

Harnessing African Free Trade Area and WTO for Clean Energy Transition

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1. Introduction

While it is not the first continental trade integration, the African Continental Free Trade Area (AfCFTA)¹ is the most recent platform that will be used to pursue the goal² of the African Union (AU) to establish the African Economic Community (AEC), which will embed the creation of a single market for the free and productive movement of goods, services, people and investments. AfCFTA aims at reducing and/or eliminating both tariff and non-tariff barriers (NTBs)³ for its current 54 AU Member States.⁴ This aim will be achieved through single market development and economic integration.

Upon the ratification⁵ of the Agreement Establishing the AfCFTA (AfCFTA Agreement)⁶ - signed on 21 March 2018 in Rwanda and entry into force on 30 May 2019 - the AU appears to have reached a climax in its efforts to enhance trade in Africa. The AfCFTA Agreement constitutes protocols such as Protocol on Trade in Goods (PTG), Protocol on Trade in Services (PTS), Protocol on Rules and Procedures on the Settlement of Disputes (PRPSD), Protocol on Intellectual Property Rights (PIPR), Protocol on Investment (POI), and Protocol on Competition Policy (PCP) as well as the associated Annexes and Appendices of the Protocols.⁷ Thus, the AfCFTA Agreement together with the Protocols, Annexes and Appendices form the basic legal framework of AfCFTA.⁸ This framework constitutes a set of rules that are drawn in the context of international trade law, which is championed by the legal imperatives of the World Trade Organization (WTO).⁹

Since the WTO was created, there has not been another trade facilitation organisation as large as AfCFTA in terms of its membership and geographical coverage.¹⁰ There are intriguing

¹ R. N. Kouassi, *The Itinerary of the African Integration Process: An Overview of the Historical Landmarks*, 1 African Integration Review, no. 2 (2007), 1-23; C. Juma and F. Mangeni, *African Regional Economic Integration: The Emergence, Evolution, and Impact of Institutional Innovation*, RWP18-003 Harvard Kennedy School Faculty Research Working Paper Series (2018), 1-8.

² R. Y. Simo, *Trade in Services in the African Continental Free Trade Area: Prospects, Challenges and WTO Compatibility*, 23 Journal of International Economic Law, no.1 (2020), 65-95; African Development Bank Group, *African Union Commission inaugurates AfCFTA permanent secretariat as launchpad for Africa's economic transformation* (August 18, 2020), available at: <www.afdb.org/en/news-and-events/press-releases/african-union-commission-inaugurates-afcfta-permanent-secretariat-launchpad-africas-economic-transformation-37379>, accessed November 17, 2021; AU, *The AfCFTA Secretariat and UNDP sign a strategic partnership agreement to promote trade in Africa* (March 29, 2021), available at: <<https://au.int/en/pressreleases/20210329/afcfta-and-undp-sign-strategic-partnership-agreement-promote-trade>>, accessed November 17, 2021.

³ Agreement Establishing the African Continental Free Trade Area (AfCFTA Agreement), Art 3.

⁴ AU, *List of Countries which have Signed, Ratified/Acceded to the Agreement Establishing the African Continental Free Trade Area*, available at: <www.tralac.org/documents/resources/cfta/4241-afcfta-agreement-signature-and-ratification-list-05-12-2020/file.html>, accessed November 17, 2021.

⁵ As of 28 December 2020, 54 of the 55 AU Member States signed the AfCFTA Agreement, and 39 of the AU Member States ratified the AfCFTA Agreement - It is only Eritrea that has not yet signed the Agreement. See AfCFTA Secretariat, *State Parties*, available at: <<https://au-afcfta.org/state-parties/>>, accessed June 2, 2022.

⁶ See the list here: AU, *Agreement Establishing the African Continental Free Trade Area*, available at: <<https://au.int/en/treaties/agreement-establishing-african-continental-free-trade-area>>, accessed June 17, 2021.

⁷ AfCFTA Agreement, Arts 1 and 8.

⁸ AfCFTA Agreement, Art 8.

⁹ Agreement Establishing the African Continental Free Trade Area 2018, Preamble, para 4, Art 26(2).

¹⁰ United Nations Economic Commission for Africa, *African Continental Free Trade Area: Questions & Answers* (2019), available at: <<https://repository.uneca.org/handle/10855/43253>>, accessed June 17, 2021. While the

coherences between the WTO and AfCFTA in the context of the United Nations' Sustainable Development Goals 2015 (SDGs) especially in relation to clean energy transition (CET) in line with SDG 7 commitments on ensuring 'access to affordable, reliable, sustainable and modern energy for all'¹¹ and SDG 13 on taking 'action to combat climate change and its impacts'.¹² These commitments enhance the achievement of net zero carbon dioxide (CO₂) emissions to mitigate climate change by the second half of the 21st Century,¹³ as provided for in Article 2 of the 2015 Paris Agreement¹⁴ and in furtherance of the United Nations Framework Convention on Climate Change 1992 (UNFCCC).¹⁵

For trade in fossil fuels such as coal, oil and gas, the AfCFTA Agreement, as well as the General Agreement on Tariffs and Trade (GATT)¹⁶ and General Agreement on Trade in Services (GATS)¹⁷ respectively provide the legal provisions¹⁸ for assessing the nature of commitments made by AfCFTA and the WTO in relation to the CET.

The CET is a process of transforming the use of fossil fuels in ways that will contribute to zero-carbon emissions as stipulated by Article 2 of the Paris Agreement.¹⁹ CET involves not only the reduction of 'dirty energy'²⁰ sources such as fossil fuels and efficient use of them but also in the increased/optimal use of renewable energies.²¹ The prevailing understanding in

AfCFTA Agreement has 54 signatories (see footnote 6), the Regional Comprehensive Economic Partnership (RCEP) Agreement 2022 which entered into force on 01 January 2022, for instance, has only 10 signatories (Australia, Brunei Darussalam, Cambodia, China, Japan, Lao PDR, New Zealand, Singapore, Thailand and Viet Nam) but 'covers 2.3 billion people or 30% of the world's population, contribute US\$ 25.8 trillion about 30% of global GDP, and account for US\$ 12.7 trillion, over a quarter of global trade in goods and services, and 31% of global FDI inflows'. ASEAN, *RCEP Agreement enters into force* (January 1, 2022), available at: <<https://asean.org/rcep-agreement-enters-into-force/>>, accessed June 2, 2022.

¹¹ Sustainable Development Goals 2015, Goal 7.

¹² Sustainable Development Goals 2015, Goal 13.

¹³ 2015 Paris Agreement, Art 4.

¹⁴ 2015 Paris Agreement, Art 2; see over 45 AfCFTA countries as signatories to the Paris Agreement here: United Nations, *Chapter XXVII, Environment, Paris Agreement, 12 December 2015* (Status as at: 15-06-2021), available at: <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en>, accessed November 15, 2021.

¹⁵ UNFCCC, Art 4(1)(c) and Art 4(8)(h) regarding commitments on energy processing and consumption to reduce greenhouse gases, particularly; see over 40 AfCFTA countries as signatories to the UNFCCC here: Chapter XXVII Environment, *United Nations Framework Convention on Climate Change, 9 May 1992* (Status as at: 15-06-2021), available at: <https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en>, accessed November 15, 2021.

¹⁶ Agreement Establishing the World Trade Organization of 15 April 1994 (Annex 1A, General Agreement on Tariffs and Trade (GATT)), available at: <www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_e.htm>, accessed November 18, 2021.

¹⁷ Agreement Establishing the World Trade Organization of 15 April 1994 (Annex 1B, General Agreement on Trade in Services (GATS)).

¹⁸ The specific provisions are discussed in sections 2 and 3 of this article.

¹⁹ The 2015 Paris Agreement, Art 2(1); United Nations Climate Change, *United Nations Climate Change Annual Report 2019* (UNFCCC 2020), 22, available at: <https://unfccc.int/sites/default/files/resource/unfccc_annual_report_2019.pdf>, accessed November 18, 2021.

²⁰ See B. K. Sovacool, *The Dirty Energy Dilemma: What's Blocking Clean Power in the United States* (London: Praeger, 2008), p. 746.

²¹ F. Stöckl and A. Zerrahn, *Substituting Clean for Dirty Energy: A Bottom-up Analysis* (DIW Berlin, German Institute for Economic Research, 2020), 19-26, available at: <www.diw.de/documents/publikationen/73/diw_01.c.795779.de/dp1885.pdf>, accessed November 18, 2021.

scholarship and among policymakers on the CET is that with more emissions of CO₂, the chance of the planet getting warmer is very high and will persist for a long time.²²

For example, because of human engineered greenhouse gas emissions contributing about 1.1°C of warming from 1850-1900,²³ on average, for the coming 20 years, the temperature of the globe would reach or go beyond 1.5°C of global warming.²⁴ The ‘best available science’ demonstrates that ‘going beyond a 1.5°C increase in average surface temperature will lead to catastrophic disaster and extreme weather events’.²⁵ The UN further warns that without reducing global greenhouse gas emissions to 7.6% every year from 2020 to 2030, it will not be possible to realise the goals of the 2015 Paris Agreement,²⁶ which currently champions the CET.

Although the CET has become a global priority, there is a scant literature on if and how the legal instruments of the WTO and AfCFTA harness the CET. Manduna & Fundira;²⁷ Ven and Signé;²⁸ Adeniran, Onyekwena, Osakwe, and Iheonu;²⁹ Mukarakate;³⁰ and ESI Africa³¹ (to mention a few) have discussed certain synergies between AfCFTA and green transition. However, these studies have not considered harnessing AfCFTA and the CET along with the WTO legal imperatives. At the same, authors such as Cottier,³² and IRENA³³ have provided sound perspectives on relationship between the WTO and CET but have not considered these concepts along with AfCFTA. In order to bridge this gap and to contribute to the success of the newly established AfCFTA in relation to the WTO and energy transition, this article uses doctrinal and socio-legal approaches to international trade law and environmental law to

²² United Nations Climate Change (2020), *supra* note 19, pp. 6, 29.

²³ The 1850–1900 is the latest era in which the world began to gather ‘sufficiently complete observations to’ roughly calculate ‘surface temperature and ... is used as an approximation for pre-industrial conditions’; IPCC, *The Physical Science Basis: Summary for Policymakers* (Climate Change, 2021), 5, available at: <www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf>, accessed November 10, 2021.

²⁴ IPCC (2021), *supra* note 23, pp. 5-18; United Nations Climate Change, *UN Climate Change Welcomes IPCC’s Summary for Policy Makers on the Physical Science Basis of Climate Change* (UN Climate Statement, August 9, 2021), available at: <<https://unfccc.int/news/un-climate-change-welcomes-ipcc-s-summary-for-policy-makers-on-the-physical-science-basis-of-climate>>, accessed November 10, 2021.

²⁵ United Nations Climate Change (2020), *supra* note 19, p. 2.

²⁶ *Ibid.*

²⁷ C. Manduna & T. Fundira, *Tackling Climate Change and Propelling a Green Transition under the African Continental Free Trade Area* (Heinrich Böll Foundation, May 2022), available at: <https://afripoli.org/uploads/publications/LY_E-Paper_APRI_v2.pdf>, accessed June 2, 2022.

²⁸ C. van der Ven and L. Signé, *Greening the AfCFTA: It is not too late* (September 2021), available at: <<https://www.brookings.edu/wp-content/uploads/2021/09/21.09.15-Greening-the-AfCFTA.pdf>>, accessed June 2, 2022.

²⁹ A. Adeniran, C. Onyekwena, S. Osakwe, and C. Iheonu, *How Can the AfCFTA Improve Energy Efficiency and Access in Africa?* (26 April 2021), available at: <<https://sdg.iisd.org/commentary/guest-articles/how-can-the-afcfta-improve-energy-efficiency-and-access-in-africa/>>, accessed June 3, 2022.

³⁰ D. Mukarakate, *The role of extractives in Africa’s inclusive green and resilient recovery* (October 12, 2021), available at: <<https://www.un.org/africarenewal/magazine/october-2021/role-extractives-africas-inclusive-green-and-resilient-recovery>>, accessed June 3, 2022.

³¹ ESI Africa, *AfCFTA strengthens the continent’s energy transition* (July 2021), available at: <<https://www.esi-africa.com/industry-sectors/business-and-markets/afcfta-strengthens-the-continent-energy-transition/>>, accessed June 3, 2022.

³² T. Cottier, *Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines*, *Renewable Energy Law & Policy Review* [2014], 40.

³³ IRENA, *Trading into a bright energy future: The case for open, high-quality solar photovoltaic markets*, available at: <https://www.wto.org/english/res_e/booksp_e/energyfuture2021_e.pdf>, accessed June 3, 2022.

critically analyse the relationships, challenges and opportunities of relevant WTO and AfCFTA agreements and provisions towards achieving the CET. Section 2 of this article compares the relationships between AfCFTA and WTO as they pursue the goals of the CET. Section 3 examines the challenges of the legal frameworks of AfCFTA and WTO while section 4 examines the opportunities to minimise the challenges facing the CET. The final section provides conclusion.

