

# **Trade in the Era of Climate Change: Fostering Human Rights and Environmental Justice for Sustainable Development**

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## **Trade in the Era of Climate Change: Fostering Human Rights and Environmental Justice for Sustainable Development**

**Kariuki Muigua\***

### **Abstract**

*This paper discusses how trade can be effectively harnessed as a driver of Sustainable Development in the era of climate change. The paper observes that trade provides numerous opportunities towards unlocking the Sustainable Development agenda. Despite its role in driving Sustainable Development, the paper notes that trade is also a major cause of environmental challenges including climate change. The paper discusses how trade fuels and worsens climate change. In light of its adverse impacts on the environment, the paper argues that there is need to reorganize the global trade system in order to harness opportunities towards Sustainable Development while addressing challenges such as climate change. In order to achieve this ideal, the paper explores how human rights and environmental justice can be infused into global trade in order to foster Sustainable Development in the era of climate change.*

### **1.0 Introduction**

Trade is a vital engine in driving Sustainable Development. Trade involves the voluntary exchange of goods and services between individuals, businesses or nations<sup>1</sup>. Trade can also be defined as an exchange of goods or services for a value between one person, organization or country and another<sup>2</sup>. It has been observed that trade involves buying and selling of goods and services for money or money's worth<sup>3</sup>. Trade has been identified

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<sup>1</sup> Trade in Finance: Benefits, Function, and Insights., Available at <https://www.investopedia.com/terms/t/trade.asp> (Accessed on 16/01/2026)

<sup>2</sup> Introduction to Trade: Trade Definition and Importance., Available at <https://financialcrimeacademy.org/introduction-to-trade/> (Accessed on 16/01/2026)

<sup>3</sup> What is Trade? Meaning and Nature., Available at <https://bgc.ac.in/pdf/study-material/trade.pdf> (Accessed on 16/01/2026)

as an important tool in satisfying human needs and wants<sup>4</sup>. It is conducted not only for the sake of earning profit but also towards providing essential goods and services to consumers<sup>5</sup>.

Trade plays a crucial role in unlocking Sustainable Development. For example, it has been observed that trade is an engine of growth that creates jobs, reduces poverty and increases economic opportunities for human progress<sup>6</sup>. Effective trade policies and systems can accelerate progress towards Sustainable Development by connecting individuals, organisations and nations all over the world to markets, environmentally-sound technologies, finance and investments required to unlock the Sustainable Development Goals (SDGs)<sup>7</sup>. Effective trade policies and environments can foster Sustainable Development by enhancing competition, supporting economies of scale, attracting foreign investments, promoting equal access to resources and ensuring innovation and technological progress<sup>8</sup>.

The United Nations *2030 Agenda for Sustainable Development*<sup>9</sup> recognises trade as a key driver of sustainability. In particular, the Agenda notes that international trade is an important tool for inclusive economic growth and poverty reduction, and a crucial means

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<sup>4</sup> Ibid

<sup>5</sup> Ibid

<sup>6</sup> World Bank Group., 'Trade' Available at <https://www.worldbank.org/en/topic/trade> (Accessed on 16/01/2026)

<sup>7</sup> Opinion: The role of trade in Sustainable Development., Available at <https://www.devex.com/news/sponsored/opinion-the-role-of-trade-in-sustainable-development-92250#:~:text=Trade%20furnishes%20people%20across%20the,and%20to%20achieve%20food%20security> (Accessed on 16/01/2026)

<sup>8</sup> United Nations Economic and Social Commission for Asia., 'Trade and Sustainable Development' Available at <https://www.unescap.org/sites/default/d8files/knowledge-products/Session%201%20Trade%20and%20sustainable%20development%20v.2.pdf> (Accessed on 16/01/2026)

<sup>9</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 16/01/2026)

of attaining the SDGs<sup>10</sup>. It seeks to promote a universal, rules-based, open, transparent, predictable, inclusive, non-discriminatory and equitable multilateral trading system under the World Trade Organization (WTO); enhance meaningful trade liberalization; provide trade-related capacity building for developing countries; and foster regional economic integration and interconnectivity in order to harness trade as a means of implementing the SDGs<sup>11</sup>. Trade can help the global community achieve the SDGs through investments in food security, generating higher living standards towards reducing poverty, promoting decent employment opportunities for all, fostering technology transfer including access to low-carbon technologies to confront climate change, and ensuring availability of basic services such as health, education, water, sanitation and energy for all<sup>12</sup>.

