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OF INTERNATIONAL TRADE, CLIMATE CHANGE, INVESTMENT AND A PROSPEROUS FUTURE

RAFAEL LEAL-ARCAS,* SAMUEL BALZANO,** JAKKRIT DEETHAE,† TANVIR SINGH,†† KRISTINA SKYBOVA‡

A transformative, integrated, and holistic approach to sustainability is necessary to reach a prosperous future for all. With growing inequality in the world, demographic changes, rapid technological development, and 40% of the world's population with no access to digital technology, access to digital technology for all and, ultimately, having a prosperous future is a must today. Doing so will give a voice to the voiceless. For that, governments, companies, and transnational institutions should invest as much as possible to make it happen and provide solutions that are rules-based, inclusive, innovative, disruptive, and simple. We, the citizens, should push for this human right to materialise. That way, everyone will benefit and no one will fall behind. We argue that access to energy, mitigating climate change, and benefiting from international trade and investment, all can be achieved thanks to technological advancement. These global challenges are complex, interconnected, multidimensional, interdependent, and multi-causal.

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I. INTRODUCTION

The world is slowly realising that something needs to change if we want to have a sustainable future where we can protect the environment and, at the same time,

prosper economically.¹ The COVID-19 pandemic has taught us that this can be done, to a large extent, if we close several shops, offices, and factories, as well as if we stop many people from travelling frequently, although this may not be enough. At the same time, the new way of life resulting from COVID-19 may make people think that it is not so urgent to move from fossil fuels to renewables. In fact, due to measures taken to contain the spread of COVID-19, demand for oil has fallen drastically in a very short period of time: as was evidenced when demand for oil dropped by more than 20% and prices dropped drastically.² Energy-rich countries such as Saudi Arabia need an oil price of around \$75 per barrel to balance their budgets, but the price of oil as of September 2020 was \$40 per barrel.³ Nonetheless, when keeping ecology, the economy, and geopolitics in mind, in April 2020, people from fourteen countries gave their views as to whether climate change was as serious an issue as COVID-19. In China, 87% agreed it was; in the US, 59% answered in the affirmative.⁴

Climate change has become a serious global issue because human activity is adding greenhouse gases (GHGs) on a daily basis to the atmosphere at a rate that is impossible to predict. Carbon dioxide (CO₂) and other GHGs are produced when, for instance, fossil fuels are burned to generate energy.⁵ In 1988, scientists, environmental activists, and policymakers got together for the World Conference on the Changing Atmosphere because they were alarmed by the concentration of CO₂ in the atmosphere. As a result, the Intergovernmental Panel on Climate Change was created in that same year. By 2019, the GHG emissions from human activity equalled 55 billion tons of CO₂. The CO₂ from fossil-fuel emissions and industrial activity amounted to 37 billion tons.⁶ In the next 50 years, it will be necessary that 90% of the energy currently produced be provided by renewables or nuclear power.⁷

¹ Andrew Freedman, Global warming to push billions outside climate range that has sustained society for 6,000 years, study finds, THE WASHINGTON POST (May 4, 2020), https://www.washingtonpost.com/weather/2020/05/04/human-climate-niche.

² Power in the 21st century, THE ECONOMIST, (Sept. 19, 2020), at 9 [hereinafter THE ECONOMIST (Sept. 19, 2020)].

³ *Id*.

⁴ Never let a crisis go to waste: A trillion-dollar question, THE ECONOMIST, May 23, 2020, at 14, 15.

⁵ Of the energy that people pay for, "34% comes from burning oil, 27% from coal and 24% from gas . . . [H]ydroelectric power and all other renewables combined provide just 15%." See Carbon cycles: Where nature ends, THE ECONOMIST, May 9, 2020, at 47. Around 70% of the world's industrial CO₂ comes from energy-related emissions. See Climate change: Goodish news, THE ECONOMIST, Feb. 15, 2020, at 69.

 $^{^6}$ Hotting up, THE ECONOMIST, June 20, 2020, at 57. 7 Id.

Based on the 2015 levels, the world's natural capital (composed of animals, water, air, soil, plants, fossil fuels, and minerals) is expected to decline by 20% by 2040, and the change in CO₂ emissions are expected (in a high-emissions scenario) to increase by 7% by 2040 in the developed world and by 53% in the developing world.⁸ It is well known that natural resources raise the level of Gross Domestic Product (GDP) in a given nation, but slow its growth rate. If countries continue being energy-hungry with a high energy demand, the world will get even richer, but natural resources will get consumed more rapidly.

