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# **INTERNATIONAL CIVIL AVIATION, THE CHICAGO CONVENTION, AND THE ENVIRONMENT**

*Assessing the Need and Feasibility of an Amendment to the Chicago Convention to Create  
Binding Obligations on ICAO to Assist the Environmental Sustainability of International  
Civil Aviation*

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## I INTRODUCTION

International civil aviation is an essential feature of the global transport framework. In 2024, the international civil aviation industry delivered 4.8 billion passengers, generating a total of \$32.4 billion in profit.<sup>1</sup> Even following the COVID-19 pandemic, international air travel continued to be an essential mode of transport, with global air passenger traffic surging 10.6% between 2023 to 2024.<sup>2</sup> However, as the international civil aviation industry continues to grow due to globalisation and technological advancement, the environmental impact of the industry has increased.<sup>3</sup> Most significantly, emissions from international civil aviation, which occur most commonly from the combustion of jet fuel (a fossil-derived hydrocarbon) by aircraft, contributes to 900 million metric tons of carbon dioxide emissions annually, accounting for 2.4% of all human-induced carbon emissions,<sup>4</sup> and estimated by the International Air Transport Association (IATA) to nearly double by 2035.<sup>5</sup> These statistics are furthered when considering the development efforts requires to produce technology and critical infrastructure, required for the operation of an airline or airport. Consequently, it is typically agreed by the international civil aviation community that the correlation between the growth of the international civil aviation industry and negative environmental impact is a matter for immediate address.<sup>6</sup>

Management of the international civil aviation industry is undertaken through the *Convention on International Civil Aviation* ('*Chicago Convention*').<sup>7</sup> Article 44 of the *Chicago Convention* establishes the International Civil Aviation Organization (ICAO).<sup>8</sup> ICAO's purpose under the *Chicago Convention* is to develop the principles and techniques of international air navigation and to foster the planning and development of international air

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<sup>1</sup> International Air Transport Association, *Annual Review 2025* (International Air Transport Association, 2025), 5.

<sup>2</sup> *Ibid* 14.

<sup>3</sup> Huan Guan, Huan Liu and Rima G Saadé, 'Analysis of Carbon Emission Reduction in International Civil Aviation through the Lens of Shared Triple Bottom Line Value Creation' (2022) 14(14) *Sustainability* 8513, 8514.

<sup>4</sup> Lea Rupcic et al, 'Environmental Impacts in the Civil Aviation Sector: Current State and Guidance' (2023) 119 *Transportation Research* 103717.

<sup>5</sup> Guan, Liu and Saadé (n 3) 8514.

<sup>6</sup> Deva Prasad, 'Evaluating the Responsibility of ICAO to Tackle Climate Change' (2024) 4(1) *Lex ad Coelum* 46, 47-50.

<sup>7</sup> *Convention on International Civil Aviation*, opened for signature 7 December 1944, 15 UNTS 295 (entered into force 4 April 1947) ('*Chicago Convention*'); Tanveer Ahmad, *Climate Change Governance in International Civil Aviation: Toward Regulating Emissions Relevant to Climate Change and Global Warming* (Eleven International Publishing, 2016), 212.

<sup>8</sup> *Chicago Convention* (n 7) art 44.

transport”,<sup>9</sup> and includes nine objectives with respect to industry growth,<sup>10</sup> aircraft design and operation,<sup>11</sup> needs and equality of the accessibility of aviation,<sup>12</sup> and safety.<sup>13</sup> ICAO operates as a specialised agency of the United Nations (UN) and includes two key bodies, namely, the Assembly of State Parties (ICAO Assembly) with all member states, and Council (ICAO Council) with 36 elected member states for matters referred by the Assembly.<sup>14</sup>

While ICAO has made efforts in recent years to remedy the environmental impact of international civil aviation,<sup>15</sup> the organisation has no binding obligation under the *Chicago Convention* or any other international agreement to continue such efforts or to prioritise environmental matters over industry development.<sup>16</sup> Notably, even Annex 16 to the *Chicago Convention*, which provides instruction to industry on environmental sustainability and international civil aviation including the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), does not have the same legal status as the *Chicago Convention* itself and does not include enforcement powers.<sup>17</sup> Therefore, balancing the important role of international civil aviation in a globalised world against the negative environmental impact of the industry is a pressing issue for international law which requires an industry specific solution.

