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Robert Esposito robert.t.esposito@gmail.com

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### THE ICJ AND THE FUTURE OF TRANSBOUNDARY HARM DISPUTES: A PRELIMINARY ANALYSIS OF THE CASE CONCERNING AERIAL HERBICIDE SPRAYING (ECUADOR V. COLOMBIA)

Robert Esposito<sup>A1</sup>

August 2010

<sup>&</sup>lt;sup>A1</sup> Dartmouth College, B.A. 2007, Wake Forest University School of Law, J.D. 2010. The author would like to especially thank Professor John Knox for his invaluable comments throughout the writing and editing processes, and to his family for their continued support.

### **Table of Contents**

I.	Introduction					
II.	Background to the Aerial Herbicide Spraying Case					
	A.		History of "Plan Columbia" and Foreign ervention	7		
		i.	Plan Colombia in Columbia	8		
		ii.	United States Foreign Aid	9		
	В.	Pla	n Colombia and Transboundary Harms 1	1		
		i.	Transboundary Harm to Humans 1	4		
		ii.	Transboundary Harm to Animals and Crops 1	7		
		iii.	Transboundary Harm to the Environment 1	8		
	C.	Fai	iled Negotiations between Ecuador and Colombia . 19	9		
III. ICJ Jurisprudence in International Environmental Law						
	A.	The	e First Two "Waves" of ICJ Jurisprudence	1		
		i.	Corfu Channel and the Nuclear Tests Case 2	21		
		ii.	The Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons and the Gabcikovo-Nagymaros Case	2		
	В.		e Foundation for Future Transboundary Harm igation	5		
IV. A Preliminary Analysis of the Case Concerning Aerial						
	Herbicide Spraying					
	A.	The	e ICJ's Jurisdiction Over the Dispute	6		
		i.	American Treaty on Pacific Settlement of Disputes (Pact of Bogotá) 2	7		
		ii.	1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988 UN Drug Convention) 2	7		
	В.	Ecu	uador's Transboundary Pollution Claim	9		

		i.	Activities Not Prohibited by International Law 31
		ii.	Territory, Jurisdiction and Control 31
		iii.	Risk of Causing Significant Transboundary Harm
		iv.	Physical Consequences
		v.	The Draft Articles "Harmonious Ensemble" of Substance and Procedure
			1. Article 3 and Substantive Obligations 36
			2. Articles 9 and 10 and Procedural Obligations $\dots$ 36
	C.	Co	lombia's State of Necessity Defense 40
		i.	The Modern Necessity Doctrine 41
		ii.	The ICJ and "Essential Interests" $\ldots \ldots 42$
		iii.	Analyzing Colombia's State of Necessity Defense . $43$
			1. Essential Interests" 43
			2. "Grave and Imminent Peril" 44
			3. "Only Means Available" 46
			4. The Balancing Requirement 47
V.	Co	nclu	usion

#### I. INTRODUCTION

Colombia has long struggled with the fact that it is the world leader in coca (*Erythroxylum coca*) cultivation and cocaine production. The leading strategy in combating this harsh reality has been the large-scale aerial spraying of coca crops with chemical herbicides. In 1999, with financial aid from the United States, Colombia's then-President Andres Pastrana Arango adopted "Plan Colombia," a counter-narcotics plan emphasizing the use of aerial herbicides along Colombia's southwest border, which lies adjacent to Ecuador's Esmeraldas, Carchi and Sucumbio provinces.<sup>1</sup>

Glyphsoate is the herbicide of choice for Plan Colombia sprayings. While there is conflicting scientific data regarding the adverse health effects of glyphosate, it is typically used in combination with surfactants – substances that increase the herbicide intake in plants – that may be more toxic than glyphosate itself.<sup>2</sup> Ecuador alleges in its Application Instituting Proceedings (hereinafter "Application") that Colombia used a polyethoxylated tallowamine (hereinafter "POEA"), namely Cosmoflux 411F, as a surfactant in its herbicide spray, producing a more toxic mixture than using glyphosate alone.<sup>3</sup>

Ecuador alleges widespread environmental damage has occurred as a result of this fumigation regime.<sup>4</sup> Since aerial fumigations began under the auspices of Plan Colombia in 2000, there have been numerous reports of herbicides drifting or being directly dispersed on Ecuadorian territory.<sup>5</sup> Residents of Ecuador reported a multitude of adverse health effects, including fevers, diarrhea, intestinal bleeding, and nausea, as well as

<sup>&</sup>lt;sup>1</sup> Application Instituting Proceedings (Ecuador v. Colom.), 2008 I.C.J. Pleadings 10 (Mar. 31, 2008), available at http://www.icj-cij.org/docket/files/138/14474.pdf (last visited September 7, 2009) [hereinafter Application].

<sup>&</sup>lt;sup>2</sup> Application, *supra* note 1, para. 22.

 $<sup>^{3}</sup>$  Id.

 $<sup>^{4}</sup>$  Id.

<sup>&</sup>lt;sup>5</sup> *Id.* para. 13.

skin and eye problems.<sup>6</sup> Agricultural crops and vegetation, including yucca, corn, rice, plantains, cocoa, coffee and fruit, were allegedly devastated in the affected regions.<sup>7</sup> Similar claims were made with respect to the indigenous wildlife; reports of poultry, fish, dogs, horses, cows and other animals becoming ill and dying are all cited in Ecuador's Application.<sup>8</sup>

Furthermore, Ecuador recounts several attempts to reconcile this transboundary dispute with Colombia. On July 24, 2000 a note was sent to the Colombian Embassy from the Ministry of Foreign Affairs of Ecuador expressing concern over "grave impacts on human health and the environment, with possible repercussions for Ecuador."<sup>9</sup> A ten kilometer (10 km) "buffer zone" along the shared border was contemplated in 2001, rejected by Colombia on September 23, 2003,<sup>10</sup> established for a brief period of time in December 2006, but dissolved soon thereafter.<sup>11</sup> Joint scientific committees, including both Ecuadorian and Colombian officials, formed in 2003, 2005 and 2007. All of the committees ended without agreement or consensus on any of the transboundary issues.<sup>12</sup>

On March 31, 2008, Ecuador seized the International Court of Justice (hereinafter "ICJ") of a dispute between itself and Colombia concerning Colombia's alleged aerial spraying of toxic herbicides at locations near, at and across the border with Ecuador. Ecuador claims that:

Colombia has violated Ecuador's rights under customary and conventional international law. The harm that has occurred, and is further threatened, includes some with irreversible consequences, indicating that Colombia has failed to meet its obliga-

<sup>&</sup>lt;sup>6</sup> Application, supra note 1, para. 14.

 $<sup>^{7}</sup>$  Id.

 $<sup>^{8}</sup>$  Id.

<sup>&</sup>lt;sup>9</sup> *Id*. para. 28.

<sup>&</sup>lt;sup>10</sup> *Id.* para. 30.

 $<sup>^{11}</sup>$  Id.

<sup>&</sup>lt;sup>12</sup> Application, supra note 1, para. 33.

#### tions of prevention and precaution.<sup>13</sup>

Ecuador requests the ICJ declare the following: first, that Colombia has violated obligations under international law as a result of transboundary harms; second, indemnification for any loss or damage caused by Colombia's internationally unlawful act, particularly death or injury to any persons, loss or damage to property or livelihood, environmental damage and depletion of natural resources; and third, costs of monitoring to identify and monitor future risks to public health.<sup>14</sup> By Order of May 30, 2008, the ICJ fixed April 29, 2009 as the time limit for filing a Memorial by Ecuador, and March 29, 2010 as the time limit for filing a Counter-Memorial by Colombia.<sup>15</sup>

As this case is still in its preliminary stages, this article concerns itself with two main issues: first, the historical and political background to the dispute; second, taking Ecuador's allegations as true, this article focuses on the merits of Ecuador's transboundary pollution claim, and Colombia's best possible defense. Part II tackles the former, and breaks down Ecuador's claim by separating the transboundary harms into three categories: harm to humans, harm to animals and crops, and harm to the environment. Part III of this article, recognizing that the ICJ will draw on myriad sources in rendering its opinion in this case, nevertheless limits itself to a brief overview of prior ICJ jurisprudence in the field of international environmental law, drawing largely from the work of Dr. Jorge E. Viñuales.

From this admittedly limited vantage point, Part IV tackles the second issue, beginning with a brief discussion of the ICJ's jurisdiction over the dispute, and then arguing for the elevation of the International Law Commission's 2001 Draft Articles on Prevention of Transboundary Harm from Hazardous Activities to the status of customary international law. Taking Ecuador's allegations as true, this article finds all four criteria necessary for a valid transboundary harm claim under

<sup>&</sup>lt;sup>13</sup> *Id*. para. 37.

<sup>&</sup>lt;sup>14</sup> *Id.* para. 38.

<sup>&</sup>lt;sup>15</sup> Case Concerning Aerial Herbicide Spraying (Order of May 30, 2008), *available at* http://www.icj-cij.org/docket/files/138/14629.pdf (last visited September 7, 2009) [hereinafter May Order].

Article 1 of the Draft Articles on Prevention present in Ecuador's Application. Consequently, it contemplates how the ICJ might apply the substantive and procedural aspects of Articles 3, 9 and 10 to this dispute. In turning to Colombia's potential defenses, this article suggests Colombia's best defense is to claim a state of necessity, excusing any violations of international law to protect its essential interest in maintaining domestic peace, and offers an analysis of such a defense.

Part V concludes by acknowledging the great potential the *Case Concerning Aerial Herbicide Spraying* possesses to advance international environmental law and the ICJ's unique role in that process. Like many international disputes, this case raises a multitude of issues beyond simply Ecuador's environmental claims, such as potential third-party liability and Colombia's unauthorized unilateral uses of force in Ecuadorian territory. However, this article stresses the unprecedented opportunity for the ICJ to examine the substantive and procedural aspects of a State's *sic utere* obligation of prevention, and to balance two competing essential interests in the event Colombia adopts a state of necessity defense. These two issues have the potential to shape the future of transboundary pollution litigation and the body of international environmental law for the 21<sup>st</sup> century.

### II. BACKGROUND TO THE AERIAL HERBICIDE SPRAYING CASE

#### A. A History of Plan Columbia and Foreign Intervention

In its Application, Ecuador points out that Colombia's aerial spraying regime to eliminate illegal narcotics production and trade has been roundly criticized for some time. <sup>16</sup> In fact, over two decades ago Colombia's own National Health Institute

 $<sup>^{16}</sup>$  Application, supra note 1, para. 10 (citing Sampedro v. Ministry of Env't, Administrative Tribunal of Cundinamarca, Colombia, § 2(B), June 13, 2006, at 15).

advised against the use of any herbicides.<sup>17</sup> There is evidence showing Colombia has relied on aerial herbicide spraying as a counter-narcotic tactic as far back as the late 1970s.<sup>18</sup> Despite criticism from both home and abroad, Colombia reinvigorated its herbicide-spraying program in 1994, and again in 2000 under the "Plan Colombia" moniker with the help of the United States foreign aid funds.<sup>19</sup>

#### i. "Plan Colombia" in Columbia

"Plan Colombia" was a \$7.5 billion effort to simultaneously strengthen the Colombian government and combat the country's narcotics problem.<sup>20</sup> The focus of the anti-narcotics strategy for Plan Colombia was the "Push into Southern Colombia" which involved intense use of aerial herbicides.<sup>21</sup> The targets of Plan Colombia were the southern provinces, in particular Putumayo and Nariño. These Colombian provinces abut the northern Ecuadorian provinces of Sucumbios, Carchi and Esmeraldas.<sup>22</sup> It is not surprising, then, that Ecuador alleges the transboundary herbicide spraying began soon after the Plan Colombia fumigations commenced in 2000.<sup>23</sup>

For example, Ecuador alleges that in October 2000, the Ecuadorian hamlet of San Marcos in Carchi Province, home to the Awá, and the settlement of Mataje in neighboring Esmeraldas Province were sprayed by Colombian fumigation.<sup>24</sup> Additionally, Ecuador alleges that in January and February 2001, Colombia conducted a weeks-long fumigation campaign near

 $<sup>^{17}</sup>$  Id. The Colombia herbicide experts opposed aerial spraying of any herbicide, in particular, glyphosate. Because acute toxicity and mutagenic effects were unknown in humans, the experts concluded the proposed herbicide-spraying program was inadvisable "because it would be accepting human experimentation."

<sup>&</sup>lt;sup>18</sup> Sarah Peterson, *People and Ecosystems in Colombia: Casualties of the Drug War*, 6 INDEP. REV. 427 (2002) (*citing* PATRICK L. CLAWSON & RENSSELAER W. LEE III, CROP SUBSTITUTION IN THE ANDES, ONDCP (1993)).