Thus, there is recognition that the time has come to make the transition from fossil fuels to clean energy — which is a global trend⁹ — and that we must leave hydrocarbons in the ground, and move towards a windy and sunny future. This recognition may materialise if the world's appetite for hydrocarbons decreases due to a change in habits, greener regulations, or cleaner technology that can be used as an accelerator and enabler of sustainable development.¹⁰ Even then, the world would still have more than 90% of decarbonisation left to do to reach the Paris Agreement on Climate Change's (Paris Agreement) target of a climate not warmer than 1.5 degrees Celsius compared to the pre-industrial revolution temperature.¹¹

The forecast is that more than three billion people could live in extreme heat by 2070.¹² Getting rid of GHG emissions seems to be the only sustainable way forward to stop global warming.¹³ The Economist states that "cutting CO₂ emissions could slow the rate of warming as early as 2033, but only if they are ended worldwide in 2020."¹⁴ That would imply getting rid of 80-90% of the energy sources used today, overnight, which is not a credible scenario. ¹⁵Additionally, CO₂

⁸ New Zealand has more natural wealth per capita than oil-rich countries such as Saudi Arabia or Kuwait, and Gabon more than any country in the world. According to the Inclusive Wealth Report, 47% of the world's natural capital is fossil fuels and minerals. See Resource economics: The world's natural wealth is in decline, THE ECONOMIST, July 18, 2020, at 73.

⁹ In the case of the Middle East, renewable-energy capacity has doubled since 2010 and is expected to double again by 2024. In fact, between 2008 and 2018, investment in solar energy in the Middle East increased 12-fold. *See Solar power: Rays of hope*, THE ECONOMIST, May 9, 2020, at 33 [hereinafter THE ECONOMIST (May 9, 2020)].

¹⁰ Crude oil: After the fall, THE ECONOMIST, June 13, 2020, at 53, 54.

¹¹ Seize the moment, THE ECONOMIST, May 23, 2020, at 7.

¹² Climate change: More than 3bn could live in extreme heat by 2070, BBC NEWS (May 5, 2020), https://www.bbc.com/news/science-environment-52543589.

¹³ In the Siberian Arctic, temperatures were 10 degrees Celsius hotter between January and June 2020 than the average between 1981 and 2010.

¹⁴ Delayed cool, The Economist, July 11, 2020, at 66.

¹⁵ *Id*.

emitted today may take decades and even centuries to be reabsorbed by the oceans and the flora.¹⁶

Various policy-makers are offering ways and means to decarbonise the economy. The President of the European Commission, Ursula von der Leyen, has proposed a World Trade Organization (WTO)-consistent carbon border tax to penalise imports from countries that have less stringent environmental regulations than those of the European Union (EU). She has also proposed a European Green Deal to make the EU's economy sustainable.¹⁷ The European Commission said in December 2019 that the Paris Agreement should from now on be included in the 'essential elements' clauses of any trade agreements that the EU negotiates with other countries around the world.¹⁸ The Prime Minister of Finland, Sanna Marin, aims to make her country carbon-neutral by 2035, making the point that, with proper planning, it is possible to achieve economic prosperity and equality at the same time as environmental sustainability.¹⁹ The British government has a target of banning new diesel, hybrid, and petrol vehicles by 2035.²⁰ The German government agreed to cut GHG emissions to 55% of their 1990 levels by 2030 and stop using coal by 2038.²¹

Joe Biden is committed to decarbonising the United States (US) electricity grid by 2035.²² Equally, California's governor Gavin Newsom pledged on September 23, 2020 to end sales of non-electric cars by 2035.²³ Such a move would certainly help reduce carbon from the atmosphere effectively and efficiently. The US' shift from coal to natural gas has decreased the country's GHG emissions. In fact, natural gas, solar and wind are now slowly putting coal aside. This is largely due to the fact that solar farms are cheaper, faster and safer to build than oil and gas power plants.²⁴ In 2019, renewables produced more of the electricity consumed in Europe than coal.²⁵ In many parts of the world, renewables are now cheaper than fossil

¹⁷ A European Green Deal, EUR. COMM'N, https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.

