I. SUMMARY OF ARGUMENT

1. In approaching the issues involved in Brazil’s GATT Article XX defense, the Panel will find valuable aid in considering the life-cycle impacts of retreaded tires. Indeed, the environmental impacts of production, marketing, use, and—particularly—disposal of tires shed critical light on the public health impacts of trade in retreaded tires. A life-cycle approach to the legal issues of the instant case is also consonant with the principle of sustainable development, as written into the Agreement Establishing the World Trade Organization (WTO Agreement).

2. In addition, consideration of key multilateral environmental agreements implicated in tire waste and trade in retreaded tires is relevant, both to ascertaining the proper public health dimensions of the case, as well as to building mutually supportive regimes between trade and the environment. Likewise, human rights law is also relevant to the scrutiny of measures adopted by Brazil to prevent the spread of diseases in its territory such as dengue, malaria, and yellow fever, which are caused by tire disposal and aggravated by trade in retreaded tires.

3. This amicus curiae submission is structured as follows. First, it addresses the challenges posed by tire waste with a view to linking trade with sustainable development. Second, the brief elaborates on how a life-cycle approach is relevant to the application of Article XX of the GATT. Third, the brief explains the relevance of key multilateral environmental agreements to resolving a case that involves trade in tires, hazardous and other waste, and persistent organic pollutants. Fourth, the brief analyzes the human rights obligations of Brazil with respect to public health issues and notes the relevance of this body of law to the resolution of the instant case. Finally, the brief introduces the international environmental law principle of prevention, which also supports measures
II. THE WTO AGREEMENT, SUSTAINABLE DEVELOPMENT & TRADE IN RETREADED TIRES

4. Tire waste and its disposal is a global environmental and public health problem. Tires are not biodegradable; the time required for their decomposition is undetermined. Due to their chemical composition, tires, when burned, release organic and inorganic pollutants into the air, water, and soil, including hydrocarbons, dioxins, and other toxic substances. Tire disposal requires sophisticated, expensive technology. Even the most advanced methods are not environmentally harmless and are unable to dispose of the vast quantity of waste tires. Additionally, due to their shape and impermeability, water collects in disposed waste tires (including retreaded tires) for long periods, creating ideal sites for mosquito breeding.

5. Developing countries face particularly difficult challenges in dealing with tire waste. Lack of technical capacity for dealing with tire waste is one of several problems that particularly afflict developing countries. Given that tires in developing countries are often disposed of in landfills and illegal dumps, tires become vectors for diseases such as yellow fever, malaria, and dengue. This problem has been particularly acute in tropical countries like Brazil.

6. The WTO Appellate Body, in *US-Shrimp I*, confirmed that panels too could not ignore the concept of sustainable development and the importance of environmental protection. The Appellate Body stated that words “must be read by a treaty interpreter in the light of contemporary concerns of the community of nations about the protection and conservation of the environment.”\(^1\) It also stated that “the preamble attached to the WTO Agreement shows that the signatories to that Agreement were, in 1994, fully aware of the importance and legitimacy of environmental protection as a goal of national and international policy.”\(^2\)

7. The challenges posed by disposal of tire waste in developing countries call for the application of the sustainable development principle, as written into the WTO Agreement. In accordance with the principle of sustainable development,

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1 Rio Declaration, ¶129.
2 Rio Declaration, ¶129.
countries should not be hindered in their ability to adopt and maintain measures that are necessary to address public health and environmental problems. In the instant case, this general principle calls for due consideration of the technical and financial obstacles facing developing countries in addressing tire waste, a problem which is augmented by trade in retreaded tires.

III. ARTICLE XX AND THE LIFE-CYCLE APPROACH

8. A holistic approach to the environmental and public health dimensions of trade in retreaded tires should lead the Panel to take account, in its Article XX examination, of the broad impacts of the increased tire waste resulting from the import of retreaded tires. This task can be assisted by a life-cycle approach to determining the environmental impacts of products, in this case, tires and retreaded tires.

9. The life-cycle approach is based on a cradle-to-grave product analysis that evaluates the environmental burdens associated with a product, process, or activity by identifying and quantifying energy and materials used and waste released. The United Nations Environment Program, in partnership with the Society of Environmental Toxicology and Chemistry, has taken the lead in refining the life-cycle approach. The life-cycle analysis looks at all the environmental impacts of a product, including its production, marketing, and disposal. A life cycle analysis, for example, may attempt to quantify the environmental impacts of extracting and processing raw materials; manufacturing, transportation, and distribution; use, re-use, and maintenance; recycling and final disposal. Among other important virtues, the life-cycle approach avoids shifting problems from one environmental medium to another, or from one geographic area to another.