<sup>&</sup>lt;sup>19</sup> See generally Peterson, supra note 18.

 $<sup>^{20}</sup>$  Id.

 $<sup>^{21}</sup>$  Id.

<sup>&</sup>lt;sup>22</sup> Application, *supra* note 1, para. 13.

 $<sup>^{23}</sup>$  Id.

 $<sup>^{24}</sup>$  Id.

San Francisco Dos in Sucumbios Province, consisting of daily fumigations from 6 a.m. to 4 p.m.<sup>25</sup> Ecuador's allegations correspond with a January 31, 2001 article published in the *New York Times*, in which the Colombian Army "claimed to have killed a quarter of all coca crops there [in southern Colombia] in the *last six weeks* (emphasis added),"<sup>26</sup> reportedly eradicating "45, 551 acres of coca"<sup>27</sup> by the end of January 2001. In all, Ecuador lists twelve instances in which its communities were harmed by Colombia's aerial spraying, spanning from October 2000 through January 2007.<sup>28</sup> These allegations beg the question: how did the Colombian government fund such a widespread aerial spraying program? The short answer is foreign aid.

#### ii. United States Foreign Aid

Under the Emergency Supplemental Act (2000), the United States allocated nearly \$1.1 billion in aid to Latin America to support counter-narcotics activities.<sup>29</sup> Of the \$1.1 billion, a majority of the funds were earmarked for Colombia. For example, sixty-million dollars (\$60,000,000.00) for the procurement, refurbishing, and support for UH-1H Huey II helicopters for the Colombian Army<sup>30</sup>; two-hundred thirty-four million dollars (\$234,000,000.00) for the procurement and support for UH-60 Blackhawk helicopters for use by the Colombian Army<sup>31</sup>; the loan of one light observation aircraft for counter-drug activities,<sup>32</sup> etc. The United States also allocated one-hundred eigh-

 $<sup>^{25}</sup>$  Id.

 $<sup>^{26}</sup>$  Juan Forero, No Crops Spared in Colombia's Coca War, N.Y. TIMES, Jan. 31, 2001, at A1.

 $<sup>^{27}</sup>$  Id.

<sup>&</sup>lt;sup>28</sup> Application, *supra* note 1, para. 17.

 $<sup>^{29}</sup>$  Emergency Supplemental Act, H.R. Res. 4425, 106th Cong., 114 Stat. 511, 570 (2000).

<sup>&</sup>lt;sup>30</sup> *Id.* at 572.

 $<sup>^{31}</sup>$  Id.

<sup>&</sup>lt;sup>32</sup> *Id.* at 571.

ty-four million dollars (\$184,000,000.00) for Department of Defense operations in support of the regional anti-narcotics efforts.<sup>33</sup> It is likely that these funds went towards, among other things, providing Colombian authorities with satellite maps to pinpoint the location of coca fields, and training Colombian Army battalions.<sup>34</sup>

With respect to Plan Colombia's main focus, the so-called "Push into Southern Colombia," the United States aid package allocated nearly four-hundred million dollars (\$400,000,000.00) "to support the Government of Colombia's objective to gain control of the drug producing regions of southern Colombia."<sup>35</sup> Of the nearly half a billion dollars directly allocated in support of Plan Colombia, only ten-million dollars (\$10,000,000.00) were earmarked for alternative development of the region, and fifteen-million dollars (\$15,000,000.00) were earmarked for temporary resettlement and employment of the anticipated flood of domestic refugees driven from their land as a result of the fumigation program.<sup>36</sup>

The United States foreign aid to Colombia reflected the American penchant for "supply-control" narcotics strategy. The theory behind supply-control is, to wit: destroying illicit crops will reduce drug availability, that lower availability will then drive up U.S. street prices, that higher prices will discourage consumption, thus resulting in a decrease of American drug users.<sup>37</sup> Supply-control strategies have been roundly criticized. Notably, Joy Wilson, Executive Director of the Washington Office on Latin America, in her 2006 testimony before the House International Relations Subcommittee on the Western Hemisphere stated, "[t]he supply-control strategies into which we have poured so many billions of dollars have patently failed to shrink drug availability."<sup>38</sup> Wilson points to the estimates of

<sup>&</sup>lt;sup>33</sup> Peterson, *supra* note 18.

<sup>&</sup>lt;sup>34</sup> Forero, *supra* note 26.

 $<sup>^{35}</sup>$  Emergency Supplemental Act, supra note 29; see also Peterson, supra note 18.

 $<sup>^{36}</sup>$  Peterson, supra note 18, at 429.

<sup>&</sup>lt;sup>37</sup> *Counternarcotics Strategies in Latin America*, 111th Cong (2006) (testimony of Joy Wilson, Executive Director, Washington Office on Latin America) [hereinafter Wilson Testimony].

 $<sup>^{38}</sup>$  Id.

areas under coca cultivation to support her position:

Despite record aerial spraying of over 130,000 hectares of coca crops in 2004, the total area under coca cultivation remained 'statistically unchanged' at 114,000 hectares, according to figures released by the Office of National Drug Control Policy (ONDCP) in March 2005... If the 2005 estimate for Colombia is in line with the 2003 and 2004 figures, then the area under coca cultivation in the Andes for 2005, according to the government's own estimates, will be roughly 179,000 hectares, only three (3) percent lower than the estimate for the year 2000, when Plan Colombia got under way.<sup>39</sup>

In addition to a mere three percent decrease in total area of coca cultivation through the first five years of Plan Colombia fumigations, Wilson also noted that coca growers may be increasing their coca leaf yields per hectare, rendering any small decrease in the total land under cultivation negligible.<sup>40</sup> Wilson also pointed to evidence showing that supply-control strategies led to a dramatic expansion in the areas where coca is grown in Colombia. As of 2006, "[c]oca [could] be found in at least 23 of the country's 32 provinces and is now often grown in smaller parcels, under shade, where it is harder to detect."<sup>41</sup> In asserting that the supply control policy advocated by the United States has led to dispersion of coca cultivation to new locations in Colombia, Wilson cites to the United Nations Office on Drugs and Crime (UNODC):

According to the UNODC, more than 60 percent of the coca fields detected in Colombia in 2004 were new, a finding that 'revealed the important mobility of coca cultivation in Colombia and the strong motivation of the farmers to continue planting coca' (emphasis added).<sup>42</sup>

It is not within the scope of this article to discuss whether the United States might be liable for any of the alleged harms

- $^{41}$  Id.
- $^{42}$  Id.

 $<sup>^{39}</sup>$  Id.

 $<sup>^{40}</sup>$  Id.

resulting from the sprayings. The aforementioned aid figures and the description of the supply-control strategy are included primarily to highlight the prodigious financial support Colombia enjoyed in conducting its fumigation campaign, and to underscore the significant and controversial role foreign aid played in influencing Colombia's domestic counter-narcotics policy over the past decade. While these facts may be ripe for inquiries into what liability, if any, the United States might face for the alleged environmental harms resulting from Plan Colombia sprayings, this article limits itself to an analysis of the dispute between Ecuador and Colombia and declines to consider third-party liability.

#### B. Plan Colombia and Transboundary Harms

As Ecuador makes clear in its Application:

This case concerns Colombia's aerial spraying of toxic herbicides at locations near, at and across its border with Ecuador. The spraying has already caused serious damage to people, to crops, to animals, and to the natural environment on the Ecuadorian side of the frontier, and poses a grave risk of further damage over time.<sup>43</sup>

For the purposes of this article, the following divides the available evidence with respect to transboundary harms into three categories: harm to humans, harm to crops and animals, and harm to the natural environment and ecosystem. However, before delving into an analysis of the various types of transboundary harms, it is first necessary to ascertain the effects of the particular chemicals used by Colombia in the sprayings. This process is made increasingly difficult, however, given the fact that Colombia has refused to disclose the exact chemical makeup of its herbicides.<sup>44</sup>

According to Ecuador's Application, Colombia has made clear that the primary ingredient in its herbicide brew is glyphosate (*N-phosponomethyl glycine*,  $C_6H_{17}N_2O_5P$ ), an isopropylamine salt used widely as a weed killer.<sup>45</sup> Glyphosate is "a

 $<sup>^{\</sup>rm 43}$  Application, supra note 1, para. 2.

<sup>&</sup>lt;sup>44</sup> Id. para. 19.

 $<sup>^{45}</sup>$  Id.

nonselective, broad-spectrum, systemic herbicide that is one the most widely used pesticides (by volume) in the world."<sup>46</sup> It inhibits an enzyme (*enolpyruvylshikimate phosphate synthase*) that is part of a plant's shikimate pathway. The result is "a prevention of the production of essential amino acids in any plant species, inhibiting plant growth."<sup>47</sup> In other words, glyphosate does not distinguish between illicit coca and other plants – it simply kills any plant it comes into contact with by preventing the production of necessary amino acids.

Glyphosate is often portrayed as relatively innocuous to humans and animals because they lack the shikimate pathway the herbicide targets in plants; however, the warnings on the product suggest otherwise.<sup>48</sup> Indeed, the warnings on glyphosate products call attention to the harmful effects the herbicide can have on humans upon contact with the eyes, if inhaled, or if swallowed, and explicitly states: "Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application."<sup>49</sup> While precautions are reportedly taken by Colombian Army soldiers after spraying the herbicide, there is no evidence to indicate that similar precautions are taken by the people living in the fumigated areas.<sup>50</sup>

Glyphosate is rarely used alone.<sup>51</sup> Typically, the herbicide is combined with other chemicals, known as surfactants, in an effort to increase efficiency by promoting greater intake

<sup>&</sup>lt;sup>46</sup> Laurel Sherret, *Futility in Action: Coca Fumigation in Colombia*, 35 J. OF DRUG ISSUES 151 (2005).

 $<sup>^{47}</sup>$  Id.

<sup>&</sup>lt;sup>48</sup> Application, *supra* note 1, para. 19.

<sup>&</sup>lt;sup>49</sup> *Id.* para. 20.

<sup>&</sup>lt;sup>50</sup> Forero, *supra* note 26. ("Because of the presence of rebels from the Revolutionary Armed Force of Colombia (FARC), the army must fly soldiers from two American-trained battalions before spraying herbicide from OVZ-10 and T-65 planes. *The soldiers later shower to cleanse themselves of any of the herbicide*, the military says (emphasis added))."

<sup>&</sup>lt;sup>51</sup> Application, *supra* note 1, para. 22.

through plant leaves.<sup>52</sup> Ecuador claims that the exact surfactant used in Plan Colombia sprayings has not been identified by the Colombian government, but reports have indicated that a polyethoxylated tallowamine ("POEA"), specifically Cosmo Flux 411F, has been included in Colombian herbicide mixtures.<sup>53</sup> Of particular concern is the fact that CosmoFlux 411F is manufactured by the Colombian company Cosmoagro, and is therefore not subject to strict environmental requirements, creating the potential for especially harmful herbicide mixtures.<sup>54</sup>

Despite reassurances from the Colombian government that the surfactants were within accepted ranges for use on food products, Imperial Chemical Industries ("ICI") – a British chemical manufacturer supplying one of the ingredients used in the manufacturing of Cosmo Flux 411F – discontinued supplving one of Cosmo Flux 411F's ingredients to Cosmoagro in 2001. ICI cited a lack of evidence of the effects of mixing the surfactant with glyphosate and a desire to disassociate itself with Colombia's spraying program as reasons for its decision.<sup>55</sup> Ecuador echoes ICI's concerns in its Application: "[t]he glyphosate/Cosmo Flux combination has not been subject to proper evaluations for safety to humans or even to animals."<sup>56</sup> With a firm background of the herbicide spray's chemical makeup now in place, this article turns to the different types of transboundary harm allegedly resulting from Plan Colombia's spraying program.

#### i. Transboundary Harm to Humans

In its Application, Ecuador uses the hamlet of San Francisco Dos as an example of harm caused to its citizens as a result of Plan Colombia fumigations. Specifically, Ecuador claims its citizens "developed serious adverse health reactions including fevers, diarrhea, intestinal bleeding, nausea and a

 $<sup>^{52}</sup>$  *Id*.

 $<sup>^{53}</sup>$  Id.

<sup>&</sup>lt;sup>54</sup> See Sherret, supra note 46.

<sup>&</sup>lt;sup>55</sup> Id.

