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THE LEGAL PRINCIPLE OF RECIPROCITY IN THE PEACEFUL MANAGEMENT OF TRANSBOUNDARY WATERCOURSES: THE DUTY TO COOPERATE, RULES OF PROCEDURE AND SELF-HELP MEASURES

ABSTRACT

As a legal principle, reciprocity influences the distribution of rights and duties, providing a sense of fairness. This article explores the role that reciprocity plays in the law governing the use of transboundary waters shared by nation states (international water law). Three areas of the international law in this field – the duty to cooperate, the rules of procedure, and dispute settlement – are analysed through the lens of reciprocity. Although prevalent in general international law, the application of self-help measures finds scant consideration and practice in the field of international water law. Although such measures may be appropriate in this area, their application and scope may be limited. In terms of the reciprocal structure of international law, the emergence of the duty to cooperate as a possible obligation erga omnes, coupled with the now well-embedded rules of law in this field may help to explain why.

I. INTRODUCTION

Reciprocity, a tendency to return like with like,¹ is the foundation of human cooperation present in most, if not all, social relations.² As a *quid pro quo* exchange it is highly prevalent in international relations, working to build trust and bring states together to cooperate on some of the world's most pressing and complex challenges. The world faces a water crisis not of supply but one of management such that, if current trends continue, many parts of the world may not be able to meet their water

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^{1.} SERGE-CHRISTOPHE KOLM, RECIPROCITY: AN ECONOMICS OF SOCIAL RELATIONS 1 (2008).

^{2.} Martin A. Nowak & Karl Sigmund, *Shrewd Investments*, 288 SCI. 819 (2000); KOLM, *supra* note 1, at 33.

needs.³ Consistently ranked by the World Economic Forum within the top five risks by impact since 2012,⁴ the importance and seriousness of the global water crisis provides the impetus for effective cooperation between states. It is estimated that by 2025, approximately 2 billion people will live in conditions of water scarcity, and two thirds of the world will be considered water stressed.⁵ With as many as 263 river basins and 300 aquifer systems worldwide that cross sovereign national borders, and with over 90% of the global population living in countries with shared basins, transboundary waters will continue to be an important source of water.⁶ Even though these transboundary basins are a vital resource, approximately 60% of them are not jointly managed through formal legal agreements.⁷ This lack of agreements does not mean that these basins are unregulated but rather that states are left to comply with the rules of customary international law as they apply to transboundary waters such as the principle of equitable and reasonable use,⁸ the due diligence obligation not to cause significant harm,⁹ the duty to cooperate, and the prior notification of planned measures, among others.¹⁰

4. See WORLD ECON. FORUM, THE GLOBAL RISKS REPORT 2019, at 8 (2019), http://www3.weforum.org/docs/WEF_Global_Risks_Report_2019.pdf (explaining that water crises have been ranked consistently in the top 5 global risks by impact since 2012 (2012 – 2nd, 2013 – 2nd, 2014 – 3rd, 2015 – 1st, 2016 – 3rd, 2017 – 3rd, 2018 – 5th, and 2019 – 4th)).

5. P. HUNTJENS, ET AL., THE MULTI-TRACK WATER DIPLOMACY FRAMEWORK: A LEGAL AND POLITICAL ECONOMY ANALYSIS FOR ADVANCING COOPERATION OVER SHARED WATERS 1 (2016), http://www.thehagueinstituteforglobaljustice.org/wp-content/uploads/2016/12/THIGJ_The-Multi-track-Water-Diplomacy-Framework_Webversion-1.pdf.

7. ZAFAR ADEEL, ET AL., WATER COOPERATION: VIEWS ON PROGRESS AND THE WAY FORWARD 1 (2015), https://inweh.unu.edu/wp-content/uploads/2015/03/2015-09-Water-Cooperation-Brief1.pdf.

8. See G.A. Res. 51/229, annex, Convention on the Law of Non-Navigational Uses of International Watercourses, art. 5-6 (May 21, 1997) (As outlined in the UNWC, the principle of equitable and reasonable use provides that states "shall... utilize an international watercourses in an equitable and reasonable manner." In order to determine what this requires, states ought to take into consideration a variety of factors including, but not limited to, geographical and hydrological conditions, socio-economic needs, effects of the use, etc.).

9. *Id.* at art. 7 (As outlined in the UNWC, the due diligence obligation not to cause significant harm provides that states "shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourses States.").

10. See generally Joseph W. Dellapenna, *The Customary International Law of Transboundary Waters*, 1 INT'L J. GLOBAL ENVTL. ISSUES 264 (2001) (Scholars accept various principles of the law of transboundary waters as customary law. These include the principle of equitable and reasonable use, the due diligence obligation not to cause significant harm, the duty to cooperate, prior notification and, although beyond the scope of this article, the requirement to conduct an environmental impact assessment); *see also* STEPHEN C. MCCAFFREY, THE LAW OF INTERNATIONAL WATERCOURSES 465-71 (2d ed. 2010); CHRISTINA LEB, COOPERATION IN THE LAW OF TRANSBOUNDARY WATER RESOURCES 34-35 (2013) (As it relates to the duty to cooperate as a rule of customary international law); Owen McIntyre, *The World Court's Ongoing Contribution to International Water Law: The Pulp Mills Case between Argentina and Uruguay*, 4 WATER ALTERNATIVES 123 (2011) (As it relates to the duty to notify as well as the obligation to conduct an environmental impact

^{3.} W. J. COSGROVE & F. R. RIJSBERMAN, WORLD WATER VISION: MAKING WATER EVERYONE'S BUSINESS XIX (2000); P. Brabeck-Letmathe & A. K. Biswas, *Water: A Global Crisis*, DIPLOMAT (June 1, 2015), https://thediplomat.com/2015/06/water-a-global-crisis/.

^{6.} U.N. WATER, TRANSBOUNDARY WATERS: SHARING BENEFITS, SHARING RESPONSIBILITIES 1 (2008), http://www.unwater.org/publications/transboundary-waters-sharing-benefits-sharing-responsibil ities/.

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The interpretation and application of these customary and treaty-based legal regimes is guided by the legal principle of reciprocity as an "objective aspect of a given legal relationship"¹¹ which establishes corresponding obligations and rights, ensuring consistency of interpretation as it requires that the "conduct of one party is in one way or another juridically dependent upon that of the other party."¹² The legal principle is commonly understood to work in three areas: 1) in the development of customary law; 2) as a mechanism within treaties; and 3) as a mechanism of compliance.¹³ When translating this legal principle to analysis of the law of international watercourses, this translates to a) the development of limited territorial sovereignty as customary law, reciprocity as a treaty mechanism within the b) substantive rules and, given a focus on conflict prevention, c) in cooperation through the procedural and dispute settlement rules. While the analysis of this principle and the influence it has had on the creation of customary law and the substantive rules of the law of international watercourses has been conducted elsewhere,¹⁴ this article will focus on the role of reciprocity in overall cooperation. This article will systematically analyse the duty to cooperate as well as the procedural rules and dispute settlement mechanisms of the law of transboundary waters through the lens of reciprocity. By using the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (UNWC)¹⁵ as an authoritative legal text that codifies and progressively develops the laws that govern the uses of transboundary watercourses,¹⁶ such an analysis provides greater clarity and a more nuanced understanding of the rights and duties of state parties, as well as the contours of such duties.

