⁴⁴ Both states had agreed to the

237. Bekker, *supra* note 190, at 392.

238. *Land and Maritime Boundary Between Cameroon and Nigeria (Cameroon v. Nig.)*, 2002 I.C.J. at 399–402. In the same judgment in relation to the land boundary in the area of Lake Chad, the Court determined that the Thomson–Marchand Declaration signed and finally incorporated in an exchange of notes between France and Britain (colonial powers) in 1931 was controlling and had the status of an international agreement. The Court's task was to ascertain the parties' 1931 intention as to the meaning of the expression "mouth," of the Ebeji River as the boundary and not to determine the middle of the main navigable channel of the river. The Ebeji River had various mouths and emptied into Lake Chad. Faced with this dilemma, the I.C.J. fixed the geographical coordinates for the mouth of the Ebeji River as they were in 1931. Bekker, *supra* note 190, at 388–89.

239. Will Connors, *Nigeria Turns over Disputed Territory to Cameroon*, N.Y. TIMES, Aug. 14, 2008, available at <http://www.nytimes.com/2008/08/15/world/africa/15nigeria.html>.

240. Honduras and Nicaragua gained independence from Spain in 1821. Both nations entered into a boundary treaty on October 8, 1894 known as the Gamez Bonilla Treaty recognizing the principle of *uti possidetis juris* and establishing a mixed boundary commission to demarcate the boundary between the two nations. Bekker & Stanic, *supra* note 194.

241. The islands include: Bobel Cay (Honduras), Savanna Cay (Honduras), Port Royal (Honduras), South Cay (Honduras), and Edinburg Cay (Nicaragua). *Territorial and Maritime Disputes Between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.)*, 2007 I.C.J. 120, 93 (Oct. 8).

242. *Id.* at 17–18. On November 18, 1960, the I.C.J. determined that the award made by the King of Spain on December 23, 1906 was valid, binding, and had to be given effect. *Id.* at 16.

243. *Id.* at 15–18.

244. *Id.* at 87.

fact that the land body terminus was properly established under the arbitral award of King Alfonso XIII of Spain in 1906, at the mouth of the principle arm of the Coco River.²⁴⁵ However, the land terminus had shifted since 1962 due to accretion of sediments and ascertaining its current location was impacting the maritime boundary between the two states.²⁴⁶ The Court declined to determine the sovereign title of islands that appear in the mouth of the Coco River because of the unstable nature of the mouth and disagreement over its actual location.²⁴⁷

6. Gabčíkovo–Nagymaros Project Dispute (Hungary v. Slovakia)

In 1977, Hungary and Czechoslovakia entered into a treaty relating to the construction of the Gabčíkovo–Nagymaros dam; the treaty was subsequently ratified in 1978.²⁴⁸ One consequence of this scheme was that it could alter the course of the Danube River and therefore had the potential to alter the international boundary of the area as determined under the Treaty of Trianon and the 1947 Treaty of Peace.²⁴⁹ In 1993, with the division of Czechoslovakia into the Czech and Slovakia federal republics, the concerned boundary became one between Hungary and Slovakia.²⁵⁰ In May 1992, Hungary argued for the complete termination of the 1977 treaty citing environmental concerns.²⁵¹ Hungary voiced concerns including the fear that the scheme would change the course of the Danube River and would result in the permanent movement of the thalweg.²⁵²

The dispute was brought before the I.C.J.²⁵³ and the Court delivered its judgment on September 25, 1997, holding that the 1977 dam agreement between the state parties was valid and in force.²⁵⁴ The Court held that

245. *Id.* at 15.

246. *Id.* at 14, 84.

247. *Id.* at 87 para. 310.

248. Gabčíkovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7, 11 (Sept. 25); PRESCOTT & TRIGGS, *supra* note 42, at 229.

249. Greg Engelfield, *The International Boundary Between Hungary and Slovakia: The Nagymaros–Gabčíkovo Dispute*, IBRU BOUNDARY AND SECURITY BULLETIN, July 1993, http://www.dur.ac.uk/resources/ibru/publications/full/bsb1-2_englefield.pdf.

250. See MCCAFFERY, *supra* note 65, at 187 (stating that the effected part of the Danube runs through Slovak and Hungarian territory).

251. *Id.*

252. Engelfield, *supra* note 249.

253. On March 12, 1993, the European Parliament passed a resolution ordering the dispute to be taken immediately to the I.C.J. for resolution. On April 7, 1993, both states signed an agreement to take the dispute to the I.C.J. and consented to the binding nature of the I.C.J. judgment. MCCAFFERY, *supra* note 65, at 186.

254. *Id.* at 188–89.

Hungary's suspension and abandonment of the project was wrongful.²⁵⁵ Czechoslovakia/Slovakia was also held to be in violation of the treaty for unilaterally diverting the Danube by operating and constructing the Cunovo dam upstream on its own territory.²⁵⁶ The Court explained that the diversion of the Danube carried out by Czechoslovakia was not a lawful countermeasure as it was not proportionate.²⁵⁷ There were no real structural changes in the Danube as a consequence of its diversion, and this might explain why the Court did not address the issue of changes in the thalweg initially voiced by Hungary.²⁵⁸ Another reason could have been that the Cunovo based dam diversion of Danube waters was in a part of the river where it was not a boundary.²⁵⁹

H. Pending or Potential River Boundary Disputes

There are numerous pending and recently decided disputes entertained by the I.C.J. relating to maritime delimitation.²⁶⁰ However, as indicated earlier, the identification and delimitation of maritime boundaries is frequently dependant upon the determination of a land boundary terminus, which is often the mouth of a river. Therefore, the importance of river boundary delimitation in the context of international boundary adjudication cannot be overestimated. There are some territorial disputes where the river boundary determination is of primary concern and have the potential to be presented before and taken up by the I.C.J. for resolution in the near future.²⁶¹

255. PRESCOTT & TRIGGS, *supra* note 42, at 228.

256. *Id.*

257. MCCAFFERY, *supra* note 65, at 192.

258. Though the Court did not directly address concerns over the thalweg or territorial sovereignty in the context of the diversion and utilization of Danube waters by Czechoslovakia, it did state "that the Danube is not only a shared international watercourse but also an international boundary river." *Gabčíkovo-Nagymaros Project (Hung. v. Slov.)*, 1997 I.C.J. 7, 54. One could imply from this statement that the Court was cognizant of territorial and sovereignty concerns as well. One could argue that by formally agreeing to the construction and use of the dam, Hungary had implicitly agreed to changes in the thalweg or international borders through accretion or avulsion. Though the Court did not directly address this issue, it stated that Hungary had given its consent only in the context of a joint operation with shared benefits, and that Czechoslovakia had acted unilaterally. *Id.* at 54.

259. MCCAFFERY, *supra* note 65, at 187.

260. *See, e.g.*, *Maritime Delimitation in the Black Sea (Rom. v. Ukr.)*, 2009 I.C.J. 1 (Feb. 3); *Maritime Dispute (Peru v. Chile) (Application Instituting Proceeding)* (Order of Jan. 16, 2008); *Territorial and Maritime Dispute (Nicar. v. Colum.)* 2007 I.C.J. 124 (Dec. 13) (preliminary objections).