1. The Life-Cycle Approach & GATT Jurisprudence

10. A life-cycle approach does not require a mathematical quantification of the environmental impacts associated with tires. Rather, it calls for a holistic approach to tires, which enables proper determination of the environmental and public health problems associated with one of the key cycles in the life of the product, namely the disposal of tire waste. The consideration of this key dimension of retreaded tires allows for the proper application of GATT Article XX, as examined next.

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11. In the instant case, Brazil endeavors to address problems relating to tire waste. In particular, Brazil is putting efforts into reducing overall tire waste by extending the tire life-cycle through retreading and restricting the import of already retreaded tires. This is in line with a life-cycle assessment approach, which is increasingly used as a tool to inform domestic, regional, and international environmental and sustainable development decision-making.

12. The Appellate Body has already considered the life-cycle approach albeit implicitly. In the US - Shrimp I and II cases, the issue turned on whether the United States could justify, on environmental grounds, a measure that required the use of a particular harvesting technique. Thus, at issue was the environmental impact of a process and production method, which is one of the key cycles in the life of a product. While the instant case does not involve issues of production, it involves similarly important issues in the life-cycle of the product, namely its disposal. Thus, the reasoning underlying the application of Article XX in the US - Shrimp I and II cases by the Appellate Body supports an approach that takes into consideration the disposal dimension of retreaded tires.

2. The Life-Cycle Approach & Retreaded Tires

13. Used tires and tire material can often be recycled or re-used, for instance, through tire retreading. Tire retreading postpones disposal by extending tire life. Thus, retreading reduces the total amount of tires used and disposed of over time. For both the EC and Brazil, prolonging the life of a tire through retreading is a safe and feasible way to minimize the number of waste tires.

14. While retreading is an environmentally friendly way of making a used product re-usable, trade in retreaded tires shifts the environmental and public health impacts associated with tire waste from one region to another. Importing already retreaded tires increases tire waste because the possibility of retreading an already retreaded tire is significantly reduced. This was an issue of fact before an Arbitral Tribunal of the Mercosur, which concluded that a car tire generally can be retreaded only once. Moreover, compared to a new tire, the life of a retreaded tire is generally shorter. Thus, the import of a shorter-life retreaded tire ultimately leads to a higher number of waste tires in an importing country than would the retreading of domestic tires or the import of longer-life new tires.

15. Like Brazil, the EC is also trying to reduce its tire waste, emphasizing the recycling and re-use of tires, including by way of retreading. However, the retreaded tires exported by the EC are in the final life-cycle stage and thus augment the tire waste problems of the importing country. In effect, trade in

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4 Tire MERCOSUR Award, Uruguay v. Argentina, para. 79.
retreaded tires shifts the tire waste disposal problem from Europe to South America. For this reason, Brazil and a large number of other developing countries ban or restrict the imports of used and retreaded tires, to allow for retreading of tires in their own territory. In light of the life-cycle approach, an Article XX defense avails to safeguard these environmental and public health measures.

IV. **ARTICLE XX & MULTILATERAL ENVIRONMENTAL AGREEMENTS**

16. Article XX plays a pivotal role in the architecture of the GATT in that it allows for channels of dialogue in an increasingly fragmented international legal system between the trading system and other relevant sources of international law. In this regard, taking account of multilateral environmental treaties that address issues of global concern where the interests of the international community are involved advances the notion of mutual supportiveness between trade and environment.

17. Two key agreements stand out in their relevance to the instant case: (1) the Basel Convention on Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention); and (2) the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention).

1. **The Basel Convention**

18. The Basel Convention was adopted in 1989 as a response to increased exports of hazardous waste from industrialized countries to developing countries and Eastern Europe. Currently ratified by 167 countries, including Brazil and the European Community, the key objectives of the Basel Convention are to minimize the generation of hazardous wastes in terms of quantity and hazardousness; to dispose of hazardous waste in an environmentally sound manner; to ensure national self-sufficiency in hazardous waste management; and to reduce the transboundary movement of hazardous wastes.

19. To achieve these objectives, the Basel Convention has established several rights and obligations. Among these is the sovereign right of any country to declare a waste as hazardous and to regulate it. Parties exercising their right to prohibit the import of hazardous or other wastes must inform the other Parties. Parties are then obliged to not permit the export of hazardous wastes or other wastes to the Parties that have prohibited the import of such waste.