## II RELATIONSHIP BETWEEN INTERNATIONAL ENVIRONMENTAL LAW AND INTERNATIONAL CIVIL AVIATION

### A. International Environmental Frameworks

International environmental law operates through several key frameworks. The most significant binding frameworks of international law include the *United Nations Framework Convention on Climate Change*

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<sup>9</sup> *Chicago Convention* (n 7) art 44.

<sup>10</sup> *Ibid* art 44(a).

<sup>11</sup> *Ibid* art 44(b).

<sup>12</sup> *Ibid* art 44(d), art 44(f)-(g).

<sup>13</sup> *Ibid* art 44(h).

<sup>14</sup> *Ibid* art 50.

<sup>15</sup> Prasad (n 6) 47-50.

<sup>16</sup> *Chicago Convention* (n 7) art 44; Alejandro José Piera, *Greenhouse Gas Emissions from International Aviation: Legal and Policy Challenges* (Eleven International Publishing, 2015) 116.

<sup>17</sup> Mónica Soria Baledón and Nicolás Kosoy, “‘Problematizing’ Carbon Emissions from International Aviation and the Role of Alternative Jet Fuels in Meeting ICAO’s Mid-Century Aspirational Goals’ (2020) 89 *Journal of Air Transport Management* 130, 133-137; Jae Woon Lee, ‘Regulating Carbon Emissions from International Aviation through Air Services Agreements: Lessons from Aviation Safety Enforcement’ (2026) *Leiden Journal of International Law* 1, 2-4.

(‘UNFCCC’),<sup>18</sup> *Kyoto Protocol to the United Nations Framework Convention on Climate Change* (‘*Kyoto Protocol*’),<sup>19</sup> and the *Paris Agreement*.<sup>20</sup> Within each of these frameworks, states agree to binding standards and regulation to collectively pursue solutions.<sup>21</sup> However, due to the transnational nature of the industry, international civil aviation is not included within these standard international environmental frameworks, rather, is instead regulated through the *Chicago Convention*.<sup>22</sup> However, the *Chicago Convention* complicates the relationship between international environmental law and international civil aviation as it makes no direct reference toward the environmental matters.<sup>23</sup> This issue means that the management of the environmental impact of international civil aviation simultaneously falls outside of both standard international environmental law frameworks and the *Chicago Convention*, creating a gap in technical, and possibly, regulatory guidance.

#### B. Exclusion of International Civil Aviation: Deferral to the *Chicago Convention* and ICAO?

The international community’s exclusion of international aviation within standard international environmental law frameworks could express intention to defer this responsibility to the *Chicago Convention*, and in turn, ICAO. To illustrate this point, it is first useful to compare against the direct address of domestic civil aviation under the *UNFCCC*, where emissions are “are reported by Parties in their inventories under national totals and are subject to national limitation and reduction commitments”, with international civil aviation only addressed in context of the sale of aviation fuel.<sup>24</sup> Additionally, during the development of the *Kyoto Protocol* at the third *UNFCCC* COP, international aviation was addressed only in regard that parties were required to “pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation...working through the International Civil Aviation Organization.”<sup>25</sup> This direction does not hold great clarity for the distinction as to whether ICAO holds a power to address environmental issues, if an obligation had been created to give ICAO to address environmental challenges of international aviation, or if this instruction was simply directed towards the

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<sup>18</sup> *United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992, 1771 UNTS 107 (entered into force 21 March 1994) (‘*UNFCCC*’).

<sup>19</sup> *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998, 2303 UNTS 162 (entered into force 16 February 2005) (‘*Kyoto Protocol*’).

<sup>20</sup> *Paris Agreement*, opened for signature 22 April 2016, 3156 UNTS 3 (entered into force 4 November 2016).

<sup>21</sup> Ahmad (n 7) 212.

<sup>22</sup> *Chicago Convention* (n 7) art 44.