261. The dispute over the Danube between Serbia and Croatia is an example. PRESCOTT & TRIGGS, *supra* note 42, at 219. There is also a dispute over the Orange River between South Africa and Namibia. In this particular dispute, Namibia argues that the river boundary is in the middle of the thalweg of the Orange River. Whereas, South Africa's position is that the boundary is on the Namibian bank at high-water mark, this being the delimited boundary between Germany and Britain under the

In certain situations where states are members of strong regional arrangements, they are obliged to have their dispute resolved by the I.C.J.²⁶² However, in cases where both parties are not willing to submit their dispute for resolution to international adjudicative bodies such as the I.C.J., the courts or tribunals often lack the jurisdiction to entertain and resolve the matter.²⁶³ Therefore, even though river boundary disputes will continue to arise in the near future, the resolution of the majority of such disputes will be principally dependent on whether the concerned states have the will and resolve to deal with the imbroglio bilaterally and diplomatically and not via third party involvement. Frequently resolution of particular boundary disputes is conditional on other more important intractable disputes that relate to other territorial, political, and even economic matters. This makes the resolution of trivial river boundary disputes a much more complicated and difficult affair.

II. APPLICATION OF THE INTERNATIONAL LAW OF RIVER BOUNDARIES TO THE SIR CREEK DISPUTE

Sir Creek consistently features in international news, primarily because innocent fishermen are often arrested, with their boats and materials confiscated, by both the Pakistan Maritime Agency and the Indian Border Security Forces under the premise of illegal intrusion into their respective

Heligoland–Zanzibar Treaty of 1890. In 1991, just subsequent to the independence of Namibia, South Africa agreed to change the position of the boundary from the north bank to the thalweg. However, disagreement existed concerning the rights over minerals in the river, grazing in the mid-channel islands, and fishing. This resulted in South Africa backing out of its earlier commitment in 2001, stating that that 1890 agreement on the matter still controls. Namibia has threatened to take this dispute to the I.C.J. if South Africa does not revert to its 1991 position. See Peter Ashton, *Southern African Water Conflicts: Are They Inevitable or Preventable?*, GREEN GROSS INT'L (2000), http://webworld.unesco.org/water/wwap/pccp/cd/pdf/educational_tools/course_modules/reference_documents/sharinginternwatercases/southernafrikanwaterconflict.pdf; see generally Pål Arne Davidsen, *The Making and Unmaking of the Politics of Exceptionality: Studying Processes of Securitisation and Desecuritisation in the Orange and Okavango River Basins*, (Nov. 2006) (unpublished master's thesis, University of Bergen), available at, http://www.transboundarywaters.orst.edu/publications/abst_docs/davidsenthesis.pdf Master's Thesis, University of Bergen (arguing that “when enacted through the logic of equivalence, securitization invokes a Schmittian understanding of the political which reduces social antagonisms between stakeholders in the river basins to a dichotomy between friend and enemy”); Demhardt, *supra* note 40 (discussing the background of the Orange River Boundary dispute). Myanmar and Thailand have conflicts over the Moei River boundary because the river changes its course due to flooding. *Burma and Thailand Renew Border Dispute*, BBC NEWS, Jan. 20, 1998, <http://news.bbc.co.uk/1/hi/world/asia-pacific/49062.stm>.

262. See, e.g., MCCAFFERY, *supra* note 65, at 186 (referencing the Gavčikovo–Nagymaros Project Dispute between Hungary and Slovakia); see also Engelfield, *supra* note 249, at 69 (noting that the countries agreed to take the dispute to the I.C.J.).

263. Statute of the International Court of Justice art. 36 (noting that the I.C.J. has jurisdiction solely on a consensual basis).

territories.²⁶⁴ The injustice is that these destitute fishermen have no reasonable basis to be aware that they had entered into foreign territory as the arrests are made in the surrounding waters of Sir Creek where there is no cognizable territorial or maritime boundary delimitation.²⁶⁵ These arrested civilians numbering in the thousands are deprived of their fundamental human rights and are frequently subjected to torture in violation of the principle of *jus cogens*,²⁶⁶ and denied consular assistance.²⁶⁷ Some of these prisoners have gone missing while in custody and are presumed victims of custodial killings.²⁶⁸ Thousands have experienced incarceration or continue to languish in Indian and Pakistani jails being subjected to horrible living conditions.²⁶⁹

Moreover, on several occasions both states have not reported such arrests of civilians in complete contravention of international law.²⁷⁰ Family members of the victims have no way of knowing the whereabouts, well-being, or the reason for the disappearance of their loved ones. Anxiously awaiting a family member who has gone missing unexpectedly, is perhaps more agonizing and traumatic than losing a family member, since in the latter case one can grieve and achieve closure.

As gestures of goodwill, some of these prisoners are fortunate enough to be freed and exchanged between the two states after long durations of incarceration.²⁷¹ Such hollow gestures are often taken on a cyclical basis between India and Pakistan whenever they desire to give the impression of their flexibility, compassion, and sincerity in resolving their core disputes, without any real desire or intent to compromise.²⁷² It is despicable that such purported gestures of good will are made through this barbaric method of bartering. Such treatment of human life is a gross violation of fundamental human rights.²⁷³

264. *Permanent solution to fishermen's detention issue stressed*, DAWN NEWS, Oct. 21, 2008, available at <http://www.dawn.com/2008/10/21/local12.htm>.

265. *Id.*

266. M. Cherif Bassiouni, *International Crimes: Jus Cogens and Obligatio Erga Omnes*, 59 L. & CONTEMP. PROBS. 63, 67–68 (1996). *Jus cogens* is compelling law that is highest among all other principles, and therefore is peremptory and non-derogable.

267. Zainab Iqbal, *Tit for Tat*, NEWSLINE, Apr. 2008, available at <http://www.newsline.com.pk/NewsApr2008/spreportapr.htm>.

268. Valinder Walia & Neeraj Bagga, *India, Pakistan free 583 prisoners*, TRIBUNE, Sept. 13, 2005, <http://www.tribuneindia.com/2005/20050913/main3.htm>.

269. Iqbal, *supra* note 267.

270. *Id.*

271. *Pakistan to Free Indian Fishermen*, BBC NEWS, March 8, 2005, http://news.bbc.co.uk/2/hi/south_asia/4328611.stm.

272. *See, e.g.*, Iqbal, *supra* note 267 (detailing the plight of prisoners in the India-Pakistan Sir Creek border dispute).

273. *Id.*

India and Pakistan have had minor skirmishes in Sir Creek and its surrounding maritime vicinity between coast guards and shipping vessels. However, a major military standoff occurred on August 10, 1999, when a Pakistani reconnaissance naval plane was shot down in the Sir Creek/Kori Creek region by Indian Mig-21 fighters, killing all 16 navy personnel on board.²⁷⁴ Both nations maintained that the plane was flying on their side of the border and tried to prove this by demonstrating the presence of the aircraft wreckage on their territory.²⁷⁵ Soon afterwards, Pakistan lodged a complaint with the I.C.J., which was subsequently dismissed by the Court.²⁷⁶ The Court agreed with India's position that it lacked jurisdiction to entertain the case, because India had filed an exemption in 1974, concerning disputes between India and other states that are or have been members of the Commonwealth of Nations.²⁷⁷

Since their independence in August 1947, the nuclear armed States of India and Pakistan have fought three full scale wars and came close to a fourth one when the Kargil Conflict of May–July 1999 nearly conflagrated into a war with the possibility of a nuclear conflict.²⁷⁸ The shooting down of the reconnaissance plane, directly followed the Kargil conflict. Both states had amassed thousands of troops on their borders and the incident nearly served as a catalyst to ignite a war. Shortly afterwards, U.S. President Clinton called South Asia the most dangerous place in the world.²⁷⁹ With better sense prevailing, leaders of both countries focused on improving relations between them. This initiative went a long way only to be interrupted, this time by the terrorist bombings in Mumbai in November 2008, which brought both armies to a pre-war standoff again.