2. Relationship between WTO and AfCFTA in Energy Transition

The core relationship between the WTO and AfCFTA is embedded in two layers. In the first layer, several AfCFTA Member States are also members of the WTO³⁴ whereby they have obligations to meet the requirements of both organizations. A WTO Member forming a regional trade agreement (RTA) that enables it to grant ‘more favourable conditions than for trade with other WTO Members, departs from the guiding principle of non-discrimination defined in the GATT, and the GATS’.³⁵

Specific conditions, however, allow WTO Members to create RTAs such as AfCFTA: for instance, pursuant to Paragraphs 4 to 10 of Article XXIV of GATT 1994,³⁶ customs unions and FTAs that cover ‘trade in goods, and interim agreements leading to one or the other’³⁷ can be formed and operated as an exception to the MFN principle (GATT Article I); also, Paragraph 2(c) of the 1979 Decision on Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries (i.e., the “Enabling Clause”³⁸) makes provision for ‘preferential trade arrangements in trade in goods amongst developing country Members’ (this condition responds to trade arrangements between developing countries);³⁹ additionally, RTAs in the area of trade in services are governed by Article V of GATS on economic integration.⁴⁰

RTAs such as AfCFTA do not usually contain explicit provisions on fossil fuels, renewable energy or plans for combatting climate change. However, RTAs frequently include explicit provisions on environment, with implications for climate change, CET and sustainable development. For example, Monteiro, Chobanova, and Ramos found that out of 349 RTAs

³⁴ Out of the 164 Member States of the WTO total membership, at least, 44 of them are also Members of the AfCFTA while 9 of AfCFTA Members being WTO observers – as of February 2020. See WTO, *Regional Dialogue highlights synergies between African WTO membership and AfCFTA* (February 14, 2020), available at: <https://www.wto.org/english/news_e/news20_e/acc_14feb20_e.htm>, accessed December 20, 2021; WTO, *Members and Observers [as of] 29 July 2016*, available at: https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm>, accessed June 2, 2022.

³⁵ Regional Trade Agreements Information System (RTA-IS), *User Guide*, available at: <https://rtais.wto.org/UserGuide/RTAIS_USER_GUIDE_EN.html>, accessed February 5, 2022.

³⁶ *Ibid*; WTO, *The Basic Rules for Goods, Regional Trade Agreements: Goods Rules*, available at: https://www.wto.org/english/tratop_e/region_e/regatt_e.htm >, accessed February 5, 2022.

³⁷ Regional Trade Agreements Information System (RTA-IS), *supra* note 35.

³⁸ *Ibid*; WTO, *Differential and more favourable treatment reciprocity and fuller participation of developing countries*, available at: <https://www.wto.org/english/docs_e/legal_e/enabling1979_e.htm>, accessed February 5, 2022.

³⁹ WTO, *Transparency Mechanism for RTAs*, available at: <https://www.wto.org/english/tratop_e/region_e/trans_mecha_e.htm>, accessed February 5, 2022.

⁴⁰ Regional Trade Agreements Information System (RTA-IS), *supra* note 35; WTO, *General Agreement on Trade in Services*, available at: <https://www.wto.org/english/docs_e/legal_e/26-gats_01_e.htm#articleV>, accessed February 5, 2022.

examined, 97% of them included, at least, one provision on environment.⁴¹ Most of the common provisions on environment contained in the RTAs generally reflect the approach used ‘in the WTO agreements with preambular language and /or a general exception related to the environment’.⁴² Although, the regulatory frameworks of both WTO and AfCFTA have not been sufficiently explicit on environmental provisions particularly of those that regulate and foster the CET, these trade institutions can utilise their extensive network of stakeholders and preambular recognition of sustainable development to encourage their Member States to respect CET legal instruments such as the Paris Agreement. In other words, while the letter of the law is not explicit on CET, the spirit of the law and the fundamental aims and objectives of WTO and AfCFTA underpin CET unequivocally.

With respect to the second relationship layer, RTAs have integral connections with the WTO regime, and this includes AfCFTA. From this perspective, the AfCFTA Agreement is benchmarked on the experiences and practice of the WTO and other existing RTAs. Accordingly, in the AfCFTA Agreement, there are many instances where WTO is mentioned, and relationships drawn. These include the following: the WTO covered agreements such as Anti-dumping Agreement regarding the implementation of Article VI of the GATT 1994; Safeguards Agreement regarding the WTO Agreement on Safeguards; and the TBT Agreement regarding the WTO Agreement on Technical Barriers to Trade have all been recognised and made integral to the AfCFTA Agreement in Article 1 thereof.⁴³

Another interrelationship is that, import duties that can be charged under trade liberalisation exclude: (a) charges in Article III(2) of GATT 1994 and its interpretative notes (b) antidumping or countervailing duties imposed in accordance with Articles VI, and XVI of GATT 1994 and the WTO Agreement on Subsidies and Countervailing Measures and Article 17 of the Protocol on Trade in Goods of the AfCFTA Agreement; (c) duties or levies in Articles XIX of GATT 1994, the WTO Agreement on Safeguards and Articles 18 and 19 of the Protocol on Trade in Goods of AfCFTA Agreement; and (d) other fees or charges under Article VIII of GATT 1994.⁴⁴ Furthermore, Article 9 of the Protocol on Trade in Goods of AfCFTA Agreement prohibits ‘quantitative restrictions on imports from or exports to other State Parties except as otherwise provided for in this Protocol, its Annexes and Article XI of GATT 1994 and other relevant WTO Agreements’.⁴⁵ All these provisions have consequences on flow of and/or restriction on both fossil fuel and renewable energy products, which can impact the CET in Africa.

Implementation of trade remedies relating to Anti-dumping and Countervailing Measures under Article 17 of AfCFTA Agreement Protocol on Trade in Goods is done in accord with ‘Annex 9 on Trade Remedies and the AfCFTA Guidelines on Implementation of Trade

⁴¹ J-A. Monteiro, S. Chobanova, D. Ramos, *Climate Change in Regional Trade Agreements*, Trade and climate change, Information brief N°2, pp. 1-8, available at:

<https://www.wto.org/english/news_e/news21_e/clim_03nov21-2_e.pdf>, accessed April 19, 2022.

⁴² *Ibid.*

⁴³ AfCFTA Agreement, Art 1.

⁴⁴ AfCFTA Agreement, Protocol on Trade in Goods, Art 7(3).

⁴⁵ *Ibid.*, Art 9.

Remedies in accordance with relevant WTO Agreements'.⁴⁶ Article 18 of the Protocol on Trade in Goods of AfCFTA Agreement regarding Global Safeguard Measures allocates its implementation burden 'in accordance with Annex 9 on Trade Remedies and Guidelines on Implementation of Trade Remedies [of AfCFTA Agreement], Article XIX of GATT 1994 and the WTO Agreement on Safeguards'.⁴⁷ Article 28 of AfCFTA Agreement on Balance of Payments makes reference to the rights of State Parties in the WTO Agreement 1994.⁴⁸

With the principle of coherence which originates from the 'Decision on achieving greater coherence in global economic policy-making' in April 1994⁴⁹ and under the authority of Articles III.5 and V of the WTO Agreement,⁵⁰ the WTO is able to build relationships with relevant international organisations such as the AfCFTA to enhance its activities in global economic policymaking.⁵¹ This principle provides a bigger platform of international cooperation between AfCFTA and the WTO, which can be used as a catalyst to drive home the need to leverage their intra-trade and inter-trade avenues to promote and sustain clean energy development. Additionally, both the WTO and AfCFTA regimes are underpinned by common principles such as reciprocity, transparency, enforceable commitment, and non-discrimination.⁵² These principles are critical enablers for harnessing trust, goodwill, understanding and mutuality in the pursuit of the CET goals. For instance, transparency in import tariff measures enable parties to have confidence in any cooperation to reduce or increase such tariffs as a tool to limit trade in fossil fuels and/or encourage trade in renewable energy products.

The WTO and AfCFTA will generally complement each other in harnessing the multilateral and plurilateral trading system – instead of undermining each other.⁵³ This is due to the established relationships the two institutions have mutually built through commitments made by the Member States in the WTO and AfCFTA Agreements as well as in their relevant Protocols. In fossil fuel trade where the stakes are high, these institutions could, however, run counterproductive to each other if Member States do not act in good faith and cooperate in minimising the use of fossil fuels and maximising the use of clean energies towards the realisation of CET.

⁴⁶ *Ibid.*, Art 17(2).

⁴⁷ *Ibid.*, Art 18.

⁴⁸ *Ibid.*, Art 28(1).

⁴⁹ WTO, *Legal texts: the WTO agreements - Decision on achieving greater coherence in global economic policy-making*, available at: <https://www.wto.org/english/docs_e/legal_e/ursum_e.htm#Achieving>, accessed June 2, 2022.

⁵⁰ Marrakesh Agreement Establishing the World Trade Organization 1994, available at: <www.wto.org/english/docs_e/legal_e/04-wto_e.htm>, accessed December 3, 2021.

⁵¹ *Ibid.*; WTO, *Regional Dialogue highlights synergies between African WTO membership and AfCFTA*, *supra* note 34; WTO, *DG Okonjo-Iweala welcomes project in support of African Continental Free Trade Area* (March 10, 2022), available at: <https://www.wto.org/english/news_e/news22_e/if_10mar22_e.htm>, accessed June 2, 2022; WTO, *DDG Wolff: AfCFTA and WTO can help "knit together" Africa in peace and prosperity* (March 4, 2021), available at: <https://www.wto.org/english/news_e/news21_e/ddgaw_04mar21_e.htm>, accessed June 2, 2022.

⁵² C. C. Ajibo, *African Continental Free Trade Area Agreement: The Euphoria, Pitfalls and Prospects*, 53 *Journal of World Trade*, no. 5 (2019), 871-894.

⁵³ T. Cottier, *The Common Law of International Trade and the Future of the World Trade Organization*, 18 *Journal of International Economic Law*, no. 1 (2015), 3-20.

Similarly, a recognition of sustainable development is featured in the trade in services Protocol of the AfCFTA Agreement, which relates to services such as maintenance of oil wells, solar cells and engineering.⁵⁴ Furthermore, in Article 3(2) of the Protocol on Trade in Services, AfCFTA seeks to ‘promote sustainable development in accordance with the SDGs’.⁵⁵ This objective directly recognises and reinforces the SDGs including SDGs 7 and 13, which respectively address the CET and climate change action. At the same time, the Protocol thereof provides, as part of special and differential treatment, that State Parties shall work to ‘promote critical sectors of growth, social and sustainable economic development’.⁵⁶ In the trade in goods aspect of the AfCFTA, no such objective relating to sustainable development or environmental protection is provided from which energy transition requirements can be drawn. With respect to the WTO, in the recitation of Agreement Establishing the WTO, the WTO recognises the need for optimal use of ‘resources in accordance with the objective of sustainable development, seeking to both protect and preserve the environment’.⁵⁷ This is a recognition rather than a clear obligation for State Parties. These objectives and recognitions have, however, preconditioned both AfCFTA and WTO to endeavour to take relevant decisions and pursue measures that foster sustainable development.

Theory and practice of the WTO especially after the promulgation of the SDGs in 2015 show that the WTO has made efforts to embed SDGs including aspects that promote protection of the environment and drive towards the CET.⁵⁸ Although energy issues were initially seen as external to the GATT whereby most major oil and gas production economies were not party thereof, these dynamics have now changed and energy issues are understood to be under the remit of the GATT and its complementary agreements.⁵⁹ It is also evident that apart from few major oil and gas production countries⁶⁰ such as Iran⁶¹ and Libya,⁶² most of the petroleum countries are members of the WTO and signatories to the GATT.⁶³ Indeed, the body of law

⁵⁴ AfCFTA Agreement, Protocol on Trade in Services, Preamble, para. 6.

⁵⁵ *Ibid.*, Art 2(b).

⁵⁶ *Ibid.*, Art 7(a).

⁵⁷ WTO Agreement 1994, Para. 2.

⁵⁸ See WTO, *WTO members discuss measures to tackle climate change and strengthen sustainability* (March 30, 2021), available at: <www.wto.org/english/news_e/news21_e/envir_30mar21_e.htm>, accessed December 17, 2021.

⁵⁹ C. Vangrastek, *The History and Future of the World Trade Organization* (WTO 2013), at 134.

⁶⁰ EIA, *Monthly Energy Review* (May 25, 2017), available at: <www.eia.gov/totalenergy/data/monthly/archive/00351705.pdf>, accessed December 14, 2021.

⁶¹ The Working Party for Iran was established on May 26, 2005 but is yet to meet. Iran remains an observer of WTO; see WTO, *Accessions: Iran*, available at: <www.wto.org/english/thewto_e/acc_e/a1_iran_e.htm>, accessed November 15, 2021.

⁶² The Working Party for Libya was established on 27 July 2004 but is yet to meet. The country remains an observer of WTO; see WTO, *Accessions: Libya*, available at: <www.wto.org/english/thewto_e/acc_e/a1_libya_e.htm>, accessed November 15, 2021.