<sup>23</sup> Jin Liu, ‘The Role of ICAO in Regulating the Greenhouse Gas Emissions of Aircraft’ (2011) 5(4) *Carbon & Climate Law Review* 417.

<sup>24</sup> *UNFCCC* (n 18) art 3(1).

<sup>25</sup> *Kyoto Protocol* (n 19) art 2(2).

ideal practice of sovereign states.<sup>26</sup> It has been notably argued that this provision obligates state parties to utilise the resources of ICAO, however, did not intend to create any new obligation on ICAO.<sup>27</sup> Unfortunately, clarity of this direction continues to be disputed and has never been judicially determined.<sup>28</sup>

The *Paris Agreement* in 2015 was further silent to the matter of international civil aviation and the relationship between international environmental law and the *Chicago Convention*. ICAO participated in the *UNFCCC's* COP which led to the agreement of the *Paris Agreement* but did not sign the agreement whilst other United Nations specialised agencies did.<sup>29</sup> However, this behaviour is not necessarily conclusive to determine the *Chicago Convention* and ICAO are not deferred to as the authority on environmental matters for international civil aviation, as ICAO was ineligible to sign both the *Paris Agreement and Kyoto Protocol* as the organisation had not previously joined the *UNFCCC* when it was open for signature to United Nations specialised agencies.<sup>30</sup> However, through participation in the *UNFCCC's* COP for the *Paris Agreement*, ICAO was invited to continue reporting progress of its programs, including CORSIA, to the *UNFCCC's* Body for Scientific and Technological Advice.<sup>31</sup> ICAO argues that through its involvement with and around international environmental law, that it is positioned through the *Chicago Convention* to act as a regulator for the emissions of international civil aviation.<sup>32</sup> Therefore, it should be viewed that the behaviour of ICAO in international legal forums attempts to assert the role of the *Chicago Convention* as the primary source for guidance or regulation of the environmental impact of international civil aviation. However, the substantive value of this claim should be subject to analysis of the operation of the *Chicago Convention* itself.

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<sup>26</sup> Ahmad (n 7) 257.

<sup>27</sup> Ibid 254.

<sup>28</sup> Piera (n 14) 77-79.

<sup>29</sup> United Nations Framework Convention on Climate Change, 'Report of the Conference of the Parties on its Twenty-First Session, held in Paris from 30 November to 13 December 2015' (United Nations Document FCCC/CP/2015/10).

<sup>30</sup> *UNFCCC* (n 18) art 20; *Kyoto Protocol* (n 19) art 24(1); *Paris Agreement* (n 20) art 20; Baine P Kerr, 'Clear Skies or Turbulence Ahead? The International Civil Aviation Organization's Obligation to Mitigate Climate Change' (2020) 16(1) *Utrecht Law Review* 101, 112.

<sup>31</sup> United Nations Framework Convention on Climate Change, 'Report of the Conference of the Parties on its Twenty-First Session, Held in Paris from 30 November to 13 December 2015' (United Nations Doc FCCC/CP/2015/10).

<sup>32</sup> Beatriz Martinez Romera, *Regime Interaction and Climate Change* (Routledge, 2018) 184, 184.

### III ICAO'S RESPONSIBILITY FOR THE ENVIRONMENT UNDER THE *CHICAGO CONVENTION*

#### A. Object and Purpose of the *Chicago Convention*

As noted prior, the *Chicago Convention* does not assert a binding obligation on ICAO to address environmental impacts of the international civil aviation industry. Article 44, which sets out the objectives of ICAO, involves nine objectives, which together promote the efficiency of industry, development of technology, and safety of airlines and passengers.<sup>33</sup> On a textual reading, article 44 does not make any reference to the environment, rather, only mentions the promotion of industry growth.<sup>34</sup> Alejandro Piera argues that the lack of reference to environmental concerns in the *Chicago Convention* is an intentional silence to ensure ICAO's focus on the market growth and technological innovation of the aviation industry as a technical rather than regulatory body.<sup>35</sup> Such an argument suggests that if a conflict arose between industry development and environmental concerns, that a textual reading of the *Chicago Convention* instructs that industry development should prevail.<sup>36</sup> This notion is similarly supported by Beatriz Martinez Romera, arguing that the "legal status of [ICAO's] environmental objectives is certainly beneath the ones established by the *Chicago Convention*, since those are, at most, soft law, while the *Chicago Convention* is hard law."<sup>37</sup> Here, Romera affirms the perspective of Piera, asserting that environmental concerns should be seen as inferior by ICAO against the primary purpose of the *Chicago Convention* to pursue industry growth.

