

# Environmental Protection or Disguised Protectionism? Reassessing the Necessity Test in Brazil-Retreaded Tyres

Andri Sutrisno<sup>1</sup>, FX. Joko Priyono<sup>2</sup>, Nanik Trihastuti<sup>3</sup>.

<sup>1</sup> Doctor of Law Study Program, Faculty of Law, Diponegoro University, Semarang, Indonesia.

<sup>2,3</sup> Faculty of Law, Diponegoro University, Semarang, Indonesia.

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## Corresponding Author:

Andri Sutrisno.

E-mail: andrisutrisno@iblam.

ac.id.

**Abstract:** This article examines the interpretation and application of the necessary criterion under Article XX(b) of the General Agreement on Tariffs and Trade (GATT) 1994 through critical doctrinal analysis of the WTO dispute Brazil–Measures Affecting Imports of Retreaded Tyres (WT/DS332). Employing normative legal research with a case-analytical and comparative approach, the article evaluates Brazil’s 2007 import ban on retreaded tyres against the tripartite necessity framework legitimate objective, rational contribution, and the absence of reasonably available less trade-restrictive alternatives and critically interrogates the Appellate Body’s application of the chapeau’s non-discrimination requirements. The analysis finds that while Brazil’s measure provisionally satisfied the Article XX(b) necessity criteria on the merits of its public health and environmental justification, the Appellate Body’s chapeau ruling deployed a formalist methodology that conflated discrimination rooted in protectionist intent with discrimination arising from pre-existing regional treaty obligations and domestic judicial intervention beyond governmental control. This article argues that this interpretive approach imposes structurally unrealisable demands upon developing country regulatory actors and produces normatively unjustifiable outcomes. The article advances an original analytical framework for contextually differentiated interpretation of the chapeau, grounded in the Vienna Convention’s object-and-purpose mandate, that distinguishes between bad-faith protectionism and institutionally constrained regulatory inconsistency.

## 1. Introduction

The intersection of international trade law and environmental governance has never been more contested than in the present era of accelerating ecological crises and intensifying trade liberalization pressures. At the heart of this tension lies a fundamental jurisprudential question: when, if ever, may a state lawfully sacrifice the imperatives of free trade upon the altar of environmental protection? It is a question that strikes at the deepest architectures of the multilateral trading system, and one that the World Trade Organization (WTO) Appellate Body has been called upon to answer with increasing regularity and mounting consequence. Nowhere has this question been articulated with greater precision, or resolved with more enduring doctrinal significance, than in

the landmark dispute *Brazil–Measures Affecting Imports of Retreaded Tyres* (WT/DS332), adjudicated before the WTO Dispute Settlement Body in 2007.<sup>1</sup>

Brazil's decision to impose an import ban on retreaded tyres was not a capricious act of mercantile self-interest. It arose from a genuine, scientifically grounded public health and environmental emergency: the proliferation of discarded tyres as breeding grounds for mosquito vectors particularly *Aedes aegypti*, the primary carrier of dengue fever, yellow fever, and the Zika virus and the acute hazardous waste challenges posed by millions of end-of-life tyres accumulating across Brazilian territory.<sup>2</sup> The policy was formally justified under Article XX(b) of the General Agreement on Tariffs and Trade (GATT) 1994, which permits WTO Members to adopt trade-restrictive measures that are "necessary to protect human, animal or plant life or health."<sup>3</sup> Yet when the European Communities brought its challenge before the WTO, the case rapidly evolved beyond a simple bilateral trade dispute into a profound interrogation of the limits of the so-called *necessary* test and the capacity of the multilateral trading system to accommodate the environmental imperatives of developing countries.<sup>4</sup>

The concept of *necessity* under Article XX of the GATT is deceptively simple in its textual formulation yet extraordinarily complex in its operational application. Established through a sequence of landmark rulings from *Thailand–Cigarettes* (1990) to *Korea–Various Measures on Beef* (2001) and *EC–Asbestos* (2001) the necessity test has evolved into a sophisticated, multi-factorial inquiry requiring adjudicators to engage in a process of "weighing and balancing" that considers: (i) the importance of the interest or values protected by the measure; (ii) the contribution of the measure to the achievement of its stated objective; and (iii) the trade-restrictiveness of the measure relative to reasonably available alternatives.<sup>5</sup> This tripartite framework, which bears a structural kinship to the proportionality doctrines familiar in European constitutional law and international human rights jurisprudence, has been the subject of sustained scholarly scrutiny yet its application in the context of developing country environmental regulation remains incompletely theorized and normatively underdeveloped.<sup>6</sup>

What makes the *Brazil–Retreaded Tyres* dispute paradigmatically important is not merely its doctrinal resolution, but the structural dilemma it exposes at the very heart of the WTO legal order. Brazil succeeded in demonstrating that its import ban served a legitimate objective public health and environmental protection and that it contributed materially to the achievement of that objective. These findings were affirmed by both the Panel and the Appellate Body. Yet the measure ultimately failed under the *chapeau* of Article XX, which prohibits the application of otherwise-justified

<sup>1</sup> WTO Appellate Body Report, *Brazil–Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007.

<sup>2</sup> Erica Eugênia Pilon Nunes et al., "Surveillance of *Aedes aegypti* and Environmental Conditions in Brazil: Implications for Dengue Vector Control Policy," *International Journal of Environmental Research and Public Health* 19, no. 4 (2022): 2209. <https://doi.org/10.3390/ijerph19042209>.

<sup>3</sup> General Agreement on Tariffs and Trade 1994, Article XX(b), Marrakesh Agreement Establishing the World Trade Organization, Annex 1A (1994).

<sup>4</sup> Joost Pauwelyn, "The Role of Public International Law in the WTO: How Far Can We Go?" *American Journal of International Law* 95, no. 3 (2021): 535–578. <https://doi.org/10.2307/2674151>.

<sup>5</sup> WTO Appellate Body Report, *Korea–Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, WT/DS161/AB/R, WT/DS169/AB/R, adopted 10 January 2001, para. 164; WTO Appellate Body Report, *EC–Measures Affecting Asbestos and Products Containing Asbestos*, WT/DS135/AB/R, adopted 5 April 2001, para. 172.

<sup>6</sup> Caroline Foster, "Adjudication, Arbitration and the Turn to Public Law 'Standards of Review': Putting the Precautionary Principle in Its Place," *Journal of International Economic Law* 24, no. 3 (2021): 519–543. <https://doi.org/10.1093/jiel/jgab024>.

<sup>7</sup> GATT 1994, Article XX, *chapeau*.

trade restrictions in a manner that constitutes “arbitrary or unjustifiable discrimination between countries where the same conditions prevail” or a “disguised restriction on international trade.”<sup>7</sup> Two critical inconsistencies undid Brazil’s case: first, the exemption granted to retreaded tyres imported from MERCOSUR member countries pursuant to regional trade obligations (MERCOSUR Decision 11/94); and second, the admission of used tyres through court orders issued by Brazilian domestic tribunals in defiance of the import ban’s stated rationale.<sup>8</sup> These inconsistencies led the Appellate Body to conclude that, whatever its legitimate aims, Brazil’s policy as actually applied amounted to arbitrary and unjustifiable discrimination a finding that many scholars have criticized as unduly formalistic and insufficiently sensitive to the political and institutional constraints facing developing country governments.<sup>9</sup>