⁶³ R. Leal-Arcas, *Climate Change and International Trade* (Cheltenham: Edward Elgar Publishing, 2013), pp. 24-32; T. Cottier, O. Nartova, and S. Z. Bigdeli (eds), *International Trade Regulation and the Mitigation of Climate Change* (Cambridge: Cambridge University, 2009), pp. 1-23.

concerning energy trade has grown over time through the ratification of and developments in energy related agreements such as the GPA,⁶⁴ GATS,⁶⁵ the TFA, and the TRIPS.⁶⁶

The WTO rules in the energy trade environment play significant role in energy trade. For example, in relation to renewables, the Agreement on Agriculture contributes to the regulation of biofuels. Agreement on Technical Barriers to Trade⁶⁷ addresses issues concerning technical standards involving services ‘such as metering, scoping, scouting, engineering and maintenance of installations and finance’,⁶⁸ which are critical to renewable energy, engendering productivity, efficiency, and safety. Under Articles 7 and 8 as well as 66.2 of the TRIPs Agreement, provision is made for renewable energy in relation to protection of intellectual property rights of new technologies and discoveries on renewables as well as competition and transfer of such technologies.⁶⁹ TRIPS has been extensively discussed under the UNFCCC discourse ‘on technology development and transfer ... and the development and dissemination of the technologies that will be vital to addressing climate change mitigation and adaptation’.⁷⁰ This can be a source of inspiration for development of renewable technologies⁷¹ that could lead to cost reduction in renewable energy products.

Furthermore, Articles VI, XVII, and XVIII of GATS capture the legal rules relating to transmission and distribution services, monopolies, and state trading services including in renewables and fossil fuels. Article V of GATT, on the other hand, addresses issues concerning freedom of transit of goods, vessels and other transport means. Articles VI, XVI, and XIX of GATT as well as the Anti-Dumping Agreement,⁷² and the Agreement on Safeguards (SG),⁷³ the Agreement on Subsidies and Countervailing Measures⁷⁴ regulate trade remedies that cover safeguards, subsidies, and anti-dumping on energy. While Article II and XXVIII of GATT provide for tariffs on hardware and others including oil and gas as well as electricity, Article III of GATT and the TRIMs⁷⁵ regulate local content with an opportunity for countries to develop renewable energy products while the GPA regulates government procurement with an opportunity to ensure transparency and integrity in transactions on renewable energy

⁶⁴ Agreement Establishing the World Trade Organization of 15 April 1994 (Annex 4(b), Government Procurement Agreement (GPA)).

⁶⁵ GATS 1994, *supra* note 17; also see G. Marceau, *The WTO in the emerging energy governance debate*, available at: <https://www.wto.org/english/res_e/publications_e/wtr10_forum_e/wtr10_marceau_e.htm>, accessed February 5, 2022.

⁶⁶ Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1C, Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs Agreement).

⁶⁷ Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1A, Agreement on Technical Barriers to Trade (TBT).

⁶⁸ T. Cottier, *Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines*, *Renewable Energy Law & Policy Review* [2014], 40.

⁶⁹ *Ibid.*; Art 66.2 of TRIPS.

⁷⁰ WTO, *The WTO TRIPS Agreement – A practical overview for Climate change policymakers* (2010), p. 1, available at: <https://www.wto.org/english/tratop_e/trips_e/ta_docs_e/8_3_overviewclimatechange_e.pdf>, accessed June 6, 2022.

⁷¹ D. Gielena, *et al.*, *The role of renewable energy in the global energy transformation*, 24 *Energy Strategy Reviews* (2019), 38-50.

⁷² Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1A, Agreement on Anti-Dumping.

⁷³ *Ibid.*, Agreement on Safeguards.

⁷⁴ *Ibid.*, Agreement on Subsidies and Countervailing Measures.

⁷⁵ *Ibid.*, Agreement on Trade Related Investment Measures (TRIMs Agreement).

products.⁷⁶ All these provisions in the WTO's Covered Agreements are repurposed, at the regional level, in the AfCFTA Agreement, Protocols and Annexes. In each of these instruments, there is an opportunity to integrate concerns about trade in fossil fuels and renewables. The lack of clear and unambiguous provisions on CET and sustainable development in these agreements should not diminish but provide a more proactive and deliberate approach to implementing sustainability goals through the agreements.

Under the auspices of environment related commitments and Committee on Trade and Environment, the WTO has cohered with the United Nations and its Members to implement measures towards the achievement of the SDGs. For instance, the WTO has a reporting system (Environment Database)⁷⁷ which receives notifications from its members in line with the environment-related measures notified under WTO Agreements,⁷⁸ and environment-related measures mentioned in Trade Policy Reviews⁷⁹ (TPRs).⁸⁰ This data system provides a peer-review mechanism on State Parties' progress in implementing environmental protection measures.

Synergies between AfCFTA and WTO towards achieving the CET must be continuously identified and utilised to foster collaborative efforts and shared benefits in harnessing the CET and sustainable trade. For instance, the standard and trade development facility (STDF) of the WTO conducts its technical assistance activities in collaboration 'with organizations such as IRENA,⁸¹ IEC,⁸² the ISO⁸³ and the UN Industrial Development Organization (UNIDO)'.⁸⁴ The technical assistance and capacity-building by the STDF to 'improve the institutional and regulatory framework in developing countries'⁸⁵ including those in AfCFTA would have the proclivity to help many AfCFTA Members to adopt and enforce renewable energy standards such as 'international solar PV standards, help bring uniformity to regulatory requirements and systems, and provide further impetus to trade safe, high quality solar PV products'.⁸⁶

Using the platform of its Aid for Trade initiative and through partnering with frameworks such as the STDF and the Enhanced Integrated Framework (EIF), the WTO also participates in building trade capacity in developing and least-developed countries. While furthering the CET

⁷⁶ Cottier (2014), *supra* note 68, p. 46.

⁷⁷ See WTO, *Documents. Environmental Database*, available at: <<https://edb.wto.org/documents>>, accessed December 22, 2021.

⁷⁸ See WTO, *WTO legal texts*, available at: <www.wto.org/english/docs_e/legal_e/legal_e.htm#services>, accessed December 22, 2021.

⁷⁹ Trade Policy Review Mechanism as Amended by the General Council (Revision, effective as of 1 Jan. 2019), available at: <www.wto.org/english/docs_e/legal_e/29-tpm_e.htm>, accessed July 22, 2021; see Amendment of the Trade Policy Review Mechanism (WT/L/1014, WTO, Decision of 26 July 2017), available at: <<https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/1014.pdf&Open=True>>, accessed December 22, 2021.

⁸⁰ WTO, *Environmental Database for 2017* (Committee on Trade and Environment, November 19, 2018), available at: <<https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/CTE/EDB17.pdf&Open=True>>, accessed December 22, 2021.

⁸¹ International Renewable Energy Agency.

⁸² International Electrotechnical Commission.

⁸³ International Organization for Standardization.

⁸⁴ IRENA, *supra* note 33, p. 34.

⁸⁵ *Ibid*, p. 31.

⁸⁶ *Ibid*.

goals, AfCFTA needs to directly participate in fostering these mechanisms by the WTO through co-created frameworks for implementation of green energy goals. In the same vein, the IRENA's⁸⁷ role in assisting countries to apply international standards and quality control instruments to support efforts of countries in implementing renewable energy systems and to facilitate global market growth does establish important platform for synergy between AfCFTA and the WTO in the pursuit of the CET. The INSPIRE platform of IRENA is particularly an important forum where AfCFTA can, for instance, incentivise its members to acquire data on how to access 'international standards for renewable energy, as well as on the countries and actors participating in the international standardization process'.⁸⁸ AfCFTA Secretariat could compile all the clean energy standards into a document that is distributed to all its members in order to facilitate easy access and to inspire greater compliance.

In order to make compliance with the international standards on green energy even more rigorous, the proposal by Ven and Signé⁸⁹ for AfCFTA to enact a protocol on environment and sustainable development should be embraced. While Manduna & Fundira⁹⁰ argue that such a protocol will be a duplication of existing frameworks, it does not necessarily appear to be the case. Rather, the protocol on environment with clearer obligations for AfCFTA Members (which currently do not exist), will complement the existing standards and frameworks including the Africa Climate Change Strategy, Africa's Green Recovery Action Plan;⁹¹ Great Green Wall;⁹² African Green Stimulus Programme;⁹³ and Africa Mining Vision;⁹⁴ and a possible Strategic Environmental Assessment (SEA) in AfCFTA. These are in addition to the CET standards enshrined in the SDGs, 2015 Paris Agreement, UNFCCC, and national regulations/statutes.

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*

⁸⁹ C. van der Ven and L. Signé (2021), *supra* note 28.

⁹⁰ C. Manduna & T. Fundira (2022), *supra* note 27.

⁹¹ African Union Green Recovery Action Plan 2021-2027, available at: <https://au.int/sites/default/files/documents/40790-doc-AU_Green_Recovery_Action_Plan_ENGLISH1.pdf>, accessed June 5, 2022.

⁹² Great Green Wall, *Take Action*, available at: <<https://www.greatgreenwall.org/take-action>>, accessed June 6, 2022.

⁹³ African Green Stimulus Programme (January 8, 2021), available at: <<https://wedocs.unep.org/bitstream/handle/20.500.11822/34409/AGSP.pdf?sequence=3>> accessed June 6, 2022.

⁹⁴ AU, *Africa Mining Vision* (February 2009), available at: <https://docs.igihe.com/IMG/pdf/africa_mining_vision_english.pdf> accessed June 6, 2022.

3. Challenges

Energy production⁹⁵ and trade⁹⁶ are significant components of international economic law.⁹⁷ These diverse economic and legal areas have traditionally centred around the production of and trade in fossil fuels. The rules in international economic law relating to these areas have not been consolidated and are thus scattered across diverse instruments. In fact, the current international legal instruments pertaining to trade and energy present sector-based approaches to address contemporary regulatory problems. While WTO and AfCFTA facilitate trade in fossil fuels and renewables within a framework of counterbalancing and sustainability, the sector-based approaches can be a delimiting factor of progress towards CET. For instance, the Energy Charter Treaty 1998 (ECT)⁹⁸ and its Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA)⁹⁹ are designed to regulate energy trade and investments in global markets.¹⁰⁰ The rules under the ECT¹⁰¹ are usually conducted in light of the WTO law, based on State Parties that ratified or provisionally applied the 2010 Trade Amendment (TA).¹⁰² Cottier has argued that in the field of energy treaty law, the need to secure substantial sunk investment in energy exploration and extraction did motivate investment protection rules and agreements.¹⁰³

⁹⁵ Energy production has been contributing to global economic growth for years. The energy required by economies has even increased in the past two centuries, which, according to Sharma, Smeets, and Tryggestad, is ‘virtually in lockstep with the amounts of wealth that economies create’; according to IEA, the estimated increase of global energy demand in 2021 is 4.6%. About 70% of the estimated global energy demand increase comes from the ‘emerging markets and developing economies, where demand is set to rise to 3.4% above 2019 levels’; see N. Sharma, B. Smeets, & C. Tryggestad, *The decoupling of GDP and energy growth: A CEO guide* (McKinsey Quarterly, 24 April 2019); H. Safa, *The Impact of Energy on Global Economy*, 7 International Journal of Energy Economics and Policy, no. 2 (2017), 287-295.

⁹⁶ The economic and trade significance of energy is denoted by the internationalised nature of energy production and trade activities which require international legal relations and regulations.

⁹⁷ S. E. Rolland, *Regulation of Energy in International Trade Law – WTO, NAFTA and Energy Charter* 16 Journal of International Economic Law, no. 2 (2013), 475-480; see also R. Leal-Arcas, *New frontiers of international economic law: The quest for sustainable development*, 4 University of Pennsylvania Journal of International Law no. 1 (2018), 83-133.

⁹⁸ Energy Charter Secretariat, *The International Energy Charter Consolidated Energy Charter Treaty with Related Documents* (January 15, 2016), available at:

<www.energycharter.org/fileadmin/DocumentsMedia/Legal/ECTC-en.pdf>, accessed November 17, 2021.

⁹⁹ The Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA), available at: <www.energycharter.org/process/energy-charter-treaty-1994/energy-efficiency-protocol/>, accessed November 17, 2021.

¹⁰⁰ Although no African country is party to the ECT, the ECT appears to be gaining attraction and respect from AfCFTA Members. This is despite the fact that ECT’s commitment to CET is rather controversial and that State Parties have been subject to frequent investor-state disputes; see C. Olivet, F. Lumonya and P. Eberhardt, *Despite controversy, the Energy Charter Treaty is silently being pushed into Africa* (Euractiv, April 20, 2020), available at: <www.euractiv.com/section/energy/opinion/despite-controversy-the-energy-charter-treaty-is-silently-being-pushed-into-africa/>, accessed December 17, 2021.

¹⁰¹ See U. Turksen, *EU Energy Relations with Russia Solidarity and the Rule of Law* (London: Routledge, 2018), 47-56.

¹⁰² The TA supplements the ECT; See The Trade Amendment (TA) of the Energy Charter Treaty (ECT) 2010, available at: <www.energycharter.org/fileadmin/DocumentsMedia/Thematic/Trade_Amendment_Explanations-EN.pdf>, accessed December 17, 2021; Energy Charter, *The Amendment to the Trade-related Provisions of the Energy Charter Treaty*, available at: <www.energycharter.org/process/energy-charter-treaty-1994/trade-amendment/>, accessed December 17, 2021.

¹⁰³ Cottier (2014), *supra* note 68, p. 48.

A related challenge to the scattered legal instruments on energy and trade laws does concern the nature of RTAs. RTAs are usually motivated by the fragmentation of how multilateral trade rules are made after the establishment of the WTO and the use of FTAs as dependable trade instruments.¹⁰⁴ This fragmentation appears to sometimes weaken the non-discrimination principle, the coherence of the global multilateral trading system,¹⁰⁵ and the single undertaking.¹⁰⁶ Nonetheless, as it were, the WTO rules generally allow space for the RTAs¹⁰⁷ since the latter complements the global trading system of the WTO if the principle of coherence is effectively leveraged.