First, this article will analyse how reciprocity functions in cooperation through the general duty to cooperate. Cooperation on transboundary waters, as evidenced in the rules of procedure, is fundamental as it "provides the practical means for implementing the substantive rules and establishes an operational framework"¹⁷ for the joint management of transboundary waters. Second, this article will analyse the procedural rules of information exchange: prior notification and consultation. While only one of these procedural rules – prior notification – is considered to be a rule of customary international law,¹⁸ each of these rules is

15. G.A. Res. 51/229, supra note 8.

^{11.} BRUNO SIMMA, *Reciprocity, in* MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶ 2 (2008).

^{12.} Andreas Paulus, *Reciprocity Revisited*, *in* FROM BILATERALISM TO COMMUNITY INTEREST: ESSAYS IN HONOUR OF BRUNO SIMMA 117 (Rudolf Geiger Ulrich Fastenrath et al. eds., 2011).

^{13.} See generally, SIMMA, supra note 11.

^{14.} See, e.g., David Devlaeminck, Reciprocity and the Development of International Water Law, 25 J. WATER L. 80 (2016); David Devlaeminck, Revisiting the Substantive Rules of the Law of International Watercourses: An Analysis through the Lens of Reciprocity and the Interests of China, 20 WATER POL'Y 323 (2018).

^{16.} A watercourse is defined in the UNWC as a "system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus." *Id.* at art. 2(a).

^{17.} PATRICIA WOUTERS, INTERNATIONAL LAW - FACILITATING TRANSBOUNDARY WATER COOPERATION 20 (2013), http://www.gwp.org/globalassets/global/toolbox/publications/background-papers/17-international-law---facilitating-transboundary-water-cooperation-2013-english.pdf.

^{18.} See Dellapenna, supra note 10.

fundamental in upholding the customary rules of equitable and reasonable use and the due diligence obligation not to cause significant harm. While these procedural rules act as mechanisms of conflict prevention, where cooperation nonetheless fails, reciprocity can still prevail through dispute settlement mechanisms, albeit only where there is a foundation of mutual consent. Third, this article will analyse the dispute settlement mechanisms of the UNWC, seeking how these might illuminate the discourse around the notion of reciprocity. Finally, where dispute settlement is not available or may be ineffective, states may, within limits, turn to additional legal mechanisms such as retorsion, non-performance, suspension and countermeasures within which "reciprocity has been crystallized."19 Although prevalent in many areas of international law, the use of such mechanisms in transboundary waters has been limited and very little research has been conducted on the subject.²⁰ Thus, the article will explore the limited use of such mechanisms in the law of international watercourses and potential explanations for this use. In terms of the reciprocal structure of international law, the possibility that the duty to cooperate is an emerging obligation erga omnes²¹ coupled with the well-established rules of customary law, treaty law, and practice in this field provides an alternative explanation for the lack of practice surrounding self-help measures in the law of international watercourses while also assisting in determining the contours of their potential use.

II. THE LEGAL NOTION OF RECIPROCITY AND THE DUTY TO COOPERATE IN INTERNATIONAL WATER LAW

In its legal form, reciprocity establishes corresponding rights and duties between parties in which the right of one is the duty of the other.²² As such, treaties act as "reciprocal arrangement[s] that determine the rights and obligations of the parties,"²³ ensuring a sense of fairness in the legal regime. Such rights and duties are not only found in bilateral treaties, but also in multilateral treaties where they can be conceptualized as "bundles" of bilateral obligations.²⁴ Given the many

^{19.} Application of the Interim Accord of 13 September 1995 (Maced. v. Greece), Judgment, 2011 I.C.J. 695, 699 (separate opinion by Simma, J.).

^{20.} Although this is a widely researched subject within general international law, there is limited work on the subject as it relates to transboundary waters. Some work is emerging in regards to state responsibility within transboundary waters, however it does not mention self-help mechanisms. *See, e.g.,* Owen McIntyre, *Responsibility and Liability in International Law for Damage to Transboundary Fresh Water Resources, in* RESEARCH HANDBOOK ON FRESHWATER LAW AND INTERNATIONAL RELATIONS 336-68 (Mara Tignino et al. eds., 2019).

^{21.} It should be noted that the identification of the duty to cooperate as an obligation *erga omnes* is not the focus of this section of the article. Although the argument some have made in support of its emerging *erga omnes* status will be discussed, this section of the article will highlight that the possibility would offer an alternative explanation to the lack of practice concerning self-help measures in the law of international watercourses.

^{22.} Bruno Simma, *Bilateralism and Community Interest in the Law of State Responsibility, in* INTERNATIONAL LAW AT A TIME OF PERPLEXITY 822 (Yoram Dinstein & Mala Tabory eds., 1989).

^{23.} SHAHRAD NASROLAHI FARD, RECIPROCITY IN INTERNATIONAL LAW: ITS IMPACT AND FUNCTION 21 (2016).

^{24.} Such "bundles" involve bilateral obligations that are extrapolated between all of the parties of a multilateral treaty so as to create a web of rights and duties. This is not the case for all forms of legal relationships, and new and emerging areas, such as human rights and some aspects of environmental law

transboundary basins without the common legal framework between riparians, states are bound by applicable customary law. The customary rules of international water law, particularly equitable and reasonable use as well as the due diligence obligation not to cause significant harm, follow this reciprocal structure establishing corresponding rights and duties and distributing advantages and disadvantages among both upstream and downstream riparians.²⁵

Given that reciprocity establishes a balance of rights, it acts as one catalyst for cooperation. As the very foundation of international law²⁶ and firmly reflected in the UN Charter and a series of treaties,²⁷ the general duty to cooperate can now be considered a rule of customary international law.²⁸ This customary duty is absolutely necessary for the implementation of the fundamental pillars of international water law, particularly the customary rules of equitable and reasonable use and the due diligence obligation not to cause significant harm. Articulated in Article 8 of the UNWC, the general duty to cooperate stipulates that "watercourse states shall cooperate on the basis of *sovereign equality, territorial integrity, mutual benefit* and *good faith* in order to attain optimal utilization and adequate protection of the international watercourse."²⁹ As an abstract obligation based on these principles, the duty to cooperate occurs between equals, based upon "mutual respect for one another's territorial integrity,"³⁰ as they aim to achieve mutual benefits. Applying to

25. Devlaeminck, Revisiting the Substantive Rules of the Law of International Watercourses: An Analysis through the Lens of Reciprocity and the Interests of China, supra note 14.

27. The general duty to cooperate is firmly grounded in the UN Charter, most prominently in Article 1 which sets out the purposes of the United Nations. This includes the maintenance of international peace and security, the development of friendly relations, the achievement of international cooperation in solving international problems, and the harmonization of state actions to achieve these goals. *See* U.N. Charter art. 1. Furthermore, the general duty to cooperate is found in a series of UN documents, most notably the Declaration on Principles of International Law Concerning Friendly Relations and Cooperation among States (1970) which reaffirms the Charter. It is also found in a series of treaties, particularly environmental agreements. For more information, *see* LEB, *supra* note 10, at 34.

28. The duty to cooperate can now be considered a rule of customary law. Although McCaffrey admits that the principle is abstract and derives its meaning from other obligations, he states that it can be considered "not only necessary, but is probably now required by general international law." For a discussion on the general duty to cooperate including its status, *see* MCCAFFREY, *supra* note 10, at 465-71. The duty to cooperate can now be considered a rule of customary law. Although McCaffrey admits that the principle is abstract and derives its meaning from other obligations, he states that it can be considered "not only necessary, but is probably now required by general international law." *Id.*

are not governed by such bilateral and bilateralizable obligations. Such "bundles" involve bilateral obligations that are extrapolated between all of the parties of a multilateral treaty so as to create a web of rights and duties. This is not the case for all forms of legal relationships, and new and emerging areas, such as human rights and some aspects of environmental law are not governed by such bilateral and bilateralizable obligations. See Joost Pauwelyn, A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?, 14 EUR, J. INT'L L. 907 (2003).