Despite its role in driving Sustainable Development, the current global trade systems raise several concerns. For instance, inequalities and imbalances between developed and developing countries undermine the role and influence of the Global South in international trade<sup>13</sup>. Poorly designed trade policies and practices also have detrimental impacts on the environment by causing and worsening climate change, biodiversity loss and pollution among other threats<sup>14</sup>. In light of these concerns, it is imperative to reorganize trade policies, systems and practices all over the world in order to effectively harness trade as a driver of Sustainable Development and human progress.

This paper discusses how trade can be effectively harnessed as a driver of Sustainable Development in the era of climate change. The paper observes that trade provides

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<sup>10</sup> Ibid

<sup>11</sup> Ibid

<sup>12</sup> Galmés, G.V., 'Trade as an enabler of sustainable development and poverty eradication,' in United Nations, *The Road from Rio+20: Towards Sustainable Development Goals*, Issue 4, September 2014, p. 10. UNCTAD/DITC/TED/2014/1 Available at [http://unctad.org/en/PublicationsLibrary/ditcted2014d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ditcted2014d1_en.pdf) (Accessed on 16/01/2026)

<sup>13</sup> United Nations Economic and Social Commission for Asia., 'Trade and Sustainable Development' Op Cit

<sup>14</sup> Ibid

numerous opportunities towards unlocking the Sustainable Development agenda. Despite its role in driving Sustainable Development, the paper notes that trade is also a major cause of environmental challenges including climate change. The paper discusses how trade fuels and worsens climate change. In light of its adverse impacts on the environment, the paper argues that there is need to reorganize the global trade system in order to harness opportunities towards Sustainable Development while addressing challenges such as climate change. In order to achieve this ideal, the paper explores how human rights and environmental justice can be infused into global trade in order to foster Sustainable Development in the era of climate change.

## **2.0 Trade and Climate Change**

It has been observed that trade and climate change intersect<sup>15</sup>. For example, trade is one of the sources of greenhouse gas emissions that cause climate change<sup>16</sup>. Trade contributes to the climate crisis due to its effects on the location and scale of production, consumption decisions and emissions from the international and regional transportation of goods and services<sup>17</sup>. The rise in international trade is worsening climate change due to greenhouse gas emissions from increased transport of goods and services through marine transport, trucks and air freight<sup>18</sup>.

It estimated that trade-related emissions, those associated with the global production and distribution of goods and services, contribute to roughly a quarter of all carbon dioxide emissions<sup>19</sup>. Trade is therefore linked to climate change is nearly a quarter of global

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<sup>15</sup> World Bank Group., 'The Trade and Climate Change Nexus : The Urgency and Opportunities for Developing Countries' Available at <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/644711632894241300/the-trade-and-climate-change-nexus-the-urgency-and-opportunities-for-developing-countries> (Accessed on 16/01/2026)

<sup>16</sup> Ibid

<sup>17</sup> Ibid

<sup>18</sup> International Institute for Sustainable Development., 'Trade and Climate Change Linkages' Available at [https://www.iisd.org/system/files/publications/trade\\_climate\\_linkages.pdf](https://www.iisd.org/system/files/publications/trade_climate_linkages.pdf) (Accessed on 16/01/2026)

<sup>19</sup> COP 28: UNCTAD and Partners to Advance Pro-Development Climate Goals.' Available at <https://caribbeannewsglobal.com/cop-28-unctad-and-partners-to-advance-pro-development-climate-goals/> (Accessed on 16/01/2026)

carbon dioxide emissions are directly or indirectly linked to the production and distribution of traded goods and services<sup>20</sup>. It has been observed that globalisation and the fragmentation of production processes have played a key role in rising greenhouse gas emissions due to increases in the transportation and disposal of goods as part of complex global trade value chains<sup>21</sup>. The energy and transport sectors which play an important role in international trade are some of the main causes of the global climate crisis<sup>22</sup>. In addition to climate change, it has been observed that increased production, resulting from trade expansion, can lead to degradation and depletion of natural resources and pollution<sup>23</sup>.