²² Fire and ice, THE ECONOMIST, Sept. 19, 2020, at 37.

¹⁶ *Id*.

¹⁸ Jim Brunsden, Brussels and Britain clash over climate conditions in trade deal, Fin. TIMES (May 6, 2020), https://www.ft.com/content/0f09f819-77b3-45d8-9ba3-76a3042c240c?segmentId=3f81fe28-ba5d-8a93-616e-4859191fabd8.

¹⁹ Sanna Marin, Prime Minister of the Republic of Finland, COLUM. U. WORLD LEADERS F. (Mar. 6, 2020), https://worldleaders.columbia.edu/content/ms-sanna-marin-prime-minister-of-the-republic-of-finland.

²⁰ Business This Week, THE ECONOMIST, Feb. 8, 2020, at 8.

²¹ *Id*.

²³ Free exchange: Marching bans, THE ECONOMIST, Oct. 3, 2020, at 62.

²⁴ THE ECONOMIST (May 9, 2020), *supra* note 9, at 33.

²⁵ The contentious and correct option, THE ECONOMIST, May 23, 2020, at 56, 57.

fuels. In fact, as a result of plummeting prices, solar and wind energy worldwide could rise from 5% of supply today to 25% in 2035 and about 50% by 2050.²⁶ However, since sunshine and wind are intermittent, hydrogen and batteries seem to be the frontrunners when it comes to better ways of storing energy.

On the other hand, oversupply and the increasing competitiveness of renewable energy means that the price of oil may remain low for years to come. Costs of photovoltaic solar energy have dropped, and efficiency has tripled from 6% in the 1950s to 17-20% in 2020.²⁷ As a result, many grid managers are preferring solar to fossil-fuel energy generation. Greece's Prime Minister wants renewable sources to cover 35% of Greece's energy needs by 2030, which means investing heavily in wind and solar energy — something foreign investors are already doing.²⁸ All of this makes the energy transition hopeful.²⁹

Oil corporations also have a big role to play in decarbonising the economy and are starting to commit to reducing their carbon footprint. British Petroleum (BP), a British oil company, aims to reach net zero CO₂ emissions by 2050.³⁰ Repsol, a Spanish oil company, said that it would reduce its net carbon footprint to zero within 30 years.³¹ Other major energy companies, such as Spain's Iberdrola and Italy's Enel, have invested heavily in renewables around the world. Yet, according to The Economist, "of a whopping \$80bn or so of capital expenditure by Europe's seven biggest listed energy firms last year, only 7.4% — less than \$1bn each on average — went to clean energy."32 Part of the reason is that oil executives know that, for now, oil generates more wealth than clean energy. Nevertheless, BP reportedly aims to invest beyond \$5bn in the next five years with the intention of providing more energy with lower GHG emissions.³³ Another effective way to decarbonize the economy would be by shifting from combustion-based vehicles to electric vehicles (EVs). To do so effectively, we need more charging stations for EVs to make the energy transition as quickly as possible. It would also be more effective towards rapidly mitigating climate change if EVs were cheaper and their range of travel were higher.

²⁶ THE ECONOMIST (Sept. 19, 2020), *supra* note 2, at 9.

²⁷ Photovoltaics: Solar's new power, THE ECONOMIST, May 23, 2020, at 68.

²⁸ Energy: Greening Greece, THE ECONOMIST, Feb. 1, 2020, at 30.

²⁹ For a thorough analysis of energy transition, see 1 RAFAEL LEAL-ARCAS ET AL., THE GREAT ENERGY TRANSITION IN THE EUROPEAN UNION (2020); 2 RAFAEL LEAL-ARCAS ET AL., THE GREAT ENERGY TRANSITION IN THE EUROPEAN UNION (2020).

³⁰ BP sets ambition for net zero by 2050, fundamentally changing organisation to deliver, BP (Feb. 12, 2020) https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bernard-looney-announces-new-ambition-for-bp.html.

³¹ Blowin' in the wind, THE ECONOMIST, Jan. 18, 2020, at 66.

³² Id.

³³ *Id*.