Keeping in mind the hostile relations and long standing distrust between India and Pakistan, the significance of resolving the Sir Creek dispute cannot be stressed enough. Resolving the conflict would serve to build trust and may serve as a catalyst for the resolution of more intractable

274. *India Downs Pakistani Plane*, BBC NEWS, Aug. 10, 1999, http://news.bbc.co.uk/2/hi/south_asia/416233.stm.

275. *Id.* It is extremely hard to verify whose airspace the plane was flying in when it was shot down on the basis of where the wreckage of the plane was found. The wreckage of the plane would be scattered over a large radius because of the elevation at which the plane was hit. This might explain the fact that both countries claim to have found wreckage in their respective territories.

276. *Aerial Incident of 10 August 1999 (Pak. v. India)*, 2000 I.C.J. 12, 15, 34 (June 2000).

277. *Id.* at 15, 32. The Court stated that as the Commonwealth reservation raised by India was valid under Article 36, para. 2 of the I.C.J. Statute, it was “unnecessary for [it] to consider India’s objection based on the reservation concerning multilateral treaties . . .” *Id.* at 32.

278. *Quick Guide: Kashmir Dispute*, BBC NEWS, June 29, 2006, http://news.bbc.co.uk/2/hi/south_asia/5030514.stm.

279. *Analysis: The World’s Most Dangerous Place?*, BBC NEWS, Mar. 23, 2000, http://news.bbc.co.uk/2/hi/south_asia/687021.stm.

disputes. More importantly its resolution considerably lowers the chances of war between the two nations. The Sir Creek issue sparked the Indo–Pakistan 1965 war and nearly started another one in 1999.²⁸⁰ With a resolution of this issue, the unnecessary suffering of thousands of innocent fishermen at the hands of border security forces of both states will also be avoided.

Numerous meetings of senior diplomats and a joint meeting of the Surveyor General of Pakistan and the Indian Chief Hydrographer was carried out as part of the Indo–Pakistan composite dialogue process initiated in 2004.²⁸¹ Both nations completed a second joint survey of Sir Creek and its adjoining areas, which was commenced in January 2007, and have officially expressed that they have agreed on a common map of the disputed boundary region.²⁸² Signed maps of the area were exchanged between the hydrographers of both countries on March 22, 2007.²⁸³ According to a former Foreign Minister of Pakistan, both nations have indicated that they are close to entering into a pact on Sir Creek.²⁸⁴ This information was endorsed by a leading Pakistani newspaper which stated that both countries were showing an inclination to sign a pact on Sir Creek.²⁸⁵ The recent carnage in Mumbai has however put all negotiations on hold. The Pakistan Navy Hydrographic Department has refused to disclose the contents of these maps or any other materials on Sir Creek when approached by the author, citing national security concerns.²⁸⁶

280. NOORANI, *supra* note 1, at 26; Bhushan, *supra* note 9.

281. *Sir Creek survey from Jan 15*, DAWN NEWS, Dec. 24, 2006, <http://www.dawn.com/2006/12/24/top18.htm>.

282. The Indo–Pakistan joint statement stated that “they exchanged maps/charts showing their respective positions on the delineation of the boundary in the Sir Creek and delimitation of the maritime boundary” *India, Pakistan discuss Sir Creek, maritime boundary*, RXPNG NEWS, May 18, 2007, http://www.rxpngnews.com/pakistan/India-Pakistan-discuss-Sir-Creek-maritime-boundary_28553.shtml. The survey was conducted on both “land and off the coast to verify the outermost points of the coastline based on the principle of equidistance.” *Id.*

283. Qudssia Akhlaque, *Pakistan, India to take up Sir Creek on May 17–18*, DAWN NEWS, Apr. 14, 2007, <http://www.dawn.com/2007/04/14/top7.htm>.

284. ‘*India, Pakistan close to finalising pact on Sir Creek*,’ PRESS TRUST OF INDIA, Sept. 29, 2008, <http://sir-creek-news.newslib.com/story/4668-3191255/>. Article 11 of the India–Pakistan Joint Statement of May 21, 2008, issued after the Foreign Minister level review of the Fourth Round of Composite Dialogue between India and Pakistan states, “Both sides expressed satisfaction on the progress made on Sir Creek, with the completion of the joint survey, the exchange of maps, and the discussions thereafter. They agreed to further facilitate the process for an early resolution of this issue.” South Asia Terrorism Portal, *India–Pakistan Joint Statement*, May 2008, <http://www.satp.org/satporgtp/countries/pakistan/document/papers/2008India-Pakistan-Joint-Statement.htm>.

285. *Pakistan, India May Ink Pact on Sir-Creek By Year-end*, PAKTRIBUNE, Oct. 14, 2008, <http://www.paktribune.com/news/index.shtml?206713>.

286. *See generally* Pakistan Navy, Hydrographic Department, <http://www.paknavy.gov.pk/hydro/index.asp> (last visited Sept. 14, 2009); Indian Naval Hydrographic Department,

A. *Historical Title over Sir Creek—India or Pakistan?*

Under the principle of *uti possidetis juris*, newly established states inherit the territorial boundaries established during their colonial period by the paramount power, as international boundaries.²⁸⁷ The non-derogability of this principal of international law is clearly established in recent judgments of the I.C.J.,²⁸⁸ arbitration awards,²⁸⁹ and United Nations resolutions, including the important Resolution 16 of the 1964 Meeting of Heads of State and Government of the Organization of African Unity.²⁹⁰

Moreover, customary rules of succession have been codified in the form of the 1978 Vienna Convention on Succession of States and the 1983 Convention on Succession of States in respect of State Property, Archives, and Debts (not in force to date).²⁹¹ Under these customary rules, localized treaties, which are defined as those that confer rights or impose obligations relative to specific territories, such as, for example, regulating frontier matters or rights of navigation in certain rivers, bind the new state and are not impacted by state succession.²⁹²

For purposes of determining whether either state has a superior claim over Sir Creek on the basis of historical title inherited from the paramount power of Britain, one must determine the exact nature of the colonial borders in the Sir Creek at the time of the independence of India and Pakistan in August 1947. The independence of the two countries was achieved under Article 1 of the Indian Independence Act, (July 18, 1947).²⁹³ In this respect, Resolution 1192, passed by the Government of Bombay on February 24, 1914 concerning delimitation in the Sir Creek

<http://www.hydrobharat.nic.in/> (last visited Oct. 26, 2009) (lacking any maps or materials on Sir Creek).

287. CASSESE, *supra* note 49, at 83–84; Shah, *supra* note 163, at 34.

288. Frontier Dispute (Benin v. Niger), 2005 I.C.J. 90, 108–09 (July 12); Land, Island and Maritime Frontier Dispute (El Sal. v. Hond.), 1992 I.C.J. 351, 386–88 (Sept. 11); Frontier Dispute (Burk. Faso v. Mali), 1986 I.C.J. 554, 565 (Dec. 22).

289. The Arbitration Commission established by the Conference of Yugoslavia, held the doctrine to have a universal purport and stated that “whatever the circumstances, the right to self-determination must not involve changes to existing frontier[s] at the time of independence (*uti possidetis juris*) except where the States concerned agree otherwise.” CASSESE, *supra* note 49, at 84 (citation and internal quotes omitted).

290. *Id.* at 84.

291. *Id.* at 77–78.

292. *Id.*; Vienna Convention on Succession of States in Respect of State Property art. 12, *opened for signature* Apr. 8, 1983, 25 I.L.M. 1640, *available at* http://www.untreaty.un.org/ilc/texts/instruments/english/conventions/3_3_1983.pdf (not yet in force) (noting the absence of effect of a succession of States on the property of a third state).