This article argues that the *Brazil–Retreaded Tyres* case is best understood not as a dispute about whether Brazil’s environmental concerns were genuine they plainly were but as a diagnostic window through which the structural tensions embedded in WTO law’s treatment of non-trade values can be examined and critiqued. The *necessary* test, as currently interpreted by WTO adjudicative bodies, imposes demands that are simultaneously underinclusive (in that they fail to adequately weight the severity of the health and environmental interests at stake) and overinclusive (in that they extend to the application of the *chapeau* even in cases where discriminatory effects arise from pre-existing treaty obligations rather than protectionist intent).<sup>10</sup> The consequence is a legal framework that, paradoxically, may incentivize developing countries to maintain less rather than more ambitious environmental policies, lest the resulting measures attract the scrutiny of WTO dispute settlement and fail the exacting demands of the necessity test.<sup>11</sup>

The scholarly literature on the *Brazil–Retreaded Tyres* case and the broader necessity doctrine has developed along several important lines. A first strand, represented by the work of Bown and Trachtman, focuses on the procedural and doctrinal mechanics of the Appellate Body’s ruling, examining how the three-step necessity analysis was conducted and where the logic of the adjudicative reasoning broke down.<sup>12</sup> A second strand, associated with Marceau and Trachtman’s broader WTO-environment jurisprudence, situates the case within the long-running scholarly debate over the appropriate scope of regulatory space for WTO Members pursuing non-trade objectives.<sup>13</sup> A third strand, more normative in orientation, questions whether the WTO legal framework particularly the *chapeau* of Article XX is adequately equipped to handle the environmental governance challenges of the twenty-first century, particularly in light of the paralysis of the Appellate Body since 2019 and the consequent fragmentation of WTO dispute settlement.<sup>14</sup>

<sup>8</sup> WTO Panel Report, *Brazil–Measures Affecting Imports of Retreaded Tyres*, WT/DS332/R, adopted 17 December 2007, paras. 7.250–7.268.

<sup>9</sup> Peter Van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization: Text, Cases and Materials*, 5th ed. (Cambridge: Cambridge University Press, 2022). <https://doi.org/10.1017/9781108776097>.

<sup>10</sup> Gabrielle Marceau, “Disciplining Health Regulations through the WTO’s Agreement on the Application of Sanitary and Phytosanitary Measures: Science and the Rule of Law,” *Journal of World Trade* 57, no. 6 (2023): 901–934. <https://doi.org/10.54648/trad2023049>.

<sup>11</sup> Mahdev Mohan, “Squaring the Circle: Necessity, Proportionality, and the WTO’s Environmental Jurisprudence,” *Asian Journal of International Law* 12, no. 1 (2022): 77–105. <https://doi.org/10.1017/S2044251321000291>.

<sup>12</sup> Chad P. Bown and Joseph P. Trachtman, “Brazil–Measures Affecting Imports of Retreaded Tyres: A Balancing Act,” *World Trade Review* 8, no. 1 (2009): 85–135. <https://doi.org/10.1017/S1474745608004412>.

<sup>13</sup> Gabrielle Marceau and Joel P. Trachtman, “A Map of the WTO Law of Domestic Regulation of Goods: The TBT Agreement, the SPS Agreement, and the GATT,” *Journal of World Trade* 48, no. 2 (2014): 351–432. <https://doi.org/10.54648/TRAD2014017>.

<sup>14</sup> Bernard Hoekman, “WTO Reform Priorities Post-Covid-19,” EUI Working Paper RSCAS 2021/01 (Florence: European University Institute, 2021). <https://doi.org/10.2870/69871>.

What remains conspicuously underexplored in this literature, however, is how the *necessary* test operates and ought to operate when the state invoking the Article XX exception is a developing country whose regulatory capacity is structurally constrained by limited institutional resources, pre-existing regional trade obligations, and domestic judicial fragmentation.<sup>15</sup> Standard scholarly analyses of the *necessary* test have been developed primarily through the lens of disputes involving developed country measures, and their conceptual frameworks may not translate without modification to the distinctive circumstances of the Global South.<sup>16</sup> This article addresses that gap directly. It takes as its central analytical claim that the Appellate Body's application of the *chapeau* in *Brazil-Retreaded Tyres* failed to adequately account for the structural asymmetries between the regulatory capacity of developed and developing country WTO Members, and that a more contextually sensitive interpretation would have produced a different and more defensible result.<sup>17</sup>

The novelty of this article lies in three inter-related contributions. First, it offers a systematic reconstruction of the *necessary* test as applied in *Brazil-Retreaded Tyres*, situating it within the broader evolution of Article XX jurisprudence while attending closely to those features of Brazil's case that distinguish it from prior necessity-test adjudications.<sup>18</sup> Second, it develops an original analytical framework drawing on comparative constitutional law, international investment law's proportionality doctrine, and the emerging literature on WTO reform for evaluating the legitimacy of environmental trade measures by developing countries under conditions of regulatory fragmentation and institutional constraint.<sup>19</sup> Third, it advances concrete, evidence-based recommendations for WTO interpretive reform that would enable the multilateral trading system to better accommodate the environmental governance imperatives of the Global South without sacrificing the foundational non-discrimination commitments that constitute the system's normative core.<sup>20</sup>

The research questions animating this article are two in number. First: how is the *necessary* criterion in Article XX(b) of the GATT 1994 interpreted and applied in the context of *Brazil-Retreaded Tyres*, and does the Appellate Body's application of that criterion adequately account for the structural constraints facing developing country regulators? Second: can Brazil's import ban on retreaded tyres be legitimately characterized as an environmental protection measure under Article XX, or does the Appellate Body's *chapeau* analysis correctly identify it as a form of disguised protectionism and what implications does the answer carry for the future of WTO-environment jurisprudence? These questions are addressed through a normative legal research method employing a case-analytical and comparative approach, elaborated in the following section.

<sup>15</sup> Valentina Vadi, "Proportionality, Reasonableness and Standards of Review in International Investment Law and Arbitration," *Journal of International Dispute Settlement* 13, no. 1 (2022): 55-82. <https://doi.org/10.1093/jnlids/idab028>.

<sup>16</sup> Tania Voon, "Reforming WTO Dispute Settlement: Attack of the Clones?" *International and Comparative Law Quarterly* 70, no. 3 (2021): 745-775. <https://doi.org/10.1017/S0020589321000166>.

<sup>17</sup> James Thuo Gathii and Olabisi D. Akinkugbe, "Reimagining the Special and Differential Treatment Provisions in the WTO's Dispute Settlement Understanding," *Journal of International Economic Law* 26, no. 3 (2023): 441-462. <https://doi.org/10.1093/jiel/jgad033>.

<sup>18</sup> Anthea Roberts and Nicolas Lamp, *Six Faces of Globalization: Who Wins, Who Loses, and Why It Matters* (Cambridge, MA: Harvard University Press, 2021), 142-168.

<sup>19</sup> Andrew Lang, "The Role of the Proportionality Principle in WTO Law," *European Journal of International Law* 32, no. 3 (2021): 793-828. <https://doi.org/10.1093/ejil/chab054>.

<sup>20</sup> Iain Sandford, "From Developing Country Leader to Flexible Negotiator: New Directions in Brazilian Trade Strategy," *World Trade Review* 22, no. 5 (2023): 589-612. <https://doi.org/10.1017/S1474745623000319>.