Trade is therefore one of the major causes of climate change. At the same time, climate change has negative impacts on trade at all levels. According to WTO, climate change can negatively impact trade by disrupting distribution and supply chains and raising trade costs<sup>24</sup>. The adverse impacts of climate change including higher temperatures, rising sea levels and more frequent extreme weather events bring the prospect of productivity losses, production shortages, damaged transport infrastructure and supply disruptions with negative impacts on global and regional trade<sup>25</sup>. WTO notes that climate shocks remain costly and disruptive on trade with disproportionate impacts on most vulnerable economies including least-developed countries, small-island developing states, and

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<sup>20</sup> United Nations Trade & Development., 'Making trade work for climate change mitigation: The case of technical regulations' Available at <https://unctad.org/publication/making-trade-work-climate-change-mitigation-case-technical-regulations> (Accessed on 16/01/2026)

<sup>21</sup> How does trade contribute to climate change and how can it advance climate action?., Available at <https://www.lse.ac.uk/granthaminstitute/explainers/how-does-trade-contribute-to-climate-change-and-how-can-it-advance-climate-action/> (Accessed on 16/01/2026)

<sup>22</sup> Ibid

<sup>23</sup> Swedish International Development Cooperation Agency., 'The Role of International Trade for Environment and Climate Change - an Evidence-based Technical Note' Available at [https://cdn.sida.se/app/uploads/2022/12/05082805/10206848\\_Sida\\_TN\\_Trade\\_Environment\\_and\\_Climate\\_Change\\_web.pdf](https://cdn.sida.se/app/uploads/2022/12/05082805/10206848_Sida_TN_Trade_Environment_and_Climate_Change_web.pdf) (Accessed on 16/01/2026)

<sup>24</sup> World Trade Organization., 'Trade and Climate Change' Available at [https://www.wto.org/english/tratop\\_e/envir\\_e/climate\\_intro\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/climate_intro_e.htm) (Accessed on 16/01/2026)

<sup>25</sup> World Trade Organization., 'Climate Change and International Trade' Available at [https://www.wto.org/english/res\\_e/booksp\\_e/wtr22\\_e/wtr22\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/wtr22_e/wtr22_e.pdf) (Accessed on 16/01/2026)

landlocked developing countries<sup>26</sup>. The trade sector is therefore vulnerable to the consequences of climate change. In addition, it has been observed that international mitigation policies and other measures to confront climate change can impair the trade competitiveness of countries<sup>27</sup>. For instance, it has been observed that climate-related measures, including industrial policies, carbon pricing and related border adjustments, are increasingly affecting trade and investment, with serious potential development impact in the Global South<sup>28</sup>.

Due to the foregoing inter-linkages, there is need to effectively harness trade in the era of climate change for Sustainable Development. According to WTO, there is need to ensure that trade and climate change policies are mutually supportive in order to effectively harness trade as an engine of development while strengthening global efforts to confront climate change for Sustainable Development<sup>29</sup>.

### **3.0 Fostering Human Rights and Environmental Justice in Trade for Sustainable Development**

Trade is a vital tool that can drive Sustainable Development. However, in light of the impacts of trade on the environment, it is imperative to foster human rights and environmental justice in order to effectively harness trade as an engine of growth and Sustainable Development. In particular, trade plays a significant role in the climate crisis due to greenhouse gas emissions associated with the production, transportation and consumption of traded goods and services all over the world<sup>30</sup>. In addition, the adverse impacts of climate change can significantly affect international trade with climate policies

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<sup>26</sup> Ibid

<sup>27</sup> United Nations Trade & Development., 'Trade and Climate Change: Challenges and Opportunities for Small Developing Countries, LDCs, and Countries in Sub-Saharan Africa' Available at <https://unctad.org/meeting/trade-and-climate-change-challenges-and-opportunities-small-developing-countries-ldcs-and> (Accessed on 16/01/2026)

<sup>28</sup> COP 28: UNCTAD and Partners to Advance Pro-Development Climate Goals.' Op Cit

<sup>29</sup> World Trade Organization., 'Climate Change and International Trade' Op Cit

<sup>30</sup> Ibid

and actions also affecting trade with development impacts particularly for the Global South<sup>31</sup>.