293. “As from the fifteenth day of August, nineteen hundred and forty-seven, two independent Dominions shall be set up in India, to be known respectively as India and Pakistan.” Indian Independence Act, 1947, 10 & 11 Geo. 6, c. 30, § 1 (Eng.), *available at* http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1947/cukpga_19470030_en_1.

region, is definitive and therefore must be comprehensively analyzed.²⁹⁴ This Resolution, which was a product of a compromise between the Rann of Kutch Darbar and the Sind government, which was part of the Bombay Presidency, demarcated the boundary by a green line on the Resolution Map on the eastern bank of the river.²⁹⁵ Originally the Sind government had claimed the boundary to be in the Khori Creek lying further east.²⁹⁶ The Resolution in the form of Letter No. 5543 was initially sent by the Secretary of the Bombay Government, to the Foreign Department Government of India on September 20, 1913,²⁹⁷ which subsequently sanctioned the compromise via letter 3583-I.A sent to the Secretary to the Government of Bombay on November 11, 1913.²⁹⁸ Consequently on February 24, 1914, the Government of Bombay passed Resolution 1192 sanctioning the agreement by reference to Letter 5543 and the accompanying map.²⁹⁹

Pakistan's position is that this Resolution, along with the annexed map, determined the boundary between Sind and Kutch in 1913. This was the boundary inherited by India and Pakistan at the time of their independence. Pakistan claims that any changes caused by accretion could not alter the agreed upon boundary, which existed on the eastern bank of Sir Creek in 1913.

294. See THE INDIAN SOCIETY OF INTERNATIONAL LAW, *THE KUTCH-SIND BORDER QUESTION* 14-15 (1965).

295. *Id.* at 14.

296. *Indo-Pakistan Western Boundary (India v. Pak.)*, 17 R. Int'l Arb. Awards 1, 336 (Perm. Ct. Arb. 1968).

297. THE INDIAN SOCIETY OF INTERNATIONAL LAW, *supra* note 294, at 14.

298. *Id.*; *Indo-Pakistan Western Boundary*, 17 R. Int'l Arb. Awards at 337. The letter was quoted in the arbitration award:

I am directed to acknowledge the receipt of your letter No. 5543, dated the 20th September 1913, regarding the proposed rectification of the boundary between Sind and the Cutch State.

2. The Government of India observe with satisfaction that the dispute between the Sind authorities and the Cutch Darbar has been settled by a compromise agreeable to both parties, and are pleased to accord their sanction to the rectification of the boundary line proposed in paragraphs 9 and 10 of your letter.

Id. (citation and internal quotation marks omitted).

299. *Indo-Pakistan Western Boundary*, 17 R. Int'l Arb. Awards at 337. The resolution noted:

Copies of the above letter from the Government of India, and of the letter No. 5543, dated the 20th September 1913, to which it is a reply together with a copy of the map showing the rectified boundary should be forwarded to the Commissioner in Sind with reference to his letter No. 106 - Confl., dated the 26th April, 1912, and to the Political Agent, Cutch, with reference to his letter No. 103, dated the 18th June 1913.

The Political Agent, Cutch, should be requested to communicate the purport of the orders of the Government of India to His Highness the Rao of Cutch.

Id. (citation and internal quotation marks omitted).

1. Whether a Valid Agreement Established the Sir Creek Boundary
on its Eastern Bank, which was not Repudiated or
Amended until the Independence of India and Pakistan

Paragraph Nine of Letter 5543 explicitly delimited the boundary on the eastern bank of Sir Creek.³⁰⁰ Interestingly, Paragraph ten of the same letter recounted the views of the Commissioner in Sind, expressed during settlement proceeding. He stated that as the river changes its course from time to time, the “centre of the navigable channel of the Sir Creek” should be used as the boundary.³⁰¹ In response to this, the framer of Letter 5543, who was a superior officer of the Indian Government, refuted the Commissioner’s argument. He stated that the river was tidal and not navigable in any meaningful way and that this was one of the reasons for the boundary not being in the middle of the river.³⁰²

Resolution 1192, by reference, clearly enunciates that the boundary in the Sir Creek is the green line on the eastern bank. Moreover, the Resolution was finally agreed upon by all concerned parties, and was eventually sanctioned by both the Federal and the Provincial Governments.

Interestingly, India questions neither the authority nor content of Resolution 1192. India’s argument is that Resolution 1192 was implemented in 1924 when the demarcation of the Sind–Kutch boundary

300. *Id.* at 336. The tribunal quoted the letter:

9. On a full review of the evidence, therefore, Government arrived at the conclusion that the boundary between Cutch and Sind should be the green line in the accompanying map from the mouth of the Sir Creek to the top of the Sir Creek . . . and His Highness the Rao has now expressed his willingness to agree to this compromise.

Id. (internal citation and quotation marks omitted).

301. *Id.* at 337. The tribunal again quoted the letter:

10. On this proposed settlement being referred to the Commissioner in Sind that officer agreed to the adoption, as the frontier line, of the blue dotted line running due east from the top of the Sir Creek. He observed, however, that the Sir Creek changes its course from time to time and the western boundary of the area, which it is proposed to surrender to the Rao, should, therefore, be described as “the centre of the navigable channel of the Sir Creek”. A similar method has been adopted in determining the boundary between the Khairpur State and British territory where the river Indus is the boundary, and the position of the navigable channel varies from year to year.

Id. 336–37 (internal citation and quotation marks omitted).

302. *Id.* at 337. The tribunal continued:

I am to explain that the term “navigable” is really inappropriate in the larger sense. The creek is, of course, tidal, and it is only at certain conditions of the tide that the channel is navigable and then only to country craft as far as the point from which the proposed boundary turns due east from the Creek.

Id. (internal citation and quotation marks omitted).

took place with the erection of boundary pillars in the adjoining areas.³⁰³ India maintains that the boundary in Sir Creek should be determined on the basis of the thalweg of map(s) that recorded such demarcation in 1925, published by the Survey of India.³⁰⁴

However, it is pertinent to note that when this demarcation process was undertaken, no pillars were erected in the Sir Creek itself.³⁰⁵ In addition, official maps of the area, subsequent to pillar installations, continued to demarcate the Sir Creek with a green line on its eastern bank.³⁰⁶ Therefore, India's reliance on newer maps does not bolster its position that the thalweg of the river is the correct delimitation on the basis of historical title. The Surveyor General maps of the area in 1937–1938, released by the Government of India, showed the position of the eastern side of the Sir Creek as the border.³⁰⁷

One must be aware of the fact that the demarcation of the boundary in 1924, was proceeding in order to implement Resolution 1192 of 1914. Therefore, this delimitation process must be viewed in a manner that does not conflict with the spirit and text of Resolution 1192. The Resolution was a product of extensive deliberation and compromise. It was promulgated and assented to under the proper and legal chain of authority and it was eventually sanctioned at the highest level. The proceedings of 1924–1925 do not contravene Resolution 5543 in any manner. In any case, these proceedings cannot abrogate the Resolution as they did not undergo the same level of legal process and sanction; hence, they did not amount to a subsequent agreement of an equal or higher status countermanding the 1913–1914 agreement between Sind and the Kutch Darbar on the basis of the principle of *lex posterior derogat priori*.³⁰⁸

Furthermore, an official Indian map of the Kutch region—printed nearly two decades after the independence of India, just antecedent to the Kutch Arbitration in the 1960s, which is entitled “This Document Reveals the Unjustifiable Claim of Pakistan to Indian Territory”—outlines the delimitation of the Rann of Kutch area inclusive of the Sir Creek region under Resolution 1192 of 1914. This map reproduces the original Resolution Map of 1914 (B-44), incorporating all subsequent

303. Misra, *supra* note 10, at 94–95.

304. *Id.*; see also THE INDIAN SOCIETY OF INTERNATIONAL LAW, *supra* note 294, at 15 (identifying the thalweg of Sir Creek as the boundary).