How damaging the impacts of climate change will be to international trade, and the economy at large, depends greatly on the level of global warming that will take place and how people will react, both of which are unknowable at present. Equally, the global trading system is experiencing serious tensions between China — the dominant economic force in Asia — and the US. The WTO's judicial branch is going through a crisis due to the discontinuation of its Appellate Body, and trade may fall by as much as a third due to lack of demand, instead of barriers to trade.³⁴ In the past, trade was about economic efficiency. Today, it seems to be about helping local farmers, resulting in protectionism. Is the trading system moving towards autarchy?

The current situation in the trading system may lead to the rise of regionalism where, in the supply chain, international suppliers may be replaced by intraregional ones. This rise of regionalism, in itself largely due to COVID-19, may be beneficial for the idea of creating climate clubs³⁵ to mitigate climate change, because COVID-19 is making globalisation more challenging.³⁶ As a result, small countries in any given region would benefit from neighbouring larger countries. Equally, companies may opt for automating services instead of offshoring them. Despite the existing global health crisis created by COVID-19 with potentially serious economic consequences, we argue that just as change through trade can eventually lead countries towards openness and democracy, trade can also be used as a powerful tool to mitigate climate change.³⁷

After this introduction, Part II analyses how globalisation has affected the impacts of international trade³⁸ and climate change on major economies. Part III answers questions regarding the role the EU — which is the world's largest exporter of services and the second largest exporter for goods, only behind China — and the WTO have played and should play in combating climate change. It also examines the options available to put a price on carbon emissions: in the case of the EU, it

³⁴ Globalization: Torn apart, THE ECONOMIST, May 16, 2020, at 57.

³⁵ These clubs could be similar to existing ones in global governance such as the G7, G20, the EU, the African Union, or the Association of South-East Asian Nations (ASEAN). They could be interconnected: for instance, the presidency of the G20 could be connected to that of the EU or the African Union to have a broader geographical reach.

³⁶ For an analysis of regionalism in trade, see RAFAEL LEAL-ARCAS, INTERNATIONAL TRADE AND INVESTMENT LAW: MULTILATERAL, REGIONAL AND BILATERAL GOVERNANCE (2010) [hereinafter LEAL-ARCAS (2010)].

³⁷ The pledge by Jeff Bezos of Amazon in February 2020 to give \$10 billion to scientists, activists, and NGOs working to mitigate climate change is also welcome. By doing so, he created the Jeff Bezos Earth Fund.

³⁸ BOB DAVIS & LINGLING WEI, SUPERPOWER SHOWDOWN: HOW THE BATTLE BETWEEN TRUMP AND XI THREATENS A NEW COLD WAR, (2020); MATTHEW C. KLEIN & MICHAEL PETTIS, TRADE WARS ARE CLASS WARS (2020).

can either introduce border carbon adjustments or low-carbon standards. The aim is to meet economic and environmental objectives by connecting trade with the issue of carbon-emissions. It further explores the option of climate clubs as a potentially effective way to mitigate climate change.³⁹ Both climate change and COVID-19 are issues which involve the entire world and are predicted by science. We recognise that climate change (a chronic and slower issue than COVID-19), like the current COVID-19 pandemic (an acute issue), is a global issue that requires various levels of cooperation. We argue, however, that a more effective way to mitigate climate change and expand economic growth is via climate clubs.

Part IV explores the possibility of creating a climate club to enforce the commitments of the Paris Agreement and, at the same time, to create climateresilient trade laws for the enhancement of free trade that is climate-friendly. Part V explores the question of how EU bilateral investment treaties contribute to climate action and sustainable energy in the context of sustainable development. We make the argument that investing in infrastructure promotes the flow of goods, services, capital, and technology, and therefore, economic growth. Our view is that we can maximise the use of technology for a sustainable future, whether it is in social justice issues, in global north-south cooperation, or for renewable energy. A good example is sharing of information owing to enhancements in digital technology. We have witnessed this fact during the confinement of much of the world. People who did not have the financial means to attend conferences were able to do so via webinars. Equally, another advantage of digital technology is that students with limited financial resources can actually learn online from home. COVID-19 has taught us that it is actually possible to have a prosperous future if we invest in digital technology. Part VI concludes our analyses.