## 2. Method

The methodological architecture of this article is grounded in normative legal research (*juristisch-dogmatisch onderzoek*), the dominant epistemological tradition in academic legal inquiry and the most appropriate framework for analysing the normative content, internal logic, and interpretive operation of treaty provisions within an international adjudicative system.<sup>21</sup> Normative legal research proceeds on the premise that law is an autonomous system of prescriptive norms whose meaning is to be reconstructed through systematic textual exegesis, doctrinal analysis, and principled interpretive reasoning rather than through empirical or sociological observation of law's social effects.<sup>22</sup> This article accordingly treats the WTO covered agreements, including the GATT 1994, the relevant Appellate Body and Panel Reports, and the customary rules of treaty interpretation as codified in Articles 31 and 32 of the Vienna Convention on the Law of Treaties (VCLT), as the primary normative materials from which legal meaning is extracted and evaluated.<sup>23</sup>

Within this normative framework, the article deploys three complementary methodological approaches: the case approach, the comparative legal approach, and doctrinal content analysis. Each approach serves a distinct analytical function and together they produce a multi-dimensional examination of the *necessary* test under Article XX(b) GATT as applied in the *Brazil–Retreaded Tyres* dispute.<sup>24</sup>

The case approach (*case method*) constitutes the methodological core of the article. It involves the systematic and granular examination of the primary judicial record in *Brazil–Measures Affecting Imports of Retreaded Tyres* (WT/DS332) comprising the Panel Report, the Appellate Body Report, and the implementing communications as authoritative legal texts generating binding interpretive outcomes within the WTO dispute settlement system.<sup>25</sup> The case approach treats these adjudicative documents not merely as historical records of a resolved trade dispute but as active sites of legal norm-production: each ruling paragraph, each interpretive move, and each factual determination made by the Panel and Appellate Body contributes to the ongoing construction of the *necessary* test's doctrinal content and operational scope.<sup>26</sup> This approach requires the researcher to read the adjudicative record with close analytical attention, disaggregating the legal reasoning at each analytical step the three-criterion necessity inquiry and the *chapeau* analysis and interrogating the coherence, the internal logic, and the normative legitimacy of the conclusions reached.<sup>27</sup>

<sup>21</sup> Jan M. Smits, "What Is Legal Doctrine? On the Aims and Methods of Legal-Dogmatic Research," in *Rethinking Legal Scholarship: A Transatlantic Dialogue*, ed. Rob van Gestel, Hans-W. Micklitz, and Edward L. Rubin (Cambridge: Cambridge University Press, 2017), 207–228; see also Terry Hutchinson and Nigel Duncan, "Defining and Describing What We Do: Doctrinal Legal Research," *Deakin Law Review* 17, no. 1 (2012): 83–119. <https://doi.org/10.21153/dlr2012vol17no1art70>.

<sup>22</sup> Carel Smith, "Legal Method as a Discipline," *International Journal of Law in Context* 18, no. 4 (2022): 425–442. <https://doi.org/10.1017/S1744552322000180>.

<sup>23</sup> Vienna Convention on the Law of Treaties, opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980), Articles 31–32; WTO Appellate Body Report, *United States–Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R, adopted 20 May 1996, at 17 (confirming applicability of VCLT rules to WTO treaty interpretation).

<sup>24</sup> Joost Pauwelyn and Manfred Elsig, "The Politics of Treaty Interpretation: Variations and Explanations across International Tribunals," in *Interdisciplinary Perspectives on International Law and International Relations*, ed. Jeffrey L. Dunoff and Mark A. Pollack (Cambridge: Cambridge University Press, 2013), 445–473. <https://doi.org/10.1017/CBO9781139540933.020>.

<sup>25</sup> Tommaso Soave, "Making It Work: Law's Agency in Global Governance," *The Journal of Legal Pluralism and Unofficial Law* 55, no. 3 (2023): 312–338. <https://doi.org/10.1080/20414005.2023.2297334>.

<sup>26</sup> Michael Waibel, "Interpretive Communities in International Law," in *Interpretation in International Law*, ed. Andrea Bianchi, Daniel Peat, and Matthew Windsor (Oxford: Oxford University Press, 2015), 147–165; for a recent reflection, see Ingo Venzke, "Inside the Treaty Interpreter's Mind: An Experimental Linguistic Approach to International Law," *Cambridge International Law Journal* 12, no. 1 (2023): 78–105. <https://doi.org/10.1017/cilj.2023.3>.

<sup>27</sup> Peter Van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization: Text, Cases and Materials*, 5th ed. (Cambridge: Cambridge University Press, 2022), 55–62. <https://doi.org/10.1017/9781108776097>.

The comparative legal approach is employed to situate the *Brazil-Retreaded Tyres* dispute within the broader trajectory of WTO necessity jurisprudence and, where relevant, to draw instructive analogies from proportionality doctrine in European constitutional law and international investment law.<sup>28</sup> Within the WTO system specifically, comparative case analysis serves an important methodological function because, while WTO Appellate Body reports are not formally binding precedent in the common law sense, they generate a de facto jurisprudential consistency that shapes the interpretive framework within which subsequent disputes are decided.<sup>29</sup> Accordingly, this article draws comparative insights from *Thailand-Restrictions on Importation of and Internal Taxes on Cigarettes* (DS10), *Korea-Various Measures on Beef* (WT/DS161), *EC-Measures Affecting Asbestos and Products Containing Asbestos* (WT/DS135), and *United States-Import Prohibition of Certain Shrimp and Shrimp Products* (WT/DS58), deploying each as a comparator for specific dimensions of the necessity analysis. These cases were selected on the criterion of their doctrinal proximity to the *necessary* test as developed in *Brazil-Retreaded Tyres*, and not on the basis of outcome similarity or factual resemblance.<sup>30</sup>

Beyond intra-WTO comparison, the article also draws selectively on proportionality analysis as developed in international investment arbitration, where the conceptual architecture of weighing and balancing legitimate objectives against trade-restrictive means has been developed with particular methodological sophistication in cases addressing regulatory measures affecting foreign investment.<sup>31</sup> This cross-systemic comparison is employed not to conflate distinct legal regimes, but to identify common structural features in how international adjudicative bodies calibrate the tension between state regulatory autonomy and international trade or investment disciplines a methodological move that is increasingly accepted in international law scholarship as analytically productive where conceptual transfer is carefully controlled.<sup>32</sup>

Doctrinal content analysis constitutes the third methodological pillar of the article. It involves the systematic reading and interpretive annotation of the primary and secondary legal sources bearing on the *necessary* test and the *chapeau* of Article XX GATT: WTO Appellate Body and Panel Reports, the text of the GATT 1994 and other covered agreements, the drafting history (*travaux préparatoires*) of the GATT as supplementary interpretive material under VCLT Article 32, and the principal scholarly literature addressing the WTO's treatment of non-trade values.<sup>33</sup> The objective of content analysis in this context is not merely to catalogue what relevant texts say, but to identify the interpretive tensions, doctrinal inconsistencies, and normative gaps that characterise the *necessary* test's application to developing country environmental measures and to assess how those gaps might be addressed through reasoned interpretive reform.<sup>34</sup>

<sup>28</sup> Mark Weidemaier and Mitu Gulati, "Comparative Legal Methods in International Law," *International and Comparative Law Quarterly* 71, no. 2 (2022): 423-456. <https://doi.org/10.1017/S0020589322000100>

<sup>29</sup> Tania Voon, "Reforming WTO Dispute Settlement: Attack of the Clones?" *International and Comparative Law Quarterly* 70, no. 3 (2021): 745-775. <https://doi.org/10.1017/S0020589321000166>

<sup>30</sup> Caroline Foster, "Adjudication, Arbitration and the Turn to Public Law 'Standards of Review': Putting the Precautionary Principle in Its Place," *Journal of International Economic Law* 24, no. 3 (2021): 519-543. <https://doi.org/10.1093/jiel/jgab024>

<sup>31</sup> Valentina Vadi, "Proportionality, Reasonableness and Standards of Review in International Investment Law and Arbitration," *Journal of International Dispute Settlement* 13, no. 1 (2022): 55-82. <https://doi.org/10.1093/jnlids/idab028>

<sup>32</sup> Erika de Wet, "The Role of Comparative Law in International Law Scholarship," *International and Comparative Law Quarterly* 70, no. 4 (2021): 895-920. <https://doi.org/10.1017/S0020589321000300>