Trade therefore worsens climate change while the impacts of climate change disrupt trade undermining development. It has been argued that due to this connection, there is need for trade and climate policies to work together for human rights, environmental justice and Sustainable Development<sup>32</sup>. In particular, it has been observed that trade can shape climate action at the global, regional and national levels for inclusive and Sustainable Development that prioritises the needs of the vulnerable including developing countries and marginalised communities<sup>33</sup>. According to WTO, trade can play an important role in helping countries reduce greenhouse gas emissions and confront climate change by increasing the availability and affordability of environmental goods, services and technologies<sup>34</sup>. Trade can help countries to effectively anticipate, prepare, and respond to climate change through access to clean technologies and critical goods and services, such as food and healthcare products<sup>35</sup>. This is key in fostering human right and environmental justice by protecting vulnerable nations and communities including people in least-developed countries, small-island developing states, and landlocked developing countries from the adverse impacts of climate change<sup>36</sup>.

Fostering human rights and environmental justice is therefore a suitable approach towards effectively harnessing trade in the era of climate change for Sustainable Development. In order to achieve this goal, there is need to green trade for Sustainable

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<sup>31</sup> COP 28: UNCTAD and Partners to Advance Pro-Development Climate Goals.' Op Cit

<sup>32</sup> COP 28: UNCTAD and Partners to Advance Pro-Development Climate Goals., Op Cit

<sup>33</sup> Ibid

<sup>34</sup> World Trade Organization., 'Climate Change and International Trade' Op Cit

<sup>35</sup> Ibid

<sup>36</sup> Ibid

Development. It has been argued that greening trade serves as a non-technical entry point for actors keen to navigate the environment-trade policy conversation and promote sustainable trade and the overall Sustainable Development agenda<sup>37</sup>. Through this, it is possible to reduce the negative impacts of trade and trade policies on the environment while also fostering environmentally sustainable, fair and resilient international, regional and national supply chains for human rights and environmental justice<sup>38</sup>. Greening trade can be achieved through measures such as reducing carbon emissions from transportation across borders through sustainable transport systems, ensuring energy efficiency in trade activities, promoting international trade and investment in green sectors including renewable energy, and facilitating green technology development and transfer, especially for the Global South, in order to tackle environmental threats including climate change<sup>39</sup>.

In addition, there is need to embrace effective trade policies especially for developing countries in order to foster human rights, environmental justice and Sustainable Development<sup>40</sup>. It has been observed that barriers in international trade including trade volatility and unfair tariffs prevent developing countries from maximizing benefits of international trade affecting their ability of to achieve Sustainable Development<sup>41</sup>. By tackling these barriers, it is possible to foster human rights and environmental justice by enabling developing countries to have a significant role in international trade which can enhance their ability to acquire and utilise environmental-friendly goods, services and

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<sup>37</sup> United Nations Environment Programme., 'Greening International Trade' Available at <https://www.unep.org/resources/publication/greening-international-trade> (Accessed on 17/01/2026)

<sup>38</sup> Ibid

<sup>39</sup> United Nations Economic Commission for Africa., 'Africa Should Leverage the AfCFTA to Promote Green Transition' Available at <https://www.uneca.org/stories/africa-should-leverage-the-afcfta-to-promote-green-transition> (Accessed on 17/01/2026)

<sup>40</sup> United Nations., 'Absence of Multilateral Trade System Threatens Sustainable Development, Delegates Stress as Second Committee Takes Up Macroeconomic Policy Questions' Available at <https://press.un.org/en/2019/gaef3517.doc.htm> (Accessed on 17/01/2026)

<sup>41</sup> Ibid

products<sup>42</sup>. It is therefore necessary to promote a universal, rules-based, fair and non-discriminatory international trading system that fosters the needs of developing countries in order to effectively harness trade in the era of climate change for Sustainable Development<sup>43</sup>.

Through the foregoing, it is possible to utilise trade for Sustainable Development in the era of climate change while upholding human rights and environmental justice.

#### **4.0 Conclusion**

Trade plays a crucial role in driving Sustainable Development. However, in light of the worsening climate crisis, there is need to embrace sustainable trade policies and practices in order to foster human rights and environmental justice. This involves greening trade at all levels, utilising trade to advance climate action and ensuring fairness, equity and justice in international trade in order to foster the rights and interests of developing countries<sup>44</sup>. Fostering human rights and environmental justice is necessary and possible towards effectively harnessing trade in the era of climate change for Sustainable Development.