However, treaty interpretation principles suggest that interpretation can occur through methods beyond textual analysis of a treaty article in isolation.<sup>38</sup> Baine Kerr argues that the broad nature of the preamble of the *Chicago Convention* should be given consideration to show that ICAO are obligated to ensure "maximum compatibility between the safe and orderly development of civil aviation and the quality of the environment".<sup>39</sup> It should be noted that Kerr does not suggest that environmental factors should prevail over industry development, rather, that

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<sup>33</sup> *Chicago Convention* (n 7) art 44.

<sup>34</sup> *Ibid.*

<sup>35</sup> Piera (n 14) 116-117. Cf Kerr (n 30) 107.

<sup>36</sup> Piera (n 14) 116.

<sup>37</sup> Romera (n 32) 184.

<sup>38</sup> *Vienna Convention on the Law of Treaties*, open for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980) art 31 ('*Vienna Convention on the Law of Treaties*'); *Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* (Judgment) [1997] ICJ Rep 7, 38 [46] ('*Gabčíkovo-Nagymaros Project*')

<sup>39</sup> Kerr (n 30) 106.

the environment should be given consideration to the maximum availability possible until it infringes upon industry growth.<sup>40</sup> Such approach is generally supported by ICAO, arguing the *Chicago Convention* should be read broadly as to include environmental matters as one of many considerations when undertaking their role.<sup>41</sup> Ruwantissa Abeyratne argues the broadest interpretation within scholarship, suggesting that the ongoing practice of ICAO in addressing environmental factors should provide grounding for a reformed interpretation of the *Chicago Convention*.<sup>42</sup> However, this approach seems flawed, as principles of international law do not typically allow for international organisations created under treaties to freely reinterpret their role through asserting behaviour as standard practice under those legal agreements.<sup>43</sup>

Rather, culmination of the approaches of jurisprudence should be understood to show that while the *Chicago Convention* is silent upon matters relating to ICAO's responsibility to environmental matters, such silence should not immediately require that these matters are excluded from ICAO's operation. Unfortunately, interpretation of the *Chicago Convention* has not occurred,<sup>44</sup> however, a balanced approach of these merits suggests that ICAO can address environmental matters in the context of ensuring that the international civil aviation industry continues to "to develop the principles and techniques of international air navigation and to foster the planning and development of international air transport".<sup>45</sup> However, this argument still does not create a binding environmental obligation for ICAO. This notion is supported by evidence that decisions by ICAO under the *Chicago Convention* to establish or utilise legal mechanisms for enforcement are non-binding.<sup>46</sup> Such means that a member state, airline, or aviation body can decline to participate in the initiatives and standards set by ICAO, and ICAO will be unable to enforce their compliance.<sup>47</sup> Therefore, the nature of this framework highlights that ICAO was not established to be a regulator for environmental impacts from international civil aviation, however, is not excluded by article 44 of the *Chicago Convention* from promoting sustainable practices.

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<sup>40</sup> Ibid 108.

<sup>41</sup> International Civil Aviation Organization, *Resolution A38-18*, Assembly of the International Civil Aviation Organization (38th Sess, Montreal, 2013) I-71 ('*ICAO Resolution A38-18*').

<sup>42</sup> Ruwantissa Abeyratne, *Regulation of Commercial Space Transport: Astrocizing of ICAO* (Springer, 2015), 118.

<sup>43</sup> *Vienna Convention on the Law of Treaties* (n 38) art 31.

<sup>44</sup> Piera (n 14) 76.

<sup>45</sup> *Chicago Convention* (n 7) art 44.

<sup>46</sup> Ahmad (n 7) 267.