^{26.} For an analysis on the development of the law of cooperation in international law and international water law, see Patricia Wouters, 'Dynamic Cooperation' in International Law and the Shadow of State Sovereignty in the Context of Transboundary Waters - Part 1, 3 ENVTL. LIABILITY 88 (2013); Patricia Wouters, 'Dynamic Cooperation' in International Law and the Shadow of State Sovereignty in the Context of Transboundary Waters - Part 2, 4 ENVTL. LIABILITY 131 (2013).

^{29.} G.A. Res. 51/229, supra note 8, at art. 8 (emphasis added).

^{30.} LEB, supra note 10, at 82.

all states equally, it acts as a bridge between the substantive and procedural,³¹ providing the "fulcrum for balancing the broad spectrum of potential oppositional forces."³²

III. THE PROCEDURAL AND DISPUTE SETTLEMENT RULES OF INTERNATIONAL WATER LAW

In order to stabilize these forces and maintain said balance, the duty to cooperate is operationalized through a series of procedural rules, including information exchange, prior notification, and consultation in which reciprocity plays a pivotal role. Of these rules, only prior notification, as elaborated in the *Pulp Mills Case*, is considered customary international law.³³ These procedural rules guide a process of cooperation based upon reciprocal rights and duties of the parties aimed towards finding, reaching, and maintaining an equitable and reasonable allocation of beneficial uses, as well as preventing the occurrence of significant harm. Although these rules work to avoid conflict, if conflict does occur, states have a series of mechanisms at their disposal to settle their disputes peacefully. Using the UNWC provisions as an authoritative text, this section will analyse these procedural and dispute settlement mechanisms through the lens of reciprocity, seeking to illuminate how these work in practice.

A. The Procedural Rules: Information Exchange, Prior Notification, and Consultation

Article 9 of the UNWC provides that "States shall on a regular basis exchange readily available data and information on the condition of the watercourse."³⁴ Such an obligation implies an "ongoing and systematic process"³⁵ of reciprocation in the sense that each party has the duty to provide, as well as the corresponding right, to receive information. When projects are planned, states are required to inform their riparian neighbours of both its positive and negative effects (Article 11). If, however, the project is likely to have "a significant adverse effect upon other watercourse States,"³⁶ then parties must follow a series of procedures designed to avoid a dispute, as set out in Articles 12 through 18. The standard of a "significant adverse effect" is lower than that of "significant harm" found in Article 7, assuring that states do not face a situation where they must admit that such planned

^{31.} See WOUTERS, supra note 17, at 4.

^{32.} Patricia Wouters, The Yin and Yang of International Water Law: China's Transboundary Water Practice and the Changing Contours of Sovereignty 23 REV. EUR. COMP. INT'L L. 67, 68 (2014).

^{33.} See generally McIntyre, supra note 10, at 130-32; MCCAFFREY, supra note 10, at 470.

^{34.} G.A. Res. 51/229, *supra* note 8, at art. 9.

^{35.} U.N. Secretary-General, Draft Articles on the Law of the Non-Navigational Uses of International Watercourses and Commentaries thereto and Resolution on Transboundary Confined Groundwater, 108, U.N. Doc. A/CN.4/L.493 (1994) [hereinafter U.N., Draft Articles on the Law of Non-Navigational Uses of International Watercourses] (This report also appears in Yearbook of the International Law Commission, 1994, vol. II, Part Two.).

^{36.} G.A. Res. 51/229, supra note 8, at art. 12.

measures will cause significant harm to the other states.³⁷ This lower standard also ensures that the duty applies to all equally, as "adverse impacts" could take on various forms which impact both upstream and downstream states. This notification³⁸ triggers a back and forth exchange between riparians, with states obligated to reply to said notification within a six-month period.³⁹ All the while, the notifying state must not proceed with its planned measures and ought to provide additional information requested by the notified state.⁴⁰ If the notified state does not participate in the exchange and does not reply, then the notifying state may proceed with its planned measures according to the previously provided notification.⁴¹ If the planned measures under discussion are found to violate the substantive rules of equitable and reasonable use and the due diligence obligation not to cause significant harm,⁴² then Article 17 obligates the notifying and notified state to "enter into consultations and, if necessary, negotiations with a view to arriving at an equitable resolution of the situation."43 These consultations, based upon mutual consideration of the rights and interests of the other in good faith, represent a reciprocal process in which states make claims and then counter until a compromise is reached. If a state believes that their riparian neighbour is planning measures that may have a significant adverse effect upon them, then they may initiate this reciprocal process by submitting a request that the state applies Article 12, along with the rationale for such a request.⁴⁴

B. The Settlement of Disputes

As set out in the UN Charter, states must settle their disputes peacefully.⁴⁵ There are a variety of mechanisms available for them to do so, including diplomatic methods such as negotiations, good offices and mediation, fact-finding, and conciliation, each of which can be characterized as a reciprocal exchange of claims leading to compromise. Beyond these diplomatic measures, states can also resort to centralized methods of dispute resolution such as the International Court of Justice (ICJ) or arbitration.⁴⁶ Resort to such measures, however, requires the consent of the parties to the dispute, often based on a reciprocity clause found in a treaty. For example, consent to the jurisdiction of the ICJ is based upon a reciprocal jurisdiction clause found in Article 36(2) of the of the International Court of Justice. It states that parties may "declare that they recognize as compulsory *ipso facto* and without special agreement, *in relation to any other state accepting the same obligation*, the

^{37.} U.N., Law of Non-Navigational Uses of International Watercourses, supra note 35, at art. 12, \P 2.

^{38.} G.A. Res. 51/229, supra note 8, at art. 12.

^{39.} Id. at art. 13, 15.

^{40.} Id. at art. 14.

^{41.} Id. at art. 16.

^{42.} Id. at art. 5-7.

^{43.} Id. at art. 17.

^{44.} Id. at art. 18.

^{45.} U.N. Charter art. 2, ¶ 3.

^{46.} See generally PETER MALANCZUK, AKEHURST'S MODERN INTRODUCTION TO INTERNATIONAL LAW 273-300 (7th rev. ed. 1997) (for a brief explanation of each of these methods).

jurisdiction of the Court[...].²⁴⁷ Thus states can consent to the jurisdiction of the court unconditionally based upon reciprocity⁴⁸ such that a state will consent to its jurisdiction so long as the other party of the dispute has also consented. Further, the locus for consent might be contained in bilateral or multilateral treaties.

When disputes arise, the UNWC provides a process that state parties can pursue to peacefully settle their disputes starting with negotiation. If the dispute cannot be settled via negotiation as laid out in Article 33(1), then the UNWC makes available a series of other mechanisms including good offices, mediation, conciliation, or the settlement of disputes through a joint watercourse body.⁴⁹ If such mechanisms are unsuccessful, then after six months the case "shall be submitted, at the request of any of the parties to the dispute, to impartial fact finding," involving a third party.⁵⁰ Finally, parties may refer their dispute to the ICJ or to arbitration based upon a reciprocal jurisdiction clause similar to that found in Article 33(10) of the Statute of the ICJ.