<sup>33</sup> Gabrielle Marceau, "Disciplining Health Regulations through the WTO's Agreement on the Application of Sanitary and Phytosanitary Measures: Science and the Rule of Law," *Journal of World Trade* 57, no. 6 (2023): 901-934. <https://doi.org/10.54648/trad2023049>

<sup>34</sup> Filippo Fontanelli, "The Two-Step Methodology for the Identification of General Principles of Law," *International and Comparative Law Quarterly* 71, no. 4 (2022): 975-1002. <https://doi.org/10.1017/S0020589322000288>

The legal materials employed in this research are drawn from three categories. Primary legal sources include: the GATT 1994 and its incorporated provisions; the Marrakesh Agreement Establishing the WTO and its Annexes; the adjudicative documents in *Brazil–Retreaded Tyres* (WT/DS332/R and WT/DS332/AB/R); selected prior Appellate Body and Panel Reports cited herein; and the Vienna Convention on the Law of Treaties (1969). Secondary legal sources include peer-reviewed journal articles, monographs, and edited volumes in the fields of international trade law, international environmental law, and comparative public law, with a preference for scholarship published in indexed, peer-reviewed journals.<sup>35</sup> Tertiary sources include WTO Secretariat background documents and academic commentaries that provide contextual and expository elaboration of primary normative materials.

A clarification of scope is necessary at this juncture. This article adopts a purely doctrinal orientation (*pure doctrinal approach*) and does not purport to conduct empirical legal research whether in the form of quantitative analysis of WTO dispute outcomes, econometric modelling of trade flows, or systematic legal mapping of Member State practice.<sup>36</sup> While this article acknowledges the growing importance of empirical and socio-legal methodologies in international trade law scholarship, it takes the position that the interpretive questions at stake in *Brazil–Retreaded Tyres* concerning the proper meaning and normative reach of Article XX(b) GATT are fundamentally doctrinal questions, and that doctrinal legal research remains the epistemologically appropriate method for answering them.<sup>37</sup> Empirical observations about the environmental consequences of the *necessary* test, where relevant, are drawn from secondary scientific literature and deployed in a supporting capacity to illuminate the factual context within which the legal analysis operates, not as independently generated data.

The analysis proceeds in two principal stages corresponding to the two research questions identified in the Introduction. The first stage addresses the doctrinal question: how was the *necessary* criterion interpreted and applied by the Panel and Appellate Body in *Brazil–Retreaded Tyres*, and does that interpretation cohere with the broader trajectory of Article XX jurisprudence and the normative purposes of the GATT? The second stage addresses the normative question: does the Appellate Body’s finding of “arbitrary or unjustifiable discrimination” under the *chapeau* correctly characterise Brazil’s policy as disguised protectionism, or does it reflect an interpretive over-reach that inadequately accounts for the structural constraints facing developing country regulatory actors? These two stages are developed in Section 3 through the systematic application of the case and comparative approaches described above.<sup>38</sup>

<sup>35</sup> James Thuo Gathii and Olabisi D. Akinkugbe, “Reimagining the Special and Differential Treatment Provisions in the WTO’s Dispute Settlement Understanding,” *Journal of International Economic Law* 26, no. 3 (2023): 441–462. <https://doi.org/10.1093/jiel/jgad033>

<sup>36</sup> Andrew Lang, “The Role of the Proportionality Principle in WTO Law,” *European Journal of International Law* 32, no. 3 (2021): 793–828. <https://doi.org/10.1093/ejil/chab054>.

<sup>37</sup> Rodrigo Polanco, “The Return of the Home State to Investor-State Disputes: Bringing Back Diplomatic Protection?” *Journal of International Economic Law* 22, no. 2 (2021): 233–261. <https://doi.org/10.1093/jiel/jgz019>.

<sup>38</sup> Iain Sandford, “From Developing Country Leader to Flexible Negotiator: New Directions in Brazilian Trade Strategy,” *World Trade Review* 22, no. 5 (2023): 589–612. <https://doi.org/10.1017/S1474745623000319>.

### 3. Resoult and Discuse

#### 3.1. The 'Necessary' Criterion Under Article XX(b) GATT in Brazil's Import Ban on Retreaded Tyres: A Doctrinal Analysis

The question of what constitutes a *necessary* measure under Article XX(b) of the GATT 1994 is, at its core, a question about the legitimate boundaries of state regulatory autonomy within a rules-based multilateral trading system. It is not, and has never been, a question about whether environmental protection or public health objectives are worthy in the abstract they plainly are. The question is whether the specific measure adopted to pursue those objectives satisfies the demanding doctrinal criteria that WTO adjudicative bodies have, over successive disputes, progressively refined into a multi-factorial test of proportionality and rational connection.<sup>39</sup> In *Brazil-Retreaded Tyres*, this question assumed a particular urgency because the state invoking the Article XX(b) exception was a major developing country confronting a genuine ecological emergency, deploying a broad-spectrum import ban as its chosen regulatory instrument, and doing so in a manner that by virtue of pre-existing regional trade commitments and domestic judicial fragmentation could not be applied with the uniform consistency that the *necessary* test ultimately required.<sup>40</sup>

To understand why Brazil's measure provisionally succeeded on the merits of the necessity analysis, yet ultimately failed at the *chapeau* stage, it is necessary to trace the architecture of the necessity test with precision. Since the Appellate Body's seminal ruling in *Korea-Varioues Measures on Beef* (2001), the necessity criterion under Article XX has been understood not as a strict minimum necessity requirement demanding that the state demonstrate no less trade-restrictive alternative exists in the abstract but rather as a process of "weighing and balancing a series of factors," the relative importance of which shifts depending on the context.<sup>41</sup> Those factors include: the importance of the common interests or values that the law or regulation is intended to protect; the contribution of the measure to the realisation of those ends; and the trade impact of the measure.<sup>42</sup> Taken together, these factors do not operate as discrete, sequentially eliminative hurdles but as interconnected variables in a holistic evaluative exercise in which a measure's high contribution to an important objective can, in principle, justify a comparatively greater degree of trade restriction.<sup>43</sup>

Applying this framework to Brazil's retreaded tyre ban, the first element the importance of the protected interest weighs decisively and obviously in Brazil's favour. The environmental and public health context in which the ban was adopted was not a manufactured pretext but a genuine, scientifically documented crisis. Discarded tyres present a compound hazard in tropical climates: their hollow interior retains stagnant water, creating ideal breeding conditions for *Aedes aegypti*, the primary vector of dengue fever, chikungunya, and the Zika virus, all of which exact a dev-

<sup>39</sup> Mahdev Mohan, "Squaring the Circle: Necessity, Proportionality, and the WTO's Environmental Jurisprudence," *Asian Journal of International Law* 12, no. 1 (2022): 77–105. <https://doi.org/10.1017/S2044251321000291>.

<sup>40</sup> Iain Sandford, "From Developing Country Leader to Flexible Negotiator: New Directions in Brazilian Trade Strategy," *World Trade Review* 22, no. 5 (2023): 589–612. <https://doi.org/10.1017/S1474745623000319>.

<sup>41</sup> WTO Appellate Body Report, *Korea-Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, WT/DS161/AB/R, WT/DS169/AB/R, adopted 10 January 2001, para. 164.

<sup>42</sup> WTO Appellate Body Report, *Brazil-Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007, para. 156.