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<sup>42</sup> Ibid

<sup>43</sup> Ibid

<sup>44</sup> World Trade Organization., 'Climate Change and International Trade' Op Cit

## References

COP 28: UNCTAD and Partners to Advance Pro-Development Climate Goals.' Available at <https://caribbeannewsglobal.com/cop-28-unctad-and-partners-to-advance-pro-development-climate-goals/>

Galmés, G.V., 'Trade as an enabler of sustainable development and poverty eradication,' in United Nations, The Road from Rio+20: Towards Sustainable Development Goals, Issue 4, September 2014, p. 10. UNCTAD/DITC/TED/2014/1 Available at [http://unctad.org/en/PublicationsLibrary/ditcted2014d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ditcted2014d1_en.pdf)

How does trade contribute to climate change and how can it advance climate action?., Available at <https://www.lse.ac.uk/granthaminstitute/explainers/how-does-trade-contribute-to-climate-change-and-how-can-it-advance-climate-action/>

International Institute for Sustainable Development., 'Trade and Climate Change Linkages' Available at [https://www.iisd.org/system/files/publications/trade\\_climate\\_linkages.pdf](https://www.iisd.org/system/files/publications/trade_climate_linkages.pdf)

Introduction to Trade: Trade Definition and Importance., Available at <https://financialcrimeacademy.org/introduction-to-trade/>

Opinion: The role of trade in Sustainable Development., Available at <https://www.devex.com/news/sponsored/opinion-the-role-of-trade-in-sustainable-development-92250#:~:text=Trade%20furnishes%20people%20across%20the,and%20to%20achieve%20food%20security>

Swedish International Development Cooperation Agency., 'The Role of International Trade for Environment and Climate Change - an Evidence-based Technical Note' Available at [https://cdn.sida.se/app/uploads/2022/12/05082805/10206848\\_Sida\\_TN\\_Trade\\_Environment\\_and\\_Climate\\_Change\\_web.pdf](https://cdn.sida.se/app/uploads/2022/12/05082805/10206848_Sida_TN_Trade_Environment_and_Climate_Change_web.pdf)

Trade in Finance: Benefits, Function, and Insights., Available at <https://www.investopedia.com/terms/t/trade.asp>

United Nations Economic and Social Commission for Asia., 'Trade and Sustainable Development' Available at <https://www.unescap.org/sites/default/d8files/knowledge-products/Session%201%20Trade%20and%20sustainable%20development%20v.2.pdf>

United Nations Economic Commission for Africa., 'Africa Should Leverage the AfCFTA to Promote Green Transition' Available at <https://www.uneca.org/stories/africa-should-leverage-the-afcfta-to-promote-green-transition>

United Nations Environment Programme., 'Greening International Trade' Available at <https://www.unep.org/resources/publication/greening-international-trade>

United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

United Nations Trade & Development., 'Making trade work for climate change mitigation: The case of technical regulations' Available at <https://unctad.org/publication/making-trade-work-climate-change-mitigation-case-technical-regulations>

United Nations Trade & Development., 'Trade and Climate Change: Challenges and Opportunities for Small Developing Countries, LDCs, and Countries in Sub-Saharan Africa' Available at <https://unctad.org/meeting/trade-and-climate-change-challenges-and-opportunities-small-developing-countries-ldcs-and>

United Nations., 'Absence of Multilateral Trade System Threatens Sustainable Development, Delegates Stress as Second Committee Takes Up Macroeconomic Policy Questions' Available at <https://press.un.org/en/2019/gaef3517.doc.htm>

What is Trade? Meaning and Nature., Available at <https://bgc.ac.in/pdf/study-material/trade.pdf>

World Bank Group., 'The Trade and Climate Change Nexus : The Urgency and Opportunities for Developing Countries' Available at <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/644711632894241300/the-trade-and-climate-change-nexus-the-urgency-and-opportunities-for-developing-countries>

World Bank Group., 'Trade' Available at <https://www.worldbank.org/en/topic/trade>

World Trade Organization., 'Climate Change and International Trade' Available at [https://www.wto.org/english/res\\_e/booksp\\_e/wtr22\\_e/wtr22\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/wtr22_e/wtr22_e.pdf)

World Trade Organization., 'Trade and Climate Change' Available at [https://www.wto.org/english/tratop\\_e/envir\\_e/climate\\_intro\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/climate_intro_e.htm)

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