II. THE IMPACT OF GLOBALISATION ON INTERNATIONAL TRADE AND CLIMATE CHANGE: THE CASE OF THE EU AND OTHER MAJOR ECONOMIES

A. Introduction

Globalisation became an academic phenomenon in the 1980s,⁴⁰ when the world's greatest economies began expanding their powers to become stronger and

³⁹ For an analysis of the role of climate clubs in international trade, see Rafael Leal-Arcas, *Climate Clubs and International Trade across the European and International Landscape*, 29(3) EUR. ENERGY & ENVTL. L. REV. 72-88 (2020).

⁴⁰ PETER DICKEN, GLOBAL SHIFT: INDUSTRIAL CHANGE IN A TURBULENT WORLD (1986). This was arguably one of the earliest academic writings that spiked the interest in globalisation—originally read in ROGER LEE & JANE WILLS, GEOGRAPHIES OF ECONOMIES 134 (1997).

increasingly prosperous in their domains. This Part discusses the positive and negative effects that globalisation has had both on international trade and climate change intertwined. Due to the increase of public concern regarding climate change and the preservation of our planet, global powers such as the EU, the US (which in 2018 became the largest oil producer in the world due in part to its shale-oil revolution),⁴¹ and China (which has become rather repressive at home and increasingly assertive abroad) have begun to attempt to find answers for the outcry for drastic progress and change in all capacities, including in the area of international trade, mainly through the creation of international organisations and agreements.

Granted, the relationship between these three powers (the EU, the US, and China) is not currently optimal: Europeans see China's rise as an economic threat that is building a financial system to avoid US dollar-based payment mechanisms, whereas the Americans see it as an issue of national security. China, in turn, sees it as a great chance to expand its global leadership and influence in the absence of an American leadership.⁴² In fact, in 2017 President Xi of China proclaimed that China has now taken a driving seat in the global affairs in making contributions to mankind.⁴³ An example of this new leadership role is China's announcement that it would be carbon-neutral by 2060, although it was not clarified how it would do so.44 Chinese companies today produce 72% of the world's solar modules, 69% of the lithium-ion batteries, and 45% of wind turbines in the world, making China on its way to becoming an "electrostate". 45 Despite these geo-political tensions, the input of these three major GHG emitters is crucial to effectively mitigate climate change. Ideally, the US should go back to being a party to the Paris Agreement on Climate Change and to effective bilateral cooperation with China on climaterelated and clean-energy issues, as was the case under the Obama administration.

One of several prevalent debates is whether or not trade has any effect whatsoever on the climate,⁴⁶ and what the consequences of stringency of environmental regulations may envisage, specifically in terms of economic prosperity of States.

⁴¹ Matt Egan, *America is now the world's largest oil producer*, CNN BUSINESS (Sep. 12, 2018), https://money.cnn.com/2018/09/12/investing/us-oil-production-russia-saudiarabia/index.html.

⁴² Between 1992 and 2012, China's GDP grew sevenfold. Its CO₂ emissions more than tripled. By 2006, China had already become the largest GHG emitter in the world. *See A history of action and inaction: The challenge without precedent*, THE ECONOMIST, Apr. 25, 2020, at 52, 53.

⁴³ China's post-COVID propaganda push, THE ECONOMIST, Apr. 16, 2020, at 29, 31.

⁴⁴ A greener horizon, THE ECONOMIST, Sept. 26, 2020, at 7.

⁴⁵ Petrostate v. Electrostate, THE ECONOMIST, Sept. 19, 2020, at 9.

⁴⁶ Carol McAusland & Daniel Millimet, *Do National Borders Matter? Intranational Trade, International Trade, and the Environment*, 65 (3) J. ENVIL. ECON. & MGMT. 411, 437 (2013).

We conclude that although the effect of international trade may not directly be significant on the climate at the outset, there are deeper issues that may arise over the years such as climatic disasters. This Part will conclude that the various environmental agreements in place are entirely toothless due to non-enforceability and little accountability.

The suggestion of this Part is for world leaders of major economies to commit financially, intellectually and technologically, and create an agreement with full liability measures in place. This is the most realistic solution to ensure the most adequate and agile outcomes for a very imminent threat to our planet. Technology can provide a better predictive analysis for climate change, and can bridge the development divide between rich and poor countries, while getting rid of technical barriers to trade in technology transfer for the benefit of developing countries. Competition and innovation can make technology cheaper.