Although some states took issue with mandatory fact finding provision and have not consented to the jurisdiction of the ICJ, these third party mechanisms often aim to support negotiations by collecting new information or by placing pressure on the parties to reach a solution.⁵¹ This was the case in the *Gabčikovo-Nagymaros*⁵² and *Pulp Mills Cases*,⁵³ both of which, as part of their decisions, referred the parties to further negotiation.⁵⁴ As such, Article 33 of the UNWC provides an open-ended framework that caters to states who consent, based on reciprocity, to mechanisms of third party dispute settlement, while those who do not consent can continue to find a solution through consultation and negotiation or through a specific agreement for dispute settlement.⁵⁵

- 52. Gabčíkovo-Nagymaros Project (Hung./Slovk.), Judgment, 1997 I.C.J. No. 692 (Sept. 25).
- 53. Pulp Mills on the River Uruguay (Arg. v. Uru.), Judgment, 2010 I.C.J. No. 977 (Apr. 20).

54. The judgement of each of these cases refers the parties to further negotiations in good faith. In the Gabčíkovo-Nagymaros Case, the court referred the states back to negotiations in order to find an agreeable solution. The judgement of the Pulp Mills Case reminds the parties of their strong tradition of cooperation through the joint mechanism CARU, stating that in the past they have "found appropriate solutions to their differences within its framework without feeling the need to resort to the judicial settlement of disputes" through the ICJ. Such referrals to negotiation and cooperation can be interpreted as reminding us of the subsidiary role of formal adjudication in the settlement of disputes concerning transboundary waters. *See* Gabčíkovo-Nagymaros Project, *supra* note 52, at ¶ 141; Pulp Mills on the River Uruguay, *supra* note 53, at ¶ 281; *See* Tanzi & Milano, *supra* note 51, at 175.

^{47.} Statute of the International Court of Justice, June 26, 1945, art. 36, ₱2, 59 Stat. 1055, 33 U.N.T.S. 933 (emphasis added).

^{48.} See id. at art. 36, ¶ 3.

^{49.} G.A. Res. 51/229, supra note 8, at art. 33.

^{50.} See id.

^{51.} See generally Attila Tanzi & Enrico Milano, Article 33 of the UN Watercourses Convention: A Step Forward for Dispute Settlement?, 38 WATER INT'L 166 (2013).

^{55.} Tanzi & Milano, supra note 51, at 176.

IV. NEGATIVE RECIPROCITY AND SELF-HELP MEASURES IN INTERNATIONAL LAW AND THEIR APPLICATION IN THE LAW OF INTERNATIONAL WATERCOURSES

Given that there is no overarching body which can enforce international law a series of non-centralized mechanisms are "available to states to deter and punish wrongdoing and to reward and encourage compliance[...]."⁵⁶ These mechanisms, found within the Vienna Convention on the Law of Treaties (VCLT)⁵⁷ as well as the Draft Articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA),⁵⁸ include: i) retorsion, ii) non-performance, iii) suspension and, iv) countermeasures. In the words of former ICJ judge Bruno Simma, these measures represent how "raw' reciprocity has been channeled and civilized by subjecting it to legal limits,"59 and such measures aim to provide a strong argument for the observance of international law given that a state can reciprocate in kind to a breach.⁶⁰ First, states are able to resort to retorsion, a form of retaliation which does not violate the legal rights of the other state. For example, in response to generally unfriendly behaviour, a state could limit diplomatic relations so long as it does not violate its responsibilities under international law.⁶¹ Second, when a state violates an obligation the other state can resort to non-performance, also referred to as the exceptio inadimpleti contractus. 62 Such non-performance, however, is limited to the corresponding right or duty which the other state has violated. Third, as permitted in the VCLT, Article 60, upon a material breach, states can terminate or suspend a treaty in whole or in part. That is, the injured party can temporarily suspend certain treaty obligations until the violating state complies with those obligations or terminates the

^{56.} FARD, *supra* note 23, at 79.

^{57.} Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 18232 [hereinafter VCLT].

^{58.} Draft Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries, Int'l Law Comm'n, Rep. on the Work of Its Fifty-Third Session, U.N. Doc. A/56/10 (2000) [hereinafter ARSIWA].

^{59.} Application of the Interim Accord of 13 September 1995 (Maced. v. Greece), Judgment, 2011 I.C.J. 695, 699 (separate opinion by Simma, J.).

^{60.} Id.

^{61.} JAMES CRAWFORD, STATE RESPONSIBILITY: THE GENERAL PART 677 (2013). Such acts of retorsion are largely unregulated by international law, so long as they do not result in a breach. If they do so then they would invoke the responsibility of the violating state and would then be regulated by ARSIWA. *Id.*

^{62.} The *exceptio* is a complicated and contested concept within international law. It is unclear exactly which treaty governs it, ARSIWA or the VCLT, and its exact content remains unclear. It is unclear if it is a general principle which can apply to treaty and non-treaty obligations, or if it is restricted to specific kinds of obligations. In its narrow conception supported by Judge Simma in his separate opinion on the Interim Accords Case, the *exceptio* is "a distinct circumstance precluding wrongfulness capable of generating consequences in the field of state responsibility." *Id.* at 680. In its broad form, supported by Fitzmaurice in his 4th Report on the Law of Treaties, however, it is concerned with reciprocal obligations such that it would make no sense for continued obligations to be owed to the other state. For an analysis of this issue, *see* James Crawford & Simon Olleson, *The Exception of Non-Performance: Links between the Law of Treaties and the Law of State Responsibility*, 21 AUSTL. Y.B. INT'L L. 55, 58 (2000); CRAWFORD. *supra* note 61, at 678-82; *see also* G.G Fitzmaurice, *Fourth Report on the Law of Treaties* (*A/CN.4/120*), 2 Y.B. INT'L L. COMM'N (1959); Application of the Interim Accord of 13 September 1995 (Maced. v. Greece), Judgment, 2011 I.C.J. 695 (separate opinion by Simma J.).

treaty in its entirety.⁶³ Finally, as set out in ARSIWA, Article 22, states can take peaceful actions⁶⁴ that are unlawful and which are adopted towards the noncomplying state in order to induce its compliance. Such measures are not tit-for-tat but are "top-down" and "coercive" enforcement mechanisms which are fundamentally reciprocal in nature.⁶⁵ Unlike the exceptio, which permits states to violate the corresponding right or duty, countermeasures permit the state to choose which obligation they violate.⁶⁶ These measures, however, are not without restriction and must be conducted within limits, such that: 1) they cannot involve the use of force; 2) they must be directed at the violating state; 3) they must be temporary and reversible; 4) they must be proportionate to the violation in question; and 5) the countermeasures themselves cannot violate or depart from any peremptory norms.⁶⁷ Although these mechanisms are often utilized in other areas of international law, they are not mentioned in either of the global conventions concerning transboundary waters, the UNWC or the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes.⁶⁸ However, given the relatively few parties to both conventions,⁶⁹ limited legal frameworks across many basins, and the customary nature of the VCLT and ARSIWA,⁷⁰ such measures may be applicable in transboundary water situations. Nevertheless, as illustrated in the Gabčíkovo-Nagymaros and San Juan cases, discussed below, there appears to be apprehension towards their application in the law of transboundary waters.⁷¹

In 1977 Hungary and Czechoslovakia signed a treaty agreeing to establish a joint development program and construct a series of dams on the Danube River, one in upstream Gabčíkovo, Czechoslovakia, and another in downstream Nagymaros, Hungary.⁷² After a series of delays and political changes in these then communist states, Hungary suspended its part of the agreement, halting construction.

64. Such actions can also be referred to as "reprisals," however this term has fallen out of favor as it implies non-peaceful means. Countermeasures are strictly limited to peaceful actions.

68. Convention on the Protection and Use of Transboundary Watercourses and International Lakes, March 17, 1992, 1936 U.N.T.S. 269, https://treaties.un.org/doc/Treaties/1992/03/19920317%2005-46%20AM/Ch_XXVII_05p.pdf [hereinafter Transboundary Watercourses].