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5 Basel Convention, Article 1.1.b *(available at http://www.basel.int/text/documents.html).*

6 Basel Convention, Article 4.1.
Convention also forbids the export of waste to countries lacking the ability to manage such waste in an environmentally sound manner.\(^7\) Further, the Convention calls for every party to ensure the availability of adequate disposal facilities for the environmentally sound management of hazardous and other wastes that shall be located, to the extent possible, in the state where the waste was generated.\(^8\)

20. In addition, in 1995 the Third Conference of the Parties adopted an amendment to the Convention, banning the export of hazardous wastes from Liechtenstein, and OECD and EU Member States to other countries for final disposal and recycling. When this amendment enters into force, exports of hazardous waste from developed to developing countries will be prohibited regardless of local environmental conditions and disposal capacity. The EU has already implemented the amendment under EU law.\(^9\)

21. Waste tires and used tires can fall under the scope of the Basel Convention under certain circumstances. First, if waste tires are exported for disposal, then they are a controlled hazardous waste and subject to the Basel Convention. Second, used tires exported for recycling may fall under the Basel Convention if they contain an Annex I hazardous constituent that exhibits an Annex III hazardous characteristic.\(^10\) Third, if Brazil notifies the Parties in accordance with the Basel Convention that it considers waste tires or used tires to be a hazardous waste, then such tires will fall within the controls of the Convention and their export to Brazil will be prohibited.\(^11\)

22. In contrast to waste tires or used tires, retreaded tires have undergone a remanufacturing process that allows for their characterization as products instead of waste. Even if retreaded tires do not qualify strictly as waste, as defined in the Basel Convention, it is important to note that the spirit of the Convention specifically covers situations where developed countries are “exporting a waste problem” to a developing country. The Basel Convention’s preference for disposal at source is thus relevant to the evaluation of the public health and environmental issues associated with trade in retreaded tires.

23. Finally, under the Basel Convention, Mercosur and associated countries could create a Mercosur waste trade agreement, which would constitute a

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\(^7\) Basel Convention, Article 4.2.e & g.

\(^8\) Basel Convention, Article 4.2.b.


\(^10\) Basel Convention, Article 1.1.a.

\(^11\) Basel Convention, Article 1.1.b.
legitimate regional arrangement to trade in waste, provided that it was compatible with the Basel Convention. 12 The resulting capacities of scale would in turn allow for a regional recycling center benefiting the environment and human health. Steps in this direction appear at an early stage with the creation by the Mercosur Environment Ministers of an ad hoc group under the Environmental Working Group tasked with analyzing legal asymmetries relating to the environmental management of tires and making recommendations.

2. The Stockholm Convention

24. The Stockholm Convention applies to tire waste because tire combustion causes the unintentional release of so-called persistent organic pollutants (POPs). Combustion, often used to fuel other industrial processes, is one way of dealing with such tire waste. Combustion also results from accidents, especially in illegal tire dumps. The industrial and accidental combustion of tires leads to the release into the air, soil, and water of a number of toxic substances, including POPs. POPs are highly toxic chemicals that remain intact for years or decades, achieve wide geographic distribution through air and water, and accumulate in fatty tissue with increasing intensity as they move up the food chain. 13 In humans, POPs can cause cancer, birth defects, and memory loss, 14 and can damage the immune, reproductive, endocrine, and nervous systems. 15 They also threaten natural ecosystems. 16

25. In recognition of this growing threat to the environment and human health, governments adopted the multilateral Stockholm Convention on Persistent Organic Pollutants in 2001, which entered into force in 2004. 17 As of 21 June 2006, 126 countries were party to the Convention, including Brazil and the EC. 18 The Convention endeavors, most broadly speaking, to stop the release of POPs into the environment. Twelve chemicals are initially prohibited from production and use, subject to specific, approved exemptions. For example, the production and use of DDT is strictly relegated to the purpose of disease vector control when locally safe, effective, and affordable alternatives are not

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12 Basel Convention, Article 11.
14 Ibid. p.11.
15 Ibid. p.11.
16 See Ibid. p.11.
17 Ibid. p.4.
Additional chemicals may be recommended for addition by the POPs Review Committee.21