The fragmentation of legal rules in the energy trade and environment makes unity of purpose on pressing issues such as common efforts to achieve the CET complicated. Subsequently, the use of fossil fuels and development of sustainable energy systems are difficult to remedy as there are no consistent and coordinated efforts or a consolidated legal framework. To the extent that consensus¹⁰⁸ building is the key driver for operating these establishments, the fragmented legal space in which the WTO and AfCFTA operate is a hindrance to collective bargaining on fossil fuel regulation to achieve the CET goals.

The history of the WTO shows that there have been difficulties¹⁰⁹ in reaching consensus on contentious trade issues. This was exhibited in the Uruguay Rounds and the Doha Development Round of negotiations. The Uruguay Round lasted for seven and a half years, which was about twice the originally scheduled time. Despite this delay, the 123 countries that took part in the process did engage in almost ‘the largest trade negotiation ever’¹¹⁰ but clean energy was given a scant attention.¹¹¹ In the Doha Round, however, some aspects of environmental concerns and sustainable development were considered. These included two aspects: freer trade in environmental goods such as ‘wind turbines, carbon capture and storage technologies, and solar panels’;¹¹² and environmental agreements (to improve ‘collaboration with the secretariats of multilateral environmental agreements and establishing more coherence between trade and environmental rules’).¹¹³

¹⁰⁴ C. P. Bown, *Mega-Regional Trade Agreements and the Future of the WTO* (Discussion Paper Series on Global and Regional Governance, 2016), pp. 1–2; D. Caruso, *Non-Parties: The Negative Externalities of Regional Trade Agreements in a Private Law Perspective*, 59 *Harvard International Law Journal*, no. 2 (2018), at 389.

¹⁰⁵ R. Leal-Arcas, *Proliferation of Regional Trade Agreements: Complementing or Supplanting Multilateralism?* 11 *Chicago Journal of International Law*, no. 2 (2011), 397; Yong-Shik Lee, *Reclaiming Development in the World Trading System* (2d ed., Cambridge University Press, 2016), pp. 175-192.

¹⁰⁶ P. Lamy, *The Place of the WTO and its Law in the International Legal Order*, 17 *The European Journal of International Law*, no. 5 (2007), 969-984.

¹⁰⁷ GATT, Art XXIV and GATS, Art V.

¹⁰⁸ The WTO consensus refers to where no single Member present at the meeting during decision-making must formally object to the decision that is proposed. See footnote 1 of Article IX:1 of Agreement Establishing the WTO.

¹⁰⁹ P. Low, *WTO Decision-Making for the Future (Staff Working Paper, 2 May 2011)*, 5, available at: <https://www.wto.org/english/res_e/reser_e/ersd201105_e.pdf>, accessed April 23, 2022.

¹¹⁰ WTO, *Understanding the WTO: Basics - The Uruguay Round*, available at: <https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact5_e.htm>, accessed April 25, 2022.

¹¹¹ *Ibid.*

¹¹² WTO, *Doha Round: what are they negotiating?* available at: <https://www.wto.org/english/tratop_e/dda_e/update_e.htm>, accessed April 25, 2022.

¹¹³ *Ibid.*

Despite the fact that some agreements (such as the 2003 special treatment in services for least-developed countries) have been reached since 2001, it is still difficult to agree on “modalities”, which represents the blueprints for the final deal including ‘how to cut tariffs, and reduce agricultural subsidies and support, along with flexibilities to deal with various sensitivities’¹¹⁴ including minimising the use of fossil fuels towards achieving the CET. While it is argued that the decision-making difficulties have more to do with attitude and culture of the WTO Members rather than the rules,¹¹⁵ the difficulties faced in even making such rules is a source of worry to the mobilisation of stronger support for the CET.

Through their trade policies (and the subsequent disputes that arise between them) dominant economic powers impede the aims, progress and integrity of the international trading regime of the WTO.¹¹⁶ One of the main reasons why the former Director General, Roberto Azevedo, resigned was the unceasing trade war between the USA and China – of course, at the expense of developing countries in AfCFTA.¹¹⁷ This reason for Azevedo’s resignation added to other contentious issues including the failure to reach the targets agreed at the Doha Development Round in 2001.¹¹⁸ Furthermore, in 2019 the unique dispute settlement system involving the Appellate Body of the WTO ‘was stymied’ owing to the USA blockage of all the nominees thereof.¹¹⁹ In effect, powerful countries continue to use their economic power to dictate processes that favour their national interests rather than to enhance the multilateral trading system.¹²⁰

Given these unsettled equilibria of forces in international trade, virtually all developing countries have been engaged in trading activities relating to fossil fuels – with more than half

¹¹⁴ WTO, *The Doha Round texts — introduction*, available at:

<https://www.wto.org/english/tratop_e/dda_e/texts_intro_e.htm>, accessed April 26, 2022.

¹¹⁵ D. Steger, *Strengthening the WTO Rulemaking Function* (May 11, 2020), available at:

<<https://www.cigionline.org/articles/strengthening-wto-rulemaking-function/#:~:text=The%20difficulties%20with%20rulemaking%20and%20decision%20making%20in,Agreement%20have%20not%20been%20fully%20explored%20by%20members>>, accessed April 25, 2022

¹¹⁶ EU was a complainant in 104 cases and respondent in 88 disputes under the WTO dispute settlement mechanism. The USA was a complainant in 124 disputes and a respondent in 156 cases. China on the other hand was a complainant in 22 cases and respondent in 47 cases; WTO, *Dispute Settlement: The Disputes -Disputes by member*, available at: <www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm#complainant>, accessed December 20, 2021.

¹¹⁷ SWI, *The World Trade Organization and the demise of multilateralism* (May 15, 2020), available at: <www.swissinfo.ch/eng/opinion_the-world-trade-organization-and-the-demise-of-multilateralism/45763264>, accessed December 15, 2021.

¹¹⁸ R. Vollgraaff and D. Malingha, *WTO leaders agree to end farm subsidies as Doha unresolved* (Bloomberg, 19 December 2015), available at: <www.bloomberg.com/news/articles/2015-12-19/wto-trade-leaders-agree-to-end-farm-subsidies-as-doha-unresolved>, accessed July 15, 2021.

¹¹⁹ SWI (2021), *supra* note 117.

¹²⁰ See R. Holder and U. Turksen, *Contemporary problems with the GATS and Internet Gambling*, 49 *Journal of World Trade*, no. 3 (2015), 457-493; A. Williams, *Joe Biden to remain tough on trade while re-embracing partners* (Financial Times, November 16, 2020), available at: <www.ft.com/content/c4e1c0e3-ba5b-46f8-87c7-9a56ca7a0a1a>, accessed November 11, 2021.

(at least 38) of the 55 African countries¹²¹ involved in the production of oil and natural gas.¹²² The trade imbalances, resentments and disagreements have consequences on decisions to pursue CET goals while trying to exploit oil and gas production capacities.

At the same time, AfCFTA is confronted with the need for single undertaking as faced by the WTO. Article 5(k) of the AfCFTA Agreement affirms consensus in decision-making as a governing principle of AfCFTA. As AfCFTA is currently negotiating some of the protocols in the AfCFTA Agreement, it is imperative that Members avoid red tapes and undue self-interest to agree on terms that are favourable to both trade and sustainable development that effectively deliver clean energy to mitigate climate change effects such as higher temperatures, and drought, as well as increase in severe storms, hunger and poverty.

A further challenge is that international environmental law encompasses precautionary principle¹²³ and liability for damages¹²⁴ in petroleum production, but the full extent of coverage of the law on negative impacts caused by oil and gas production including air pollution, global warming and climate change remain to be seen. The UNFCCC has provided an impetus for the efforts towards CET,¹²⁵ but the goals and policies of the UNFCCC have not been clearly defined.¹²⁶ The 2015 Paris Agreement¹²⁷ has improved the clarity of global goals but it is equally faced by lack of concrete commitments from states,¹²⁸ especially concerning the CET.¹²⁹ All of these legal lacunae do challenge AfCFTA and WTO in two primary ways. First, the legal lacunae would limit the capacity of each of these institutions to unilaterally take more rigorous steps to meaningfully contribute to the drive towards the CET. Second, it makes collaboration among AfCFTA, WTO, and other parties on the CET agenda more difficult. Stronger cooperation between the WTO and AfCFTA is required on sensitive trading areas such as trade in fossil fuels in order to reconcile the need to enhance CET goals while pursuing

¹²¹ Only Eritrea has not yet signed the AfCFTA Agreement. See Tralac, *Status of AfCFTA Ratification* (Infographics, July 13, 2021), available at: <www.tralac.org/resources/infographic/13795-status-of-afcta-ratification.html>, accessed December 15, 2021.

¹²² African Development Bank and AU, *Oil and Gas in Africa* (July 29, 2009), p. 2, available at: <www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Oil%20and%20Gas%20in%20Africa.pdf>, accessed December 15, 2021.

¹²³ IUCN, *Guidelines for applying the precautionary principle to biodiversity Conservation and natural resource management* (As approved by the 67th meeting of the IUCN Council, May 14-16, 2007), available at: <www.iucn.org/sites/dev/files/import/downloads/ln250507_ppguidelines.pdf>, accessed December 20, 2021.

¹²⁴ J. Barboza, *The Environment, Risk and Liability in International Law* (Leiden: Koninklijke Brill NV 2011) 21–30.

¹²⁵ United Nations Climate Change, *Patricia Espinosa: “There is no path to 1.5°C without the G20”* (July 23, 2021), available at: <<https://unfccc.int/news/patricia-espinosa-there-is-no-path-to-15degc-without-the-g20>>, accessed December 25, 2021.

¹²⁶ Cottier (2014), *supra* note 68, p. 46.

¹²⁷ United Nations Climate Change, *The Paris Agreement: What is the Paris Agreement?*, available at: <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>>, accessed December 25, 2021.

¹²⁸ D. Mitchell, *et al.*, *The myriad challenges of the Paris Agreement* (2018) *Philosophical Transactions of the Royal Society A*. 376: 20180066, available at: <<http://dx.doi.org/10.1098/rsta.2018.0066>>, accessed December 22, 2021.

¹²⁹ United Nations Climate Change, *“Climate Commitments Not on Track to Meet Paris Agreement Goals” as NDC Synthesis Report is Published* (February 26, 2021), available at: <<https://unfccc.int/news/climate-commitments-not-on-track-to-meet-paris-agreement-goals-as-ndc-synthesis-report-is-published>>, accessed December 20, 2021.

socioeconomic goals that usually require industrialisation and use of fossil fuels.¹³⁰ Cooperation between WTO and AfCFTA to work towards CET would come with its peculiarities such as mistrust, self-interest, limited capabilities, and resource constraints. With respect to self-interest, for example, shared nature of some of the renewable energy resources such as hydropower comes to the forefront. Some of the renewable energy sources have limited use potential to generate energy if there is intense competition ‘with other sectors or among countries’.¹³¹ A prominent example is the ambition of Ethiopia to construct the largest hydroelectric power station in Africa ‘through the Nile river’ which has been confronted ‘with alternative use of the water resources for agriculture and other purposes in Egypt’.¹³² What this implies is that CET needs not only consolidated international energy and trade law, but also effective cross-border collaboration and regional development planning in order to succeed.

Therefore, public international law has generally failed to provide a single legal regime for tackling issues concerning exploration, production and utilisation of fossil fuels. Energy regulation at the global level continues to be fragmented¹³³ which makes it challenging to have a clearer focus on the CET that can be sustained across diverse stakeholders. The WTO and AfCFTA will have to contend with this legal fragmentation and ensure that they effectively reconcile respective trading rules in ways that do not allow this legal fragmentation to adversely affect their efforts for CET. It is imperative that trade, energy and climate change policies are consolidated in a comprehensive legal instrument that seeks to increase the generation and use of renewable energy in the energy mix. While international law and municipal law remain critical drivers for decarbonisation, regional law such as in the AU - that intervenes between macro and micro legal instruments and conditions - is an important layer in CET. An important consideration is how international trade law interacts with regional trade law¹³⁴ to boost CET, which ensures development and sustainability. The outstanding concern is whether Africa really has the required capacity to surmount this challenge.

Both AfCFTA and WTO legal regimes allow for trade in fossil fuels. However, there are no clear provisions mandating State Parties to embark upon sustainable development trade activities that integrate CET goals.¹³⁵ It should be recognised, nonetheless, that sustainable development¹³⁶ has been featured in both legal frames. For example, one of the general

¹³⁰ E. A. Wrigley, *Energy and the English Industrial Revolution* (Cambridge University Press, 2010), p. 247.

¹³¹ IRENA, *The Investment Case for Energy Transition in Africa* (March 13 2020), available at: <<https://irena.org/newsroom/articles/2020/Mar/The-Investment-Case-for-Energy-Transition-in-Africa>>, accessed December 3, 2021.

¹³² *Ibid*; A. O. Ogunnoiki, *The Nile River Dispute: Assuaging Egypt's Fear of the Grand Ethiopian Renaissance Dam (GERD)*, 6 *Lapai International Journal of Politics*, no. 2 (2020), 15-22.

¹³³ Leal-Arcas (2013), *supra* note 63, p. 25.

¹³⁴ See WTO (2020), *supra* note 36; WTO, *Annual Report 2020: Trade negotiations and discussions* (2020), available at: <www.wto.org/english/res_e/publications_e/anrep20_e.htm>, accessed December 22, 2021.