69. The UNWC is now in force and currently has 36 parties, while the UNECE Water Convention, although now open to all states, has 42 parties. *See* G.A. Res. 51/229, *supra* note 8; Transboundary Watercourses, *supra* note 68.

70. In many respects both the VCLT and ARSIWA codified and went beyond customary law. Related to the discussion at hand, VCLT, Article 60 codified this customary law which can also be considered a principle of international law. *See* OLIVER DORR & KRISTEN SCHMALENBACH, VIENNA CONVENTION ON THE LAW OF TREATIES: A COMMENTARY 1043 (2012). ARSIWA, Article 22 which refers to countermeasures is recognized as a codification of custom, as illustrated through select economic law arbitrations. For example, Crawford points to the NAFTA tribunal Archer Daniels v. Mexico which took "as an authoritative statement of customary international law on countermeasures the position of the International Court of Justice, as confirmed by the ILC Articles." *See* CRAWFORD, *supra* note 61, at 294.

71. See McIntyre, supra note 20 (analyzing these cases in this context).

72. Gábor Baranyai & Gábor Bartus, Anatomy of a Deadlock: A Systemic Analysis of Why the Gabčikovo–Nagymaros Dam Dispute is Still Unresolved, 18 WATER POL'Y 39, 40 (2016).

^{63.} MARK E VILLIGER, COMMENTARY ON THE 1969 VIENNA CONVENTION ON THE LAW OF TREATIES 740-41 (2009).

^{65.} FARD, *supra* note 23, at 87.

^{66.} CRAWFORD, supra note 61, at 686.

^{67.} ARSIWA, supra note 58, at art. 49, 50, 51, 53.

Czechoslovakia then altered its plans to work on the so-called Variant C so that the Gabčíkovo section of the dam could operate independently. After the separation of Czechoslovakia into two states, the dam fell under the control of Slovakia.⁷³ Given heightened tensions, the dispute was eventually submitted to the ICJ. In its decision, the Court determined that Hungary was not entitled to suspend the 1977 treaty. Nor was it entitled to suspend the 1989 works since, in 1992, when Hungary notified Czechoslovakia of its intent to terminate the treaty, there had not yet been a material breach as Variant C was only under construction and had not been put into operation.⁷⁴ Furthermore, the Court determined that Czechoslovakia was entitled to proceed with Variant C, but was not entitled to put it into operation as this would result in diverting a large portion of the Danube waters.⁷⁵ Although Slovakia argued its implementation of Variant C was a countermeasure against breach by Hungary, the ICJ argued that it did not meet the test of proportionality required for countermeasures since putting Variant C into operation would unilaterally control the flow of water and thus deprive Hungary of its equitable and reasonable portion of the shared waters.⁷⁶ Ultimately, both states were ordered to return to negotiations in good faith and to pay the other state compensation for the wrongs done. It was noted, however, that their competing claims for compensation could nullify the other, if they so agreed.77

According to the 1858 Treaty between Costa Rica and Nicaragua, the border between the two countries was to run along the Costa Rican side of the San Juan River while still providing Costa Rica with rights of navigation for commerce. The validation of the treaty by U.S. President Grover Cleveland in 1888 confirmed that the boundary line began at the mouth of the San Juan River and laid the foundation for notification of certain works between the two countries. In 2010, Nicaragua began dredging the San Juan to improve navigability while also sending some military personnel to the area. Subsequently, that same year Costa Rica submitted a dispute to the ICJ claiming that Nicaragua had invaded its territory and illegally constructed a channel; however, Nicaragua claimed that it was clearing an existing channel. In December 2010, Costa Rica began construction of a road in the border region of its own territory, but did not conduct an environmental impact assessment or the subsequent notification if said EIA had found a risk of significant transboundary harm. In 2011, however, Nicaragua submitted a dispute against Costa Rica claiming that construction of the road had resulted in transboundary harm.⁷⁸ In its decision, the ICJ determined that Nicaragua's dredging would not risk significant transboundary harm, and so did not require an environmental impact assessment (EIA), and that there was no binding obligation between the parties to notify.⁷⁹

77. See id. at ¶¶ 140, 152-53.

^{73.} Id. at 40-43.

^{74.} See Gabčíkovo-Nagymaros Project (Hung./Slovk.), Judgement, 1997 I.C.J. No. 692 ¶¶ 23, 59, 78-79 (Sept. 25).

^{75.} See id. at ¶¶ 78-79, 87.

^{76.} See id. at ¶¶ 61, 69, 85.

^{78.} See Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicar.) & Construction of a Road in Costa Rica Along the San Juan River (Nicar. v. Costa Rica), Judgment, 2015 I.C.J. 665, ¶¶ 59-63 (Dec. 16).

^{79.} Id. at ¶¶ 63-64, 104, 108.

Nicaragua, however, was ordered to pay compensation to Costa Rica for any material damage due to its breach of Costa Rica's territorial sovereignty.⁸⁰ Although no harm had occurred, it was found that Costa Rica was obligated to determine if there was a risk of transboundary harm by conducting an EIA, and, if the road construction risked significantly harming Nicaragua, it would then have to notify and consult with them.⁸¹ Although Nicaragua requested compensation, the Court decided that its "declaration that Costa Rica violated its obligation to conduct an environmental impact assessment is the appropriate measure of satisfaction for Nicaragua."⁸²

Although the ICJ determined that there was a breach of the law in both cases, there is a limited application, as in the Gabčíkovo-Nagymaros case, or no application, as in the San Juan case, of available self-help measures. In the Gabčikovo-Nagymaros case, the parties resorted to measures of non-performance, suspension. and even countermeasures. However, such countermeasures were concluded to be unlawful, and the implementation of Variant C did not meet the criteria of proportionality so as to be considered a lawful countermeasure.⁸³ It is unclear, however, how this was determined. Given the lack of information within the judgement and a dissenting opinion,84 it appears that there was no in-depth analysis of the proportionality of such a measure.⁸⁵ It could, however, be interpreted to imply that a violation of Hungary's right to an equitable and reasonable share "almost necessarily involved a disproportionate breach" when compared to Hungary's violation of the 1977 treaty.86 In both cases, the parties were ordered to compensate the other, but in the end each was encouraged to forego their claim to compensation and continue with further negotiations. In the San Juan case, it was found that Costa Rica violated its obligation to conduct an EIA, but the Court's declaration that it breached international law was deemed enough.

Thus, although riparian states have attempted to implement self-help measures in response to a breach, their legal application in the law of transboundary waters has faced serious limitations. Furthermore, in instances where the application of self-help measures may be relevant we see great apprehension in doing so. In order to explain the difficulty in implementing self-help measures in transboundary waters, McIntyre⁸⁷ points to the indeterminacy of the primary rules of the law of international watercourses (equitable and reasonable use and the due diligence obligation not to cause significant harm) such that determining their breach, and thus attributing state

^{80.} Id. at ¶¶ 139-42.

^{81.} Id. at ¶¶ 146-62, 165-72, 217.

^{82.} Id. at ¶ 224.

^{83.} Gabčíkovo-Nagymaros Project (Hung./Slovk.), Judgement, 1997 I.C.J. No. 692, ¶ 85 (Sept. 25).

^{84.} In Judge Vereshchetin's dissenting opinion, he stated that he "firmly believe[s] that Czechoslovakia was fully entitled in international law to put into operation Variant C as a countermeasure so far as its partner in the Treaty persisted in violating its obligations." *Id.*

^{85.} Rene Lefeber, *The Gabčíkovo-Nagymaros Project and the Law of State Responsibility*, 6 LEIDEN J. INT'L L. 618 (1998).