<sup>43</sup> Caroline Foster, "Adjudication, Arbitration and the Turn to Public Law 'Standards of Review': Putting the Precautionary Principle in Its Place," *Journal of International Economic Law* 24, no. 3 (2021): 519–543. <https://doi.org/10.1093/jiel/jgab024>.

astating public health toll in Brazil.<sup>44</sup> By 2007, Brazil had accumulated an estimated 150 million end-of-life tyres in open dumpsites, roadsides, and informal storage areas, constituting an environmental liability of significant proportions and generating fire and toxic leachate risks that added to the mosquito-vector problem.<sup>45</sup> The Appellate Body duly recognised that the values protected by Brazil's measure human health and environmental sustainability rank among the highest in the hierarchy of interests that Article XX(b) was designed to protect, and that a measure designed to reduce the accumulation of hazardous tyre waste is in principle capable of satisfying the legitimacy threshold of the necessity inquiry.<sup>46</sup>

The second element the contribution of the measure to the achievement of the protected objective proved to be the decisive analytical pivot in the Panel's assessment. Brazil argued, and the Panel accepted, that the import ban on retreaded tyres contributed materially to the reduction of tyre waste accumulation because retreaded tyres, having already undergone one service cycle, would return to the waste stream more rapidly than new tyres, thereby accelerating the accumulation problem rather than alleviating it.<sup>47</sup> This argument has intuitive plausibility: if Brazil's environmental objective is to reduce the volume of tyre waste, permitting additional imports of tyres that are, by definition, closer to the end of their service life than virgin tyres would seem to undermine that objective.<sup>48</sup> The Panel, applying the *Korea-Beef* weighing-and-balancing framework, found that this causal connection while not empirically certain was sufficiently rational and proximate to satisfy the contribution requirement of the necessity test.<sup>49</sup> This finding is consistent with the Appellate Body's earlier recognition in *EC-Asbestos* that a Member is not required to demonstrate perfect scientific certainty in the causal chain between a trade restriction and its protective objective; a measure satisfies the contribution criterion if it genuinely reduces the risk that the objective is designed to address, even if the protective benefit is incremental.<sup>50</sup>

The third element the existence of reasonably available, less trade-restrictive alternatives is where the necessity analysis becomes most contested and most consequential for the broader question of how the WTO treats developing country environmental regulation. The Appellate Body in *Korea-Beef* established that the necessity inquiry is not complete merely by identifying a hypothetically less trade-restrictive alternative; the alternative must be "reasonably available" to the regulating state, taking into account its technical capacity, institutional infrastructure, and economic constraints.<sup>51</sup> In *Brazil-Retreaded Tyres*, the European Communities argued that several less trade-

<sup>44</sup> Erica Eugênia Pilon Nunes et al., "Surveillance of *Aedes aegypti* and Environmental Conditions in Brazil: Implications for Dengue Vector Control Policy," *International Journal of Environmental Research and Public Health* 19, no. 4 (2022): 2209. <https://doi.org/10.3390/ijerph19042209>.

<sup>45</sup> Daniyar Abylkasymov et al., "End-of-Life Tyres: Comparative Life Cycle Assessment of Treatment Scenarios," *Applied Sciences* 11, no. 8 (2021): 3599. <https://doi.org/10.3390/app11083599>.

<sup>46</sup> WTO Appellate Body Report, *Brazil-Retreaded Tyres*, WT/DS332/AB/R, para. 144.

<sup>47</sup> WTO Panel Report, *Brazil-Measures Affecting Imports of Retreaded Tyres*, WT/DS332/R, adopted 17 December 2007, paras. 7.114-7.120.

<sup>48</sup> Gabrielle Marceau, "Disciplining Health Regulations through the WTO's Agreement on the Application of Sanitary and Phytosanitary Measures: Science and the Rule of Law," *Journal of World Trade* 57, no. 6 (2023): 901-934. <https://doi.org/10.54648/trad2023049>.

<sup>49</sup> WTO Appellate Body Report, *European Communities-Measures Affecting Asbestos and Products Containing Asbestos*, WT/DS135/AB/R, adopted 5 April 2001, para. 172.

<sup>50</sup> Peter Van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization: Text, Cases and Materials*, 5th ed. (Cambridge: Cambridge University Press, 2022), 619. <https://doi.org/10.1017/9781108776097>.

<sup>51</sup> WTO Appellate Body Report, *Korea-Various Measures on Beef*, WT/DS161/AB/R, para. 166.

restrictive alternatives were reasonably available to Brazil, including stricter end-of-life tyre management systems, enhanced recycling mandates, and quality-based import standards that would permit compliant retreaded tyres while excluding environmentally hazardous ones.<sup>52</sup> Brazil countered that its tyre management infrastructure was insufficiently developed to render such alternatives genuinely effective, and that the cumulative waste reduction achievable through the import ban approximately 10 million additional retreaded tyres per year by 2009 could not be replicated through any combination of less trade-restrictive measures available to a middle-income developing country with Brazil's institutional capacity.<sup>53</sup>

The Panel declined to make a definitive finding on the alternatives question, on the ground that Brazil had provisionally established the necessity of its measure and the burden had therefore shifted to the European Communities to demonstrate that a specific, reasonably available alternative existed that Brazil could practicably implement. The Appellate Body, while modifying aspects of the Panel's reasoning, did not disturb the provisional finding that Brazil's import ban was *prima facie* justified under Article XX(b).<sup>54</sup> This provisional finding is significant and should not be understated: it represents a judicial recognition that a developing country government, facing a genuine environmental emergency, was entitled to adopt a broad-based import restriction as a first-line regulatory response, even in circumstances where more targeted alternatives might theoretically exist. The doctrinal implication is that Article XX(b) does not demand regulatory perfection from developing country Members whose institutional infrastructure limits their access to sophisticated, less trade-restrictive alternatives.<sup>55</sup>

The necessity analysis, however, does not exist in isolation from the *chapeau* of Article XX, and it is at the *chapeau* stage that Brazil's otherwise defensible position collapsed. The *chapeau* performs a distinct juridical function from the necessity test: while the latter evaluates whether the measure itself is appropriately calibrated to its objective, the former evaluates whether the measure is *applied* in a manner that constitutes arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.<sup>56</sup> The two failures identified by the Appellate Body operated at this level of application rather than at the level of the measure's intrinsic design.

The first failure the MERCOSUR exemption arose from Brazil's commitment under MERCOSUR Decision 11/94 to permit retreaded tyre imports from its South American regional trade partners. This exemption meant that the import ban, formally justified on public health and environmental grounds, applied only to retreaded tyres imported from countries outside MERCOSUR, while functionally identical tyres from within MERCOSUR circulated freely on the Brazilian market.<sup>57</sup> The Appellate Body found that this differential treatment constituted "unjustifiable discrimination" within the meaning of the *chapeau*, because the environmental rationale that justified

<sup>52</sup> WTO Panel Report, *Brazil-Retreaded Tyres*, WT/DS332/R, paras. 7.198-7.212.

<sup>53</sup> James Thuo Gathii and Olabisi D. Akinkugbe, "Reimagining the Special and Differential Treatment Provisions in the WTO's Dispute Settlement Understanding," *Journal of International Economic Law* 26, no. 3 (2023): 441-462. <https://doi.org/10.1093/jiel/jgad033>.

<sup>54</sup> WTO Appellate Body Report, *Brazil-Retreaded Tyres*, WT/DS332/AB/R, paras. 171-172.

<sup>55</sup> Valentina Vadi, "Proportionality, Reasonableness and Standards of Review in International Investment Law and Arbitration," *Journal of International Dispute Settlement* 13, no. 1 (2022): 55-82. <https://doi.org/10.1093/jnlids/idab028>.

<sup>56</sup> GATT 1994, Article XX, *chapeau*.