305. Misra, *supra* note 10, at 94.

306. Reddy, *supra* note 32.

307. Ahmer Bilal Soofi, *Wullar, Siachin and Sir Creek*, S. ASIAN FREE MEDIA ASS'N, Oct. 9–10, 2004, http://www.southasianmedia.net/conference/interstate%20conflicts/legal_view.htm.

308. See BLACK'S LAW DICTIONARY 931 (8th ed. 2004) (defining *lex posterior derogat priori* as “a later law prevails over an earlier one”).

modifications through superimposition. Therefore, it indicates the locations of pillar installations undertaken in 1924.³⁰⁹ This Indian map continues to show the green line demarcating the border on the eastern bank of the Sir Creek and can constitute India's official recognition on the matter.³¹⁰

Therefore, on the basis of historical title and *uti possidetis*, the boundary inherited by both nations on independence was located on the eastern bank of the Sir Creek River.

2. Whether the Sir Creek River Boundary was Agreed as Static and Unaffected by Accretion Under Resolution 1192

Evidence of state practice and customary international law clearly indicates that the process of accretion alters the river boundary delimitation unless such an outcome is explicitly or implicitly preempted by a special treaty or agreement between the concerned state parties. Therefore, in order to ascertain whether the Sir Creek boundary would be affected by accretion, one must comprehensively analyze the 1913 agreement between Sind and the Kutch Darbar made effective under Resolution 1192 and determine if such agreement or Resolution was dispositive on the matter.

Pakistan would argue that by analyzing the text of Resolution 1192 and the attached Resolution Map, and by accounting for the historical contingencies under which Resolution 1192 was promulgated, it is evident that the Sir Creek river boundary was meant not to be fluid, but static and permanent.

With regards to the Resolution and the accompanying map, Pakistan would take a textualist approach and quote Paragraph nine of Letter 5543, which unequivocally states that "the boundary between Cutch and Sind should be the green line in the accompanying map from the mouth of the Sir Creek to the top of the Sir Creek."³¹¹ Therefore, Resolution 1192 clearly delimits the Sir Creek river boundary as it is shown in the Resolution Map. The Map indeed shows the boundary on the eastern bank of the river. Moreover, this boundary is an actual green line in an official scaled map prepared by the Surveyor General of India having precise coordinates, as measured from the longitude and latitude scale provided on the margins of the map.³¹² Therefore, Pakistan's argument would be that all concerned

309. INFORMATION SERVICE OF INDIA, FACTS ABOUT KUTCH-SIND BOUNDARY (IN MAPS) (1965).

310. *Id.*

311. Indo-Pakistan Western Boundary (India v. Pak.), 17 R. Int'l Arb. Awards 1, 336 (Perm. Ct. Arb. 1968).

312. INFORMATION SERVICE OF INDIA, *supra* note 309 (internal citation and quotation marks omitted).

parties to the 1913–1914 agreement agreed to the boundary in the Sir Creek estuary as a precise location, which by its very nature is meant to be fixed unless explicitly stated otherwise. That this boundary happened to be on the bank of the Sir Creek is an incidental fact; hence, one cannot imply a presumption of a fluid boundary.

With regards to historical contingencies, Pakistan would point to the surrounding circumstances on the basis of which the Sind and the Kutch Darbar entered into the 1913–1914 agreement. Pakistan would highlight the fact that this compromise agreement was actually based on extraneous factors unrelated to the Sir Creek, which were connected to a boundary delimitation further east in the Kori Creek region.³¹³ Pakistan would argue that even if under customary international law river boundaries are meant to be fluid as a default rule, the Sir Creek river boundary cannot be altered through accretion because the river was selected as a boundary, not because of its intrinsic nature and properties, but under a compromise agreement as a permanent geographical location with coordinates.

On the other hand, India would argue that any westerly movement of Sir Creek from its original position,³¹⁴ when Resolution 1192 was promulgated, up to its present day location, would alter the international boundary accordingly. India would point to the fact that there was nothing in the 1913–1914 Sind–Kutch agreement that alludes to the fixed nature of the Sir Creek river boundary, and that in such circumstances, under customary international law, it is well established that international river boundaries shift as a consequence of accretion. India could also argue that the absence of pillar installation in the Sir Creek River in 1924, when pillars were installed in other adjoining areas, is proof of the fact that the concerned parties envisaged the Sir Creek river boundary to be subject to change because of accretion.

It is pertinent to point out that by analyzing British-Indian maps, including those prepared by the Surveyor General of British India commencing from the 1914 Resolution Map, maps prepared subsequent to the laying of pillars in 1924 in the Rann of Kutch region, and also those prepared around the time of independence of India and Pakistan in 1947, one should be able to determine how much the Sir Creek has shifted due to accretion from the time of the 1913–1914 Sind–Kutch agreement, to the

313. See *Indo–Pakistan Western Boundary*, 17 R. Int'l Arb. Awards at 336. (noting India's contention that Kori Creek marks the Sind–Kutch boundary).

314. It is estimated that the Sir Creek estuary has shifted approximately two kilometers from where it was located during the Sind–Kutch agreement in 1913–1914. ANSARA & VOHRA, *supra* note 13, at 18.

independence of India and Pakistan in August 1947.³¹⁵ Furthermore, one can also determine the exact location of Sir Creek River as it presently exists by analyzing the sophisticated maps and charts exchanged between India and Pakistan on March 22, 2007, or to a lesser extent, by studying the technical military maps of the area prepared by nations such as the U.S. and Russia.³¹⁶

An alternative position is that even if the Sir Creek river boundary has shifted due to accretion, the river's shift up to where it was located at the time of the independence of India and Pakistan in 1947 would denote the boundary between them; because under the principle of *uti possidetis juris*, colonial borders are created and determined as they exist at the time of independence.³¹⁷ In this case, the boundary can be determined using maps prepared by the Surveyor General of India closest to 1947.

This position is substantiated by recent decisions emanating from the I.C.J. and its Chamber, where the supremacy of the principle of *uti possidetis* relative to other customary norms, state practice, and general principles of international law relating to river boundary delimitation, has been implied. In *Frontier Dispute (Benin v. Niger)*, the Chamber clearly stated that the boundary determination of the Niger River in 2005 was to be made on the basis of the thalweg as it existed at the time of independence in 1960.³¹⁸ This decision effectively foreclosed the possibility of recognizing a different river boundary based on a different thalweg that could have formed as a consequence of accretion from the time of independence in 1960 to 2005, when the I.C.J. decision was rendered.³¹⁹ This rendition of the principal of *uti possidetis* by the I.C.J. would be equally applicable in those cases where the delimitation is based on the median line or a bank of the river, by analogy.

A modified version of the above position, which favors the posture of Pakistan, is that to be compliant with the principle of *uti possidetis*, one

315. The matter is further complicated by the fact that the original Resolution Map of 1914 was in fact a much older map comprised of the "Sind Topo Survey Sheets Nos. 11 SW (reprinted in 1898), 11 NW (reprinted in 1895 with additions) 11 SE (reprinted in 1890) and 11 NE (reprinted in 1895 with additions)." See THE INDIAN SOCIETY OF INTERNATIONAL LAW, *supra* note 294, at 54. Thus, the Resolution Map was not made in 1914 but in the 1890s. Superimposition on reprinted maps of the area, a practice observed, would convolute our analysis if the river would have undergone geomorphic alterations in the interim period.