^{86.} Johan G. Lammers, *The Gabčíkovo-Nagymaros Case Seen in Particular From the Perspective of the Law of International Watercourses and the Protection of the Environment*, 11 LEIDEN J. INT'L L. 287, 307 (1998).

^{87.} McIntyre, supra note 20.

responsibility, will be incredibly difficult.⁸⁸ Furthermore, although the procedural rules are binding, as illustrated in the above cases, their violation is not serious, often requiring compensation only.⁸⁹ Through the lens of reciprocity, however, such developments could be interpreted as the establishment of an area of "anti-reciprocity," an area of law that is not solely governed by reciprocal concerns.⁹⁰ This notion, found in humanitarian law, is in line with recent developments in the law of international watercourses, including the possible emergence of the duty to cooperate as an obligation *erga omnes*,⁹¹ an obligation "opposable to, valid against, 'all the world.'"⁹² In spite of the difficulty in assessing a norm's potential *erga omnes* character, the relationship between obligations *erga omnes* and the legal principle of reciprocity can offer a possible explanation to account for the limited practice regarding self-help measures in the law of international watercourses.

V. EXPLORING THE LIMITED USE OF SELF-HELP MEASURES IN THE CONTEXT OF RECIPROCITY AND THE LAW OF INTERNATIONAL WATERCOURSES

A. The Legal Principle of Reciprocity and Higher-Level Legal Norms

Whereas reciprocity aims to introduce fairness, its application is limited in some areas of law for the greater moral good, as is the case in humanitarian law. For example, after hostilities a state must release prisoners of war (POWs) even if the enemy state has failed to do so.⁹³ Furthermore, a state cannot target an enemy state's cultural heritage, even if the enemy state has targeted its own.⁹⁴ Reflecting the "humanisation"⁹⁵ of humanitarian law, such a shift came about because the focus of the legal regime moved towards the protection of individuals, not just the interests of states.⁹⁶ Of course it would be "fair" not to release POWs after hostilities have ceased if the enemy has also not done so, but from a moral perspective this immediately appears to be wrong. This trend "marks the translation into legal norms of the 'categorical imperative" type, where an agent ought to fulfill their obligations whether or not others do so.⁹⁷ Such norms, referred to as obligations *erga omnes*, in some ways no longer follow a reciprocal structure of corresponding rights and duties.

^{88.} Id. at 341, 364-65.

^{89.} McIntyre, supra note 10, at 136.

^{90.} MARK OSIEL, THE END OF RECIPROCITY: TERROR, TORTURE AND THE LAW OF WAR 62-64 (2009).

^{91.} See generally Patricia Wouters & A Dan Tarlock, *The Third Wave of Normativity in Global Water Law: The Duty to Cooperate in the Peaceful Management of the World's Water Resources: An Emerging Obligation Erga Omnes?*, 23 J. WATER L. 53 (2013).

^{92.} See ERGA OMNES, ENCYCLOPEDIC DICTIONARY OF INT'L LAW (3d ed. 2009).

^{93.} OSIEL, *supra* note 90, at 62.

^{94.} Id.

^{95.} Prosecutor v. Kupreškić et al., Case No. IT-95-16-T, Judgment, ¶ 518 (Int'l Crim. Trib. for the Former Yugoslavia Jan. 14, 2000).

^{96.} Id. ¶ 518.

^{97.} Id.

First clearly identified in the *Barcelona Traction Case*,⁹⁸ obligations *erga omnes* establish "rules which, if violated, give rise to a general right of standing – amongst all States subject to those rules – to make claims."⁹⁹

Given that international law can be conceptualized as a collection of bilateral rights and duties,¹⁰⁰ the establishment of an obligation erga omnes involves a two-step process including the establishment of a rule and the "creation of additional bilateralizable rights and obligations."101 This network of rights and obligations confers standing such that "all States can be held to have a legal interest in their protection."102 As such, an obligation erga omnes would permit states with standing to invoke the responsibility of the violating state even if they are a noninjured state. Although we can understand obligations erga omnes to be a vast series of reciprocal rights and duties, their enforcement is not operationalized through reciprocity. Instead, such obligations have been altered from one which works on a bilateral, quid pro quo basis between states to one which is non-bilateralizable, ¹⁰³ placing limitations on the application of self-help measures. Although retorsion would not be limited since such acts are lawful, this would place certain limitations on non-performance, suspension/termination as well as countermeasures. In terms of non-performance and suspension/termination of a provision or treaty, Article 60(1)-(3) of the VCLT permits states to suspend or terminate a treaty upon a material breach.¹⁰⁴ Article 60(5), however, precludes such suspension regarding provisions that relate to the protection of the "human person in treaties of a humanitarian character."105 Countermeasures also face limits when related to obligations erga omnes, as ARSIWA, Article 50(1) prohibits the use of countermeasures that affect human rights or humanitarian obligations.¹⁰⁶

^{98.} CHRISTIAN J. TAMS, ENFORCING OBLIGATIONS ERGA OMNES IN INTERNATIONAL LAW 103 (James Crawford & John S. Bell eds., 2005); see also Barcelona Traction, Light and Power Company, Limited (Belg. v. Spain), Judgment, 1970 I.C.J 3, ¶ 33 (Feb. 5) (Obligations erga omnes were first clearly mentioned in the Barcelona Traction Case, where it states that "an essential distinction should be drawn between the obligations of a State towards the international community as a whole, and those arising vis-à-vis another State in the field of diplomatic protection. By their very nature the former are the concern of all States. In view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations erga omnes." Prior to the Barcelona Traction case the term was used to describe an erga omnes character i) in relation to objective regimes, ii) in a general sense referring to "all legal positions imbued with objective validity or opposability," iii) concerning international legal personality, and iv) the erga omnes effects of international judgments).

^{99.} Michael Byers, Conceptualising the Relationship between Jus Cogens and Erga Omnes Rules, 66 NORDIC J. INT'L L. 211 (1997).

^{100.} See Pauwelyn, supra note 24, 908-10.

^{101.} Byers, supra note 99, at 233.

^{102.} Barcelona Traction, Light and Power Company, Limited (Belg. v. Spain), Judgment, 1970 I.C.J 3, ¶ 33 (Feb. 5).

^{103.} FARD, *supra* note 23, at 57.

^{104.} VCLT, supra note 57, at 346.

^{105.} Id.

^{106.} For a typology of the various obligations within international law including obligations erga omnes and their effects, *see* Pauwelyn, *supra* note 24, at 923-24.

B. The Duty to Cooperate as a Potentially Emerging Obligation Erga Omnes and its Content

In his analysis, Maurizio Ragazzi identified five common characteristics of obligations erga omnes. Although the characteristics do not necessarily entail an obligation erga omnes, they act as a framework to assist in identifying potential erga omnes obligations. Accordingly, he found that obligations erga omnes are: 1) narrowly defined, often 2) negative obligations which 3) include obligations or duties that are 4) derived from general rules which are jus cogens norms that are widely endorsed in treaty practice, and 5) which are in line with political objectives that reflect moral values.¹⁰⁷ Given "the global nature of water resources and its unique and essential importance to life on earth," Wouters and Tarlock contend that the duty to cooperate in transboundary waters passes these tests and is arguably an emerging obligation erga omnes.¹⁰⁸ The obligation they propose, that "states shall not use their waters in ways that do not take into account the interests of others," is a narrowly defined negative obligation that, when analysed reciprocally, provides the duty to take others into consideration as well as the right to have their interests taken into consideration.¹⁰⁹ Finally, they note that such a duty is universal in nature as the necessity for water cooperation emerges from a moral imperative illustrated by increased focus on the communal aspects of water management¹¹⁰ and is universal given its inclusion in a series of documents including the UN Charter,¹¹¹ the UN Principles of the Friendly Relations and Cooperation Among States,¹¹² the UN Resolution on the Right to Water and Sanitation,¹¹³ among others.¹¹⁴