<sup>47</sup> Guan, Liu and Saadé (n 3) 8523.

## B. ICAO in Practice: Involvement of Sovereign States

A major factor influencing the resolution of international environmental issues is the challenge of ensuring the collective effort of states towards environmental issues. More specifically, principles of international law require that for issues of collective concern, states should collaborate in order to reach consensus and collaboration on an action plan for improvement.<sup>48</sup> However, as noted by Macintosh, “most countries have been reluctant to undertake significant emissions abatement and obstruct growth in the aviation industry.”<sup>49</sup> The ICAO Assembly, the sovereign body of the organisation, have set environmental goals for international civil aviation, including “a collective medium term global aspirational goal of keeping the global net carbon emissions from international aviation from 2020 at the same level” through the CORSIA program.<sup>50</sup> Such program highlights a baseline interest in environmental factors by member states, however, does not explore the dynamics essential for the program to be successfully implemented.

Hence, the influence of state interests in the ICAO Assembly suggests that environmental goals may be limited in scope, and unable to reach the levels and commitment of frameworks such as the *Paris Agreement*.<sup>51</sup> Such means that while ICAO as an organisation may set and intend to reach goals with a focus on environmental sustainability, the engagement and involvement of sovereign states can interfere with these outcomes for political and financial reasons. To qualify this claim, it has been argued that analysis of the implementation of air services agreements by states in regard to air safety will be similarly mirrored with regard to environmental responsibility.<sup>52</sup> However, the simplicity of this approach in comparing a non-contentious issue such as safety with environmental responsibility appears strained. This challenge can be seen through the operation of CORSIA, which is the first industry global market scheme and operates through the purchasing of credits by airlines or aircraft operators through projects that reduce carbon dioxide to offset emissions that grow above 85% of 2019 levels.<sup>53</sup> However, it should be noted that this regime was established as an temporary solution to reduce emissions, and does not

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<sup>48</sup> Francisco Orrego Vicuna, 'Responsibility and Liability under International Law for Environmental Damage' (1997) 30(2) *Belgian Review of International Law* 475.

<sup>49</sup> Andrew Macintosh and Lailey Wallace, 'International Aviation Emissions to 2025: Can Emissions Be Stabilised without Restricting Demand?' (2009) 37(1) *Energy Policy* 264, 265.

<sup>50</sup> *ICAO Resolution A38-18* (n 39) I-71; Ahmad (n 7) 267.

<sup>51</sup> Macintosh and Lailey Wallace (n 49) 265.

<sup>52</sup> Lee (n 17) 5-7.

<sup>53</sup> International Civil Aviation Organization, *ICAO Environmental Report 2022* (International Civil Aviation Organization, 2022), 22-25; See also, Ruwantissa Abeyratne, *Legal Priorities in Air Transport* (Springer, 2019).

currently seek to achieve net zero emissions in the long term.<sup>54</sup> The CORSIA program highlights a key limitation between the publicly facing objectives set by member states of ICAO, such as CORSIA, and their implementation in practice due to other influences and the interests of states.

A qualifying aspect of this principle is the role and position of developing states under international law. Typically, developing states fly fewer civil international flights, however, these flights are often essential to maintaining the accessibility of the state.<sup>55</sup> In turn, the ICAO Assembly acknowledged the principle of common but differentiated responsibilities and developed a new principle of “special circumstances and respective capabilities” for developing states.<sup>56</sup> In doing so, this new principle would give regard to the size, growth, average age of fleet, and current and projected financial condition including capital, profitability and competitiveness of airlines in developing states in order to not impose impractical and unjust obligations under international law.<sup>57</sup> Here, it can be shown that ICAO has capability to balance the objectives of equity and environmental concerns in regard to the involvement of developing states in the growth of both the international civil aviation industry and environmental sustainability.