26. The Stockholm Convention distinguishes between “intentionally” produced and “unintentionally” produced POPs. Intentionally produced POPs, such as pesticides, are those purposefully produced for a particular use. These chemicals are slated by the Convention for elimination.22 Unintentionally produced POPs, such as industrial by-products, are those “unintentionally formed and released [...] as a result of incomplete combustion or chemical reactions.”23 Parties to the Convention are obligated to, “at a minimum,” take measures towards the goal of minimizing and, where “feasible,” eliminating the release of these chemicals into the environment.24

27. The types of chemicals released by a burning tire depend on the materials in the particular tire and the conditions under which it is burned. Such conditions include temperature, level of oxygen present, and any technology used to minimize pollution.25 All four of the unintentionally produced chemicals currently under the Convention (dioxins, furans, PCB’s and HCB) can be, and often are, released by tire combustion, posing risks to the environment and human health.26 For example, dioxins and furans are “the most potent cancer-causing chemicals known.” Burning tires also releases a number of heavy metals and other pollutants.27

28. The Convention “provides general guidance to Parties on preventing or reducing releases of unintentionally produced POPs.28 The guidance includes “promotion of the recovery and recycling of waste.”29 Parties are obligated to institute action plans to reduce unintentional POPs release, with an initial focus on source categories.30 Additionally, Parties are obligated to “promote the application of available, feasible, and practical measures that can expeditiously achieve a realistic and meaningful level of release reduction or source

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21 Ibid. Art. 8, ¶9.
23 Ibid. Annex C, Part II.
24 Ibid. Article 5.
27 See Ibid.
28 Ibid. Annex C, Part V.
29 Ibid. Annex C, Part V, A.
30 Ibid. Art. 5.
elimination.” Restricting tire importation to tires that can be re-treaded is perhaps the simplest, most expeditious means of reducing sources of unintentional POPs release from tire combustion in Brazil.

29. Finally, safely managing tire waste requires advanced disposal technologies and an efficient public control and monitoring system that are expensive and difficult to implement and maintain, particularly for developing countries. Minimizing the amount of tire waste reduces reliance on such technologies and respective control and monitoring systems. Thus, addressing the problem of unintentionally produced POPs through trade measures, in addition to the Convention’s prohibition on trade in intentionally produced POPs, is one of the most feasible and effective means for Brazil to fulfill its obligations under the Stockholm Convention.

V. TRADE & HUMAN RIGHTS

30. International human rights law imposes upon Brazil the duty to take concrete steps towards the full realization of the right to the highest attainable standards of physical and mental health. A failure to perform its human rights obligations would attract its international responsibility. WTO rules should not be interpreted in such a way as to cause a State to breach human rights law. Indeed, GATT Article XX allows for a harmonious reading of both human rights law and trade law by safeguarding measures necessary to protect public health.

31. On 24 January 1992 Brazil ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR) by means of which Brazil has recognized “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.” According to the ICESCR, Brazil is under the duty to take concrete steps toward the full realization of the right to health. Specifically, the Covenant refers to the State obligation to take the necessary steps to prevent, treat, and control epidemic, endemic, and occupational diseases. The ICESCR and the human rights obligations therein

31 Ibid. Art. 5(b) (emphasis added).
34 Art. 12.2.c
are particularly relevant to the scrutiny of measures adopted to address the public health problems associated with tire waste.

32. The Committee on Economic, Social and Cultural Rights, the treaty body responsible for monitoring the implementation of the ICESCR, has emphasized that the ICESCR imposes on states an obligation not only to respect the right to health, but also to protect citizens against violations of the right by third parties.\(^{35}\) Moreover, the ICESCR encompasses an obligation to fulfill the right to health, which requires Brazil “to adopt measures against environmental and occupational health hazards,” including the formulation and implementation of “national policies aimed at reducing and eliminating pollution of air, water and soil.”\(^{36}\) Further, in the Committee’s view, the obligation to prevent, treat and control diseases includes “the promotion of social determinants of good health such as environmental safety.”\(^{37}\)

33. At the regional level, Brazil is a member of the Organization of American States and a party to the American Convention on Human Rights and its Additional Protocol in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador).\(^{38}\) This instrument reinforces the country’s obligation to secure the right to health of all individuals, understood as “the enjoyment of the highest level of physical, mental and social well-being”.\(^{39}\) The Protocol of San Salvador also explicitly highlights the obligation to prevent endemic diseases such as dengue,\(^{40}\) which bears direct relation to the measures adopted to reduce the amount of tire waste that aggravates this disease.