316. The University of Michigan, Ann Arbor Map Library, <http://www.lib.umich.edu/maplib/> (last visited Dec. 15, 2008).

317. See Ratner, *supra* note 165, at 590 (examining the principle of *uti possidetis*, including its utility in current international affairs).

318. See *Frontier Dispute (Benin v. Niger)*, 2005 I.C.J. 90, 108–09 (July 12) (recognizing that it would account for some physical realities such as island formation).

319. *Id.*

must look to the moment when Resolution 1192 was enacted and not to the time of independence in 1947. The rationale for this viewpoint is that the recognized boundary, at the time of independence was the one that was in existence at the time of the Sind and Kutch agreement of 1913-1914 under Resolution 1192. At no time before 1947 did the Government of India countermand such boundary delimitation or substantively recognize another boundary as an alternative.³²⁰

Interestingly, the I.C.J., in *Territorial and Maritime Boundary Dispute (Nicar. v. Hond.)*, held the arbitral award of King Alfonso XIII of Spain in 1905, to whose jurisdiction both parties had consented, as *res judicata*.³²¹ Under the arbitral award the river boundary was expressly demarcated in the River Coco on the basis of the thalweg.³²² Pakistan could argue that Resolution 1192 concerned a similar agreement. It enjoys the acquiescence of both the Sind government and the Kutch Darbar, who has consented to the jurisdiction of India, which had fixed the borders in the Rann of Kutch region. Therefore, India's determination in 1914 was *res judicata* in consonance with the aforementioned I.C.J. judgment. Conversely, India could state in response that under the I.C.J. judgment, the eastern bank of the river, like the thalweg in the I.C.J. judgment, is *res judicata* and both measures are, by their very nature, fluid. Hence, a fluid boundary in the Sir Creek would be consistent with the I.C.J. judgment in the case of *Territorial and Maritime Boundary Dispute (Nicar. v. Hond.)*.

Finally, it is superfluous for India to contend that the Pakistani May 19, 1958 note states that the B-44 Resolution Map was intended to be "no more than an annexure to the Government of Bombay Resolution . . .".³²³ India's ensuing assertion that Resolution 1192 and not the map is decisive, does not aid India's position on the matter. This is because even if only Resolution 1192 is the controlling document, it itself demarcates the boundary "as the green line in the accompanying map."³²⁴ It is clear from this statement that the essence and effect of Resolution 1192 is inseparable from the accompanying map.

320. Conversely, India could argue that the paramount power did recognize new boundaries by the process of printing subsequent maps of the area. This argument is qualified by the precondition that newer maps of Sir Creek, positioned the location of the Sir Creek river at a different location than previously shown.

321. *Territorial and Maritime Disputes Between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.)*, 2007 I.C.J. 20, para. 310.

322. *Id.* ¶ 38.

323. NOORANI, *supra* note 1, at 27 (internal citation and quotation marks omitted).

324. *Indo-Pakistan Western Boundary (India v. Pak.)*, 17 R. Int'l Arb. Awards 1, 336 (Perm. Ct. Arb. 1968) (internal citation and quotation marks omitted).

Pakistan has a basis for claiming historical title over the whole of Sir Creek, on its eastern bank as it existed in 1913–1914 on the basis of the green line shown on the Resolution Map of 1914 under Resolution 1192 of the Government of Bombay and the sanction of the Government of India.³²⁵ In this author's view, India has a less compelling basis for arguing that the thalweg, or more appropriately, the median line is the proper boundary in the Sir Creek. India does have a sound basis for arguing that the boundary was meant to alter with changes brought about by accretion, as being consistent and in line with Resolution 1192 and the intent of the contracting state parties at the time of entering into the agreement. In other words, India has a relatively strong legal argument that the Sir Creek river boundary inherited by both states under the principle of *uti possidetis* or colonial *effectivités* accommodated for accretion based changes.

*B. The Status of Sir Creek Under State Practice and
Customary Norms of International Law*

Assuming neither Pakistan nor India is able to adequately support their respective positions on the Sir Creek river boundary dispute on the basis of historical title, one must determine the status of the Sir Creek river boundary under relevant state practice and customary norms of international law, when the doctrine of *uti possidetis juris*, or *de facto* and colonial *effectivités* do not unequivocally resolve the dispute.

Before delving into this fact sensitive analysis, it is pertinent to note that the governments of both nations do not publicly disclose any information relating to the present geography of the Sir Creek region. Even though the hydrographers of both nations signed and exchanged sophisticated maps and detailed charts of the Sir Creek region on March 22, 2007, and officially agreed upon the current geography of the region, no such findings and information contained in these maps have been made public. Therefore, it is extremely hard to ascertain or answer questions that are dependent on the present course of the Sir Creek estuary in contrast to its 1913–1914 location; namely, the nature of accretion that has taken place, changes occurring to the mouth of the river, and the appearance or disappearance of islands.

However, there is some limited information on and unsubstantiated evidence of recent alteration in the Sir Creek River, in the form of unverifiable media reports, statements and reports of high-ranking retired military and naval officers, and other related government functionaries. It

325. *Id.*

can be gathered from these sources that the mouth of the estuary has widened, new islands might have developed, and the creek has moved westward into Pakistani territory due to accretion.³²⁶ The only publicly available authenticated records which relate to Sir Creek are either in the form of colonial maps and resolutions, or other materials forwarded by both states in the course of the Rann of Kutch Arbitration of 1968.³²⁷ Such records are immaterial in ascertaining the present topography of the Sir Creek region. Therefore, it is conjectural to determine the status of Sir Creek by applying the norms of customary international law to facts that cannot be completely verified.

In applying customary international law of river boundaries to the issue of Sir Creek, the first determination that needs to be made is whether the estuary is navigable. As highlighted, absent agreement between states, a navigable river is delimited on the basis of the *thalweg* principle³²⁸ and a non-navigable river on the basis of the *medium filus aquae* rule.³²⁹ The evidence on the record indicates that the Sir Creek estuary is not navigable. For a river to satisfy the requirements of navigability it must “in its *ordinary* and *natural* condition afford a channel for useful commerce,”³³⁰ that “the tide in the river ebbs and flows”³³¹ and “a small stream *intermittently* navigated is not necessarily navigable.”³³² Thus, it is apparent that the quintessential element determining navigability in rivers is whether the river is navigable *customarily* in its natural and ordinary state. That it might be navigable in the transient, perhaps as a consequence of exterior reasons, is not a sufficient condition.

India’s assertion that Sir Creek is navigable during high tide, a factual determination that cannot be verified, is not enough.³³³ High tide occurs at a maximum of twice a day and does so for the duration of less than an hour. If Sir Creek is arguably navigable at or near high tide, that time would amount to a couple of hours. In relation to a 24-hour-period, that is not substantial enough to make Sir Creek navigable in its ordinary state. In addition, the Creek only fills up in the short summer time of the monsoon

326. See ANSARI & VOHRA, *supra* note 13, at 18 (drawing their conclusions from government officials and reports).

327. See generally *Indo-Pakistan Western Boundary (India v. Pak.)*, 17 R. Int’l Arb. Awards 1 (containing all available documents and maps).

328. Case Concerning Kasikili/Seduda Island (Bots. v. Namib.), 1999 I.C.J. 1045, 1062 (Dec. 13).

329. CUKWURAH, *supra* note 38, at 50.

330. Hanes v. Oklahoma, 973 P.2d. 330, 334. (Okla. Crim. App. 1998) (emphasis added).

331. WISDOM, *supra* note 1, at 57.

332. WISDOM, *supra* note 1, at 58 (emphasis added).

333. Misra, *supra* note 10, at 95.

season and floods its banks.³³⁴ Thus, it can be asserted that the Creek can accommodate traffic for useful commerce on an intermittent basis.