B. Globalisation

Although a frequently voiced term, the globalisation phenomenon has not been occurring for an extensive period of time, nor has the matter been taken sincerely.⁴⁷ Globalisation can be defined as ". . . [T]he opening of international borders to increasingly fast flows of goods, services, finance, people and ideas; and the changes in institutions and policies at national and international levels that facilitate or promote such flows."48 This lexicon conveys that there has been a clear universal shift towards globalisation, leading to a vast increase in the amalgamation of State systems, resulting in positive and negative effects. One of the ways in which the increase in this modern change began was the increase in trade throughout the European continent as a result of enhanced transport links, which then gradually engulfed other States, including those across waters. Prosperity is one of its most paramount effects. The process can have very generous impacts on the State economy, both through imports and exports, as prices can be decreased as a consequence of negotiation.⁴⁹

Negotiation is another positive effect of globalisation. Since 1979,⁵⁰ there have been worldwide efforts to understand the impacts that humankind has on this

⁴⁸Health tobics:

Globalisation, WORLD **HEALTH** ORGANIZATION, www.who.int/topics/globalization/en/.

⁴⁷ LEE & WILLS, *supra* note 40.

⁴⁹ Kevin H.O' Rourke &Jeffery G. Williamson, When did globalisation begin?, 6 EUR. REV. ECON. HIST. 23, 36 (2002).

⁵⁰ World Meteorological Organization (WMO), Proceedings Of The World Climate Conference-A Conference Of Experts On Climate And Mankind, WMO - No. 537 (Feb. 1979), https://library.wmo.int/doc_num.php?explnum_id=8346; WMO, WORLD CLIMATE CONFERENCE - EXTENDED SUMMARIES OF PAPERS PRESENTED AT THE CONFERENCE

planet, along with their solutions. Although the agenda has now moved beyond just definitions and awareness, it is clear that a global effort continues to be necessary to have an impact on the situation of the climate in 2020. Nations have been forced to consult on all matters, with trade being perhaps one of the most discussed topics, as evidenced by the creation of world organisations for convenience and transparency such as the WTO.

All States constantly compete in the contemporary globalised domain, as it has never been easier to find replacements for virtually anything or negotiate a better deal elsewhere. With increased movement of business, there has been an upsurge in the number of international firms across the globe, with different parts of their operations often being in a handful of States. Since trade is such an enormous part of the economy of a country, it is essential that research and development on combatting climate change be a priority for international organisations and governments to combat some of the processes involved that may contribute to GHG emissions.

The following sub-part will discuss the various agreements that have been negotiated as a result of globalisation and their strategy to make a positive impact on climate change beside trade.

C. International Trade and the Climate

One of the positive effects that globalisation has had on both international trade and climate change is the creation of world organisations and various agreements. Developed and developing economies ordinarily participate in the negotiations, as can be seen in the context of the WTO. The WTO Agreement⁵¹ features one of the earliest embodiments of modern concerns and needs to negotiate trade in light of preserving the planet.⁵² This is contained in the Marrakesh Agreement that created the WTO, which states, as one of its objectives, "[e]xpanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment"⁵³ Albeit a

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⁽Feb. 1979), https://library.wmo.int/doc_num.php?explnum_id=6320; WMO, WORLD CLIMATE CONFERENCE - DECLARATION AND SUPPORTING DOCUMENTS (Feb. 1979), https://library.wmo.int/doc_num.php?explnum_id=3778.

⁵¹ Marrakesh Agreement Establishing the World Trade Organisation, Apr.15, 1994, 1867 U.N.T.S. 154 [hereinafter Marrakesh Agreement].

⁵² Daniel C. Esty & Susan Biniaz, *Introduction*, *in* COOL HEADS IN A WARMING WORLD: HOW TRADE POLICY CAN HELP FIGHT CLIMATE CHANGE 4 (Daniel C. Esty & Susan Biniaz eds., 2020).

⁵³ *Id*.

promising move forward with so many nations involved, what must be questioned is the enforceability and the effectiveness of such statements.