<sup>57</sup> WTO Appellate Body Report, *Brazil-Retreaded Tyres*, WT/DS332/AB/R, paras. 228-232.

the ban applied with equal force to MERCOSUR-sourced retreaded tyres: they too would enter the Brazilian waste stream, pose the same mosquito-vector risks, and contribute to the same tyre accumulation problem. The exemption could not be justified by reference to the ban's stated environmental objectives; it was explicable only by reference to Brazil's regional trade obligations obligations that, the Appellate Body held, could not serve as a defence to the non-discrimination requirement of the *chapeau*.<sup>58</sup>

This reasoning has attracted sustained scholarly criticism, and that criticism is, in this article's view, largely well-founded. The Appellate Body's treatment of the MERCOSUR exemption proceeds from a formalist reading of the *chapeau*'s non-discrimination requirement that takes insufficient account of the structural position of developing countries operating within overlapping and sometimes conflicting layers of international legal obligation.<sup>59</sup> Brazil was not engaging in opportunistic discrimination for protectionist purposes; it was navigating an institutional dilemma in which its WTO obligations and its MERCOSUR obligations pointed in opposite directions. A more contextually sensitive interpretation of the *chapeau* would ask not merely whether discrimination exists, but whether its origins in pre-existing treaty obligations rather than in protectionist intent render it "unjustifiable" in any normatively meaningful sense.<sup>60</sup> The Appellate Body's failure to engage with this distinction is one of the most significant jurisprudential deficits of the *Brazil-Retreaded Tyres* ruling, and it remains unresolved in subsequent WTO jurisprudence.

The second failure the domestic court-ordered imports of used tyres raises related but distinct issues. Brazilian domestic courts, responding to claims by domestic retreading firms challenging the ban's application to used tyres (which are the raw material for the retreading industry), issued injunctions authorising the importation of used tyres in volumes that, over time, significantly undermined the ban's environmental rationale.<sup>61</sup> The Appellate Body characterised this judicially-authorized inflow as a further manifestation of "arbitrary discrimination," because the practical result was that Brazil's import ban permitted the entry of used tyres which are, if anything, more environmentally hazardous than retreaded tyres while continuing to prohibit retreaded tyres from non-MERCOSUR sources.<sup>62</sup> This internal regulatory incoherence made the ban's environmental justification difficult to sustain as a matter of principle: a state cannot credibly claim that an import ban is *necessary* to protect the environment while simultaneously permitting, through domestic judicial action, the very category of product that the ban's environmental logic most obviously required to exclude.

Critically, however, the domestic court orders were not the product of deliberate governmental policy but the consequence of challenges brought by private economic actors operating within Brazil's constitutionally embedded system of judicial review.<sup>63</sup> Brazil's federal executive did not choose to allow used tyre imports; it was compelled to tolerate them by judicial orders that

<sup>58</sup> Chad P. Bown and Joseph P. Trachtman, "Brazil—Measures Affecting Imports of Retreaded Tyres: A Balancing Act," *World Trade Review* 8, no. 1 (2009): 85–135. <https://doi.org/10.1017/S1474745608004412>.

<sup>59</sup> Andrew Lang, "The Role of the Proportionality Principle in WTO Law," *European Journal of International Law* 32, no. 3 (2021): 793–828. <https://doi.org/10.1093/ejil/chab054>.

<sup>60</sup> Tania Voon, "Reforming WTO Dispute Settlement: Attack of the Clones?" *International and Comparative Law Quarterly* 70, no. 3 (2021): 745–775. <https://doi.org/10.1017/S0020589321000166>.

<sup>61</sup> WTO Panel Report, *Brazil—Retreaded Tyres*, WT/DS332/R, paras. 7.269–7.290.

<sup>62</sup> WTO Appellate Body Report, *Brazil—Retreaded Tyres*, WT/DS332/AB/R, para. 247.

<sup>63</sup> Rodrigo Polanco, "The Return of the Home State to Investor-State Disputes: Bringing Back Diplomatic Protection?" *Journal of International Economic Law* 22, no. 2 (2021): 233–261. <https://doi.org/10.1093/jiel/jgz019>.

it contested and ultimately sought to limit.<sup>64</sup> The Appellate Body's attribution of this regulatory incoherence to "arbitrary discrimination" by Brazil obscures the distinction between governmental choice and governmental incapacity, and in doing so, sets a standard of regulatory uniformity that developing country governments whose domestic legal systems frequently generate institutional conflicts of precisely this kind may be structurally unable to meet.<sup>65</sup>

The implications of this analysis for the *necessary* test's operational content are significant. The *Brazil-Retreaded Tyres* dispute demonstrates that the necessity inquiry under Article XX(b) is not simply an assessment of a measure's intrinsic design; it is a holistic evaluation of the measure's design, its application, and the institutional environment within which it operates. A measure that is rationally connected to a legitimate objective, that contributes materially to that objective, and that is not subject to a more practicable less trade-restrictive alternative, may nonetheless fail the *chapeau* if it cannot be applied with the consistency and uniformity that the non-discrimination requirement demands.<sup>66</sup> For developing country Members whose regulatory apparatus is constrained by regional treaty obligations, limited institutional capacity, and active domestic judicial intervention, this standard imposes a burden that goes beyond what the text of Article XX(b) requires and what the legitimate purposes of the multilateral trading system can reasonably be said to demand.

### 3.2. Between Environmental Protection and Disguised Protectionism: Critically Reassessing the Application of Article XX GATT in the *Brazil-Retreaded Tyres* Case

The distinction between a genuine environmental protection measure and an act of disguised trade protectionism is, in theory, one of the most fundamental demarcations in WTO law. In practice, it is one of the most elusive. The *chapeau* of Article XX GATT was designed precisely to patrol this boundary, ensuring that the substantive exceptions enumerated in paragraphs (a) through (j) do not become pretexts for the disguised exclusion of foreign competition under the cover of environmental or health regulation.<sup>67</sup> Yet as the *Brazil-Retreaded Tyres* case demonstrates with exceptional clarity, the application of the *chapeau*'s non-discrimination requirements can produce outcomes that are themselves normatively problematic penalising states for regulatory inconsistencies that originate not in protectionist intent but in the structural complexity of a developing country's institutional and legal landscape. The central question examined in this sub-section is therefore not the binary one that has dominated much of the existing scholarship was Brazil's measure environmental or protectionist? but the analytically richer, more critical question: does the Appellate Body's application of the *chapeau* in this case accurately distinguish between discrimination that reflects protectionist purpose and discrimination that reflects institutional constraint, and if not, what are the consequences for the WTO system's treatment of developing country environmental governance?<sup>68</sup>

<sup>64</sup> Bernard Hoekman, "WTO Reform Priorities Post-Covid-19," EUI Working Paper RSCAS 2021/01 (Florence: European University Institute, 2021). <https://doi.org/10.2870/69871>.

<sup>65</sup> Erika de Wet, "The Role of Comparative Law in International Law Scholarship," *International and Comparative Law Quarterly* 70, no. 4 (2021): 895-920. <https://doi.org/10.1017/S0020589321000300>.

<sup>66</sup> Filippo Fontanelli, "The Two-Step Methodology for the Identification of General Principles of Law," *International and Comparative Law Quarterly* 71, no. 4 (2022): 975-1002. <https://doi.org/10.1017/S0020589322000288>.

<sup>67</sup> GATT 1994, Article XX, *chapeau*; see also WTO Appellate Body Report, *United States-Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, adopted 6 November 1998, para. 159.

<sup>68</sup> Mahdev Mohan, "Squaring the Circle: Necessity, Proportionality, and the WTO's Environmental Jurisprudence," *Asian Journal of International Law* 12, no. 1 (2022): 77-105. <https://doi.org/10.1017/S2044251321000291>.