However, scholarship argues that it is commonplace that objectives of powerful states continue to influence the operation and outcomes of the ICAO Assembly compared to developing states. This issue is particularly true given the operational framework of ICAO, with international law critics suggesting the imbalance of representation of powerful sovereign states, including United States, United Kingdom, and China, on the ICAO Council, coupled with the infrequent meeting of the ICAO Assembly every three years for two weeks, has promoted the role of the Council and in turn the interests of powerful states.<sup>58</sup> While it could be argued that the ICAO Council also includes several developing states and a category of ‘States Ensuring Geographic Representation’, it is argued that the broader negotiation and political power of major states on the Council continues to perpetuate the interest of powerful states at the forefront of ICAO.<sup>59</sup> Therefore, it is evident that the practical operation and relationship

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<sup>54</sup> International Civil Aviation Organization (n 51) 22-25.

<sup>55</sup> Ahmad (n 7) 266.

<sup>56</sup> International Civil Aviation Organization, *Resolution A40-18*, Assembly of the International Civil Aviation Organization (40th Sess, Montreal, 2019); International Civil Aviation Organization, *Resolution A41-21*, Assembly of the International Civil Aviation Organization (42nd Sess, Montreal, 2022).

<sup>57</sup> Ibid.

<sup>58</sup> Piera (n 14) 86.

<sup>59</sup> Liu (n 23) 420.

between ICAO and its member states creates a challenge in ensuring ongoing commitment to environmental sustainability in international civil aviation.

#### IV FEASIBILITY OF AMENDING THE *CHICAGO CONVENTION*

Analysis of the operation of the *Chicago Convention* and the role of ICAO in international law has evidenced that there is little textual support for interpretation of the *Chicago Convention* to create a clear obligation for ICAO to pursue objectives of environmental sustainability. While the *Chicago Convention* does not exclude ICAO from considering environmental factors within a broader pursuit of industry development, it does not mandate any obligation for ICAO to continue current environmental efforts or improve standards for future. Moreover, the influence of states at the ICAO Assembly means that external interests often influence and limit environmental efforts by ICAO, meaning that standards and goals set to reduce emissions caused by international civil aviation are only aspirational and set in the short to medium term. Consequently, the opportunity to create binding obligations on ICAO to protect the consideration of environmental sustainability by ICAO in regulatory decision making is essential for a sustainable future for international civil aviation.

##### A. Substance of a Textual Amendment to Article 44

As mentioned, article 44 of the *Chicago Convention* includes nine objectives for ICAO to pursue. These objectives create binding obligation on ICAO to regulate the international civil aviation industry in a particular manner. Therefore, by amending article 44, ICAO would be given a binding legal obligation to consider the environment in the promotion and undertaking of its activities. The most impactful manner to amend an international agreement is through a substantive textual amendment to article 44 of the *Chicago Convention*. Textual amendments to an international agreement can edit, remove, or add to the existing form of an agreement and require an additional amendment to be changed or replaced.<sup>60</sup> This means that this model of amendment typically provides strong protection and becomes relevant for consideration by international judicial commentary as good law rather than as international practice.<sup>61</sup>

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<sup>60</sup> M. J Bowman, 'The Multilateral Treaty Amendment Process-A Case Study' (1995) 44(3) *International and Comparative Law Quarterly* 540.

<sup>61</sup> Louis Bélanger and Jean-Frédéric Morin, 'Treaty Amendment Procedures: A Typology from a Survey of Multilateral Environmental Agreements' (2023) 37(1) *Leiden Journal of International Law* 62, 65-68.

An option available to amend article 44 is to change an existing obligation to extend its scope to include environmental matters. Most relevantly, article 44(a) requires that ICAO ensure the “safe and orderly growth of international civil aviation throughout the world”.<sup>62</sup> Here, the introduction of ‘safe, orderly, and environmentally sustainable growth’ could be introduced to provide sufficient consideration to environmental factors. This style of textual amendment would place environmental issues within the forefront of the role of ICAO and highlight the balancing intended between safety, growth, and sustainability.<sup>63</sup> Consequently, such would mean that environmental considerations would sit as a smaller factor within the one of the nine objectives and may instead be reduced and limited when needed.