¹³⁵ J. Pauwelyn, *Global Challenges at the Intersection of Trade, Energy and the Environment: An Introduction*, in J. Pauwelyn (ed.), *Global Challenges at the Intersection of Trade, Energy and the Environment* (Centre for Trade and Economic Integration 2010), p. 1, available at: <https://www.astrid-online.it/static/upload/protected/CTEI/CTEI-CEPR_Global-challenges.pdf>, accessed February 17, 2022.

¹³⁶ Sustainable development refers to social, economic, environmental, cultural and other endeavours that deliberately take into consideration and harmony ‘the needs of the present without compromising the ability of future generations to meet their own needs’; See World Commission on Environment and Development, *Our Common Future* (Centre for Our Common Future 1992).

objectives of the AfCFTA Agreement is to ‘promote and attain sustainable and inclusive socio-economic development, gender equality and structural transformation of the State Parties’.¹³⁷ Demonstration of this objective fails to clearly feature sustainable development measures that capture energy transition. The AfCFTA Agreement¹³⁸ also reaffirms State Parties’ right to regulate the environment. This suggests that flexibility is given to State Parties to legislate on measures of environment that can include moderation of fossil fuels and increase in renewables.

Of course, countries continue to make commitments to achieve net-zero emissions in the drive towards the CET.¹³⁹ However, according to a recent study by the IEA, even the full achievement of the pledges, so far, will not meet the requirements ‘to bring global energy-related carbon dioxide emissions to net zero by 2050 and give the world an even chance of limiting the global temperature rise to 1.5 °C’.¹⁴⁰ The critical challenge in the drive towards CET underlies not only in the responsible use of fossil fuel resources but also in making renewable resources as attractive and competitive energy sources as fossil fuels in developing countries. Addressing this challenge will also require solutions ‘for stable and affordable energy supplies, providing universal energy access, and enabling robust economic growth’,¹⁴¹ while committing to the net zero energy system by 2050.

There have also been issues with the WTO Dispute Settlement Mechanism (DSM) which can frustrate conciliatory efforts towards achieving the CET. Most of the cases on renewable energy brought before the DSM under the GATT and other covered agreements are on anti-dumping, countervailing duties and other unfair trading practices. The key contentions in these disputes have centred around discriminatory and unfair trading practices by some countries that have been accused of making renewable energy products cheaper at the expense of competing countries. For example, in the case between the USA and China, the USA complained that China was subsidising equipment on wind energy, thus giving Chinese products an unfair advantage.¹⁴² China did not deny offering such subsidies and accused the USA of imposing duties on anti-dumping contrary to Articles 2.4.2, 6.1, 6.8, 6.10, 9.2, 9.3, and 9.4 and Annex II of the Anti-Dumping Agreement; and Article VI (2) of the GATT.¹⁴³

In another case, the USA accused India of violating the requirements on local content prohibitions.¹⁴⁴ Similarly, the EU was of the contention that China was dumping solar panels

¹³⁷ Agreement Establishing the African Continental Free Trade Area 2018, Art 3(e).

¹³⁸ Agreement Establishing the African Continental Free Trade Area 2018, Preamble, para. 9.

¹³⁹ IEA, *Net Zero by 2050: A Roadmap for the Global Energy Sector* (Flagship report, May 2021), available at: <www.iea.org/reports/net-zero-by-2050>, accessed December 20, 2021.

¹⁴⁰ *Ibid.*

¹⁴¹ *Ibid.*

¹⁴² WTO, *DS419: China - Measures concerning wind power equipment*, available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds419_e.htm>, accessed December 20, 2021.

¹⁴³ WTO, *DS471: United States - Certain Methodologies and their Application to Anti-Dumping Proceedings Involving China*, available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds471_e.htm>, accessed December 20, 2021; see also WTO, *DS563: United States - Certain Measures Related to Renewable Energy*, available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds563_e.htm>, accessed December 20, 2021).

¹⁴⁴ WTO, *DS456: India — Certain Measures Relating to Solar Cells and Solar Modules*, available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds456_e.htm>, accessed December 20, 2021.

contrary to the anti-dumping rules of the WTO¹⁴⁵ while China launched a complaint against the EU on the feed-in tariff programme.¹⁴⁶ Some measures on renewable energy including issues on feed-in-tariffs have been contentious issues that have been adjudicated by the Appellate Body¹⁴⁷ and a Panel¹⁴⁸ of the DSM¹⁴⁹ involving industrialised countries such as Japan, the EU, and Canada.¹⁵⁰ In all these cases, the respondent states have usually tried to justify why they had to take certain actions that appear to breach the WTO's legal rules.¹⁵¹ Incidentally, such respondents have been strong economic powers, and it is not straightforward for AfCFTA Members to seek similar legal redress and reach an amicable solution against such dominant economies of the world.¹⁵² However, these can provide lessons for AfCFTA Members' commitments and actions in realising the CET. The implication of the WTO jurisprudence pertaining to renewable energy disputes could have been a pivotal reference point for AfCFTA to shift to more accessible, responsive, accountable, less cumbersome DSM. However, the AfCFTA's Protocol on Rules and Procedures on the Settlement of Disputes does not contain these tenets.

While AfCFTA would help boost intra-African trade and support the improvement of 'competitiveness of African industries on the global stage',¹⁵³ it also focuses on promoting industrialisation in Africa. In order to quickly upscale competitiveness of African industries, it appears difficult for fossil-fuel-use to be downgraded without allowing industrial growth to a competitive point before engaging in gradual phasing out of fossil fuels towards CET.¹⁵⁴ This dilemma has been considered by several scholars.¹⁵⁵ Arguably, despite the apparent growth in renewable energy demand and use, the global energy system would continue to be driven by

¹⁴⁵ Cottier (2014), *supra* note 68, p. 40.

¹⁴⁶ WTO, *DS452: European Union and certain Member States — Certain Measures Affecting the Renewable Energy Generation Sector*, available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds452_e.htm>, accessed December 20, 2021.

¹⁴⁷ WTO, *Appellate Body Members*, available at: <www.wto.org/english/tratop_e/dispu_e/ab_members_descrp_e.htm>, accessed 20 July 2021; WTO, *Dispute Settlement: Appellate Body*, available at: <www.wto.org/english/tratop_e/dispu_e/appellate_body_e.htm>, accessed December 20, 2021.

¹⁴⁸ WTO, *WTO Bodies involved in the dispute settlement process*, available at: <www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c3s3p1_e.htm>, accessed December 20, 2021.

¹⁴⁹ See WTO, *The process - Stages in a typical WTO dispute settlement case*, available at: <www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c6s1p1_e.htm>, accessed December 20, 2021.

¹⁵⁰ Cottier (2014), *supra* note 68, p. 43.

¹⁵¹ The jurisprudence of the WTO DSM has evidenced such instances even when there is non-compliance with WTO commitments. See WTO, *Index of Disputes*, available at: <www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm>, accessed December 20, 2021; WTO, *DS452: European Union and certain Member States — Certain Measures Affecting the Renewable Energy Generation Sector*, available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds452_e.htm>, accessed December 20, 2021.

¹⁵² Holder and Turksen (2015), *supra* note 120, pp. 458-461.

¹⁵³ F. Kuwonu, *Africa's free trade area opens for business: Trading under the continental free trade agreement started on 1st Jan.* (Africa Renewal, 7 January 2021), available at: <www.un.org/africarenewal/magazine/january-2021/afcfta-africa-now-open-business>, accessed July 15, 2021.

¹⁵⁴ This argument is valid only if technological developments in renewable energies have not been able to make renewable energies affordable, accessible and usable on a large scale as fossil fuels. See A. Abukari, *Rule of law and justice in petroleum law in sub-Saharan Africa: critical analysis of socioeconomic rights and the World Bank New Africa Strategy* (PhD thesis, Kingston University 2019), pp. 459-462.

¹⁵⁵ B. Lomborg, *False Alarm: How Climate Change Panic Costs Us Trillions, Hurts the Poor, and Fails to Fix the Planet* (Basic Books, 2020), pp. 2-24.

fossil fuels¹⁵⁶ and trade in fossil fuels will continue in the near future. The key challenge is how fast the use of fossil fuels can be minimised along with how fast renewable energy use can be increased through deliberate contribution by WTO and AfCFTA.

Neither AfCFTA nor WTO does provide clear pathways for navigating through the hard choices that have to be made. AfCFTA is definitely facing a herculean task to overcome the fossil fuel dependency in order to realise the CET. As Wamkele Mene¹⁵⁷ put it: ‘AfCFTA is going to be difficult, but we’ve got to do it’.¹⁵⁸ The drafting of AfCFTA Agreement, negotiating some protocols and launching the operations of AfCFTA within a remarkably short time are commendable. However, converting these structural components into real trade that caters for energy transition remains to be a challenge.

Establishing the institutions and making them to align their processes to the provisions of the AfCFTA Agreement will require refocusing, repurposing, training and capacity building (particularly because AfCFTA countries are confronted with technical and human capacity challenges, requiring a lot of highly skilled personnel for green energy development).¹⁵⁹ Undoubtedly, these steps also require significant financial resources. For instance, the International Renewable Energy Agency has found that an average investment of US\$70 billion is annually required between 2015 and 2030 to transition to green energy in Africa. AfCFTA countries are mostly low-income economies with limited financial resources.¹⁶⁰

Yet, many African countries that depend on petroleum products as their main energy resource would find it hard to be convinced to scale down or phase out these resources in their development programmes unless the following factors or incentives are implemented:

- If viable alternative resources or economic products are found to be available;
- If the demand for such fossil fuels significantly decreases due to growth in renewable energy and development of infrastructure that does not rely on fossil fuels; and
- If international consensus grows to a point where international law and municipal law attempt to cohere to ban the use of or establish a controlled use of fossil fuels.

All of these appear to be distant future possibilities. As such, enforcement of the AfCFTA Agreement should consider the SDGs and the 2015 Paris Agreement objectives in tandem,¹⁶¹ which is also in line with some implementation approaches of the WTO Agreements. However, given the current economic realities and limited capacity of African countries, it is difficult to reconcile the current development needs with that of the future concerns and swift pursuit of

¹⁵⁶ IEA, *Net Zero by 2050: A Roadmap for the Global Energy Sector* (May 2021), 26, available at: <<https://iea.blob.core.windows.net/assets/4482cac7-edd6-4c03-b6a2-8e79792d16d9/NetZeroBy2050-ARoadmapfortheGlobalEnergySector.pdf>>, accessed December 22, 2021.

¹⁵⁷ The first Secretary-General of AfCFTA.

¹⁵⁸ Kuwonu (2021), *supra* note 153.

¹⁵⁹ IRENA (2020), *supra* note 131.

¹⁶⁰ IRENA, *Africa 2030: Roadmap for a Renewable Energy Future* (2015), p. 7, available at: <https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2015/IRENA_Africa_2030_REmap_2015_low-res.pdf>, accessed December 3, 2021.

¹⁶¹ United Nations, *Key aspects of the Paris Agreement*, available at: <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/key-aspects-of-the-paris-agreement>>, accessed December 22, 2021.

CET. Having said that, such challenges should not stop the pursuit of achieving the CET while trying to meet the socio-economic rights¹⁶² of the present generation.¹⁶³

We are of the view that although there are no clear provisions on CET in both WTO and AfCFTA - thus presenting a weak link between the CET and legal frameworks of these institutions - the sustainable development provisions in their legal frameworks can be exploited and leveraged by these institutions to establish more specific strategies on CET. This soft law approach on a delicate issue such as climate change will obviously suffer a lot of feet-dragging and related implementation bottlenecks. Therefore, AfCFTA and WTO need to develop tailored legal instruments that clearly and strongly oblige state parties to enforce legal rules on achieving the CET.

4. Opportunities

According to the World Bank and the AU, the ‘AfCFTA agreement will create the largest free trade area in the world - connecting 54 countries and 1.3 billion people’.¹⁶⁴ The parameters for this expectation include the population involved and the number of Member States that participate in such a trading bloc.¹⁶⁵ This emerging market would have ‘a combined gross domestic product (GDP) of \$3.4 trillion’ and with a potential to lift ‘up to 30 million Africans out of extreme poverty’.¹⁶⁶ Wamkele Mene¹⁶⁷ asserted that AfCFTA agreement has more to do with giving hope to Africa ‘to be lifted up from poverty’ than just being an agreement.¹⁶⁸ This portends huge market for renewables if the population is persuaded to have belief in the utility of renewable energy supplies. While such an estimation looks ambitious due to inherent implementation bottlenecks in the African legal and political governance cultures,¹⁶⁹ it does postulate a positive picture for opportunities to enhance CET goals. AfCFTA has the opportunity to tap into not only the experience of WTO but also the huge market under the WTO jurisdiction to incentivise the development and use of renewable energy products.

AfCFTA is positioned to boost trade liberalisation in goods and services within Africa. This will enhance cross-border trade within and outside Africa while also minimising trading costs across the continent and the world.¹⁷⁰ This will include trade in renewables. However, it also includes trade in fossil fuels. If the WTO and AfCFTA should formulate favourable policies and laws providing economic incentives for trade in renewables, renewable energy’s potential to grow towards achieving CET goals will be high.

¹⁶² See D. M. Davis, *Socio-Economic Rights*, M. Rosenfeld and A. Sajó (eds), *The Oxford Handbook of Comparative Constitutional Law* (Oxford: Oxford University Press, 2012), p. 1020.