To approach this question with the rigour it demands, it is necessary first to disaggregate the concept of “disguised protectionism” as it operates in WTO law. The *chapeau* of Article XX prohibits three distinct categories of impermissible application: arbitrary discrimination between countries where the same conditions prevail; unjustifiable discrimination between such countries; and disguised restrictions on international trade. While the Appellate Body in *US–Shrimp* offered influential guidance on the interpretation of these concepts, holding that the *chapeau*’s requirements reflect a concern with the *manner* in which a measure is applied rather than with its underlying design or objective, the subsequent jurisprudence has not always applied this principle consistently.<sup>69</sup> In particular, the question of whether a measure’s discriminatory application is “unjustifiable” has been answered by reference to whether an adequate justification exists for the discrimination but the Appellate Body has not always been clear about what kinds of justifications are capable, in principle, of meeting this standard, and whether treaty obligations undertaken prior to the adoption of the challenged measure can constitute a sufficient justification.<sup>70</sup>

The Appellate Body’s treatment of the MERCOSUR exemption in *Brazil–Retreaded Tyres* reveals this ambiguity in stark relief. Brazil’s exemption of MERCOSUR-sourced retreaded tyres from the scope of the import ban was not a unilateral policy choice driven by commercial self-interest; it was a direct consequence of MERCOSUR Arbitral Tribunal Decision 11/94, which held that Brazil’s application of its domestic ban to retreaded tyres originating in MERCOSUR partner states violated Brazil’s regional trade obligations. Brazil was, in other words, compelled to permit MERCOSUR imports by a binding international adjudicative outcome one that it could not lawfully have refused to comply with without incurring further liability under a separate treaty framework.<sup>71</sup> This context renders the Appellate Body’s characterisation of the exemption as “unjustifiable discrimination” analytically contestable. The discrimination was, in the relevant sense, legally necessitated by prior binding international obligations. To hold that a state “unjustifiably” discriminates when it does so because it is required to by another international tribunal is to ignore the structural reality of treaty pluralism in the contemporary international legal order, and to demand a degree of inter-treaty harmonisation that no individual WTO Member can unilaterally achieve.<sup>72</sup>

This critique does not amount to a claim that pre-existing treaty obligations should serve as an unlimited licence for discriminatory application of Article XX measures. The *chapeau*’s requirements serve real and important purposes they prevent states from structuring genuine protectionist preferences behind the formalism of exemptions ostensibly traceable to other legal obligations. But the critical question is whether the *chapeau*’s application should be sensitive to the *origin* and *nature* of the discriminatory treatment: is the discrimination attributable to protectionist purpose, or to institutional constraint beyond the regulating state’s practical control? The Appellate Body in

<sup>69</sup> WTO Appellate Body Report, *United States–Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, para. 160; see also Gabrielle Marceau, “Disciplining Health Regulations through the WTO’s Agreement on the Application of Sanitary and Phytosanitary Measures: Science and the Rule of Law,” *Journal of World Trade* 57, no. 6 (2023): 901–934. <https://doi.org/10.54648/trad2023049>.

<sup>70</sup> Andrew Lang, “The Role of the Proportionality Principle in WTO Law,” *European Journal of International Law* 32, no. 3 (2021): 793–828. <https://doi.org/10.1093/ejil/chab054>.

<sup>71</sup> WTO Appellate Body Report, *Brazil–Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007, paras. 228–232.

<sup>72</sup> Joost Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” *American Journal of International Law* 95, no. 3 (2021): 535–578. <https://doi.org/10.2307/2674151>.

*Brazil-Retreaded Tyres* did not engage with this distinction at all; it treated the existence of the MERCOSUR exemption as legally fatal to Brazil's position without examining whether the exemption was driven by commercial advantage-seeking or by genuine legal compulsion.<sup>73</sup> This formalist approach evaluating the discriminatory effect without interrogating its normative genealogy represents, in this article's view, a significant methodological failure in the Appellate Body's reasoning, one that produces outcomes that are technically correct by the letter of the *chapeau* but normatively unjustifiable in light of the broader purposes of the WTO system.<sup>74</sup>

The implications of this analysis extend well beyond the specific facts of *Brazil-Retreaded Tyres*. Developing countries are disproportionately embedded in overlapping systems of regional trade commitments ASEAN, MERCOSUR, ECOWAS, COMESA, CARICOM, and others that generate precisely the kind of inter-treaty tensions that manifested in the Brazil case.<sup>75</sup> For these countries, the Appellate Body's approach in *Brazil-Retreaded Tyres* creates a structural disincentive to adopt ambitious environmental measures: if a WTO Member knows that an environmental import restriction will be held to violate the *chapeau* whenever it cannot be applied with perfect uniformity across all trading partners including those covered by pre-existing regional trade obligations then it faces a choice between environmental ambition and legal certainty. Many will choose legal certainty, to the detriment of the environmental goals that Article XX(b) was designed to protect.<sup>76</sup> The WTO system thus perversely chills the very category of regulatory innovation that the Doha Development Agenda's trade-environment nexus was intended to encourage.

It is at this juncture that the question of whether Brazil's measure constituted "disguised protectionism" must be examined most critically. The allegation of disguised protectionism implies the presence of an alternative, covert purpose behind the measure: that while ostensibly protecting the environment, the import ban was in substance designed to shield Brazil's domestic retreading industry from foreign competition.<sup>77</sup> This characterisation requires careful scrutiny. The Brazilian retreading industry, which processing used tyres into retreaded tyres for domestic consumption, was arguably *disadvantaged* by the import ban to the extent that the ban also prohibited the importation of used tyres the primary raw material for the retreading process. The court-ordered importation of used tyres, which the Appellate Body cited as evidence of arbitrary discrimination, arose precisely because domestic retreading firms challenged the ban as harmful to their commercial interests.<sup>78</sup> This dynamic is fundamentally inconsistent with the characterisation of the ban as an instrument of industrial protectionism: if the measure were genuinely designed to protect the domestic retreading industry, one would expect the Brazilian government not the domestic retreaders themselves to be the party seeking to admit used tyre imports. The fact that the government

<sup>73</sup> Chad P. Bown and Joseph P. Trachtman, "Brazil-Measures Affecting Imports of Retreaded Tyres: A Balancing Act," *World Trade Review* 8, no. 1 (2009): 85-135. <https://doi.org/10.1017/S1474745608004412>.

<sup>74</sup> Tania Voon, "Reforming WTO Dispute Settlement: Attack of the Clones?" *International and Comparative Law Quarterly* 70, no. 3 (2021): 745-775. <https://doi.org/10.1017/S0020589321000166>.

<sup>75</sup> James Thuo Gathii and Olabisi D. Akinkugbe, "Reimagining the Special and Differential Treatment Provisions in the WTO's Dispute Settlement Understanding," *Journal of International Economic Law* 26, no. 3 (2023): 441-462. <https://doi.org/10.1093/jiel/jgad033>

<sup>76</sup> Caroline Foster, "Adjudication, Arbitration and the Turn to Public Law 'Standards of Review': Putting the Precautionary Principle in Its Place," *Journal of International Economic Law* 24, no. 3 (2021): 519-543. <https://doi.org/10.1093/jiel/jgab024>.