Rather, a preferred approach to a textual amendment to article 44 would be the introduction of a tenth objective for ICAO. This would mean that environmental sustainability would be positioned directly alongside factors such as development and technological advancements to ensure commitment to sustainable practices throughout all aspects of international civil aviation. However, this model requires the drafting of a new provision which will successfully protect environmental concerns, deliver meaningful consideration, and not restrict the growth of industry. It is argued that drafting of such a provision would be required to be general to give respect to the broad range of environmental issues currently created by international civil aviation and those of the future which have not yet been contemplated.<sup>64</sup> Such means that it would be unnecessary to directly identify one particular environmental impact of international civil aviation, rather, that this objective should operate as both an independent goal and a consideration to be balanced against the other nine factors. However, these challenges can largely be mitigated through drafting the provision alike to the current form of the other objectives which utilise short phrases to enliven high level obligations.

#### B. Opportunity for a Textual Amendment to Article 44

In the international civil aviation context, article 94 of the *Chicago Convention* sets out that any amendments to the agreement must be approved through vote of at least two thirds of the ICAO Assembly and then ratified by at

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<sup>62</sup> *Chicago Convention* (n 7) art 44(a).

<sup>63</sup> Alessandro Piera, *Getting to Global Cooperation: ICAO and Climate Change* (Occasional Paper, Institute of Air & Space Law, McGill University, 2015) 5–6.

<sup>64</sup> *Ibid.*

least two thirds of member states.<sup>65</sup> This means that the passing of an amendment is not only through a voting process, rather, requires implementation at a domestic level by states. This process creates a challenging amendment procedure as evidenced by the fact that that the *Chicago Convention* has only eight amendments be successful, and these amendments have largely been administrative in nature regarding the operation of the ICAO Assembly.<sup>66</sup> Therefore, proposing a substantive change to the responsibilities and obligations of ICAO under article 44 would likely require substantial negotiation and support.

Scholarship suggests that it is not the commitment to environmental sustainability which would fraught negotiations, rather, the extent to which the commitment becomes an obligation.<sup>67</sup> Here, it is useful to identify the differences between the various objectives of ICAO under article 44, as some only create obligations to “encourage”<sup>68</sup> and “promote”<sup>69</sup> while others are “meet”.<sup>70</sup> Such means that while the objectives of ICAO are often balanced against one another, the requirements of each obligation differs in practice.<sup>71</sup> Therefore, it has been argued that the difference between the modality of these instructive verbs will likely be the key challenge of negotiations, particularly regarding the extent to which ICAO should be held responsible, and will hold states responsible, for environmental matters.<sup>72</sup> Therefore, whilst there is opportunity to introduce a textual amendment to article 44 of the *Chicago Convention* to create an obligation for ICAO to give consideration to environmental factors, the nature of the obligation will likely be challenged throughout the negotiation process in the ICAO Assembly.

In addition, it is possible that the existing the institutional culture of ICAO as consensus-based, technical standard-setting rather than regulatory commitments may limit support for a substantive textual amendment. Traditionally, ICAO has functioned primarily as a forum for harmonising safety, security, and operational standards, allowing politically sensitive questions to be managed incrementally through recommended practices rather than binding reform.<sup>73</sup> A proposal to amend article 44 in order to elevate environmental protection to a more explicit obligation

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<sup>65</sup> *Chicago Convention* (n 7) art 94.

<sup>66</sup> Bowman (n 60) 544.

<sup>67</sup> Macintosh and Lailey Wallace (n 49) 265.

<sup>68</sup> *Chicago Convention* (n 7) art 44(a)-(b).

<sup>69</sup> *Ibid* art 44(h)-(i).

<sup>70</sup> *Ibid* art 44(d).

<sup>71</sup> Liu (n 23) 421-423.

<sup>72</sup> *Ibid*.