As of December 2019, the WTO no longer has a functioning Appellate Body due to political disagreements.⁵⁴ The Appellate Body is one of the most essential elements of this organisation, allowing the WTO's Member States to use it as a form of dispute resolution and hold States accountable for their actions, which is not possible to reach via multilateral trade negotiations. There is currently no viable option for States to be able to uphold the values of one another through the organisation, nullifying its enforceability. This is one of the problems with upholding such statements about the climate to any extent as mentioned above. Arguably, this is not the biggest problem in the WTO. As has been witnessed in recent history, it has become more and more complicated for States to agree on the terms of new agreements during negotiations, particularly the Doha Round.⁵⁵

Although the WTO has a great incentive to uphold environmental measures in all negotiations, there is a struggle to arrive at any agreement at all. The complication arises from the shift towards globalising trade and attempting to negotiate agreements on a multilateral scale. This brings about the WTO's own challenges due to the variety of cultures, morals, local practices, and underlying political issues that are present amongst the current 164 WTO Member States.⁵⁶ It would therefore be naïve to argue that multilateral trade negotiations in light of climate change are at the forefront of the WTO's priorities. It is more likely that the priority of this time is to resolve the riddle of the Doha Round. The WTO also does not offer any further explanation as to what this statement in its objectives may involve in practice, and therefore it remains a mere proclamation. The WTO would need to re-evaluate its approach broadly, "ensur[ing] that the trading system gives wider leeway for policy interventions aimed at climate change mitigation and adaptation efforts."57 Given that international trade and climate change are inextricably linked, it is important for the WTO to deal with climate-related trade issues in the future.

⁵⁴ Aditya Rathore & Ashutosh Bajpai, The WTO Appellate Body Crisis: How We Got Here and **JURIST** Ahead?, (Apr https://www.jurist.org/commentary/2020/04/rathore-bajpai-wto-appellate-body-crisis/. 55 Claus-Dieter Ehlermann, Decision Making in the World Trade Organisation: Is the Consensus Practice of the World Trade Organisation Adequate for Making Revising and Implementing Rules on International Trade?, WILMER (Sept. HALE https://www.wilmerhale.com/en/insights/publications/decision-making-in-the-worldtrade-organization-is-the-consensus-practice-of-the-world-trade-organization-adequate-formaking-revising-and-implementing-rules-on-international-trade-autumn-2005. ⁵⁶Members and Observers. WORLD TRADE ORGANIZATION, https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

⁵⁷ Esty & Biniaz, *supra* note 52.

Evidently, the issue of enforceability seems to be somewhat of a trend in international agreements on trade and the climate. The Paris Agreement is another example of a consequence of globalisation; yet it is necessary to analyse its capabilities. What is seen from the outset as a constructive initiative slowly begins to show cracks in its core. Nonetheless, the Paris Agreement does have a structural approach, as stated in its Article 4, with States being required to submit nationally determined contributions to the United Nations Framework Convention on Climate Change (UNFCCC) to track progress of each nation. Yet, these are nationally, rather than internationally, determined, and this causes inconsistencies.⁵⁸ Since the major economies of the world are also the world's largest emitters of GHGs, a fair share of accountability is imperative on their part. The same has also been recognised and acknowledged by the countries in multilateral environmental agreements through the principle of Common but Differentiated Responsibility.

However, is this truly *accountability*? Unfortunately, there are effectively no legal consequences for States if they do not reduce their GHG emissions. One consequence, as witnessed recently, can be political pressure. This showcases a negative effect of globalisation — it can sometimes be seen by nations as an intrusion on their sovereignty and freedom to decide their own fate. Since there are no major consequences and no apparent enforceability measures, apart from political and social pressures, it is simpler for leaders of States to exit such efforts to combat climate change or to not comply with the requirements.

In this case, globalisation presents a threat to some States and, in turn, compromises the global efforts towards saving the planet. It also changes the dynamics of international trade in major economies, as can be seen with the reaction of France and China as a result of the US' intention to withdraw from the Paris Agreement.⁵⁹ Since the US' notification to withdraw from the Paris Agreement, several States in the US have been active in the implementation of the Agreement.⁶⁰ Moreover, the Paris Agreement demands movement towards state-of-the-art technologies, which requires substantial financing promptly. Necessitating both economic and social transition will be difficult even in the major economies in the EU and elsewhere,⁶¹ especially in unprecedented times

⁵⁸ *Id.* at 7.

⁵⁹ Marin Pennetiere, *China, France reaffirm support of Paris Agreement, call it 'irreversible*, REUTERS (Nov. 6, 2019), https://www.reuters.com/article/us-china-france-paris-agreement/china-france-reaffirm-support-of-paris-climate-agreement-call-it-irreversible-idUSKBN1XG0QJ.