<sup>&</sup>lt;sup>56</sup> Application, *supra* note 1, para. 23.

variety of skin and eye problems."<sup>57</sup> Ecuador also notes that children were particularly prone to these adverse reactions, citing two deaths in the days immediately following the initial sprayings.<sup>58</sup>

Ecuador's allegations regarding the deleterious effects on humans likely reflect a shift in the application of the supplyside counter-narcotics strategy. When the supply-side theory was conceived, larger industrial coca crops were the main targets of fumigation because they were the region's major coca cultivators. However, after Plan Colombia's increased fumigation efforts, the large industrial cultivation operations relocated to smaller *campesino* plots of land in the southern regions of Colombia.<sup>59</sup> As a result, coca cultivation is now sprinkled amongst indigenous Amazonian communities in the jungles of southern Colombia, putting more people at risk of direct and indirect spraying and simultaneously making coca cultivation harder to detect. Indeed, reports over the past decade indicate an increase in the number of sprayings near homes where coca plants are often interspersed with licit food crops.<sup>60</sup>

Colombia has blamed supporters of Colombian insurgent groups, such as the Revolutionary Armed Forced of Colombia (hereinafter "FARC"),<sup>61</sup> for the increase in health complaints in its southern provinces.<sup>62</sup> According to Colombian officials, these insurgents create false health complaints in an effort to protect areas used for coca cultivation from future fumigations.<sup>63</sup> However, in an area of Colombia where indigenous

<sup>62</sup> Sherret, *supra* note 46.

 $^{63}$  Id.

<sup>&</sup>lt;sup>57</sup> Id. para. 14.

 $<sup>^{58}</sup>$  Id.

<sup>&</sup>lt;sup>59</sup> Sherret, *supra* note 46.

 $<sup>^{60}</sup>$  Id.

<sup>&</sup>lt;sup>61</sup> For a more detailed discussion of the FARC and Colombia's unilateral use of force into Ecuador, see generally Frank M. Walsh, Rethinking the Legality of Colombia's Attack on the FARC in Ecuador: A New Paradigm for Balancing Territorial Integrity, Self-Defense and the Duties of Sovereignty, 21 PACE INT'L L. REV. 137 (2009).

peoples already suffer from higher mortality rates, malnourishment, and poverty at a disproportionate rate, it is also possible that these poor health indicators make the indigenous peoples more vulnerable to the herbicide spraying.<sup>64</sup> Regardless of source or veracity, the fact that thousands of individual health complaints have been reported with increasing frequency over the past decade is indisputable. Moreover, mitigation of human harms is hindered by the lack of government warnings prior to fumigation operations, due largely to fears that coca crops will be covered if the residents were notified of the time and place of the fumigations.<sup>65</sup> This risky practice imperils Colombia's citizens, especially children and indigenous peoples.<sup>66</sup>

Ecuador asserts in its Application that Colombia's fumigations have also produced substantial cultural side effects. Citing a Report of the United Nations Special Rapporteur (hereinafter, "U.N. Report") on the status of human rights of indigenous peoples, Ecuador claims the Awá people have been particularly affected. The U.N. Report states:

Some indigenous communities in the area, including the Awá are vulnerable and this is particularly worrying. In addition to the impact spraying, they . . . protest that their rights to food and health have been affected by spraying. Apparently, after spraying, the entire Sumac Pamba community was displaced and did not return to their place of origin . . . Spraying appears to be destroying substance crops, diminishing soil quality and reducing yield, affecting both the economic activities of communities and the population's access to adequate food.<sup>67</sup>

The U.N. Report stresses the inherent link between the status of indigenous peoples and the environmental biodiversity of the region; thus when crops and soil quality are degraded, the indigenous peoples suffer more than any other group.

Beyond the plight of the Awá, there are dozens of indigenous groups inhabiting the region. The Amazon Alliance has identified fifty-eight (58) individual tribes inhabiting the area

 $<sup>^{64}</sup>$  Id.

 $<sup>^{65}</sup>$  Id.

 $<sup>^{66}</sup>$  Id.

<sup>&</sup>lt;sup>67</sup> Application, *supra* note 1, paras. 30-33.

targeted by Plan Colombia's fumigations.<sup>68</sup> These communities have used coca for nutritional, medicinal, and spiritual purposes for centuries.<sup>69</sup> and the Plan Colombia initiative flies in the face of their rights as indigenous peoples.<sup>70</sup> Chewing coca leaves gives indigenous peoples access to certain vitamins and minerals, including calcium, that are otherwise lacking in their local diets, and also suppresses their appetite, an important mitigating factor in communities with unstable food supplies.<sup>71</sup> More distressing are the reports that Plan Colombia sprayings have resulted in a mass relocation of indigenous Amazonian peoples. In 2006, Colombia, trailing only Sudan, had the second largest population of internally displaced persons in the world, with approximately forty-seven thousand (47,000) people displaced in 2005 alone. 72 Relocation has also been a major factor across the border, where Ecuador alleges: "a sizeable percentage of the local population has been forced to relocate to areas further from the border with Colombia."<sup>73</sup> In total, Ecuador estimates as much as fifty percent (50%) of the population that formerly lived within ten kilometers (10 km) of the border with Colombia have fled since the start of Plan Colombia.<sup>74</sup> In sum, the harm to humans allegedly suffered as a result of Plan Colombia fumigations includes serious adverse physical health effects, deprivation of rights to food and health, and forced relocation of indigenous peoples.

<sup>&</sup>lt;sup>68</sup> Peterson, *supra* note 18, at 430 (citing Amazon Alliance and Washington Office on Latin America, U.S. Anti-Drug Endangers Indigenous Communities and Amazon Biodiversity, November 16, 2000).

 $<sup>^{69}</sup>$  Id.

<sup>&</sup>lt;sup>70</sup> See generally, Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79, Preamble and Art. 8(j).

<sup>&</sup>lt;sup>71</sup> Peterson, *supra* note 18, at 430.

<sup>&</sup>lt;sup>72</sup> See Wilson Testimony, supra note 37.

<sup>&</sup>lt;sup>73</sup> Application, *supra* note 1, para. 36. Specifically, Ecuador cites the community of Puerto Mestanza in Sucumbios Province, which was home to approximately 86 tenant farmer families in August 2002, but was reduced to four families by 2005 as a result of the sprayings.

 $<sup>^{74}</sup>$  Id.

#### ii. Transboundary Harm to Animals and Crops

Ecuador is one of only 17 countries in the world designated as "megadiverse" by the World Conservation Monitoring Centre of the United Nations Environment Programme.75 Nonselective herbicide spraying in the region dramatically heightens the risk to animals and the environment.<sup>76</sup> In its Application, Ecuador alleges "[a]nimals were . . . hard hit: reported deaths of poultry and fish were particularly wide-spread, and dogs, horses, cows and other animals also became ill."77 Ecuador alleges animal deaths and illnesses have a particularly detrimental impact on the region's indigenous populations, who rely on the biological diversity of the Amazon jungle for survival. Indeed, the importance of biological diversity for indigenous peoples is highlighted in the Preamble to the United Nations Convention on Biological Diversity (hereinafter, "UNCBD"), to which both Ecuador and Colombia are parties, which, "recogniz[es] the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources . . . "78

In turning to crops, Ecuador alleges "[a]rea vegetation, including local agricultural crops, was devastated. Yucca, corn, rice, plantains, cocoa, coffee and fruit turned brown, became desiccated and died."<sup>79</sup> Moreover, in some communities in Sucumbios Province, ". . . four years after the spraying began, some banana varieties, yucca, maize, fruit trees and aromatic herbs have disappeared, or their yield has considerably dimi-

<sup>&</sup>lt;sup>75</sup> *Id.* para. 25.

<sup>&</sup>lt;sup>76</sup> Id. para. 25. Ecuador notes:

Although it covers only 0.17% of the Earth's area, Ecuador possesses a disproportionately large share of the world's biodiversity. In fact, Ecuador has the *world's highest biological diversity per area unit*. . . According to the World Resources Institute, it has 302 mammal species, 19, 362 plant species, 640 breeding bird species, 415 reptile species, 434 amphibian species and 246 fish species (emphasis added) (citing World Resources Institute, *Ecuador Country Profile, Biodiversity and Protected Areas*, available at http://earthtrends.wri.org).

<sup>&</sup>lt;sup>77</sup> Id. para. 15.

<sup>&</sup>lt;sup>78</sup> United Nations Convention on Biological Diversity, *supra* note 70.

<sup>&</sup>lt;sup>79</sup> Application, *supra* note 1, para. 15.

nished."<sup>80</sup> Many complaints have also come from border communities regarding negative health effects as a result of aquatic pollution, citing large herbicide traces in many rivers, including the Mira River in Esmeraldas Province.<sup>81</sup> As many of these border communities use the river for domestic purposes, any contamination of the rivers and aquatic life is particularly concerning.<sup>82</sup>

The effects on both animals and crops are exacerbated due to the non-selective nature of the herbicides used by Colombia. This fact is evident in Colombia, where many of the non-target crops include food staples such as plantains, yucca, and corn.<sup>83</sup> According to Ivan Gerardo Geurero, then-governor of Putamayo Province, in mid-March 2001 roughly half of the 30,000 hectares affected by the previous weeks' spraying destroyed basic food crops, instead of, or in addition to, illegal coca crops.<sup>84</sup> Indeed, just weeks into Plan Colombia's aerial fumigations, Putumayo officials had recorded more than eight hundred cases in which legal crops had been destroyed by the spraying.<sup>85</sup> Thus, those animals lucky enough to avoid the affects of direct aerial spraying remain at risk of dying from starvation after the herbicides destroyed their pastures and contaminated their water sources.

#### iii. Transboundary Harm to the Environment

Humans, animals and crops experience the primary effects of Colombia's aerial herbicide spraying, but Ecuador also alleges that the environment suffers from secondary effects.<sup>86</sup> The

<sup>&</sup>lt;sup>80</sup> Id. para. 29.

 $<sup>^{81} {\</sup>it Id.}$ 

 $<sup>^{82}</sup>$  Id.

<sup>&</sup>lt;sup>83</sup> Peterson, *supra* note 18, at 432.

 $<sup>^{84}</sup>$  Id.

<sup>&</sup>lt;sup>85</sup> Id.

<sup>&</sup>lt;sup>86</sup> Application, *supra* note 1, para. 27 ("The use of glyphosate-based chemical mixture in a tropical climate gives rise to serious risks and uncertainties... The effects of glyphosate on this ecological balance are untested...

unintended destruction of food crops increases deforestation in the region, and inaccurate spraying results in contamination of non-target areas. Studies have shown offsite drift to be a major contributor to unintended environmental harms:

In terrestrial application of glyphosate, 14 to 78 percent of the chemical never reaches the target site. Helicopter applications usually result in 41 to 82 percent offsite drift, and airplane application (the prevailing method in Colombia) involves even higher rates of drift, as far as 800 meters from the boundaries of target areas.<sup>87</sup>

Indeed, offsite drift is seen by some as one of the most harmful results of Colombia's aerial spraying. World Wildlife Fund Director, Dr. David Olsen, estimated, "[f]or every hectare of forest sprayed, another is lost to [pesticide] drift and another to additional clearing [to compensate for] displaced crops."<sup>88</sup> Dr. Olsen also commented, "[t]his spraying campaign is equivalent to the Agent Orange devastation of Vietnam – a disturbance of the wildlife and natural ecosystems have never recovered from."<sup>89</sup>

Dr. Olsen is not alone in criticizing the aerial spraying program's effects on the environment. Dr. Luis Naranjo of the American Bird Conservancy has advocated for an end to aerial fumigation because of the loss of food and plant cover for forest dependent birds. Dr. Naranjo stated "[u]nless the current policies to face the drug problem in the country are revisited, we will be facing the extinction of many of the organisms that make [Colombia's] biota so distinctive."<sup>90</sup> Eduardo Cifuentes, the Colombian human rights ombudsman in 2001, agreed with Doctors Olsen and Naranjo, and called for an immediate halt to aerial herbicide spraying because of the non-selective nature of the herbicides being used.<sup>91</sup>

<sup>.</sup> Colombia's conduct amounts to a dangerous ecological and toxicological experiment on a vast scale.").

<sup>&</sup>lt;sup>87</sup> Peterson, supra note 18, at 433.

<sup>&</sup>lt;sup>88</sup> Id.

<sup>&</sup>lt;sup>89</sup> Brian Hansen, Colombia's Environment a Casualty in U.S. War on Drugs, ENVIRON. NEWS SERVICE, Nov. 20, 2000, available at http://www.ens-news.com.

<sup>&</sup>lt;sup>90</sup> Id.

 $<sup>^{91}</sup>$  Id.