In this regard, it is also important to examine the letter of the Secretary to the Government of Bombay, which was sent to the Secretary to the Government of India, Foreign Department on September 20, 1913 (No. 5543). As explained previously, this letter subsequently became the modus operandi of Resolution 1192 and the annexed Resolution Map.³³⁵ Responding to the comments of the Commissioner in Sind mentioned in Letter 5543, proposing that the boundary be described as “the centre of the navigable channel of the Sir Creek,” his commanding officer, the Secretary of the Bombay Presidency, gave the following statement in the same letter,

I am to explain that the term “navigable” is really inappropriate in the larger sense. The creek is, of course, tidal, and it is only at certain conditions of the tide that the channel is navigable and then only to country craft as far as the point from which the proposed boundary turns due east from the Creek.³³⁶

It is evident from this statement that the Creek is not only navigable for a very short duration in the course of the day, but also, that if navigable, it is only so at a few sections of the 60-mile-long estuary.

However, it is puzzling why Pakistan is raising the issue of non-navigability in Sir Creek as something which bolsters its respective territorial claim under customary international law. Even if Sir Creek is non-navigable, that does not in any way buttress the Pakistani position that the river boundary stands on the eastern bank of Sir Creek, as it existed in 1913. Given that the river is non-navigable, under state practice and international law, the boundary would be located by the median line in the river under the *medium filus aquae* rule³³⁷ and this frontier would be subject to alteration as a consequence of the process of accretion.³³⁸ In fact, the

334. Muhammad Zaafir, *Sir Creek Talks Next Month*, THE NEWS, Apr. 14, 2007, http://thenews.jang.com.pk/top_story_detail.asp?Id=7143.

335. See *Indo-Pakistan Western Boundary (India v. Pak.)*, 17 R. Int'l Arb. Awards at 337.

336. *Id.* (internal citations and quotation marks omitted).

337. A difficult question would be how and when to delimit Sir Creek on the basis of the median line principle. This issue exists because Sir Creek is a tidal river, its low water mark or high water mark is constantly changing. One solution to this problem would be to measure the median line “half way between the low-water marks of ordinary tides on each side of the river . . .” CUKWURAH, *supra* note 38, at 50. The time when the river floods during the short duration of the monsoons would be excluded when demarcating such line as this period involves an extraneous event.

338. See *Nebraska v. Iowa*, 143 U.S. 359, 360 (1982). The Court stated:

It is settled law that when grants of land border on running water, and the banks are changed by that gradual process known as *accretion*, the riparian owner's boundary line still remains the stream, although, during the years, by this

location of median line delimitation in Sir Creek might not be much different than that under the thalweg principle as purported by India, and accordingly is commensurate with India's position on the matter.

Under customary international law and state practice, any process of accretion that has shifted the course of Sir Creek, would also accordingly alter the international boundary of Sir Creek.³³⁹ Therefore, if Sir Creek has changed its course moving westward into Pakistan, then Pakistan would lose territory.³⁴⁰ The sovereignty over any new islands formed as a result of accretion or siltation in Sir Creek would be determined by which side of the median line, or thalweg under India's position, these islands are located on.³⁴¹ If such a boundary traverses these islands the status of these islands will be determined by which sides of the delimitation the island are predominately located on.³⁴² There is some evidence that an island has appeared near the mouth of Sir Creek due to siltation and that the mouth of the river has itself widened.³⁴³ However, one can only determine which country enjoys title over the island(s) under the aforementioned principle, after extensively analyzing specific topographical data of the area that is currently unavailable.

As discussed earlier, recent rulings of the I.C.J. or its Chamber have been credited with convoluting what to many legal scholars appeared as clearly delineated default norms and rules of river boundary delimitation under international law.

In the frontier dispute between Benin and Niger, the Chamber of the I.C.J. acknowledged that its delimitation assessments were to be influenced by physical realities, such as the "possible appearance or disappearance of certain islands"³⁴⁴ However, this statement is vague and ambiguous; it does not define the scope of such influence. For example: How exactly would the appearance or disappearance of islands influence its judgment? Do other events such as accretion, etc., also amount to being the result of a "physical reality[?]"³⁴⁵

One might interpret this statement of the Chamber in consonance with

accretion, the actual area of his possessions may vary.

Id. (emphasis added).

339. *Id.*

340. In relation to Sir Creek, there is no evidence to support the fact that avulsion has taken place.

341. *See Kansas v. Missouri*, 322 U.S. 213, 229 (declaring that in order "[t]o show sovereignty by island formation it was necessary to prove that the island formed on the Kansas side of the main channel").

342. CUKWURAH, *supra* note 38, at 66.

343. ANSARI & VOHRA, *supra* note 13, at 18.

344. Frontier Dispute (Benin v. Niger), 2005 I.C.J. 90, 109 (July 12).

345. *Id.*

customary international law. Stating that subject to an agreement between the involved states specifying otherwise, river frontiers modify as a consequence of natural processes. However, the Chamber, in the same paragraph of its judgment, upheld the importance of the principle of *uti possidetis* and therefore that the boundary of thalweg had to be demarcated as it existed at the time of independence, and even gave coordinates for its demarcation.³⁴⁶ Legal experts are of the view that between these two concerns, if there is a conflict, the principle of *uti possidetis* would be given supremacy by the Court,³⁴⁷ even though in this particular case the Chamber avoided resolving this existing conflict by making ambiguous declarations.

In a territorial maritime dispute between Nicaragua and Honduras, the I.C.J. declined to determine the status of islands appearing near the mouth of River Coco.³⁴⁸ The river had shifted and its mouth had widened as a consequence of natural conditions.³⁴⁹ Under conventional norms of international law that relate to accretion and island formation, the Court could have held the status of the islands was determined by the present location of the thalweg. The Court actually avoided such a determination and directed both parties to determine the status of the mouth of the river and the respective islands bilaterally, but specified that such a determination had to be made “in accordance with the 1906 Arbitral Award, which remained *res judicata* for the land boundary.”³⁵⁰ At the time of the award both states were independent, but previously had been colonies of Spain.³⁵¹

Therefore, under international law, application of customary norms relating to river boundary delimitation is preempted by a specific treaty entered into between the concerned states pertaining to the delimitation. From recent I.C.J. judgments, one can also adduce that such preemption is

346. *Id.* at 135–39.

347. Interview with Judge Bruno Simma, Member of the Int’l Court of Justice.

348. Territorial and Maritime Disputes Between Nicaragua and Honduras in the Caribbean Sea (Nicar. v. Hond.), 2007 I.C.J. 120, paras. 45, 310 (Oct. 8).

349. *Id.* at para. 32.

350. *Id.* at para. 310.

351. Both state parties had agreed that the maritime boundary would start three miles up the coast, but demarcation had to be made from the mouth of the river up to this point. *Id.* at para. 33.

The Parties are now in dispute as to which of the small islands having formed in the mouth of the River Coco belongs to which country and where the actual mouth is currently situated. A starting-point at the terminus of the land boundary (as determined “at any given moment” or by reference to the point fixed in 1962 by the Mixed Commission) might cut across these contested small islands, with the attendant risk that the island might later attach itself to the mainland of one of the Parties. The Parties are in the best position to monitor the situation as the shape of Cape Gracias a Dios evolves and to arrange a solution in accordance with the 1906 Arbitral Award, which remains *res judicata* for the land boundary.

Id. at 310.

witnessed when there is conflict between the principle of *uti possidetis juris*, or *effectivités* as proof of *uti possidetis de facto* and customary norms. Therefore, contrary to one's initial assessment that any natural changes due to accretion in the Sir Creek to India's advantage would be substantiated under customary international law, a more thorough examination of recent international court rulings seems to provide an equivocal answer.