¹⁶³ Kuwonu (2021), *supra* note 153.

¹⁶⁴ World Bank Group, *The African Continental Free Trade Area: Economic and Distributional Effects*, available at: <www.wto.org/english/thewto_e/acc_e/afcfta_feb11maryla.pdf>, accessed December 17, 2021.

¹⁶⁵ United Nations Economic Commission for Africa (2019), *supra* note 10.

¹⁶⁶ Kuwonu (2021), *supra* note 153.

¹⁶⁷ The first Secretary-General of AfCFTA.

¹⁶⁸ Kuwonu (2021), *supra* note 153.

¹⁶⁹ E. P. Skinner, *African Political Cultures and the Problems of Government* (African Studies Quarterly), available at: <https://asq.africa.ufl.edu/skinner_98/>, accessed December 22, 2021.

¹⁷⁰ Ajibo (2019), *supra* note 52, pp. 873, 894.

The IEA report on energy transition¹⁷¹ characterises an opportunity dossier for context-based implementation of CET measures. The report aptly explains the convoluted uncertainties surrounding the energy transition including the roles bioenergy may play, ‘carbon capture and behavioural changes in reaching net zero’.¹⁷² It also presents ‘a cost-effective and economically productive pathway, resulting in a clean, dynamic and resilient energy economy dominated by renewables ... instead of fossil fuels’.¹⁷³ Both the WTO and AfCFTA ought to pay attention to this report¹⁷⁴ and the latest measures from COP26¹⁷⁵ in their efforts to integrate more realistic and robust energy transition measures in their respective policy and legal frameworks. However, while this report and the pact appear comprehensive, and are arguably first of their kind in this area, they fail to clearly recognise the uncomfortable reality of AfCFTA countries that need to ramp up their oil and gas production to supercharge their economies well enough to take advantage of the renewable energy resource opportunities.

39 of the 44 AU countries in WTO have ratified the AfCFTA so far,¹⁷⁶ which is a clear sign that there would be ample support to ease compliance and advocacy to harmonise the WTO and AfCFTA frameworks. By January 2021, the AfCFTA was put into effect after a six month delay due to the Covid-19 pandemic.¹⁷⁷ The AfCFTA members also called upon all stakeholders to join their governments to establish ‘Africa We Want’ in accord with the Agenda 2063.¹⁷⁸ Although the regional economic communities (RECs) of the AU such as ECOWAS,¹⁷⁹ SADC¹⁸⁰ and EAC¹⁸¹ have, for many years, been attempting to achieve the developmental goal, AfCFTA is expected to create a platform where all these efforts will be brought together to be collectively implemented.¹⁸² Since the launch of Agenda 2063,¹⁸³ the WTO and AfCFTA Agreements have recognised the SDGs including SDG7; the WTO and AfCFTA can be used as a platform for harnessing efforts towards achieving the CET.

In the context of CET, a central issue will be to ensure that WTO Member States from Africa who are also members of the AfCFTA do not allow any measure that would restrict them from producing renewable energy products and importing them freely. The potential of African countries to produce renewable energy products on a large scale must be fully explored. In

¹⁷¹ IEA (2021), *supra* note 156.

¹⁷² *Ibid.*

¹⁷³ *Ibid.*

¹⁷⁴ *Ibid.*

¹⁷⁵ COP26 the Glasgow climate pact, available at: <<https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf>>, accessed January 23, 2022.

¹⁷⁶ All the 44 WTO members from Africa and nine WTO observers have signed the AfCFTA Agreement. See AfCFTA Secretariat, *supra* note 5; WTO, *Regional Dialogue highlights synergies between African WTO membership and AfCFTA*, *supra* note 59; WTO, *Members and Observers [as of] 29 July 2016*, *supra* note 34.

¹⁷⁷ Kuwonu (2021), *supra* note 153.

¹⁷⁸ These stakeholders include ‘women, youth, businesses, trade unions, civil society, cross-border traders, the academia, the African Diaspora’. AU, *Agenda 2063: The Africa We Want*, available at: <<https://au.int/en/agenda2063/overview>>, accessed December 7, 2021; AU, *Agenda 2063: The Africa we want (Popular version)* (10 June 2013).

¹⁷⁹ Economic Community of West African States.

¹⁸⁰ Southern African Development Community.

¹⁸¹ East African Community.

¹⁸² Kuwonu (2021), *supra* note 153.

¹⁸³ Particularly, Aspiration 1 of Agenda 2063 on a Prosperous Africa, based on Inclusive Growth and Sustainable Development.

addition, investment in storage, distribution, connectivity and efficient use of such energy resources must be secured.¹⁸⁴

According to the AU Commissioner Alber Muchanga, Africa contributes to the multilateral system in two ways: ‘through the accession of African countries to the WTO and the formation of the AfCFTA, particularly at a time when protectionism and retaliatory trade measures are on the rise’.¹⁸⁵ Thus, with AfCFTA, acceding African countries are offered opportunities to engage in intra-African trade including in energy trade. AfCFTA also supports these countries to prepare themselves towards acceding to the WTO. AfCFTA is an opportunity provided for shaping the reform of the WTO system to enhance its responsiveness to the needs of African countries and to support full participation in the agenda and vision of the WTO. The areas in which the WTO reform is debated include the negotiating function of the WTO, the procedural issues concerning notifications and transparency, as well as the discussions surrounding special and differential treatment.¹⁸⁶ AfCFTA is in a better position to ensure that these are addressed right from start of operationalising the continental trade area.¹⁸⁷

The average tariff rate in Africa is about 6.1%. This is a high tariff rate which makes importing from out of Africa cheaper than imports from another country in Africa.¹⁸⁸ AfCFTA has the potential to engender trade within Africa by 52.3% through the removal of import duties across the continent. The trading area also has the potential to double the trade upon the reduction of NTBs.¹⁸⁹ Part of the prominent tasks of AfCFTA will be to ensure that there is progressive removal of tariff barriers and non-tariff barriers on trading within Africa.¹⁹⁰ This would make it a lot easier for intra-African trade to grow¹⁹¹ and benefit both traders and consumers. As a matter of incentivisation, the WTO and AfCFTA can allow nontariff barriers on some fossil fuels to moderate their use while all renewal energy products enjoy removal of all trade barriers to facilitate movements of and access to clean energy products. With AfCFTA, these barriers could be integrated into a proposed protocol on sustainable development. If this proposal is not adopted, the AfCFTA Agreement and its Protocol on goods and services can inspire such measures to be designed and adopted. There is, thus, an opportunity for enhancing sustainable development and CET in AfCFTA.¹⁹²

The appetite for repurposing and expanding the trading frontiers has made it possible for RTAs such as AfCFTA to include rules beyond the established rules of the WTO (i.e., WTO-plus framework).¹⁹³ The WTO-plus trading framework prepares the groundwork for establishing new multilateral trading system in the future. This could be realised in two ways: A top-down

¹⁸⁴ U. Turksen, *Energy Resource Efficiency in the EU: Major Legislative Initiatives*, in N. Mouraviev & A. Koulouri (eds), *Energy Security* (Palgrave Macmillan, 2019), pp. 159-196.

¹⁸⁵ WTO (2020), *supra* note 38.

¹⁸⁶ *Ibid.*

¹⁸⁷ *Ibid.*

¹⁸⁸ United Nations Economic Commission for Africa (2019), *supra* note 10.

¹⁸⁹ *Ibid.*

¹⁹⁰ *Ibid.*

¹⁹¹ *Ibid.*

¹⁹² *Ibid.*

¹⁹³ I. Lejárragai, *Deep Provisions in Regional Trade Agreements: How Multilateral-Friendly? An Overview of OECD Findings* (OECD Trade Policy Papers, no. 168, 2014).

approach whereby the WTO trading system spearheads the development of the global rule-based trading system; and a bottom-up approach in which the RTAs provide a driving mechanism of the global trading system.¹⁹⁴ Either way, it is feasible for this kind of new multilateralism to elicit opportunities to engender more liberalisation of trade globally. This can open opportunities for renewable energy trade too. Therefore, it is possible to gain more for multilateralism if the RTA regime is optimised and incorporated effectively into multilateral trading framework and WTO rules under public international law. Some of the key enablers that make RTAs more beneficial to multilateralism include high level cooperation and information sharing on development of RTAs, greater transparency in reporting activities of RTAs, greater harmonisation of the RTAs with the WTO rules, as well as application and enforcement of sanctions for non-compliance with common global rules established to align them with the multilateral trading regime.¹⁹⁵

AfCFTA and WTO can leverage the regulatory standards in their Annexes on TBT and SPS to promote the CET. For instance, Ven and Signé have argued that the alignment ‘between the AfCFTA and Africa’s green growth agenda’ can be enhanced if State Parties are also encouraged to adopt a proactive approach to removing NTBs to trade in green energy products and services’.¹⁹⁶ Although the TBT Annex does mandate ‘mutual recognition for environmental standards’¹⁹⁷ that can avoid ‘the need for duplicative testing’ of facilities, there is opportunity for State Parties to use ‘mutual recognition of conformity assessment results [of each other’s conformity assessment procedures] to enhance the compliance with standards and use of clean energy products including ‘wind turbines, solar PV technology, and recycled electronics’¹⁹⁸ as well as nuclear reactor technologies. This mutual type of recognition reduces compliance costs and procedures, which goes to facilitate environmental products that promote the CET.

With the ever-increasing development of new and affordable solar and wind energy technologies, it is becoming possible to allay the fears about the lack of power generation to supercharge industrial growth in Africa.¹⁹⁹ When there is dedicated leadership and diplomatic commitment, the institutions, mechanisms and systems established by the AfCFTA Agreement can be effectively operationalised. AfCFTA must run on a clean slate devoid of the old school African institutional attitude of feet dragging, opaqueness, and the deficiency in the rule of law.²⁰⁰

¹⁹⁴ *Ibid.*

¹⁹⁵ Ajibo (2019), *supra* note 52, pp. 878, 887.

¹⁹⁶ Ven and Signé (2021), *supra* note 28.

¹⁹⁷ See also Article 6.3 TBT, *supra* note 82.

¹⁹⁸ Ven and Signé (2021), *supra* note 28.

¹⁹⁹ IRENA, *Africa 2030: Roadmap for a Renewable Energy Future* (2015), available at: <www.irena.org/publications/2015/Oct/Africa-2030-Roadmap-for-a-Renewable-Energy-Future>, accessed December 22, 2021; R. Obonyo, *Push for renewables: How Africa is building a different energy pathway* (January 6, 2021), available at: <www.un.org/africarenewal/magazine/january-2021/push-renewables-how-africa-building-different-energy-pathway>, accessed December 22, 2021.

²⁰⁰ See H. Cissé, D. D. Bradlow and B. Kingsbury, *The World Bank Legal Review International Financial Institutions and Global Legal Governance* (World Bank Publications, 2011) pp. 3-14; T. A. Gelaye, *Strengthening Rule of Law Enforcement in Sub-Saharan Africa: The Role of African Union*, 11 *African Journal of Legal Studies*, no. 1 (2018), 71–91.

5. Conclusion

No explicit provisions in the WTO and AfCFTA agreements clearly bind member states to commit to the CET agenda, but, as discussed above, the WTO and AfCFTA agreements, which touch on many aspects of energy trade and renewables, can be leveraged to enhance the design, production, supply and maintenance of renewable energy products, contributing to the CET.

There have been ‘positive signals’ that many governments and business entities are aligning stimulus packages with the objectives of the Paris Agreement and the SDGs. The UN urges countries to raise ambition on mitigation, adaptation and finance as elements of climate action towards the CET. The targets include net zero emissions by the year 2050 and ensuring the creation of jobs in areas such as ‘resilient infrastructure, clean mobility, net zero buildings, renewable energy, and zero deforestation food systems’.²⁰¹ Since the consequences of climate change would be more impactful on poor countries in Africa,²⁰² the AfCFTA could have more strongly addressed climate change issues and concrete steps for energy transition.²⁰³

In relation to the operationalisation of the AfCFTA framework, there is the need for renewed efforts in strengthening competitiveness, designing common standards, knowledge exchange and capacity building mechanisms on renewable energy. These aims can be incentivised by ensuring a common tariff regime across the regional trading bloc. While there are implementation challenges facing AfCFTA including how to effectively harmonise its operations with the existing RECs, poor infrastructural base, limited technical capacity, and inadequate resources to effectively pursue the CET goals, there are also many opportunities that should be harnessed. As AfCFTA and WTO make efforts to address the challenges towards achieving the CET, they must address many key preconditions such as ensuring robust accountability; rule of law; clear legal provisions on CET; intra-regional and international cooperation; technical, human and financial capacity; and industrial base with good infrastructure.²⁰⁴ These pre-conditions create enabling environment for any commitments on clean energy. WTO and AfCFTA must support efforts to reform global trade and regional trade towards the achievement of the CET.

With the abundance of green energy sources such as sun, water, and wind, AfCFTA countries have strong potential for the development and sustenance of green energy. Therefore, in tandem with overcoming challenges such as legal/regulatory, technical, recognition, leadership, human and financial constraints in AfCFTA countries, these countries ought to increase the contribution of green energy to their energy mix.

²⁰¹ United Nations Climate Change (2020), *supra* note 19, p. 3.