#### C. Failed Negotiations between Ecuador and Colombia

Ecuador asserts in its Application that it attempted diplomatic settlements to this dispute since the inception of Plan Colombia in 2000.92 Conversely, Colombia has, according to Ecuador's Application, shown no interest in addressing Ecuador's concerns.93 Indeed, when the Government of Panama attempted to mediate the dispute in December 2000, Colombia rejected the proposal as "inappropriate and inconvenient."<sup>94</sup> This attitude continued into the following year, when Colombia denied Ecuador's requests for a 10km "buffer zone" along the shared border. <sup>95</sup> When Ecuador complained about the effects of the aerial spravings on its territory in April 2002, Colombia allegedly reasserted its disinterest in negotiations, going so far as to state that it would not halt what it considered "an irreplaceable instrument for solving the Colombian conflict and alleviating the danger that it presents to other countries, in particular neighbors."<sup>96</sup> A 10km buffer zone was proposed once again by Ecuador in July 2003, and was met with the same rejection by Colombia in a note dated September 23, 2003.97

Despite a history of disagreement on this issue, some progress was made in December 2005 when the two states issued a "joint communiqué in which Colombia agreed temporarily to suspend further sprayings within 10 kilometers of the border."<sup>98</sup> This progress in establishing a buffer zone was short-lived, however, as Colombia allegedly resumed spraying along the border and throughout the buffer zone in December

<sup>&</sup>lt;sup>92</sup> Application, *supra* note 1, para. 28. Ecuador cites a note sent by its Ministry of Foreign Affairs dated July 24, 2000 expressing concerns regarding, "the grave impacts on human health and the environment, with possible repercussions for Ecuador . . ."

<sup>&</sup>lt;sup>93</sup> Id.

 $<sup>^{94}</sup>$  Id.

<sup>&</sup>lt;sup>95</sup> Id. para. 29.

<sup>&</sup>lt;sup>96</sup> Id. para. 30.

 $<sup>^{97}</sup>$  Id.

<sup>&</sup>lt;sup>98</sup> *Id.* para. 32.

2006.<sup>99</sup> Fernando Aruajo Perdomo, Colombia's Minister of Foreign Affairs, stated Colombia's evasive stance on the issue in May 2007, and a final Joint Scientific Commission failed to reach an agreement shortly thereafter.<sup>100</sup> Ecuador informed Colombia on July 27, 2007 that it considered the dialogue exhausted,<sup>101</sup> and on March 31, 2008 Ecuador submitted its Application Instituting Proceedings.<sup>102</sup>

### III. ICJ JURISPRUDENCE IN INTERNATIONAL ENVIRONMENTAL LAW

#### A. The First Two "Waves" of ICJ Jurisprudence

Before turning to an analysis of the *Case Concerning Aeri*al Herbicide Spraying, it is first helpful to ground oneself in a brief overview of ICJ jurisprudence in the field of international environmental law. Over the past thirty years, the ICJ has played an increasingly important role in contributing to the growing body of international environmental law. These contributions have recently been categorized by Dr. Jorge E. Viñuales into two distinct "waves" of jurisprudence.<sup>103</sup> The following briefly summarizes Dr. Viñuales' analysis, and will refer to his terms "first wave" and "second wave," throughout the remainder of this article.

#### i. Corfu Channel and the Nuclear Tests Case

The "first wave" of ICJ environmental jurisprudence, according to Dr. Viñuales, consists of the *Corfu Channel* case.<sup>104</sup>

<sup>&</sup>lt;sup>99</sup> Id.

 $<sup>^{100}</sup>$  Id. para. 34. Mr. Perdomo stated at a meeting of Ministers of Foreign Affairs on May 28, 2007 that, "Colombia is not in a position to make commitments with respect to the question of the fumigations; nor could it predict what decision it will take in the future in this respect."

 $<sup>^{101}</sup>$  Id.

 $<sup>^{102}</sup>$  Id. at 1.

<sup>&</sup>lt;sup>103</sup> Dr. Jorge E. Viñuales, *The Contribution of the International Court of Justice to the Development of International Environmental Law: A Contemporary Assessment*, 32 FORDHAM INT'L L.J. 232 (2008).

<sup>&</sup>lt;sup>104</sup> See generally Corfu Channel (U.K. v. Alb.), 1949 I.C.J. 4 (Apr. 9).

and the *Nuclear Tests* case (Astrl. v. Fr.)(N.Z. v. Fr.).<sup>105</sup> These cases, taken as a whole, recognized the existence of international environmental law, but did little in the way of advancing it beyond mere recognition. Dr. Viñuales concludes that, aside from confirming previous case law on transboundary damages, the first wave's contribution to international environmental law is decidedly ambiguous, hinting at possible customary norms but never clearly stating customary rules of international environmental law.<sup>106</sup> Dr. Viñuales explains:

[O]n the one hand, the Court made it clear that there was an obligation on States not to knowingly allow their territory to be used for acts contrary to the rights of other states; such obligation was not explicitly stated with respect to transboundary environmental harm, as some had hoped in the context of the *Nuclear Tests* case, but the combination of the Trail Smelter Award, the. . .*Corfu Channel* case, and the suggestions of Judge de Castro in his dissenting opinion in the *Nuclear Tests* case gave a significant indication that such a customary obligation was ripe to be asserted; on the other hand, this development . . . left aside the more fundamental idea that the environment deserved protection *per se.*<sup>107</sup>

Thus, the first wave of ICJ jurisprudence did little to explain the contents and scope of states' obligations towards the environment. Its main contribution, according to Dr. Viñuales, was twofold: first, a confirmation of previous case law on transboundary damages; second, introducing the notion that States have an *erga omnes* obligation to the environment.<sup>108</sup> This foundational first wave gave way to the more explanatory opinions of the second wave.

<sup>&</sup>lt;sup>105</sup> See generally Nuclear Tests (Austl. V. Fr.), 1974 I.C.J. 253 (Dec. 20); Nuclear Tests (N.Z. v. Fr.), 1974 I.C.J. 457 (Dec. 20); See also Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests Case (N.Z. v. Fr.), 1995 I.C.J. 288, 319-63 (Sept. 22) (Weeramantry, J., dissenting).

<sup>&</sup>lt;sup>106</sup> Viñuales, *supra* note 103, at 236.

<sup>&</sup>lt;sup>107</sup> Id. at 243-44.

<sup>&</sup>lt;sup>108</sup> *Id.* at 235.

ii. The Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons and the Gabcikovo-Nagymaros Case

Dr. Viñuales sees the "second wave" of ICJ jurisprudence as consolidating and further developing the first wave,<sup>109</sup> looking particularly to the *Legality of the Threat or Use of Nuclear Weapons* Advisory Opinion (hereinafter Advisory Opinion) as the second wave's single most important contribution.<sup>110</sup> In the *Advisory Opinion*, the ICJ noted that the body of international environmental law was not part of the "[m]ost directly relevant applicable law governing the question [of whether the threat or use of nuclear weapons in any circumstance was permitted under international law],"<sup>111</sup> but the court did recognize:

that the environment is under daily threat and that the use of nuclear weapons could constitute a catastrophe for the environment . . . [t]hat the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn.<sup>112</sup>

The Advisory Opinion gives international environmental law the strongest judicial language to date with respect to transboundary pollution:

The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment.<sup>113</sup>

Dr. Viñuales observes two main points from the Advisory Opinion: first, that the above-quoted language re-affirms the

<sup>&</sup>lt;sup>109</sup> Id. Dr. Viñuales also includes Certain Phosphate Lands in Nauru (Nauru v. Australia) and Gabčíkovo-Nagymaros Project (Hungary v. Slovakia) in the second wave. Certain Phosphate Lands in Nauru (Nauru v. Austl.), 1992 I.C.J. 240, 258 (June 26); Gabčíkovo-Nagymaros Project (Hung. v. Slovk.), 1997 I.C.J. 7, 41 (Sept. 25) (hereinafter "Gabcikovo-Nagymaros Project").

<sup>&</sup>lt;sup>110</sup> Viñuales, *supra* note 103, at 244.

<sup>&</sup>lt;sup>111</sup> Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, 243 (July 8).

 $<sup>^{112}</sup>$  Id. at 241.

 $<sup>^{113}</sup>$  Id.

principles recognized in the first wave, and second, that this acknowledgment should be taken with a large grain of salt.<sup>114</sup> In its discussion, the court makes express mention of Principles 21 and 2 of the Stockholm and Rio Declarations, respectively, but the court declines to explicitly state whether these principles are customary norms.<sup>115</sup> Dr. Viñuales astutely observes that the phrase "part of the corpus of international law relating to the environment" is not equivalent to declaring a rule of customary international law.<sup>116</sup> Judge Christopher J. Weeramantry, noting the majority's ambiguous language, exhibited a more progressive attitude towards international environmental law in his dissenting opinion:

Other principles of environmental law, which this request enables the Court to recognize and use in reaching its conclusions, are the precautionary principle, the principle of trusteeship of earth resources, the principle that the burden of proving safety lies upon the author of the act complained of, and, the 'polluter pays principle'. . .do not depend for their validity on treaty provisions. *They are part of customary international law*. They are part of the *sine qua non* for human survival (emphasis added).<sup>117</sup>

Judge Weeramantry parts with the majority to assert a rule of customary international law. However, this is the view of Judge Weeramantry alone, and whether or not a majority of the ICJ judiciary will adopt this view in the future remains to be seen.

In looking to the *Gabcikovo-Nagymaros*<sup>118</sup> case, Dr. Viñuales points to dicta that "tend[s] to confirm the customary nature of at least part of international environmental law,

<sup>&</sup>lt;sup>114</sup> Viñuales, *supra* note 103, at 246.

 $<sup>^{115}</sup>$  Id.

 $<sup>^{116}</sup>$  Id.

 $<sup>^{117}</sup>$  See Legality of the Threat or Use of Nuclear Weapons, supra note 111, at 502-04 (Weeramantry, J., dissenting).

<sup>&</sup>lt;sup>118</sup> Gabcikovo-Nagymaros Project, supra note 109.

again, without reference to any specific norm."<sup>119</sup> Notably, he points to language that speaks to the development of international environmental law:

[T]he Court wishes to point out that newly developed norms of environmental law are relevant for the implementation of the Treaty and that the parties could, by agreement, incorporate them through the application of Articles 15, 19 and 20 of the Treaty. These articles do not contain specific obligations of performance but require the parties, in carrying out their obligations to ensure that they quality of water in the Danube is not impaired and that nature is protected, to take new environmental norms into consideration when agreeing upon the means to be specified in the Joint Contractual Plan.<sup>120</sup>

Dr. Viñuales uses this language, and other references in dicta and dissenting opinions, to conclude that the general obligation of states to ensure that activities within their jurisdiction respect the environment of other states or areas beyond their control has become a norm of customary international law.<sup>121</sup>

### B. The Foundation for Future Transboundary Harm Litigation

Whether or not Dr. Viñuales is correct regarding the legal status of environmental norms is a matter that has been hotly debated among legal scholars.<sup>122</sup> What is certain, however, is that the ICJ has not yet explicitly addressed the issue in its previous opinions. Moreover, the prospect that the *Aerial Herbicide Spraying* case may represent the beginning of a "third wave" of environmental case law is a promising one, <sup>123</sup> and one which this article explores in Part IV, *infra*.

This article agrees with Dr. Viñuales insofar as it accepts the third wave potential of the *Aerial Herbicide Spraying* case, but declines to elevate the dicta and dissenting opinions regarding the prohibition of transboundary pollution in the ICJ's

<sup>&</sup>lt;sup>119</sup> Viñuales, *supra* note 103, at 248.

<sup>&</sup>lt;sup>120</sup> Gabcikovo-Nagymaros Project, *supra* note 109, at 67.

<sup>&</sup>lt;sup>121</sup> Viñuales, *supra* note 103, at 253.

<sup>&</sup>lt;sup>122</sup> See generally Daniel Bodansky, Customary (and not so Customary) International Environmental Law, 3 IND. J. GLOBAL LEGAL STUD. 105 (1995).

 $<sup>^{123}</sup>$  Viñuales, supra note 103, at 254-55.

international environmental jurisprudence to customary norm status. Indeed, this article argues that the *Aerial Herbicide Spraying* case has the makings of a landmark decision for transboundary harm jurisprudence and, by extension, international environmental law in general. Assuming the truth of Ecuador's allegations and considering the inherent environmental issues raised in its Application, this dispute has the potential to be a *Trail Smelter* of the  $21^{st}$  century in terms of spotlighting international environmental law and advancing the legal status of its norms.