Although a complete analysis of this argument is beyond the scope of this article, if the duty to cooperate were emerging as an obligation *erga omnes* then this would imply that even though cooperation can be operationalized and can take on a reciprocal structure such as the various procedural rules set out in the UNWC, cooperation itself is no longer reciprocal. Thus, even if your neighbour chooses not to fulfill their obligations under the duty to cooperate by not acting towards the collective mutual benefit, you cannot reciprocate and ultimately aim to make them worse off. Furthermore, as an obligation *erga omnes* the duty goes beyond state-to-state relations and is owed to the entire international community as a whole. It thus "precludes states from using their water resources in ways that are not in the interests of the global community and the world ecosystems."¹¹⁵ To this Wouters and Tarlock add three corollary duties associated with this emerging obligation. They include:

115. Id. at 64.

^{107.} MAURIZIO RAGAZZI, THE CONCEPT OF INTERNATIONAL OBLIGATIONS ERGA OMNES 132-33 (Ian Brownlie ed., 2002).

^{108.} Wouters & Tarlock, supra note 91, at 58.

^{109.} Id.

^{110.} See The River Oder Case, Territorial Jurisdiction of Int'l Comm'n of River Oder (U.K. v. Pol.), 1929 P.C.I.J. (ser. A) No. 23 (Sept. 10).

^{111.} U.N. Charter pmbl. (illustrating a clear commitment of UN states to cooperate).

^{112.} G.A. Res. 2625 (XXV) (Oct. 24, 1970).

^{113.} G.A. Res. 64/292, ¶ 1-2 (Aug. 2, 2010).

^{114.} For a full version of their argument, see Wouters & Tarlock, supra note 91, at 54-65.

No state has a right to develop its waters without taking into account the interests of other watercourse States.
The duty to cooperate in the peaceful management of the world's water resources shall not be compromised by any state.
The human right to water and sanitation shall not be compromised by any state.

From these duties, Wouters and Tarlock provide two examples of how this may function. First, unilateral development in violation of the erga omnes obligation would violate the principle of equitable and reasonable use. Second, the appropriate remedy for an injured state by such unilateral development may entail the "removal or significant modification of the project."¹¹⁷ Although the duty to cooperate may provide the impetus for the use of various self-help measures so as to ensure such cooperation, as earlier mentioned, its potential ascendance as an obligation erga omnes provides various limitations to such practices. Grounded in the human right to water, which aims to provide a baseline of protection for individuals, it is apparent that the duty to cooperate refocuses international water law towards the human individual. This humanization is part of a growing consensus surrounding the connections between the law of transboundary waters and the human right to water.¹¹⁸ Although often discussed from a state-to-state perspective, a lack of cooperation concerning transboundary waters will have dramatic impacts on the individual, not only through a lack of water, but through various social, economic and environmental impacts. As such, various rules and principles within international water law help to ensure access to water by these groups and minimize these negative impacts. This primarily falls onto the substantive principles of equitable and reasonable use and the due diligence obligation not to cause significant harm; however, given that they support these substantive rules, countermeasures concerning the procedural rules may also face limitations.

C. The Effects on the Implementation of Self-Help Measures in the Law of International Watercourses

If Wouters and Tarlock are correct and the duty to cooperate is emerging as an obligation *erga omnes*, then this would provide some explanation as to the limited application of self-help measures in this area of international law. Given the importance of water for life and in line with the corollary duties of the duty to cooperate, certain provisions in the law of international watercourses possess a "humanitarian" character and would arguably fall within the aforementioned restrictions to non-performance, suspension/termination, and countermeasures. Nonperformance of specific, correlating duties could be legal so long as it does not impact provisions of a humanitarian nature.¹¹⁹ Thus, it would likely be legal for states

^{116.} Id.

^{117.} Id.

^{118.} Christina Leb, *The Right to Water in a Transboundary Context: Emergence of Seminal Trends*, 37 WATER INT'L 640 (2012); Owen McIntyre, *Water, Law and Equity, in* THE HUMAN FACE OF WATER SECURITY 45, 46 (David Devlaeminck et al. eds., 2017); Paulo Canelas de Castro, *The Evolution of International Water Law*, 10 INT'L J. SUSTAINABLE DEV. PLAN. 894, 894-96 (2015).

^{119.} VCLT, supra note 57, at art. 60.

to respond in kind if their riparian neighbour were to violate select procedural provisions. However, it would almost certainly be considered illegal to respond in kind to violations of equitable and reasonable use or the due diligence obligation not to cause significant harm as such duties arguably protect the human individual. Similarly, the suspension or termination of a treaty in whole or in part is also likely to be legal, so long as those states continue to abide by the customary rules of equitable and reasonable use and the due diligence obligation not to cause significant harm. Although these restrictions primarily relate to the substantive rules, the non-performance or suspension of provisions regarding the procedural rules including prior notification, consultation, and information sharing may also face restrictions. Although their immediate suspension may not impact the human individual, such obligations are fundamental in upholding the substantive rules. Thus, a protracted non-performance or suspension of these provisions will make it difficult for states to maintain their compliance with equitable and reasonable use as well as the due diligence obligation not to cause significant harm.

The use of countermeasures, peaceful actions that are themselves unlawful but adopted towards the non-complying state to induce compliance, will also face limits in relation to their content and application. Although extremely unlikely to be utilized as a countermeasure, limiting water access to a neighbouring state in order to induce compliance will face limits as it will most certainly impact the human rights of citizens in neighbouring riparian states and is extremely unlikely to meet the test of proportionality. States could do so intentionally,¹²⁰ but such restrictions of water supply are more likely to come about as unintentional side effects of development that do not fit within the cooperative framework of the law of international watercourses. In line with this approach, Slovakia's implementation of Variant C was found to be unlawful as it violated Hungary's right to an equitable and reasonable share of the shared water resource.¹²¹ Furthermore, given the interconnectivity of shared water systems, such water-based measures are likely to have collateral impacts, particularly in upstream/downstream situations that would infringe upon the requirement that such measures be directed at the violating state.¹²² Although such water-based measures would be unlawful, this does not leave states unable to resort to countermeasures. Given that countermeasures need not relate to the violated corresponding duty, states may be able to implement them by suspending their treaty obligations in related sectors, such as energy, trade, etc. in order to bring a state back into compliance. While the implementation of countermeasures in

^{120.} Instances of such actions are extremely rare and arguably unlikely to ever be used as a countermeasure designed to induce compliance and ensure future cooperative relations. For example, in 1947 India cut off water to Pakistan via select canals at the height of a dispute, ultimately resulting in the establishment of the Dominion Accords. If carried out today, even if such actions were carried out as a countermeasure, they almost certainly would not meet the test of proportionality and necessity, nor would they abide by the restrictions on countermeasures found in ARSIWA, Article 50(1). ARSIWA, *supra* note 58, at art. 50. For information on this conflict, *see* Ashok Swain, *Diffusion of Environmental Peace? International Rivers and Bilateral Relations in South Asia, in* SOUTH ASIA IN THE WORLD: PROBLEM SOLVING PERSPECTIVES ON SECURITY, SUSTAINABLE DEVELOPMENT AND GOOD GOVERNANCE 248, 252 (Ramesh Thakur & Oddny Wiggen eds., 2004).

^{121.} See Gabčíkovo-Nagymaros Project (Hung./Slovk.), Judgment, 1997 I.C.J. No. 692, ¶¶ 81, 82, 152 (Sept. 25).