Pakistan would argue that the customary norm of river boundary alterations due to accretion is preempted in this particular dispute. The Resolution Map of 1914 demarcated the exact location of the boundary by a green line that just happened to be on the eastern bank of the Sir Creek, with longitude and latitude measurements given on the margins of the map. Pakistan would also argue that its current position is consistent with the I.C.J. determination in the Benin–Niger case. There the Court determined the exact boundary with specific coordinates, even when such position was located on the thalweg of the Niger River.³⁵² Declaring exact coordinates of the thalweg at the time of independence, as the Court did, is viewed as conclusive evidence of the permanent fixation of an international boundary in a river, even though the thalweg of the river can subsequently change its location. Accordingly, Pakistan would refute the customary norm of having a thalweg or median line in the Sir Creek as a boundary on the same basis. Instead, it would assert that it would preempt such norms because of the presence of a specific treaty provision on the matter and on the basis of the principle of *uti possidetis*.

On the other hand, India would argue that the river delimitation would be subject to change through accretion under customary international law. There is no evidence in the form of an agreement or dealings between the Government of Sind and the Kutch Darbar under Resolution 1192 of the Government of Bombay,³⁵³ or any other subsequent action of the Government of British India to indicate customary norms of accretion do not apply in this case. However, India's argument that the customary norm of having the river boundary delimitation on the basis of the thalweg is a position hard to maintain as such since customary rule seems to have been preempted by specific treaty language under paragraph nine of Letter 5543.³⁵⁴

It is important to note here that there does not seem to be any evidence of post-colonial *effectivités* exercised by either nation after their independence in 1947, or of acts that would meet the requirements of prescription, acquiescence, recognition, or estoppel on the basis of which either nation could claim sovereignty over the Sir Creek estuary. One

352. Frontier Dispute (Benin v. Niger), 2005 I.C.J. 90, 135–39 (July 12).

353. THE INDIAN SOCIETY OF INTERNATIONAL LAW, *supra* note 294, at 14.

354. *Id.* at 13–14.

reason for this is the fact that the surrounding region is desolate marsh land, uninhabitable and historically thought to have no economic value. In addition, the surrounding areas are militarized. Both nations are aware and deterred by the fact that any change in the status quo (settlements, construction, or other works) risks the commencement of hostilities.

CONCLUSION

In principle, the customary international law doctrines of the thalweg, median line, accretion, and avulsion are applicable in their original form to river boundary delimitations.³⁵⁵ However, in realistic terms, the significance of these doctrines has been arguably undermined by recent judgments of the I.C.J. and its Chamber, who have upheld the supremacy of the doctrine of *uti possidetis juris*. Thus, it is most likely that in the event of a conflict, international courts and tribunals would hold that these aforementioned customary norms are preempted by the principle of *uti possidetis juris* though these adjudicative bodies have purposely avoided recognizing or resolving such a conflict.

In light of this holding, the boundary delimitation in the Sir Creek, under International law, would be on its eastern bank. However, whether this boundary is alterable under the customary international law principle of accretion is uncertain, as both nations have sound arguments to support their respective positions on the matter.

In any case, the application of international law to the Sir Creek boundary dispute is purely an academic exercise, because it is apparent that India will not allow any third-party involvement in the resolution of this dispute. Until recently, the resolution of the dispute through the process of bilateral negotiations seemed highly probable, keeping in mind that both states were keen to improve their historically hostile relations. Most probably the solution would involve demarcating the boundary from the sea, moving inwards, to a specific point that is acceptable to both states, leaving the coastal boundary unmarked in the transient.³⁵⁶ Such a compromise would result in the demarcation of both the EEZ and continental shelves and would avoid loss of maritime territory belonging to either nation to the International

355. Wendy N. Duong, *Following the Path of Oil: The Law of the Sea or Realpolitik—What Good Does Law Do In The South China Sea Territorial Conflicts?*, 30 *FORDHAM INT'L L.J.* 1098, 1111 (2007); see Donovan, *Suriname-Guyana Maritime and Territorial Disputes*, *supra* note 92, at 58.

356. This task could be accomplished either by utilizing the Equidistance Line Principle under the Technical Aspects of the Law of the Sea (TALOS) regime or through the triangulation method to delimit the boundary using baseline points on the coast. See ANSARI & VOHRA, *supra* note 13, at 53–54 (describing TALOS and triangulation methods); Bhushan, *supra* note 9.

Sea Bed Authority.³⁵⁷

Intrinsically, the Sir Creek boundary dispute is not an intractable dispute. Its resolution is complex mainly because of the historical antagonistic relationship between India and Pakistan, but also because its resolution has been invariably linked with the resolution of the fundamental disputes of Kashmir—over which both India and Pakistan are intransigent.

On November 26, 2008, ten armed militants committed acts of aggression at numerous locations in the city of Mumbai, India killing at least 179 people, mostly civilians, including 22 foreigners.³⁵⁸ Subsequently, a few of the militants took refuge at two luxury hotels and a Jewish Cultural Center. It was not until November 29, 2008 that the Indian authorities managed to end the last siege.³⁵⁹ As a consequence of these attacks, relations between India and Pakistan have rapidly deteriorated.³⁶⁰ India alleges that the militants are Pakistani citizens, who arrived in Mumbai by sea, using an Indian trawler that had gone missing, and whose crew had set sail from the Indian Port of Portbander in the Rann of Kutch region two weeks earlier.³⁶¹ On December 2, 2008, India seized a Pakistani shipping trawler and arrested seven people in the disputed Sir Creek on the basis of “suspicious” activities in the wake of the Mumbai attacks.³⁶² This chain of events highlights the fact that the resolution of the Sir Creek dispute is not likely in the near future. It would also be interesting to witness whether the resolution of Sir Creek, whenever it happens, will serve as a catalyst towards the resolution of other more pressing concerns: the Kashmir struggle, terrorism, and water sharing disputes between the two states. Presently, it is, at best, a distant hope.

357. See Srinivasan, *supra* note 23, at 29 (noting that demarcating “MBD from EEZ to Sir Creek . . . may result in the Continental Shelf areas of both countries coming under the ambit of the International Seabed Authority”).

358. Zardari: ‘Pakistan in no way responsible’ for Mumbai attacks, CNN NEWS, Dec. 2, 2008, <http://www.cnn.com/2008/WORLD/asiapcf/12/02/pakistan.zardari.lkl/index.html>.

359. *Id.*; Kritivas Mukherjee, *Gunfire, explosions rock Mumbai hotel*, REUTERS, Nov. 28, 2008, <http://www.reuters.com/article/worldNews/idUSTRE4AP75S20081128>; *As It Happened: Mumbai Attacks 29 Nov*, BBC NEWS, Nov. 29, 2008, http://news.bbc.co.uk/2/hi/south_asia/7756073.stm.

360. *India Makes Protest to Pakistan*, BBC NEWS, Dec. 1, 2008, http://news.bbc.co.uk/2/hi/south_asia/7758809.stm.

361. *Security agencies dig for clues at Porbander*, PRESS TRUST OF INDIA, Dec. 02, 2008, <http://www.ndtv.com/convergence/ndtv/mumbaierrorstrike/Story.aspx?ID=NEWEN20080075007&type=News>.

362. *Pak fishing trawler seized; 7 held*, PRESS TRUST OF INDIA, Dec. 02, 2008, <http://www.ndtv.com/convergence/ndtv/mumbaierrorstrike/Story.aspx?ID=NEWEN20080075009&type=News>.