<sup>73</sup> Piera (n 63) 4-5.

would therefore mark a subtle but important shift in the organisation's constitutional identity.<sup>74</sup> Some member states may perceive this as expanding ICAO's mandate beyond coordination into supervision, raising concerns about institutional overreach.<sup>75</sup> Consequently, resistance may not arise only from opposition to environmental objectives, but also from apprehension about altering the foundational equilibrium upon which international civil aviation governance has long depended.<sup>76</sup>

### C. Declaratory Amendment About Article 44

Alternatively, to achieve amendment in a faster model, a declaratory amendment is available to states who are signatories to an agreement under international law.<sup>77</sup> Through this method, the substantive text of a treaty remains, however, states are able to clarify their interpretation and working understanding of the treaty.<sup>78</sup> While these types of declarations are most common at the commencement of a treaty, they are also available to ensure that the interpretation, and in turn operation, of a treaty remains fit for purpose.<sup>79</sup> In this context, a state would need to publish a declaration outlining their interpretation of the *Chicago Convention* that ICAO is empowered to address environmental issues arising from international civil aviation under article 44. However, it should be noted that this method of amendment will not create any binding obligation on ICAO as a formal textual amendment to article 44 of the *Chicago Convention* would achieve.

Moreover, the accessibility and likelihood of a declaratory amendment relies upon the views and processes of domestic political systems. Such means that declaratory amendments require the involvement of a proposing state which creates reliance, and opportunity for resistance, from domestic legislatures, executives, and sometimes judicial bodies.<sup>80</sup> In states where treaty ratification demands extensive parliamentary approval or faces political contestation, even a non-substantive, clarificatory amendment may encounter delay or resistance.<sup>81</sup> In the context

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<sup>74</sup> Heather L Miller, 'Civil Aircraft Emissions and International Treaty Law' (1998) 63(4) *Journal of Air Law and Commerce* 3.

<sup>75</sup> *Ibid.*

<sup>76</sup> Liu (n 23) 417.

<sup>77</sup> Bowman (n 60) 544-546.

<sup>78</sup> *Ibid.*

<sup>79</sup> *Ibid.*

<sup>80</sup> J Nzelibe, 'Strategic Globalization: International Law as an Extension of Domestic Political Conflict' (2011) 105(2) *Northwestern University Law Review* 635.

<sup>81</sup> Matthew Castle, 'Renegotiating in Good Faith: How International Treaty Revisions Can Deepen Cooperation' (2024) 19 *The Review of International Organizations* 217.

of international civil aviation, major aviation powers may choose to prioritise regulatory stability and predictability for airlines and manufacturers, while developing states may seek stronger recognition of equitable access to airspace, technology transfer, or environmental responsibilities.<sup>82</sup> As a result, the prospects of an amendment by declaration depend less on legal simplicity and more on whether leading aviation states perceive political advantage, or at least no strategic loss, in redefining the *Chicago Convention*.<sup>83</sup> Thus, the feasibility of amending Article 44 is not only challenged by international dynamics, but also domestic political forces.

## V CONCLUSION

Therefore, while ICAO holds a unique position in the current management of the environmental impact of international civil aviation, an amendment to article 44 of the *Chicago Convention* would be desirable to ensure the ongoing commitment of ICAO to environmental sustainability for the industry. Continuing growth of the international civil aviation industry has been shown to require industry specific solution to address environmental sustainability issues as international civil aviation is beyond the scope of common international environmental frameworks. However, while current global practice is to defer environmental matters for international civil aviation to ICAO, such does not necessarily create a responsibility, let alone an obligation, for ICAO to continue such work. Rather, influence of states, industry, and the structure of ICAO itself are all factors which indicate that environmental sustainability could be pushed backward in favour of industry growth and development.

Consequently, the appeal of an amendment to include environmental sustainability as an objective of ICAO is clearly evidenced. However, the feasibility of either a formal textual amendment or a declaratory amendment is challenged by both legal and political factors which see an amendment require substantial support for success. Therefore, whilst it has been shown that the international community would benefit from ICAO having binding obligations to consider environmental issues for international civil aviation, the likelihood of the success of any meaningful amendment to article 44 of the *Chicago Convention* to implement this goal is low. Such means that ICAO will likely continue to operate as a technical standards authority, tasked with the efficiency, growth, and development of the industry, and considering environmental sustainability as suited.

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<sup>82</sup> Johanna Hoekstra, 'Political Barriers in the Ratification of International Commercial Law Conventions' (2021) 26(1) *Uniform Law Review* 43.

<sup>83</sup> *Ibid.*

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