34. Generally, legislative and regulatory measures implemented for the protection and promotion of public health, including its underlying environmental determinants, will necessarily affect markets within and beyond a country’s border. Sanitary laws and regulations may create new economic opportunities, for example, and perhaps even confer potential competitive advantages to certain economic activities, chemical substances, or production methods. Almost inescapably, however, health regulations will impose short-term costs on economic operators and may even render certain activities unprofitable. These economic burdens may give rise to complaints, including by way of trade law, by affected economic operators. However, such complaints


\(^{36}\) Ibid. ¶36 (emphasis added).

\(^{37}\) Ibid. ¶16.

\(^{38}\) The Protocol of San Salvador was ratified by Brazil on 29 August 1996.


\(^{40}\) Ibid. Art. 10.2.d.
should not prevail over the public interest expressed in measures of general application that are necessary for the protection of public health.

35. The UN Special Rappourteur on the Right to Health has called attention to this point highlighting that “international organizations must be respectful of members’ national and international human rights obligations. The organizations’ various policy initiatives -commissions, research projects, etc.- should take into account the relevant human rights obligations of their members.”

36. In conclusion, under human rights law, States are under an obligation to structure their legal systems in a way that ensures the free and full exercise of fundamental rights, including the right to health. In this regard, WTO rules should not inhibit its Members to fulfill their obligations under human rights instruments.

VI. THE PREVENTION PRINCIPLE & THE BAN ON THE IMPORT OF RETREADED TIRES

37. The Prevention Principle is a key source of international environmental law that focuses on the prevention of environmental damage by the adoption of measures that reduce contamination at source. The principle of prevention stems from the recognition that restoring environmental damage may be impossible or exorbitant, and that environmental contamination may otherwise expose the population to irreversible health impacts. The Prevention Principle has also been widely applied in comparative environmental law and is particularly relevant to pollution control law, including pollution from hazardous and other waste.

38. The Prevention Principle supports measures designed to reduce contamination at source. As regards the increased environmental and public health impacts posed by trade in retreaded tires, as examined in the sections above, the Prevention Principle supports measures designed to reduce the source of the tire waste problem. In the instant case, Brazil has adopted a range of measures, in addition to its ban on the import of retreaded tires, to prevent environmental contamination resulting from tire disposal, including inter alia prohibiting landfilling and burning of used tires; attaching responsibility to


42 See NICOLAS DE SADELEER, ENVIRONMENTAL PRINCIPLES: FROM POLITICAL SLOGANS TO LEGAL RULES 175 (Susan Leubusher trans., Oxford Univ. Press 2002); See also, DAVID HUNTER ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY (2d ed. 2002).
producers and importers of tires for their collection and disposal; requiring
environmental licensing for companies dedicated to the disposal of waste tires;
controlling emissions in industrial plants that co-process waste tires, etc. These
measures are inspired by the Prevention Principle as the measures aim at
reducing the tire waste problem at its source.

VII. CONCLUSION

39. Tire waste and disposal is a worldwide health and environmental
problem, and both the EC and Brazil are trying to minimize the impact of tire
waste on its environment and the health of its people. Retreading tires, and
consequently extending their usable life, is one way of contributing to
diminishing the tire disposal problem. Trade in retreaded tires, however,
generally increases the health and environment tire disposal problem in the
importing State, as retreaded tires cannot be retreaded again and have a shorter
life-span. Given the serious implications of tire waste on the propagation of
mosquitoes and associated diseases like malaria and dengue, and given the
difficulties of adequate disposal of the hazardous and persistent chemicals in
tires, countries should retain the ability of banning entry of short-life retreaded
tires that amplify the threats to their environment and the health of their people.

40. The WTO subscribes to the goal of sustainable development. In order to
achieve this goal, its rules must allow Members to adopt a life-cycle approach,
which takes into account all the environmental and health impacts of a product,
including its disposal. Two key multilateral environmental agreements relate to
tire waste and disposal thereby underscoring the gravity and urgency of public
health and environmental problems associated with tire waste in importing
developing countries.

41. Furthermore, human rights law imposes upon States the obligation to
adopt concrete steps towards the full realization of the right to the highest
attainable standards of health, including steps to prevent, treat, and control
epidemic and endemic diseases. In performing its human rights obligations, a
State will find guidance in the international environmental law principle of
prevention, which supports measures designed to reduce the source of the tire
waste problem, including banning the import of short-lived retreaded tires that
exacerbate tire waste. WTO law should not be interpreted and applied in a way
that undermines the ability of a country to adopt measures necessary for a State
to fulfill its obligations regarding the realization of the right to the highest
attainable standards of health in its territory.