²⁰² NASA, *The Effects of Climate Change*, available at: <<https://climate.nasa.gov/effects/>>, accessed December 22, 2021; European Commission, *Climate change consequences*, available at: <https://ec.europa.eu/clima/change/consequences_en>, accessed December 22, 2021.

²⁰³ Unfortunately, the legal regimes of WTO and AfCFTA do not provide detailed commitments towards achieving the CET.

²⁰⁴ Ajibo (2019), *supra* note 52, pp. 874, 894. See also Cottier (2014), *supra* note 68, p. 40.

References

Abukari A., *Rule of law and justice in petroleum law in sub-Saharan Africa: critical analysis of socioeconomic rights and the World Bank New Africa Strategy* (Ph.D thesis, Kingston University 2019).

Adeniran A., Onyekwena C., Osakwe S., and Iheonu C., *How Can the AfCFTA Improve Energy Efficiency and Access in Africa?* (April 26, 2021), available at: <<https://sdg.iisd.org/commentary/guest-articles/how-can-the-afcfta-improve-energy-efficiency-and-access-in-africa/>>, accessed June 3, 2022.

AfCFTA Secretariat, *State Parties*, available at: <<https://au-afcfta.org/state-parties/>>, accessed June 2, 2022.

African Development Bank Group, *African Union Commission inaugurates AfCFTA permanent secretariat as launchpad for Africa's economic transformation* (August 18, 2020), available at: <www.afdb.org/en/news-and-events/press-releases/african-union-commission-inaugurates-afcfta-permanent-secretariat-launchpad-africas-economic-transformation-37379>, accessed November 17, 2021.

African Development Bank and AU, *Oil and Gas in Africa* (July 29, 2009), available at: <www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Oil%20and%20Gas%20in%20Africa.pdf>, accessed December 15, 2021.

African Green Stimulus Programme (January 8, 2021), available at: <<https://wedocs.unep.org/bitstream/handle/20.500.11822/34409/AGSP.pdf?sequence=3>> accessed June 6, 2022.

African Union Green Recovery Action Plan 2021-2027, available at: <https://au.int/sites/default/files/documents/40790-doc-AU_Green_Recovery_Action_Plan_ENGLISH1.pdf>, accessed June 5, 2022.

Agreement Establishing the World Trade Organization of 15 April 1994 (Annex 1A, Agreement on Anti-Dumping).

Agreement Establishing the World Trade Organization of 15 April 1994 (Annex 1A, Agreement on Safeguards).

Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1A, Agreement on Subsidies and Countervailing Measures.

Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1B, General Agreement on Trade in Services (GATS).

Agreement Establishing the World Trade Organization of 15 April 1994, Annex 4(b), Government Procurement Agreement (GPA).

Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1A, General Agreement on Tariffs and Trade (GATT), available at: <www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_e.htm>, accessed November 18, 2021.

Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1A, Agreement on Technical Barriers to Trade (TBT).

Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1A, Agreement on Trade Related Investment Measures (TRIMs Agreement).

Agreement Establishing the World Trade Organization of 15 April 1994, Annex 1C, Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs Agreement).

Ajibo, C. C., *African Continental Free Trade Area Agreement: The Euphoria, Pitfalls and Prospects*, 53 *Journal of World Trade*, no. 5 (2019).

Amendment of the Trade Policy Review Mechanism (WT/L/1014, WTO, Decision of 26 July available at: < 2017), <<https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/1014.pdf&Open=True>>, accessed December 22, 2021.

AU, *Africa Mining Vision* (February 2009), available at: <https://docs.igihe.com/IMG/pdf/africa_mining_vision_english.pdf> accessed June 6, 2022.

ASEAN, *RCEP Agreement enters into force* (January 1, 2022), available at: <<https://asean.org/rcep-agreement-enters-into-force/>>, accessed June 2, 2022.

AU, *Agenda 2063: The Africa We Want*, available at: <<https://au.int/en/agenda2063/overview>>, accessed December 7, 2021.

AU, *Agenda 2063: The Africa we want* (June 10, 2013).

AU, *Agreement Establishing the African Continental Free Trade Area*, available at: <<https://au.int/en/treaties/agreement-establishing-african-continental-free-trade-area>>, accessed June 17, 2021.

AU, *List of Countries which have Signed, Ratified/Acceded to the Agreement Establishing the African Continental Free Trade Area*, available at: <www.tralac.org/documents/resources/cfta/4241-afcfta-agreement-signature-and-ratification-list-05-12-2020/file.html>, accessed November 17, 2021.

AU, *The AfCFTA Secretariat and UNDP sign a strategic partnership agreement to promote trade in Africa* (29 March 2021), available at: <<https://au.int/en/pressreleases/20210329/afcfta-and-undp-sign-strategic-partnership-agreement-promote-trade>>, accessed November 17, 2021.

Barboza, J., *The Environment, Risk and Liability in International Law* (Leiden: Koninklijke Brill NV 2011).

Bown, C. P., *Mega-Regional Trade Agreements and the Future of the WTO* (Discussion Paper Series on Global and Regional Governance, 2016).

CO2 Human Emissions, *Main sources of carbon dioxide emissions* (December 13, 2017), available at: <www.che-project.eu/news/main-sources-carbon-dioxide-emissions#:~:text=Carbon%20Dioxide%20Emissions%3A%20Human%20Sources&text=Human%20activities%20such%20as%20the,dioxide%20concentrations%20in%20the%20atmosphere>, accessed December 20, 2021.

Caruso, D., *Non-Parties: The Negative Externalities of Regional Trade Agreements in a Private Law Perspective*, 59 *Harvard International Law Journal*, no. 2 (2018).

Chapter XXVII Environment, *United Nations Framework Convention on Climate Change*, 9 May 1992 (Status as at: 15-06-2021), available at: <https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en>, accessed November 15, 2021.

Cipollina, M. and Demaria F., *The Trade Effect of the EU's Preference Margins and Non-Tariff Barriers*, 13 *Journal of Risk Financial Management*, no. 9 (2020).

Cissé, H., Bradlow D. D. and Kingsbury B., *The World Bank Legal Review International Financial Institutions and Global Legal Governance* (World Bank Publications, 2011).

COP26 the Glasgow climate pact, available at: <<https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf>>, accessed January 23, 2022.

Cottier, T., *The Common Law of International Trade and the Future of the World Trade Organization*, 18 *Journal of International Economic Law*, no. 1 (2015).

Cottier, T., Nartova O., and Bigdeli S. Z. (eds), *International Trade Regulation and the Mitigation of Climate Change* (Cambridge: Cambridge University, 2009).

Cottier, T., *Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines*, *Renewable Energy Law & Policy Review* [2014].

Davis, D. M., *Socio-Economic Rights*, M. Rosenfeld and A. Sajó (eds), *The Oxford Handbook of Comparative Constitutional Law* (Oxford: Oxford University Press, 2012).

EIA, *Monthly Energy Review* (May 25, 2017), available at: <www.eia.gov/totalenergy/data/monthly/archive/00351705.pdf>, accessed December 14, 2021.

Energy Charter, *The Amendment to the Trade-related Provisions of the Energy Charter Treaty*, available at: <www.energycharter.org/process/energy-charter-treaty-1994/trade-amendment/>, accessed December 17, 2021.

Energy Charter Secretariat, *The International Energy Charter Consolidated Energy Charter Treaty with Related Documents* (January 15, 2016), available at:

<www.energycharter.org/fileadmin/DocumentsMedia/Legal/ECTC-en.pdf>, accessed November 17, 2021.

ESI Africa, *AfCFTA strengthens the continent's energy transition* (July 2021), available at: <<https://www.esi-africa.com/industry-sectors/business-and-markets/afcfta-strengthens-the-continent-energy-transition/>>, accessed June 3, 2022.

European Commission, *Climate change consequences*, available at: <https://ec.europa.eu/clima/change/consequences_en>, accessed December 22, 2021.

Gielena, D., *et al.*, *The role of renewable energy in the global energy transformation*, 24 Energy Strategy Reviews (2019).

Gelaye, T. A., *Strengthening Rule of Law Enforcement in Sub-Saharan Africa: The Role of African Union*, 11 African Journal of Legal Studies, no. 1 (2018).

Great Green Wall, *Take Action*, available at: <<https://www.greatgreenwall.org/take-action>>, accessed June 6, 2022.

Holder, R. and Turksen U., *Contemporary problems with the GATS and Internet Gambling*, 49 Journal of World Trade, no. 3 (2015).

IEA, *Net Zero by 2050: A Roadmap for the Global Energy Sector* (May 2021), available at: <<https://iea.blob.core.windows.net/assets/4482cac7-edd6-4c03-b6a2-8e79792d16d9/NetZeroBy2050-ARoadmapfortheGlobalEnergySector.pdf>>, accessed December 22, 2021.

IEA, *Net Zero by 2050: A Roadmap for the Global Energy Sector* (Flagship report, May 2021), available at: <www.iea.org/reports/net-zero-by-2050>, accessed December 20, 2021.

IPCC, *The Physical Science Basis: Summary for Policymakers* (Climate Change, 2021), available at: <www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf>, accessed November 10, 2021.

IRENA, *Africa 2030: Roadmap for a Renewable Energy Future* (2015), available at: <https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2015/IRENA_Africa_2030_REmap_2015_low-res.pdf>, accessed December 3, 2021.

IRENA, *The Investment Case for Energy Transition in Africa* (March 31, 2020), available at: <<https://irena.org/newsroom/articles/2020/Mar/The-Investment-Case-for-Energy-Transition-in-Africa>>, accessed December 3, 2021.

IRENA, *Trading into a bright energy future: The case for open, high-quality solar photovoltaic markets*, available at: <https://www.wto.org/english/res_e/booksp_e/energyfuture2021_e.pdf>, accessed June 3, 2022.

IUCN, *Guidelines for applying the precautionary principle to biodiversity Conservation and natural resource management* (as approved by the 67th meeting of the IUCN Council 14-16

May 2007), available at:
<www.iucn.org/sites/dev/files/import/downloads/ln250507_ppguidelines.pdf>, accessed December 20, 2021.

Juma, C. and Mangeni, F., *African Regional Economic Integration: The Emergence, Evolution, and Impact of Institutional Innovation*, RWP18-003 Harvard Kennedy School Faculty Research Working Paper Series (2018).

Kouassi, R. N., *The Itinerary of the African Integration Process: An Overview of the Historical Landmarks*, 1 *African Integration Review*, no. 2 (2007).

Kuwonu, F., *Africa's free trade area opens for business: Trading under the continental free trade agreement started on 1st Jan.* (Africa Renewal, January 7, 2021), available at:
<www.un.org/africarenewal/magazine/january-2021/afcfta-africa-now-open-business>, accessed July 15, 2021.

Lamy, P., *The Place of the WTO and its Law in the International Legal Order*, 17 *The European Journal of International Law*, no. 5 (2007).

Leal-Arcas, R., *Climate Change and International Trade* (Cheltenham: Edward Elgar Publishing, 2013).

Leal-Arcas, R., *New frontiers of international economic law: The quest for sustainable development*, 4 *University of Pennsylvania Journal of International Law* no. 1 (2018).

Leal-Arcas, R., *Proliferation of Regional Trade Agreements: Complementing or Supplanting Multilateralism?* 11 *Chicago Journal of International Law*, no. 2 (2011).

Lee, Yong-Shik, *Reclaiming Development in the World Trading System* (2d ed., Cambridge University Press, 2016).

Lejárragai, I., *Deep Provisions in Regional Trade Agreements: How Multilateral-Friendly? An Overview of OECD Findings* (OECD Trade Policy Papers, no. 168, 2014).

Lomborg, B., *False Alarm: How Climate Change Panic Costs Us Trillions, Hurts the Poor, and Fails to Fix the Planet* (Basic Books, 2020).

Low, P., *WTO Decision-Making for the Future* (Staff Working Paper, May 2, 2011), available at: <https://www.wto.org/english/res_e/reser_e/ersd201105_e.pdf>, accessed April 23, 2022.

Marceau G., *The WTO in the emerging energy governance debate*, available at:
<https://www.wto.org/english/res_e/publications_e/wtr10_forum_e/wtr10_marceau_e.htm>, accessed February 5, 2022.

Mavroidis, P. C. and Sapir A., *China and the WTO Why Multilateralism Still Matters* (Princeton: Princeton University Press, 2021).

Marrakesh Agreement Establishing the World Trade Organization 1994, available at:
<www.wto.org/english/docs_e/legal_e/04-wto_e.htm>, accessed December 3, 2021.

Mitchell, D., *et al.*, *The myriad challenges of the Paris Agreement* (2018) Philosophical Transactions of the Royal Society A. 376: 20180066, available at: <<http://dx.doi.org/10.1098/rsta.2018.0066>>, accessed December 22, 2021.

Monteiro, J-A, Chobanova S., and Ramos D., *Climate Change in Regional Trade Agreements*, Trade and climate change, Information brief N°2, pp.1-8, available at: <https://www.wto.org/english/news_e/news21_e/clim_03nov21-2_e.pdf>, accessed April 19, 2022.

Manduna, C. & Fundira T., *Tackling Climate Change and Propelling a Green Transition under the African Continental Free Trade Area* (Heinrich Böll Foundation, May 2022), available at: <https://afripoli.org/uploads/publications/LY_E-Paper_APRI_v2.pdf>, accessed June 2, 2022.