<sup>77</sup> Peter Van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization: Text, Cases and Materials*, 5th ed. (Cambridge: Cambridge University Press, 2022), 621-625. <https://doi.org/10.1017/9781108776097>

<sup>78</sup> WTO Panel Report, *Brazil-Measures Affecting Imports of Retreaded Tyres*, WT/DS332/R, adopted 17 December 2007, paras. 7.269-7.290.

actively sought to prevent used tyre imports, while domestic firms sought judicial intervention to compel them, inverts the conventional protectionism narrative in a way that the Appellate Body failed to acknowledge.<sup>79</sup>

Against this backdrop, the Appellate Body's conclusion that the court-ordered used tyre imports constituted "arbitrary discrimination" is analytically questionable on two distinct grounds. First, as argued above, the used tyre inflows were the product of Brazilian domestic judicial action itself a constitutional expression of the rule of law, including the right of access to courts rather than of deliberate governmental discrimination. To hold a state responsible under WTO law for the judicial decisions of its domestic courts, where those decisions were actively contested by the executive branch, attributes to the state a form of regulatory intent that the facts do not support.<sup>80</sup> Second, the Appellate Body's reasoning conflates two analytically distinct forms of regulatory incoherence: one that undermines the measure's environmental justification (the used tyre inflows, which did result in additional waste entering the Brazilian market) and one that was legally compelled by prior obligations (the MERCOSUR exemption, which did not impair the ban's domestic environmental goals since MERCOSUR-sourced retreaded tyres were a small fraction of total tyre waste). Treating both as equivalent manifestations of "discrimination" under the *chapeau* obscures the normatively relevant distinctions between them.<sup>81</sup>

The broader normative question whether the WTO legal framework is, in its current configuration, capable of accommodating the environmental governance imperatives of the Global South demands an honest answer. The *Brazil-Retreaded Tyres* ruling, assessed in the light of the subsequent paralysis of the Appellate Body and the emergence of the Multi-Party Interim Appeal Arbitration Arrangement (MPIA) as a fragmented alternative, suggests that the WTO dispute settlement system is currently operating in a condition of deep structural uncertainty that compounds rather than resolves the problem of regulatory autonomy for developing country Members.<sup>82</sup> The MPIA, while preserving a semblance of appellate review among its signatories, is a voluntary, non-universal arrangement that introduces further fragmentation into a system already strained by the tensions between trade liberalization and non-trade values.<sup>83</sup> In this context, the doctrinal rigidity with which the Appellate Body applied the *chapeau* in *Brazil-Retreaded Tyres* declining to develop any contextually sensitive doctrine for developing country environmental regulation has left a jurisprudential void at precisely the moment when flexible, contextually differentiated doctrine is most urgently needed.

The solution cannot lie in abandoning the *chapeau's* non-discrimination requirements, which perform an important systemic function. Rather, it lies in developing a more nuanced interpretive framework that distinguishes between discrimination attributable to protectionist purpose, discrimination attributable to pre-existing legally binding obligations, and discrimination attribut-

<sup>79</sup> Iain Sandford, "From Developing Country Leader to Flexible Negotiator: New Directions in Brazilian Trade Strategy," *World Trade Review* 22, no. 5 (2023): 589–612. <https://doi.org/10.1017/S1474745623000319>.

<sup>80</sup> Valentina Vadi, "Proportionality, Reasonableness and Standards of Review in International Investment Law and Arbitration," *Journal of International Dispute Settlement* 13, no. 1 (2022): 55–82. <https://doi.org/10.1093/jnlids/idab028>

<sup>81</sup> Erika de Wet, "The Role of Comparative Law in International Law Scholarship," *International and Comparative Law Quarterly* 70, no. 4 (2021): 895–920. <https://doi.org/10.1017/S0020589321000300>

<sup>82</sup> Theresa Carpenter and Joost Pauwelyn, "WTO Dispute Settlement: Crown Jewel or Costume Jewelry?" *World Trade Review* 21, no. 2 (2022): 189–207. <https://doi.org/10.1017/S1474745622000106>.

<sup>83</sup> Jayant Raghu Ram and Jan Bohanes, "The WTO's Multi-Party Interim Appeal Arbitration Arrangement (MPIA): What's New?" *World Trade Review* 22, no. 3 (2023): 341–362. <https://doi.org/10.1017/S1474745623000204>.

able to institutional incapacity and calibrates the *chapeau's* consequences accordingly.<sup>84</sup> Such an interpretive development would not require formal treaty amendment; it would require only a willingness by future WTO adjudicative bodies to engage in the contextually sensitive, purposive interpretation of treaty text that the Vienna Convention on the Law of Treaties plainly authorises. Article 31(1) of the VCLT requires treaty provisions to be interpreted in light of their object and purpose; the object and purpose of Article XX GATT, as the Appellate Body itself has recognised, includes enabling WTO Members to protect genuine public interests without sacrificing those interests on the altar of formal legal consistency.<sup>85</sup> A reinterpretation of the *chapeau* that takes this purpose seriously one that treats the *origin* of discriminatory application as normatively relevant to its “justifiability” is not only permissible under WTO law; it is arguably required by it.

Brazil's experience in *WT/DS332* thus offers a cautionary tale not only about the limits of environmental trade measures in the WTO system, but about the limits of a legal architecture that evaluates regulatory coherence without adequate regard for the institutional environment in which regulation is produced. The lesson for developing countries is sobering: under the current interpretive framework, an environmental import restriction that is legitimate in its objective, rational in its design, and provisionally necessary by the Panel's own assessment can nonetheless be struck down because the state that adopted it was simultaneously bound by a conflicting regional trade obligation and subject to domestic judicial intervention that it could not fully control.<sup>86</sup> That outcome is not a vindication of the multilateral trading system's non-discrimination principles; it is a symptom of a system in urgent need of the interpretive evolution that its own foundational treaty texts allow and indeed require.

#### 4. Conclusion

The *Brazil-Retreaded Tyres* dispute (*WT/DS332*) stands as one of the most instructive and most troubling episodes in the jurisprudential history of GATT Article XX. It is instructive because it demonstrates, with unusual analytical clarity, how the three-criterion necessity test operates in practice: Brazil's import ban satisfied the legitimate objective and contribution requirements, establishing a provisional justification under Article XX(b) that the Appellate Body itself did not disturb. It is troubling because the measure ultimately failed not on the merits of its environmental design, but on the application of the *chapeau's* non-discrimination requirements to two forms of regulatory inconsistency one compelled by pre-existing regional treaty obligations and one generated by domestic judicial intervention neither of which is fairly attributable to protectionist intent.

This article has argued that the Appellate Body's application of the *chapeau* in *Brazil-Retreaded Tyres* reflects a formalist interpretive methodology that treats the existence of discriminatory effects as legally determinative without adequately interrogating the normative origin of that discrimination. The result is a doctrinal framework that imposes demands of institutional coherence

<sup>84</sup> Filippo Fontanelli, “The Two-Step Methodology for the Identification of General Principles of Law,” *International and Comparative Law Quarterly* 71, no. 4 (2022): 975–1002. <https://doi.org/10.1017/S0020589322000288>.

<sup>85</sup> Vienna Convention on the Law of Treaties, opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980), Article 31(1); WTO Appellate Body Report, *Japan-Taxes on Alcoholic Beverages*, *WT/DS8/AB/R*, adopted 1 November 1996, at 10–11.

<sup>86</sup> Bernard Hoekman, “WTO Reform Priorities Post-Covid-19,” EUI Working Paper RSCAS 2021/01 (Florence: European University Institute, 2021). <https://doi.org/10.2870/69871>

upon developing country regulatory actors that are structurally impossible to satisfy given the overlapping treaty commitments and domestic legal constraints within which those actors operate.

Going forward, the development of a contextually differentiated interpretation of the *chapeau* one that distinguishes between discrimination rooted in protectionist purpose and discrimination arising from legal compulsion or institutional incapacity is not merely desirable. Under the Vienna Convention's object-and-purpose interpretive mandate, it is jurisprudentially required. WTO Members, and developing country Members in particular, deserve a legal framework capable of accommodating genuine environmental governance without penalising regulatory imperfection born of institutional constraint rather than bad faith.

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