Dr. Viñuales observes many facets of international environmental law that could be addressed by the court in this case, including the contents and enforceability of certain international environmental rules, the relations between treaty and customary international environmental law (if such a thing exists), and the hierarchy of international environmental law compared to other essential interests.<sup>124</sup> This article reasons that the Aerial Herbicide Spraying case could address the following issues: first, the contents and enforceability of a state's sic utere duty; and second, the hierarchy of Colombia's essential interest in maintaining internal peace versus Ecuador's essential interest in preserving its environment. In light of these two issues, and keeping in mind the historical and jurisprudential backgrounds discussed *supra*, this article now turns to a legal analysis of Ecuador's transboundary pollution claim against Colombia.

### IV. A LEGAL ANALYSIS OF THE CASE CONCERNING AERIAL HERBICIDE SPRAYING

### A. The ICJ's Jurisdiction Over the Dispute

Arguably the most glaring criticisms of international environmental law's development stem from the relatively scant case law discussed above and the infrequency of environmental

 $<sup>^{124}</sup>$  Id. at 257.

cases successfully brought before the ICJ.<sup>125</sup> These jurisdictional critiques express two main concerns: first, that the ICJ's espousal requirement makes the forum available only to states, not to citizens; and second, that both the source state and the affected state must first consent to the ICJ's jurisdiction before a case may be heard.<sup>126</sup> The unique facts of the Case Concerning Aerial Herbicide Spraying, however, do not present either of these problems. Here, Ecuador has chosen to submit its Application espousing claims of transboundary harm made by Ecuadorian citizens, precisely the type of action that many critics of the espousal requirement fear would never occur. Furthermore, Ecuador points to two multilateral treaties to which both the source state (Colombia) and the affected state (Ecuador) are parties, explicitly providing for compulsory jurisdiction before the ICJ. The following briefly analyzes these two treaties and their jurisdictional provisions.

i. American Treaty on Pacific Settlement of Disputes (Pact of Bogotá)

The American Treaty on Pacific Settlement of Disputes (hereinafter "Pact of Bogotá") was signed by both Ecuador and Colombia on April 30, 1948, and entered into force on May 6, 1948.<sup>127</sup> Colombia ratified the treaty on April 29, 1974.<sup>128</sup> Pur-

<sup>&</sup>lt;sup>125</sup> See generally Bryan L. Salamone, *The Absence of an Operational Liability Scheme for Transfrontier Environmental Harm Resulting in Injuries to Persons*, 5 TOURO INT'L L. REV. 1 (1994).

 $<sup>^{126}</sup>$  Id. at 14; see also International Court of Justice, Basis for the Court's Jurisdiction, http://www.icj-cij.org/jurisdiction. The footnote to the website details the consent requirement as follows:

The jurisdiction of the Court in contentious proceedings is based on the consent of the States to which it is open. . . In the following eight cases, the Court found that it could take no further steps upon an Application in which it was admitted that the opposing party did not accept its jurisdiction: *Treatment in Hungary of Aircraft and Crew of the United States of America* (U.S. v. U.S.S.R.), 1954 I.C.J. 102, 105 (July 12); Aerial Incident of 10 Mar. 1953 (U.S. v. Czech.), 1956 I.C.J. 6 (Mar. 14); Antarctica (U.K. v. Arg.), 1956 I.C.J. 12 (Mar. 16); Aerial Incident of 7 Oct. 1952 (U.S. v. U.S.S.R.), 1958 I.C.J. 158 (Dec. 9); and Aerial Incident of 7 Nov. 1954 (U.S. v. U.S.S.R.), 1959 I.C.J. 276 (Oct. 7).

<sup>&</sup>lt;sup>127</sup> American Treaty on the Pacific Settlement of Disputes "Pact of Bogotá," Apr. 30, 1948, 30 U.N.T.S. 55 (hereinafter "Pact of Bogotá"), *available* 

suant to Article II of the Pact of Bogotá, the parties have a general obligation to settle international controversies by regional pacific means.<sup>129</sup> If a dispute between the parties cannot be settled by direct negotiations, "the parties bind themselves to use the procedures established in the present Treaty, in the manner and under the conditions provided for in the following articles . . ."<sup>130</sup> Assuming the allegations made by Ecuador in its Application are true regarding the lengthy and unsuccessful attempts to negotiate a diplomatic settlement to the transboundary dispute, it appears that the obligation to attempt regional negotiations pursuant to Article II has been exhausted.

Ecuador bases the ICJ's jurisdiction over the dispute on Article XXXI, which provides:

In conformity with Article 36, paragraph 2, of the Statute of the International Court of Justice, the High Contracting Parties declare that they recognize, in relation to any other American State, the jurisdiction of the Court as compulsory *ipso facto*, without the necessity of any special agreement so long as the present Treaty is in force, in all disputes of a juridical nature that arise among them concerning: (a) The interpretation of a treaty; (b) Any question of international law; (c) The existence of any fact which, if established, would constitute the breach of an international obligation; (d) The nature or extent of the reparation to be made for the breach of an international obligation.<sup>131</sup>

This provision explicitly grants the ICJ compulsory jurisdiction over "[a]ny question of international law,"<sup>132</sup> and "[t]he existence of any fact which, if established, would constitute the breach of an international obligation,"<sup>133</sup> both of which present themselves in the *Aerial Herbicide Spraying* case.

at http://treaties.un.org.

<sup>&</sup>lt;sup>128</sup> See id.

 $<sup>^{\</sup>rm 129}$  Id. art. II.

 $<sup>^{130}</sup>$  Id.

<sup>&</sup>lt;sup>131</sup> Id. at Art. XXXI. See also Application, supra note 1, at 6, para. 7.

 $<sup>^{\</sup>rm 132}$  Pact of Bogotá, supra note 127, art. XXXI.

 $<sup>^{133}</sup>$  Id.

Thus, assuming the obligation to negotiate a regional settlement to the dispute has in fact been exhausted by the parties, Ecuador can claim the ICJ possesses compulsory jurisdiction over the dispute pursuant to Article XXXI of the Pact of Bogotá.

 ii. 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988 U.N. Drug Convention)

Ecuador also points to a provision in the 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (hereinafter "1988 U.N. Drug Convention") as another source of the ICJ's jurisdiction over the *Aerial Herbicide Spraying* dispute.<sup>134</sup> Ecuador ratified the 1988 U.N. Drug Convention on March 23, 1990, and Colombia ratified the treaty four years later, on June 10, 1994.<sup>135</sup> Pursuant to Article 29(1), the 1988 U.N. Drug Convention entered into force on November 11, 1990<sup>136</sup> The Convention makes specific reference to the "coca bush"<sup>137</sup> and it is likely that the Plan Colombia sprayings in dispute fall within the scope of the Convention, which "address[es] more effectively the various aspects of illicit traffic in narcotic drugs and psychotropic substances having an international dimension."<sup>138</sup>

Article 32 of the 1988 U.N. Drug Convention, entitled "Settlement of Disputes," imposes an obligation on the parties to consult by peaceful processes.<sup>139</sup> Ecuador cites to Article 32, paragraph 2 in its Application as a source of the ICJ's compulsory jurisdiction over the dispute:

 $^{139}$  Id.

<sup>&</sup>lt;sup>134</sup> Application, *supra* note 1, at 7-8, para. 8.

<sup>&</sup>lt;sup>135</sup> See United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Dec. 20, 1988, 1582 U.N.T.S. 164, 28 I.L.M. 493 (1989).

 $<sup>^{136}</sup>$  Id. art. 29. Article 29 provides "This Convention shall enter into force on the ninetieth day after the date of the deposit with the Secretary-General of the twentieth instrument of ratification, acceptance, approval or accession by States..." Id.

 $<sup>^{137}</sup>$  Id. art. 1(c) (defining coca bush as "the plant of any species of the genus Erythroxylon").

<sup>&</sup>lt;sup>138</sup> *Id.* art. 2, para. 1.

Any such dispute which cannot be settled in the manner prescribed in paragraph 1 of this article shall be referred, at the request of any one of the States Parties to the dispute, to the International Court of Justice for decision.<sup>140</sup>

Assuming that the two parties have exhausted peaceful bilateral and regional negotiations, it appears that Ecuador is also correct in basing the Court's jurisdiction in Article 32 of the 1988 U.N. Drug Convention.

#### B. Ecuador's Transboundary Harm Claim

Having confirmed the ICJ's jurisdiction over the Aerial Herbicide Spraying case, this article now turns to the main elements necessary for Ecuador to prove its transboundary harm claim. In conducting this analysis, the ICJ will have a perfect opportunity to utilize the work of the International Law Commission (hereinafter, "ILC"); namely, the 2001 Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities (hereinafter, "Draft Articles on Prevention").<sup>141</sup> Pursuant to Article 13, paragraph 1(a) of the Charter of the United Nations, <sup>142</sup> the ILC's Draft Articles on Prevention represents nearly three decades of work focusing specifically on transboundary environmental harm, culminating with the adoption of the Draft Articles on Prevention by the ILC at its fifty-third session in 2001.<sup>143</sup> The ICJ has referred to the highly respected work of the ILC in declaring new norms of customary international law in prior opinions,<sup>144</sup> and the Aerial

<sup>&</sup>lt;sup>140</sup> *Id.* art. 2, para. 2.

<sup>&</sup>lt;sup>141</sup> Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentary, *in* Report of the International Law Commission, Fifty-third Session, UN GAOR, 56<sup>th</sup> Sess., Supp. No. 10, UN Doc. A/56/10 (2001) [hereinafter Draft Articles on Prevention].

 $<sup>^{142}</sup>$  U.N. Charter art. 13, para. 1 (providing that the General Assembly shall initiate studies and make recommendations for the purpose of encouraging the progressive development of international law and codification).

<sup>&</sup>lt;sup>143</sup> See generally Draft Articles on Prevention, supra note 141.

<sup>&</sup>lt;sup>144</sup> See Gabcikovo-Nagymaros Project, *supra* note 118; discussion, *infra* Part C (discussing the elevation of the ILC's Article 33 on State responsibility

Herbicide Spraying case provides yet another opportunity for the ICJ to declare the work of the ILC as custom. The Draft Articles on Prevention embrace the *sic utere* principle in Article 3, which states: "The State of origin shall take all appropriate measures to prevent significant transboundary harm or at any event to minimize the risk thereof."<sup>145</sup> With the principle of *sic utere* firmly entrenched in Article 3, and the language of Principle 21 of the Stockholm Declaration quoted in comment 1 to Article 3, <sup>146</sup> the ICJ is afforded the opportunity to elevate the much-debated *sic utere* principle to customary norm status and in the process give content to what has been a frustratingly ambiguous normative principle.<sup>147</sup>

Article 1 defines the scope of the Draft Articles on Prevention as applying to "activities not prohibited by international law which involve a risk of causing significant transboundary harm through their physical consequences."<sup>148</sup> The comments following Article 1 emphasize four basic criteria an activity must meet in order to fall within the scope of the Draft Articles on Prevention, to wit: "activities not prohibited by international law,"<sup>149</sup> "territory, jurisdiction, and control,"<sup>150</sup> "risk of causing significant transboundary harm,"<sup>151</sup> and "physical conse-

to customary international law).

 $<sup>^{145}</sup>$  Draft Articles on Prevention, supra note 141, art. 3.

 $<sup>^{146}</sup>$  Id. art. 3, cmt. 1 (stating, "Article 3 is based on the fundamental principle *sic utere tuo ut alienum non laedas*, which is reflected in Principle 21 of the Stockholm Declaration, reading:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own natural resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction").

<sup>&</sup>lt;sup>147</sup> For an optimistic view of *sic utere* as custom, *see* Günther Handl, *Transboundary Impacts, in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 531, 533-43 (Daniel Bodansky, Jutta Brunée, & Ellen Hey eds., 2007). For more skeptical views of *sic utere's* status as custom, *see* Bodansky, *supra* note 122; *see also* John K. Knox, *The Myth and Reality of Transboundary Environmental Impact Assessment,* 96 AM. J. INT'L L. 291 (2002).

<sup>&</sup>lt;sup>148</sup> Draft Articles on Prevention, *supra* note 141, art. 1.

<sup>&</sup>lt;sup>149</sup> *Id.* art. 1, cmt. 6.

<sup>&</sup>lt;sup>150</sup> Id. art. 1, cmt. 7, 8.

<sup>&</sup>lt;sup>151</sup> *Id.* art. 1, cmt. 13.

quences."<sup>152</sup> The following will analyze each of these four criteria in turn.