Mukarakate, D., *The role of extractives in Africa's inclusive green and resilient recovery* (October 12, 2021), available at: <<https://www.un.org/africarenewal/magazine/october-2021/role-extractives-africas-inclusive-green-and-resilient-recovery>>, accessed June 3, 2022.

NASA, *The Effects of Climate Change*, available at: <<https://climate.nasa.gov/effects/>>, accessed December 22, 2021.

Obonyo, R., *Push for renewables: How Africa is building a different energy pathway* (January 6, 2021), available at: <www.un.org/africarenewal/magazine/january-2021/push-renewables-how-africa-building-different-energy-pathway>, accessed December 22, 2021.

Ogunnoiki, A. O., *The Nile River Dispute: Assuaging Egypt's Fear of the Grand Ethiopian Renaissance Dam (GERD)*, 6 Lapai International Journal of Politics, no. 2 (2020).

Olivet, C., Lumonya F. and Eberhardt P., *Despite controversy, the Energy Charter Treaty is silently being pushed into Africa* (Euractiv, April 20, 2020), available at: <www.euractiv.com/section/energy/opinion/despite-controversy-the-energy-charter-treaty-is-silently-being-pushed-into-africa/>, accessed December 17, 2021.

Pauwelyn, J., *Global Challenges at the Intersection of Trade, Energy and the Environment: An Introduction*, in Pauwelyn J. (ed.), *Global Challenges at the Intersection of Trade, Energy and the Environment* (Centre for Trade and Economic Integration 2010), available at: <https://www.astrid-online.it/static/upload/protected/CTEI/CTEI-CEPR_Global-challenges.pdf>, accessed February 17, 2022.

Regional Trade Agreements Information System (RTA-IS), *User Guide*, available at: <https://rtais.wto.org/UserGuide/RTAIS_USER_GUIDE_EN.html>, accessed February 5, 2022.

Rolland, S. E., *Regulation of Energy in International Trade Law – WTO, NAFTA and Energy Charter* 16 Journal of International Economic Law, no. 2 (2013).

Safa, H., *The Impact of Energy on Global Economy*, 7 International Journal of Energy Economics and Policy, no. 2 (2017).

Sharma, N., Smeets B. and Tryggestad C., *The decoupling of GDP and energy growth: A CEO guide* (McKinsey Quarterly, April 24, 2019).

Simo, R. Y., *Trade in Services in the African Continental Free Trade Area: Prospects, Challenges and WTO Compatibility*, 23 *Journal of International Economic Law*, no. 1 (2020).

Skinner, E. P., *African Political Cultures and the Problems of Government* (African Studies Quarterly), available at: <https://asq.africa.ufl.edu/skinner_98/>, accessed December 22, 2021.

Sovacool, B. K., *The Dirty Energy Dilemma: What's Blocking Clean Power in the United States* (London: Praeger, 2008).

Steger, D., *Strengthening the WTO Rulemaking Function* (May 11, 2020), available at: <<https://www.cigionline.org/articles/strengthening-wto-rulemaking-function/#:~:text=The%20difficulties%20with%20rulemaking%20and%20decision%20making%20in,Agreement%20have%20not%20been%20fully%20explored%20by%20members>>, accessed April 25, 2022.

Stöckl, F. and Zerrahn A., *Substituting Clean for Dirty Energy: A Bottom-up Analysis* (DIW Berlin, German Institute for Economic Research, 2020), 19-26, available at: <www.diw.de/documents/publikationen/73/diw_01.c.795779.de/dp1885.pdf>, accessed November 18, 2021.

SWI, *The World Trade Organization and the demise of multilateralism* (May 15, 2020), available at: <www.swissinfo.ch/eng/opinion_the-world-trade-organization-and-the-demise-of-multilateralism/45763264>, accessed December 15, 2021.

The Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA), available at: <www.energycharter.org/process/energy-charter-treaty-1994/energy-efficiency-protocol/>, accessed November 17, 2021.

The TA supplements the ECT; See The Trade Amendment (TA) of the Energy Charter Treaty (ECT) 2010, available at: <www.energycharter.org/fileadmin/DocumentsMedia/Thematic/Trade_Amendment_Explanations-EN.pdf>, accessed December 17, 2021.

Tralac, *Status of AfCFTA Ratification* (Infographics, July 13, 2021), available at: <www.tralac.org/resources/infographic/13795-status-of-afcfta-ratification.html>, accessed December 15, 2021.

Trade Policy Review Mechanism as Amended by the General Council (Revision, effective as of 1 Jan. 2019), available at: <www.wto.org/english/docs_e/legal_e/29-tprm_e.htm>, accessed July 22, 2021.

Turksen, U., *EU Energy Relations with Russia Solidarity and the Rule of Law* (London: 1st ed., Routledge, 2018).

Turksen, U., *Energy Resource Efficiency in the EU: Major Legislative Initiatives*, in N. Mouraviev and A. Koulouri (eds), *Energy Security* (Cham: Palgrave Macmillan, 2019).

United Nations, *Chapter XXVII, Environment, Paris Agreement, 12 December 2015* (Status as at: 15-06-2021), available at:

<https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en>, accessed November 15, 2021.

United Nations, *Key aspects of the Paris Agreement*, available at: <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/key-aspects-of-the-paris-agreement>>, accessed December 22, 2021.

United Nations Climate Change, “*Climate Commitments Not on Track to Meet Paris Agreement Goals*” as NDC Synthesis Report is Published (February 26, 2021), available at: <<https://unfccc.int/news/climate-commitments-not-on-track-to-meet-paris-agreement-goals-as-ndc-synthesis-report-is-published>>, accessed December 20, 2021.

United Nations Climate Change, *The Paris Agreement: What is the Paris Agreement?*, available at: <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>>, accessed December 25, 2021.

United Nations Climate Change, *Patricia Espinosa: “There is no path to 1.5°C without the G20”* (23 July 2021), available at: <<https://unfccc.int/news/patricia-espinosa-there-is-no-path-to-15degc-without-the-g20>>, accessed December 25, 2021.

United Nations Climate Change, *United Nations Climate Change Annual Report 2019* (UNFCCC 2020), available at: <https://unfccc.int/sites/default/files/resource/unfccc_annual_report_2019.pdf>, accessed November 18, 2021.

United Nations Economic Commission for Africa, *African Continental Free Trade Area: Questions & Answers* (2019), available at: <<https://repository.uneca.org/handle/10855/43253>>, accessed June 17, 2021.

United Nations Climate Change, *UN Climate Change Welcomes IPCC’s Summary for Policy Makers on the Physical Science Basis of Climate Change* (UN Climate Statement, August 9, 2021), available at: <<https://unfccc.int/news/un-climate-change-welcomes-ipcc-s-summary-for-policy-makers-on-the-physical-science-basis-of-climate>>, accessed November 10, 2021.

Vangrastek, C., *The History and Future of the World Trade Organization* (WTO 2013).

Ven, v. d. C. and Signé L., *Greening the AfCFTA: It is not too late* (September 2021), available at: <<https://www.brookings.edu/wp-content/uploads/2021/09/21.09.15-Greening-the-AfCFTA.pdf>>, accessed June 2, 2022.

Vollgraaff, R. and Malingha D., *WTO leaders agree to end farm subsidies as Doha unresolved* (Bloomberg, December 19, 2015), available at: <www.bloomberg.com/news/articles/2015-12-19/wto-trade-leaders-agree-to-end-farm-subsidies-as-doha-unresolved>, accessed July 15, 2021.

Williams, A., *Joe Biden to remain tough on trade while re-embracing partners* (Financial Times, November 16, 2020), available at: <www.ft.com/content/c4e1c0e3-ba5b-46f8-87c7-9a56ca7a0a1a>, accessed November 11, 2021.

World Bank Group, *The African Continental Free Trade Area: Economic and Distributional Effects*, available at: <www.wto.org/english/thewto_e/acc_e/afcfta_feb11maryla.pdf>, accessed December 17, 2021.

World Commission on Environment and Development, *Our Common Future* (Centre for Our Common Future 1992).

Wrigley, E. A., *Energy and the English Industrial Revolution* (Cambridge University Press, 2010).

WTO, *Accessions: Iran*, available at: <www.wto.org/english/thewto_e/acc_e/a1_iran_e.htm>, accessed November 15, 2021.

WTO, *Accessions: Libya*, available at: <www.wto.org/english/thewto_e/acc_e/a1_libya_e.htm>, accessed November 15, 2021.

WTO, *Annual Report 2020: Trade negotiations and discussions* (2020), available at: <www.wto.org/english/res_e/publications_e/anrep20_e.htm>, accessed December 22, 2021.

WTO, *Appellate Body Members*, available at: <www.wto.org/english/tratop_e/dispu_e/ab_members_descrp_e.htm>, accessed 20 July 2021.

WTO, *Differential and more favourable treatment reciprocity and fuller participation of developing countries*, available at: <https://www.wto.org/english/docs_e/legal_e/enabling1979_e.htm>, accessed February 5, 2022.

WTO, *Dispute Settlement: Appellate Body*, available at: <www.wto.org/english/tratop_e/dispu_e/appellate_body_e.htm>, accessed December 20, 2021).

WTO, *Dispute Settlement: The Disputes -Disputes by member*, available at: <www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm#complainant>, accessed December 20, 2021.

WTO, *Documents. Environmental Database*, available at: <<https://edb.wto.org/documents>>, accessed December 22, 2021.

WTO, *Doha Round: what are they negotiating?* available at: <https://www.wto.org/english/tratop_e/dda_e/update_e.htm>, accessed April 25, 2022.

WTO, *DS419: China - Measures concerning wind power equipment*, available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds419_e.htm>, accessed December 20, 2021.

WTO, *DS452: European Union and certain Member States — Certain Measures Affecting the Renewable Energy Generation Sector*, available at:

<www.wto.org/english/tratop_e/dispu_e/cases_e/ds452_e.htm>, accessed December 20, 2021.

WTO, *DS456: India — Certain Measures Relating to Solar Cells and Solar Modules*,

available at: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds456_e.htm>, accessed December 20, 2021.

WTO, *DS471: United States - Certain Methodologies and their Application to Anti-Dumping Proceedings Involving China*, available at:

<www.wto.org/english/tratop_e/dispu_e/cases_e/ds471_e.htm>, accessed December 20, 2021).

WTO, *DS563: United States - Certain Measures Related to Renewable Energy*, available at:

<www.wto.org/english/tratop_e/dispu_e/cases_e/ds563_e.htm>, accessed December 20, 2021).

WTO, *Environmental Database for 2017* (Committee on Trade and Environment, November 19, 2018), available at:

<<https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/CTE/EDB17.pdf&Open=True>>, accessed December 22, 2021.

WTO, *General Agreement on Trade in Services*, available at:

<https://www.wto.org/english/docs_e/legal_e/26-gats_01_e.htm#articleV>, accessed February 5, 2022.

WTO, *Index of Disputes*, available at:

<www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm>, accessed December 20, 2021.

WTO, *Legal texts: the WTO agreements - Decision on achieving greater coherence in global economic policy-making*, available at:

<https://www.wto.org/english/docs_e/legal_e/ursum_e.htm#Achieving>, accessed June 2, 2022

WTO, *Members and Observers [as of] 29 July 2016*, available at:

<www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm>, accessed June 2, 2022.

WTO, *Regional Dialogue highlights synergies between African WTO membership and AfCFTA* (February 14, 2020), available at:

<www.wto.org/english/news_e/news20_e/acc_14feb20_e.htm>, accessed December 20, 2021.

WTO, *The basic rules for goods, Regional Trade Agreements: Goods Rules*, available at:

<https://www.wto.org/english/tratop_e/region_e/regatt_e.htm>, accessed February 5, 2022.

WTO, *The Committee on Regional Trade Agreements*, available at:

<https://www.wto.org/english/tratop_e/region_e/regcom_e.htm>, accessed April 19, 2022.

WTO, *The Doha Round texts — introduction*, available at:
<https://www.wto.org/english/tratop_e/dda_e/texts_intro_e.htm>, accessed April 26, 2022.

WTO, *The process - Stages in a typical WTO dispute settlement case*, available at:
<www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c6s1p1_e.htm>, accessed December 20, 2021.

WTO, *The WTO TRIPS Agreement – A practical overview for Climate change policymakers* (2010), p.1, available at:
<https://www.wto.org/english/tratop_e/trips_e/ta_docs_e/8_3_overviewclimatechange_e.pdf>, accessed June 6, 2022.

WTO, *Transparency Mechanism for RTAs*, available at:
<https://www.wto.org/english/tratop_e/region_e/trans_mecha_e.htm>, accessed February 5, 2022.

WTO, *Understanding the WTO: Basics - The Uruguay Round*, available at:
<https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact5_e.htm>, accessed April 25, 2022.

WTO, *WTO Committee on Trade And Development* (WT/L/46, Decision by the General Council on 31 January 1995), available at:
<<https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/46.pdf&Open=True>>, accessed April 19, 2022.

WTO, *WTO Bodies involved in the dispute settlement process*, available at:
<www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c3s3p1_e.htm>, accessed December 20, 2021.

WTO, *WTO legal texts*, available at:
<www.wto.org/english/docs_e/legal_e/legal_e.htm#services>, accessed December 22, 2021.

WTO, *WTO members discuss measures to tackle climate change and strengthen sustainability* (30 March 2021), available at:
<www.wto.org/english/news_e/news21_e/envir_30mar21_e.htm>, accessed December 17, 2021.