^{122.} ARSIWA, supra note 58, at art. 49.

related areas may avoid collateral impacts, doing so legally may prove extremely difficult as it is easier to prove the necessity and proportionality of a countermeasures which more closely resemble the original breach.¹²³ If, for example, a state were to seize the assets of the violating state that are under its jurisdiction in response to a breach concerning its water agreements, then it may be difficult to prove that such countermeasures are both proportionate to the violation and necessary to bring the violating state back into compliance. Suspending provisions or agreements regarding, for example, hydropower production, however, may more easily pass these tests as it is more closely related to the violations of transboundary water agreements.

Although states may, under the above-mentioned restrictions, legally resort to countermeasures, they may prove unhelpful to many. As Crawford states, "[b]ilateral countermeasures strongly favour states that are more powerful," and thus "if weaker states are forced to resort to bilateral countermeasures without the support of interested third party states, serious breaches may go unremedied."¹²⁴ In transboundary basins this could imply that weaker states would find themselves having to accept an allocation or harm that is unjust, and if the violating state does not consent to reciprocal dispute settlement mechanisms then it may be without remedy. In order to rectify this situation, Article 49(1) of an earlier version of the Draft Articles on State Responsibility permitted "any state other than the injured state" to invoke responsibility if the violated obligation is: a) "owed to a group of States including that State, and is established for the protection of a collective interest," or b) if "the obligation breached is owed to the international community as a whole."125 In line with this, Article 54(1) permitted that these third party states "may take countermeasures at the request and on behalf of any State injured by the breach."126 As states, at the time, agreed that such measures "had only a doubtful basis in international law and would be destabilizing,"127 neither of these articles made it to the final draft in that form.¹²⁸ Although not present in the Draft Articles,

^{123.} See id. at art. 59; see, e.g., Case Concerning Air Serv. Agreement (U.S. v. Fr.), 18 R.I.A.A. 417, 433 (Arbitral Trib. 1978). This was first established in the Air Services Agreement Arbitration (U.S. v. France) which concerned the use of countermeasures in the same area, air services. The award stated that "all counter-measures must, in the first instance, have some degree of equivalence with the alleged breach," thus the further away in content from the original violation the more difficult it will be to establish the proportionality and necessity of the countermeasure. This sentiment was echoed by Crawford in his commentary on the Draft Articles on State Responsibility. ARSIWA, *supra* note 58, at art. 51.

^{124.} CRAWFORD, supra note 61, at 704.

^{125.} Int'l Law Comm'n, Rep. on State Responsibility of Its Fifty-Second Session, U.N. Doc. A/CN.4/L.600, at art. 49 (2000) (Draft Articles Provisionally Adopted by the Drafting Committee on Second Reading).

^{126.} Id. at art. 54.

^{127.} James Crawford et al., *The ILC's Articles on Responsibility of States for International Wrongful Acts: Completion of the Second Reading*, 12 EUR. J. INT'L L. 963, 981 (2001).

^{128.} ARSIWA, *supra* note 58, at art. 48. The final version includes Article 48, *Invocation of responsibility by a State other than the injured State* which permits states other than the injured state to invoke responsibility of breaches for obligations that are owed to a group that includes that state, or of obligations owed to the international community as a whole. *Id.* at art. 54. Article 54, *Measures taken by States other than an injured State*, then goes on to state that these states may take "lawful measures against that State to ensure cessation of the breach and reparation in the interest of the injured State." *Id.* at art.

they illustrate a potential path forward for states who, on their own, would be unable to enact effective countermeasures and would therefore, be required to live with such unfairness. This path would, however, require significant development of the law in this area and may be undesirable as it has the potential to increase the scope of the dispute.

If the law of state responsibility were to develop in favour of collective measures as found in the earlier draft of the ARSIWA, then there are two pathways in which third party countermeasures could be implemented. First, if the duty to cooperate were to be firmly established as an obligation erga omnes, then, under Article 49(1b), it may be the case that third-party states could invoke the responsibility of the violating state and take countermeasures.¹²⁹ As an erga omnes obligation, the duty to cooperate would be owed to the international community as a whole, permitting others to take countermeasures at the request of the weaker state, thus providing a remedy to the situation. Second, even if the erga omnes status of the duty to cooperate is not accepted, then it may still be possible for select third party states to invoke state responsibility.¹³⁰ As shared water resources are part of a collective interest and are often governed under a multilateral legal framework, then, according to Article 49(1a), states within that framework may also be able to invoke state responsibility. Without further legal development in both the law of state responsibility and the law of international watercourses, however, such measures are unlikely to be utilised.

VI. CONCLUSION

The legal principle of reciprocity guides the application and interpretation of international law so as to provide corresponding rights and duties, distributing advantages and disadvantages and providing a sense of fairness. Given the importance of transboundary waters as a vital resource, their joint management is of great importance and provides a strong reason for cooperation. Within the law of transboundary waters, such cooperation is illustrated through the general duty to cooperate as well as the substantive and procedural rules which govern transboundary waters. Using the UNWC as an authoritative text which provides a codification and progressive development of the customary rules governing transboundary waters, this article analysed the duty to cooperate, procedural rules and dispute settlement mechanisms through the lens of reciprocity. Such rules follow a reciprocal structure of equal rights and duties for all parties, ensuring a process of cooperation which is fair and balanced. Aiming to find peaceful solutions through consultation, the procedural rules act as a method of dispute avoidance. They are, however, not always successful and when disputes arise states can, given mutual consent, pursue a series of diplomatic and judicial means to settle their dispute.

Within general international law, states have the ability and legal right to resort to a variety of reciprocity-based self-help measures when there has been a violation of the norms of international law. Although the importance of

^{54, ¶ 7.} The use of the word "lawful" does not preclude the use of countermeasures, but leaves this issue open for further development.

^{129.} Int'l Law Comm'n, *supra* note 125.

^{130.} Id.

transboundary water resources provides the impetus for cooperation and compliance, there is limited practice surrounding such measures within international water law and even a tendency to shy away from such adversarial and confrontational mechanisms. Instead, courts often refer the parties to continued negotiations in good faith, as was seen in the Gabčikovo-Nagymaros and San Juan cases. Although other authors have pointed to the indeterminacy of the substantive rules or the normative nature of the procedural rules to explain this, this article looked to the duty to cooperate and the possibility that it is an emerging obligation erga omnes to provide insight into the limitations such measures will face. Such obligations are no longer bilateralizable as they are not owed to individual states but to the international community. As a potential emerging erga omnes obligation that is intrinsically connected to the human aspects of water, it signals the humanisation of international could water law. Although states enact non-performance and suspension/termination, it has been illustrated that such measures cannot violate the substantive rules of equitable and reasonable use, and the due diligence obligation not to cause significant harms as they arguably have a humanitarian character. Furthermore, although states may suspend their performance of various procedural rules, their protracted non-performance or suspension is likely to face these humanitarian limitations, as they are fundamental in upholding the substantive rules of international water law.

Although water-based countermeasures are almost certainly illegal, given the interconnectivity of transboundary water resources, countermeasures in other areas may be pursued. It may, however, be difficult to prove their legality as they must pass the tests of proportionality and necessity. Although they may be legal, countermeasures have been characterised as favouring the powerful over the weak, and, without the support of third parties, weaker states are unlikely to find a remedy through such reciprocal measures. Given that the duty to cooperate is a potentially emerging obligation *erga omnes*, it may be possible for third-party states to invoke state responsibility on their behalf; however, this would require significant developments in both the law of international watercourses and the law of state responsibility.