#### i. Activities Not Prohibited by International Law

The ILC commentary makes clear that the drafters intended this first criterion to create adistinction between international liability and State responsibility. Thus, an action prohibited by international law subjects a State to international liability, whereas an action *not* prohibited by international law will only raise the issue of State responsibility. The action at issue in the *Aerial Herbicide Spraying* case is Colombia's aerial fumigation campaign, an action that is not prohibited by any international law. Indeed, States enjoy the freedom to conduct aerial fumigations within their territory, and Colombia has made use of this tactic to battle narco-terrorist groups for decades.<sup>153</sup> Thus, the actions of Colombia are not prohibited by international law, raising the issue of State responsibility, and therefore satisfy the first criterion of Article 1.

ii. Territory, Jurisdiction and Control

The second criterion is that the actions "are planned or are carried out"<sup>154</sup> in the territory or otherwise under the jurisdiction or control of a State of origin. The Draft Articles on Prevention emphasize the importance of the territorial link between the actions and the State of origin,<sup>155</sup> and describe

<sup>&</sup>lt;sup>152</sup> *Id.* art. 1, cmt. 16, 17.

<sup>&</sup>lt;sup>153</sup> Application, *supra* note 1, at 8, para. 10.

 $<sup>^{154}</sup>$  Draft Articles on Prevention, supra note 141, Art. 2(d) defines the "State of origin" as the "[S]tate in the territory or otherwise under the jurisdiction or control of which the activities referred to in Article 1 are planned or are carried out."

 $<sup>^{155}</sup>$  *Id.* art. 1, cmt. 7 (recognizing that "Even though the expression 'jurisdiction or control of a State' is a more commonly used formula in some instruments, the Commission finds it useful to mention also the concept of 'territory' in order to emphasize the importance of the territorial link, when such a link exists, between activities under these articles and a State").

territorial jurisdiction as the "dominant criterion."<sup>156</sup> In the *Aerial Herbicide Spraying* case, it is apparent that the actions at issue occurred within Colombia's territorial jurisdiction, and operated under the control of the Colombia government. It is undisputed that Colombia's domestic counter-narcotics policy was aimed at coca cultivation in its southern regions, operated by the Colombian Army and other Colombian forces. Even if Colombian forces and herbicide spray crossed the border, technically outside of the Colombia's territorial jurisdiction, Colombia's actions remained under the control of the Colombian government and thus the entirety of the Plan Colombia sprayings falls under the ambit of the second criterion. In other words, the actions at issue were planned and carried out by the Colombian government, and thus, the second criterion is easily satisfied.

#### iii. Risk of Causing Significant Transboundary Harm

The term "risk of causing significant transboundary harm" <sup>157</sup> is defined in Article 2 of the Draft Principles on Prevention as "risks taking the form of a high probability of causing significant transboundary harm and a low probability of causing disastrous transboundary harm."<sup>158</sup> In stressing the objective nature of "risk," the comments provide that "[t]he mere fact that harm eventually results from an activity does not mean that the activity involved a risk," and conversely, that an activity may involve a risk even though the State of origin underestimated the risk or was unaware of the risk.<sup>159</sup> In turning to the term "significant," the drafters note that the term is not without ambiguity, and advise that determining what constitutes "significant" is a decision to be made on a case-by-case basis.<sup>160</sup> However, the commentary does offer some guidance in determining what is meant by the term "significant": "It is to be un-

<sup>&</sup>lt;sup>156</sup> Id. art. 1, cmt. 8.

<sup>&</sup>lt;sup>157</sup> Id. art. 1.

<sup>&</sup>lt;sup>158</sup> *Id.* art. 2(a).

<sup>&</sup>lt;sup>159</sup> *Id.* art. 1, cmt. 14

 $<sup>^{160}</sup>$ Draft Articles on Prevention, *in* Report of the International Law Commission on the work of its fifty-third session, UN GAOR, 56<sup>th</sup> Sess., Supp. No. 10, UN DOC. A/56/10 (2001).

derstood that 'significant' is something more than 'detectable' but need not be at the level of 'serious' or 'substantial."<sup>161</sup>

In the Aerial Herbicide Spraying case, it appears that the imprecise nature of aerial fumigations, including the tendency to create significant off-site drift, the non-selective nature of the chemical herbicide spray employed by Colombia, and the close proximity to Ecuador's border all weigh heavily in Ecuador's favor when considering the risk of significant transboundary harm. Taken objectively, it is clear that conducting such a massive and inherently inaccurate fumigation campaign so near to an international border necessarily involves a degree of risk. Furthermore, such a large-scale fumigation campaign is also likely to have a significant impact on the environment, especially considering the unparalleled ecological diversity of the Amazonian region at issue. Scholars tackling the issue of "significant harm," particularly Günther Handl, posit that certain types of transboundary effects involving toxic or otherwise dangerous substances affecting public health "are likely to be a priori deemed significantly harmful."<sup>162</sup> Handl also notes that the use of geographical markers, especially the proximity of the causal activity to the border, may be *prima facie* indicators of the significance of the transboundary activity.<sup>163</sup> Given the facts of the current dispute, is likely the ICJ would find that a risk did indeed exist, and that the risk was significant. Indeed, it is easy to imagine the Plan Colombia sprayings onto Ecuadorian territory discussed in Part II, supra, as textbook examples of actions constituting a risk of causing significant transboundary harm.

iv. Physical Consequences

The Draft Articles on Prevention emphasize that the physical link criterion must connect the action with its transboun-

 $<sup>^{161}</sup>$  Id.

<sup>&</sup>lt;sup>162</sup> Handl, *supra* note 147, at 536.

 $<sup>^{163}</sup>$  Id.

dary effects, implying that the actions must themselves have a "physical quality, and the consequences must flow from that quality."<sup>164</sup> Thus, Ecuador must show that Colombia's spraying of non-selective herbicides onto hundreds of thousands of hectares of Amazonian jungle in and around the Ecuadorian border have a physical quality, and the consequences alleged in its Application flow from that physical quality.

The physical quality of the aerial fumigations is selfevident, however the consequences that flow from this activity are more difficult to prove. In attempting to do so, Ecuador can point to the twelve instances it cites in its Application<sup>165</sup> as examples of the relationship the Plan Colombia sprayings have had to injuries to Ecuadorian citizens and territory. Ecuador can also emphasize the deleterious effects the sprayings have had on its indigenous populations.<sup>166</sup> The plight of the Awá is a particularly effective example in this case, as the Awá and other indigenous populations suffer physically, culturally and agriculturally from the sprayings, all of which have been confirmed by the U.N. Special Rapporteur.<sup>167</sup>

However, this final criterion is likely to be Ecuador's biggest hurdle in maintaining a valid claim of transboundary harm against Colombia. Satisfying the physical consequences prong will require a more thorough comparison of the precise times and locations of the Plan Colombia spravings and the corresponding harms alleged by Ecuador in its Application. In order to present a sufficient factual basis establishing a causal relationship, Ecuador must do more than generalize dates and harms. Ecuador alludes to the fact that it may have more documented instances of transboundary harms in its Application, but the Application itself lacks an exhaustive comparison between the approximate time periods during which the harms allegedly occurred and the time and location of the Plan Colombia sprayings. Indeed, this data may be highly controversial, as it will tend to show the true merit of the allegations. Moreover, Colombia's refusal to disclose the exact chemical

<sup>&</sup>lt;sup>164</sup> Draft Articles on Prevention, *supra* note 141, art. 1, cmt. 17.

<sup>&</sup>lt;sup>165</sup> Application, *supra* note 1, at 12, para. 17.

 $<sup>^{\</sup>rm 166}$  Id. at 16, para. 24.

<sup>&</sup>lt;sup>167</sup> Id. at 18, para. 30-33.

makeup of its herbicide mixture and the dearth of independent scientific evidence regarding the effects of glyphosatesurfactant compounds on humans, animals and the environment leaves much to be desired in the way of hard facts.

The widespread accounts of environmental damage in and around the border region and the absence of any alternative cause of the alleged environmental damage leads one to conclude , at this preliminary stage, that Ecuador will likely satisfy the physical connection criterion of the Court's analysis. Thus, in the event the ICJ recognizes the Draft Articles on Prevention as reflecting customary international law, one could safely proceed under the assumption that all four criteria contained in the scope provision of Article 1 will be met in this dispute. As Colombia's actions lie within the scope of the Draft Articles on Prevention, they are rendered susceptible to a valid claim that it violated its obligation of prevention pursuant to Article 3.

v. The Draft Articles' "Harmonious Ensemble"<sup>168</sup> of Substance and Procedure

After concluding that the actions taken by Colombia involved a risk of causing significant transboundary harm, the question then becomes what approach the ICJ would take in attempting to enforce Article 3. To the extent the ICJ will declare Article 3 customary international law, it will tackle a decidedly amorphous principle of international environmental law. In discussing the Draft Articles on Prevention, Prof. John Knox noted the existence of both procedural requirements and substantive obligations, specifically "that the Draft Articles present their procedural obligations as though their primary purpose was to facilitate compliance with this [substantive] obligation."<sup>169</sup> While it is possible that the ICJ might address both

<sup>&</sup>lt;sup>168</sup> Draft Articles on Prevention, *supra* note 141, art. 3, cmt. 4.

 $<sup>^{169}</sup>$  Knox, supra note 147, at 310; see also Handl, supra note 147, at 540-42 (describing Article 3 as the Draft Articles' key substantive provision, and

the procedural and substantive elements of the Draft Articles, it is more likely that the Court will focus on one or the other in seeking a rationale for its opinion.<sup>170</sup>

### Article 3 and Substantive Obligations

In choosing to focus on the substantive meaning of Article 3, the ICJ could simply apply the "significant harm" standard to the particular facts of the *Aerial Herbicide Spraying* case. Given the current allegations, it is conceivable that the ICJ could take Günther Handl's approach of recognizing certain toxic and highly dangerous activities as significantly harmful *per se.* In other words, the court may conclude that the transboundary harms affected on Ecuador rise to a substantive level beyond what any reasonable interpretation of "significant harm" will allow, and that Colombia's actions, regardless of due diligence,<sup>171</sup> are so repugnant to *sic utere* that they are *per se* violations of Article 3.

While this is an unlikely outcome, a decision taking such a hard-line substantive stance on this issue would constitute a watershed moment for international environmental law, as it would be the first time that the ICJ addresses the substantive aspect of the *sic utere* principle. It would also force the court and international legal scholars to grapple with the state practice and *opinio juris* elements of such a customary rule of international law. In the event the ICJ takes this approach, it would give much-needed context to the principle of prevention, providing future transboundary harm disputes with a basis for comparison. More importantly, it would also signal a warning

identifying the duties to cooperate (Art. 4), assess (Art. 7), notify and inform (Art. 8) and consult (Art. 9, 10) as the Draft Articles' procedural provisions).

<sup>&</sup>lt;sup>170</sup> Handl, *supra* note 147, at 542 (explaining that in the *Gabcikovo-Nagymaros Project*, the ICJ relied heavily on its interpretation of a State's procedural obligations under international environmental law as a specific consequence of a State's obligation to cooperate and prevent environmental harm).

<sup>&</sup>lt;sup>171</sup> Draft Articles on Prevention, *supra* note 141, art. 3, cmt. 7 ("The obligation of the State of origin to take preventive or minimization measures is one of due diligence. It is the conduct of the State of origin that will determine whether the State has complied with its obligations under the present articles.").

to all States currently engaged in significant transboundary pollution that certain activities are likely to be *a priori* deemed significantly harmful and, therefore, susceptible to claims for damages pursuant to rules of customary international law.

#### Articles 9 and 10 and Procedural Obligations

Alternatively, the ICJ could focus on Colombia's procedural obligations with respect to the Draft Articles on Prevention. One possibility is that the court could declare the contents of Articles 9 and 10, requiring consultation of the parties and listing factors involved in an equitable balance of states' interests, respectively, as reflecting customary international law. Thus, in the event Article 3 is recognized as custom, Articles 9 and 10 will likely follow suit for two main reasons. First, it would align the court's interpretation with the intentions of the drafters, as the commentary to Article 3 makes clear that the drafters envisioned the three articles complementing each other.<sup>172</sup> Second, it makes sense as a practical matter. In order to avoid arbitrary and capricious judgments resulting from attempts to enforce the substance of Article 3 without any supporting procedural obligations, it is necessary to recognize a framework for good faith consultations by which states may be held accountable. Therefore, for the purposes of the following analysis, it is relatively safe to extend the assumption of Article 3's recognition as customary international law to Articles 9 and 10.

Article 9 requires States to enter into "consultations. . . with a view to achieving acceptable solutions regarding measures to be adopted in order to prevent significant transboundary harm or at any event to minimize the risk thereof."<sup>173</sup> The following paragraph makes specific reference to Article 10, listing factors involved in an equitable balance of interest, in order

 $<sup>^{172}</sup>$  Id. art. 3, cmt. 4 ("Articles 3 is complementary to articles 9 and 10 and together they constitute a harmonious ensemble").

<sup>&</sup>lt;sup>173</sup> *Id.* art. 9(1).

to guide the dialogue between the States.<sup>174</sup> The equitable factors in Article 10 include: the degree of risk of significant transboundary harm,<sup>175</sup> the availability of means of preventing such harm,<sup>176</sup> the importance of the activity for the state of origin.<sup>177</sup> the degree to which the state of origin and the affected state are prepared to pay for prevention,<sup>178</sup> the economic viability of the action in relation to the costs of prevention and the possibility of conducting the activity by other means.<sup>179</sup> and finally and perhaps most interestingly, the standards of prevention which the likely affected state would apply to the same actions.<sup>180</sup> As Prof. Knox has noted, these procedural obligations fall short of bestowing a right of veto on the potentially affected state,<sup>181</sup> and also fail to ensure the participation of the affected state or the public in the preparation of an environmental impact assessment.<sup>182</sup> These shortcomings, however, do not render the procedural provisions of the Draft Articles on Prevention completely toothless. Conversely, in arguing that the basic procedural obligations of assessment, notification, and consultation already reflect customary international law, Handl points out that States disregard these obligations at their own risk:

Steps in compliance [with procedural obligations] are important pointers in the determination of whether or not the source State has acted diligently in discharging its substantive obligation to prevent the transboundary impact concerned. At the same time, it is equally clear that the procedural obligations themselves do not imply any obligation for the source State to restrain or limit

<sup>&</sup>lt;sup>174</sup> Id. art. 9(2).

<sup>&</sup>lt;sup>175</sup> Draft Articles on Prevention, *supra* note 141, art. 10(a).

 $<sup>^{176}</sup>$  Id.

<sup>&</sup>lt;sup>177</sup> Id. art. 10(b).

<sup>&</sup>lt;sup>178</sup> Id. art. 10(d).

<sup>&</sup>lt;sup>179</sup> Id. art. 10(e).

<sup>&</sup>lt;sup>180</sup> *Id.* art. 10(f).

 $<sup>^{181}</sup>$  Knox, supra note 147, at 310; see also Draft Articles on Prevention, supra note 141, art. 9, cmt. 2.

 $<sup>^{182}</sup>$  Knox, *supra* note 147, at 310 (noting, conversely, that the Draft Articles on Prevention does include a strong equal access provision, which would ensure that nonresidents exposed to the risk of significant transboundary harm enjoy the same procedural rights as the public of the State of origin, whatever those rights may be).

the transboundary impact-creating conduct or project.<sup>183</sup>

In Aerial Herbicide Spraying, the ICJ could revisit the failed negotiations between Ecuador and Colombia in search of conduct that comports with the good faith and due diligence requirement of Article 9<sup>184</sup> and addresses the relevant factors listed in Article 10. It is clear from Ecuador's Application that it feels Colombia never truly engaged in good faith consultations,<sup>185</sup> and it is possible that the ICJ would find little evidence of good faith or due diligence on Colombia's part. Such a conclusion would likely result in the court ordering the parties to return to consultations, with the specific factors laid out in Article 10 in mind, before rendering an opinion on the remaining issues in the case.

Alternatively, the court could find Colombia did meet its obligations to engage in good faith consultations under Article 9(1), but that the consultations fell short of considering all the relevant Article 10 factors pursuant to Article 9(2). Of particular interest to this dispute is the Article 10(e) factor – the "economic viability of the activity in relation to the costs of prevention and to the possibility of carrying out the activity elsewhere or by other means or replacing it with an alternative activity."<sup>186</sup> The commentary to this factor explains:

The words "carrying out the activity... by other means" intend to take into account, for example, a situation in which one type of chemical substance used in the activity, which might be the source of transboundary harm, could be replaced by another chemical substance... The words "replacing [the activity] with

<sup>&</sup>lt;sup>183</sup> Handl, *supra* note 147, at 543.

<sup>&</sup>lt;sup>184</sup> Draft Articles on Prevention, *supra* note 141, art. 9, cmt. 2-4.

<sup>&</sup>lt;sup>185</sup> Application, *supra* note 1, para. 5 (stating, "Even on the occasions when Ecuador thought it had reached agreement with Colombia to put an end to the aerial sprayings, the fumigations subsequently resumed. It is therefore plain that the attitude of Colombia makes impossible for the Parties' dispute to be settled by diplomatic means").

 $<sup>^{186}</sup>$  Draft Articles on Prevention, supra note 141, art. 10(e) (emphasis added).

an alternative activity" are intended to take account of the possibility that the same or comparable results may be reached by another activity with no risk, or lower risk, of significant transboundary harm.<sup>187</sup>

This factor in particular seems to speak to the most obvious problem of *Aerial Herbicide Spraying*; namely, Colombia's use of non-selective and scientifically untested herbicide mixtures. It is entirely possible that effective, yet selective and environmentally safe, herbicides could be employed in the same fumigation regime. Furthermore, it is conceivable that entirely different activities apart from aerial spraying might have the same or comparable results to Plan Colombia fumigations. While this is only one factor among many, it seems especially relevant to this dispute. Again, in this scenario, the ICJ could order the parties to return to negotiations with the Article 10 equitable factors serving as the main framework for future consultations.

In sum, the likelihood that the ICJ will address the legal status of the ILC's Draft Articles on Prevention has never been greater. Aerial Herbicide Spraying provides the court with a favorable set of facts to conduct an analysis of a valid transboundary harm claim. It is nearly certain that Colombia's actions would fall within the scope of the Draft Articles on Prevention, giving the ICJ the opportunity to address both substantive and procedural aspects of Article 3's principle of prevention. This article acknowledges that a hard-line substantive approach is plausible, but reasons that the court is more likely to focus on procedure by incorporating the so-called "harmonious ensemble" of Articles 9 and 10 into Article 3's substantive norm of customary international law. In doing so, the ICJ could not only afford the parties another chance to resolve the dispute amicably, but also could shed some light on the procedural obligations of States seeking to meet due diligence and good faith standards in future transboundary harm consultations.

<sup>&</sup>lt;sup>187</sup> Id. art. 10, cmt. 12.

#### C. Colombia's State of Necessity Defense

Extending the analysis beyond Ecuador's transboundary harm claim assumes that the ICJ has recognized Colombia's actions as violations of its substantive or procedural obligations, or that Colombia has admitted to violating its substantive or procedural obligations in favor of advocating a state of necessity defense. This analysis begins acknowledging the likelihood that Colombia will vigorously deny that its actions constitute a breach of its sic utere duty, and that Colombia will attack Ecuador's claims of a causal relationship between the conduct an the injury. However, as the central premise of this analysis is to take all of Ecuador's claims as true, this article has concluded that it is unlikely Colombia will prevail in arguing for its compliance with its substantive or procedural obligations of prevention pursuant to the Draft Articles on Prevention. This article asks if there a stronger, more compelling defense available to Colombia than to simply deny the elements of a successful transboundary harm claim. The short answer is yes. Colombia's best defense is to assert a state of necessity, excusing it from breaching its international obligations because it acted to protect its essential interest in maintaining internal peace.

i. The Modern Necessity Doctrine

In keeping with the limited focus of this article on ICJ jurisprudence, it is best to introduce the modern doctrine of necessity in the same context. This approach points one to the aforementioned *Gabcikovo-Nagymaros*<sup>188</sup> case. Prior to *Gabcikovo-Nagymaros*, the ICJ had yet to speak on the status of Article 33 of the ILC Draft Articles on State Responsibility (hereinafter Draft Articles on Responsibility).<sup>189</sup> The Draft

<sup>&</sup>lt;sup>188</sup> Gabcikovo-Nagymaros Project, *supra* note 118.

<sup>&</sup>lt;sup>189</sup> ILC Draft Articles on State Responsibility, art. 33, paras. 1-2:

<sup>1.</sup> A state of necessity may not be invoked by a State as a ground for precluding the wrongfulness of an act of that State not in conformity

Articles on Responsibility, promulgated by Professor Roberto Ago, diverge from the traditional view of the doctrine of necessity, which views the defense arising solely from a state's inherent right to self-preservation.<sup>190</sup> Instead, the Draft Articles on Responsibility adopts a modern view of necessity as "an excuse to breach a state's international obligation when necessary to protect an essential interest."<sup>191</sup> Thus, the Draft Articles on Responsibility broaden the scope of the necessity doctrine to include circumstances in which a state is legitimately protecting any essential interest, not simply its right to existence.

### ii. The ICJ and "Essential Interests"

In *Gabcikovo-Nagymaros*, the ICJ explicitly laid out the judicial framework for a state of necessity analysis. The court outlined the requirements for a valid claim of necessity as follows:

In the present case, the following basic conditions set forth in Draft Article 33 are relevant: it must have been occasioned by an "essential interest" of the State which is the author of the act conflicting with one of its international obligations; that interest must have been threatened by a "grave and imminent peril"; the

<sup>190</sup> Roman Boed, State of Necessity as a Justification for Internationally Wrongful Conduct, 3 YALE HUM. RTS. & DEV. L.J. 1, 7 (2000); see also Andreas Laursen, The Use of Force and (The State of) Necessity, 37 VAND. J. TRANSNAT'L L. 485, 490-94 (2004) (describing the work of the International Law Commission and Professor Ago in promulgating the Draft Articles).

<sup>191</sup>Boed, *supra* note 190, at 7.

with an international obligation of the State unless:

<sup>(</sup>a) the act was the only means of safeguarding an essential interest of the State against a grave and imminent peril; and (b) the act did not seriously impair an essential interest of the State towards which the obligation existed.

<sup>2.</sup> In any case, a state of necessity may not be invoked by a State as a ground for precluding wrongfulness: (a) if the international obligation with which the act of the State is not in conformity arises out of a peremptory norm of general international law; or (b) if the international obligation with which the act of the State is not in conformity is laid down by a treaty which, explicitly or implicitly, excludes the possibility of invoking the state of necessity with respect to that obligations; or (c) if the State in question has contributed to the occurrence of the state of necessity.

act being challenged must have been the "only means" of safeguarding that interest; that act must not have "seriously impair[ed] an essential interest" of the State towards which the obligation existed; and the State which is the author of that act must not have "contributed to the occurrence of the state of necessity". Those conditions reflect customary international law.<sup>192</sup>

Here, the court makes clear that it adopts the modern view of the doctrine of necessity set forth in Article 33 of the Draft Articles, and explicitly recognizes Article 33 as reflecting customary international law. This modern view accepts that any essential interest may lay a foundation for a state of necessity defense, but this begs the question of what constitutes an "essential interest?" The ILC Commentaries decline to enumerate essential interests and stress that the extent of an interest's "essential" quality is left to a case-by-case analysis.<sup>193</sup>

Professor Ago, however, provided examples of the type of interests that would satisfy Article 33's essential interest requirement in his own report, to wit: ". . . political or economic survival, the continued functioning of [a state's] essential services, the maintenance of internal peace, the survival of a sector of [a state's] population, and the preservation of the environment or [a state's] territory or a part thereof."<sup>194</sup> The 2001 ILC Commentary provides a similar list.<sup>195</sup> To underscore the adoption of this modern view, the ICJ had no problem recognizing that the threat of ecological disaster could establish a state of necessity, falling under the ambit of "preservation of the en-

<sup>&</sup>lt;sup>192</sup> Gabcikovo-Nagymaros Project, *supra* note 118, at 40-41, para. 52.

<sup>&</sup>lt;sup>193</sup> Boed, supra note 190, at 15 (citing Report on the International Law Commission on the Work of its Thirty-Second Session, U.N. DOC.A/CN.4/SER.A/1980/ADD.1 (1980)); see also Laursen, supra note 190, at 502.

<sup>&</sup>lt;sup>194</sup> Roberto Ago, *Addendum to the Eighth Report on State Responsibility*, para. 2, U.N. DOC.A/CN.4/318/ADD.5-7 (1980); *see also* Boed, *supra* note 190, at 15.

<sup>&</sup>lt;sup>195</sup> Laursen, *supra* note 190, at 502-03 (citing JAMES CRAWFORD, THE INTERNATIONAL LAW COMMISSION'S ARTICLES ON STATE RESPONSIBILITY; INTRODUCTION, TEXT AND COMMENTARY (2002)).

vironment or its territory or a part thereof."<sup>196</sup> Indeed, the ICJ went on to state "the great significance that [the ICJ] attaches to respect for the environment, not only for States but also for the whole of mankind."<sup>197</sup>

#### iii. Analyzing Colombia's State of Necessity Defense

The ICJ made clear in *Gabcikovo-Nagymaros* that a state of necessity defense is available only if the state accused of violating international law can meet all of the requirements imposed by the narrow exception carved out in Article 33 of the Draft Articles. This section will address each of the elements of a necessity claim in turn, to wit: an essential interest, a grave and imminent peril threatening that essential interest, the violation of international law as the only available means to protect that imperiled essential interest, and the balancing requirement of the protected interest and the essential interest of a State towards which the obligation was owed.

### "Essential Interests"

Both the modern and the traditional views of the doctrine of necessity agree that a State's self-preservation constitutes an essential interest.<sup>198</sup> Colombia may attempt to frame its essential interest in these terms, arguing that it has waged a decades-long internal war against narcotic-funded terrorist groups, like the FARC, and that these groups put the very existence of Colombia's government at risk. Indeed, some reports indicate that, at one time, "the conflict ha[d] left as much as 40% of the country under the de facto control of major narcoterrorist groups."<sup>199</sup> This interest, however, may not be the most persuasive essential interest Colombia could argue it was protecting.

<sup>&</sup>lt;sup>196</sup> Boed, *supra* note 190, at 14. ("The Court proceeded on the assumption that the threat of an ecological catastrophe could establish a state of necessity, and that such necessity could provide a valid excuse for a State's conduct in violation of its international obligations.").

<sup>&</sup>lt;sup>197</sup> Gabcikovo-Nagymaros Project, *supra* note 118, at 41, para. 53.

<sup>&</sup>lt;sup>198</sup> See generally, Boed, supra note 190, at 4–8.

<sup>&</sup>lt;sup>199</sup> Walsh, *supra* note 61, at 140.

One alternative to the traditional necessity defense is to assert a state of necessity in protecting Colombia's essential interest in maintaining internal peace, requiring slightly less be at stake than the existence of the state. As seen above, Professor Ago specifically listed the maintenance of internal peace as an essential interest in his notes. This less extreme, yet still equally essential interest does not require that the very existence of Colombia's government be at risk, but rather, simply that the FARC and other terrorist groups in Colombia represent a threat to the internal peace of the country, and that Colombia's actions attempted to protect its essential interest in maintaining internal peace. For the reasons discussed below, it seems that the essential interest in maintaining internal peace is Colombia's most persuasive argument.

#### "Grave and Imminent Peril"

After asserting a recognized essential interest, the state claiming a necessity defense must show that the essential interest is threatened by a "grave and imminent peril."<sup>200</sup> In *Gabcikovo-Nagymaros*, the ICJ expressed that imminence "goes far beyond the concept of 'possibility."<sup>201</sup> In considering "peril," the ICJ held that it evokes the idea of risk in reference to a relevant point in time.<sup>202</sup> It was this prong of the state of necessity analysis that Hungary failed to establish in the *Gabcikovo-Nagymaros* case. As Roman Boed succinctly states, "[t]he Court concluded that Hungary's necessity claim failed to satisfy the 'imminence' prong, reasoning that the dangers to the environment allegedly inherent in the project were not sufficiently established at the time of the breach."<sup>203</sup>

In turning to Aerial Herbicide Spraying, Colombia's neces-

<sup>&</sup>lt;sup>200</sup> Gabcikovo-Nagymaros Project, *supra* note 118.

 $<sup>^{201}</sup>$ Boed, supranote 190, at 28 (citing Gabcikovo-Nagymaros Project, supranote 118, para. 54).

 $<sup>^{\</sup>rm 202}$  Laursen, supra note 190.

 $<sup>^{203}</sup>$ Boed, supra note 190, at 16 (citing Gabcikovo-Nagymaros Project, supra note 118, paras. 54-57).

sity claim is ostensibly founded on the grave and imminent peril presented by the revolutionary FARC and other narcoticsfunded terrorist groups in Colombia's southern regions. The existence and operation of these groups is clearly a "peril" insofar as FARC and other groups represent a risk to Colombia's internal peace at the same point in time at which Colombia stands accused of violating international obligations. However, it is precisely this point in time that may present a problem. Colombia will likely have a much harder time proving the "immediacy" of the peril. In short, the FARC, and other terrorist groups, are not a new problem to Colombia. In fact, the Colombian government has been battling the FARC for over fifty years,<sup>204</sup> during which time the FARC has historically been able to operate in the jungles of southern Colombia. Indeed, Frank M. Walsh estimates: "[t]he war with the FARC has claimed the lives of more the 250,000 Colombians and has forcibly displaced more than 1,350,000 [people]."205

Colombia will likely point to this violent domestic history as its basis for asserting its essential interest in maintaining internal peace, but how do the recent Plan Colombia sprayings forming the basis of Ecuador's Application fit into this history? Walsh pinpoints 2002 as the turning point in Colombia's war with the FARC, citing the generous American aid package discussed in Part II, supra, and the strong leadership of President Alvaro Uribe as reasons for Colombia's newfound progress. This year 2002 is also the same time Ecuador claims Colombian forces violated international law by spraying across the state's shared border, a fact that seems to aid the causal relationship element of Ecuador's transboundary harm claim. However, this turning point analysis is also advantageous to Colombia. Colombia can use this interpretation as evidence of the continued imminence the FARC threat represents to internal peace. Colombia could argue that it was the success of Plan Colombia sprayings that led to the recent decline of the FARC

 $<sup>^{204}</sup>$  Walsh, supra note 61, at 139.

<sup>&</sup>lt;sup>205</sup> Id. at 140 (citing Luz E. Nagle, *Placing Blame Where Blame is Due:* The Culpability of Illegal Armed Groups and Narcotraffickers in Colombia's Environmental and Human Rights Catastrophes, 29 WM. & MARY ENVTL. L. & POL'Y REV. 1, 22-23 (2004)).

and other narco-terrorist groups, and that the resulting conditions helped Colombia achieve a more peaceful domestic environment. In sum, it is likely that Colombia could successfully convince the Court that the threat of revolutionary armed forces such as FARC represented both a grave and imminent peril at the time Ecuador alleges Colombia violated its international obligations.

#### "Only Means" Available

The ICJ adopted the ILC view that the "only means" available requirement was to be strictly interpreted, implying that the peril must not have been escapable by any other means, even a more costly one, that could be adopted in compliance with international obligations.<sup>206</sup> For example, the Court denied Hungary's necessity claim in *Gabcikovo-Nagymaros* is in part based on its finding that means other than breaching international obligations were available to Hungary to safeguard its interest in protecting the environment in the region.<sup>207</sup>

In the present dispute, Colombia's defense depends on a showing that conducting a multi-million dollar aerial herbicide spraying campaign was the only means available to Colombia to protect its essential interest in maintaining internal peace from the peril of the FARC insurgents. This is perhaps the most difficult requirement for Colombia to meet. While much of the U.S. foreign aid was conditioned on Colombia implementing the U.S.-favored supply control strategy emphasizing mass aerial spraying, taking aid from the U.S. was simply not Colombia's only option – it was only the most expensive option. Indeed, considering the historic lack of success aerial fumigations has had in Colombia, it seems that Colombia was in a unique position to consider a variety of alternative domestic drug policies.

There are many other options Colombia might choose to

 $<sup>^{\</sup>rm 206}$  Boed, supra note 190, at 17.

 $<sup>^{207}</sup>$  Id.

combat its narcotics problem. One only need to look to other states' national drug policies to see the many options available to Colombia – options that may be more effective and less harmful to the environment. For example, Colombia could have waged an intensive "surge" of ground troops in its southern regions to eradicate illicit crops, or could have attempted further negotiations with the FARC as former-president Andres Pastrana did. Alternatively, Colombia could have opted to implement a DEA-style operation of locating crops from the air and then manually destroying any illicit cultivation on the ground, or could have pursued a reform of its domestic drug laws. Indeed, some of the alternatives to Colombia's supply control policy were recently outlined in the Wall Street Journal by former Latin American heads of state Fernando Henrique Cardoso, Cesar Gaviria, and Ernesto Zedillo, of Brazil, Colombia, and Mexico, respectively.<sup>208</sup>

In sum, without providing an exhaustive summary of every possible alternative and rationales for why all these alternative policies were not available to Colombia, it is unlikely that Colombia will meet its burden of showing that its aerial fumigations were the only means by which it could protect its essential interest in maintaining internal peace.

#### The Balancing Requirement

Assuming, *arguendo*, that Colombia is able to satisfy all of the preceding requirements for a state of necessity defense, it must also show that it has not seriously impaired an essential interest of a State towards which the obligation existed - in this case - Ecuador. As Boed puts it, this requirement constitutes a balancing test: "A plea of necessity is valid only if the scales tip

The former Presidents stated:

<sup>&</sup>lt;sup>208</sup> Fernando Henrique Cardoso, Cesar Gaviria, & Ernesto Zedillo, *The War on Drugs is a Failure*, Feb. 23, 2009, *available at* http://online.wsj.com/article/SB123535114271444981.html.

Prohibitionist policies based on eradication, interdiction and criminalization of consumption [of drugs] simply haven't worked . . . In this spirit, we propose a paradigm shift in drug policies based on three guiding principles: reduce the harm caused by drugs, decrease drug consumption through education, and aggressively combat organized crime.

in favor of the essential interest of the State that has acted unlawfully."<sup>209</sup> Thus, this final requirement contemplates balancing two competing essential interests: Colombia's interest in maintaining internal peace against Ecuador's interest in preserving its environment.

In this case, an analysis of the competing essential interests could determine an international legal hierarchy, within a state of necessity defense analysis, with potentially farreaching implications beyond the particular facts of Aerial Herbicide Spraving. If Colombia's interest outweighs Ecuador's interest, the floodgates to transboundary pollution will likely open, allowing any state with an interest in maintaining domestic peace to pollute across borders with impunity, regardless of international agreements or obligations imposed by customary international law. If Ecuador's interest outweighs Colombia's interest, states currently engaged in transboundary pollution may find themselves before the ICJ without the benefit of a state of necessity defense. This would require the ICJ to adopt a clear and explanatory framework for transboundary pollution claims, and provide a thorough evaluation of a state's sic utere duty and other rules of international environmental law. However, because Plan Colombia sprayings were not the only means available to Colombia to protect its essential interest in maintaining internal peace, it is possible that the ICJ will not reach this final balancing requirement in its analysis, leaving these questions open for debate.

### V. CONCLUSION

In sum, at the preliminary stage of this writing, Ecuador alleges very serious transboundary harm claims against Colombia in the *Aerial Herbicide Spraying* case, including harms to people, animals, crops, and the environment. This article analyzes each of these categories of harm, along with the political and historical background behind the Plan Colombia fumi-

<sup>&</sup>lt;sup>209</sup> Boed, *supra* note 190, at 18.

gation efforts. Beginning with the jurisprudential precedent provided by past ICJ opinions with respect to international environmental law, this article focuses on the transboundary pollution claim brought by Ecuador and the potential for Colombia to assert a state of necessity defense. In concluding that Ecuador is likely to prevail on its transboundary pollution claim, this article argues that Colombia's best defense – a state of necessity predicated on Colombia's essential interest in maintaining internal peace – must fail because it does not satisfy the "only means available" prong of the Court's analysis.

The Case Concerning Aerial Herbicide Spraying may, in time, come to be recognized as a landmark decision, and possibly the first of a "third wave" of transboundary harm disputes in which a state of origin is held liable for material damages to an affected state. Furthermore, this dispute poses important questions that will impact the future of transboundary pollution litigation as well as the corpus of international environmental law. The status of the *sic utere* principle contained in Article 3 of the ILC's Draft Articles on Prevention, the substantive and procedural obligations imposed on States by that principle, and other core principles of international environmental law require judicial interpretation and meaningful application before any progress can be made in advancing their legal status. The extent to which a state may protect an essential interest when that interest competes with another state's essential interest in protecting its environment is also another area in which the voice of the ICJ is necessary to give substance to what remains an ambiguous balancing act between potentially competing rules of customary international law. Assuming the current allegations are raised before the Court, a failure to address at least some of the environmental issues would be tantamount to abandoning the hope that international environmental law has a role to play in adjudicating even the most basic environmental claims.

While these issues of international environmental law are increasingly pressing in an ever-balkanizing global community, it is also important to note that this dispute raises other concerns outside the realm of international environmental law, such as the potential for third-party liability and the ef-

fects of unilateral use of force across State borders to protect internal peace. In the past, such concerns have sometimes overwhelmed the environmental issues on the international stage, but given the inherent environmental nature of Ecuador's claims against Colombia, it would be inconceivable for the ICJ to render an opinion neglecting the most fundamental nature of the issues highlighted in this article.