⁶⁰ Michael Fullilove suggests a coalition of the responsible among like-minded countries who are serious about mitigating climate change. *See Special report: The new world disorder*, THE ECONOMIST, June 20, 2020, at 1, 6.

⁶¹ U.N. Conference on Trade and Development, *Climate policies, economic diversification and trade*, ¶1, U.N. Doc. UNCTAD/DITC/TED/2018/4 (Oct. 3, 2017) [hereinafter UNCTAD].

such as the coronavirus pandemic since 2020. In fact, the Trump administration gave formal notice to the World Health Organization (WHO) that the US will withdraw from it on 6 July 2021, largely due to differences of opinion between President Trump and the WHO on how to handle the COVID-19 pandemic. One interesting climate-change observation of the COVID-19 pandemic is that, in early April 2020, daily GHG emissions worldwide were 17% lower than they were the year before. This fact is due to lower energy use and therefore less burning of fossil fuels. This is a clear example that the fruits of globalisation come with obstacles, particularly in terms of major political impacts upon society as a whole.

A similar climate initiative is to be found in the United Nations Sustainable Development Goals (UN SDGs), specifically Goal 13 on "Climate Action". Moreover, it seems that the entirety of the work is centred around climate action since almost every UN SDG mentions "sustainability".⁶² The creation of the United Nations (UN) itself occurred as a result of globalisation, demonstrating the innovation of new ways to encourage and urge States to combat climate change. Similar to the previous trends in other climate change agreements, there is no enforceability to ensure that countries meet the standards set by the UN. However, due to the progress reports that are published globally and can be accessed by the public, there is now also pressure from individuals onto States to obey the targets and do better on climate action. In democratic systems, the public is able to vote out the individuals for not doing enough, which, in turn, influences international trade policies.

The number of agreements created to combat climate change should be questioned. These may not solely focus on climate change. However, they are plenty in number multilaterally, bilaterally and regionally that pledge to negate GHG emissions in some way. Why is there a need for so many avenues? Unquestionably, this approach only contributes to complexity and confusion. 63 It is clear that it is a worldwide necessity to combat negative effects of national regulations, 64 yet is there a prerequisite for this type of repetition? For example, what is the difference between signing the Paris Agreement and abiding by the UN SDGs, or already being a member of the WTO that is continuing very similar, if not the same, efforts? The ultimate purpose is mirrored.

⁶² Sustainable Development Goals, UN SUSTAINABLE DEVELOPMENT KNOWLEDGE PLATFORM, https://sustainabledevelopment.un.org/?menu=1300.

⁶³ See generally LEAL-ARCAS (2010), supra note 36; Rafael Leal-Arcas, The Fragmentation of International Trade Law: Is Now the Time for Variable Geometry?, 12(2) J. WORLD INV. & TRADE, 145-195 (2011).

⁶⁴ McAusland & Millimet, *supra* note 46, at 441.

Arguably, there is no need for several agreements promising to accomplish an identical goal. This is why it is contended that carbon clubs, i.e., a small group of countries that coordinate their climate policies and share exclusive membership benefits, may not be a satisfactory solution to climate change mitigation, since they would essentially be attempting to do the same as what is currently being done on a multilateral scale, yet with fewer members. The creation of carbon clubs would also likely lead to inconsistencies and highly likely will have very low to no enforceability mechanisms. What is currently absent is an agreement that has stricter legal and economic consequences as well as enforceability mechanisms such as economic sanctions in the form of increased tariffs, for example.⁶⁵ The price of higher tariffs will be paid by the consumer and the exporting country may need to devalue its currency.

Similarly, there could also be an introduction of economic incentives for businesses to adopt greener methods if hard policy is perceived as damaging. The consequence of such an action would actually be three-fold: disapproval by the public of that country; the political pressure of other nations; and economic consequences for businesses.

According to a meeting held in 2017, there were only 12 years left to combat climate change to a degree of mitigating irreversible damage.⁶⁶ It is clear from that meeting that leaders understand the consequences of delay in this scenario, yet there still does not seem to be a combined rigorous effort to do something about it. At the time of writing, the time left is only 9 years and nations, organisations, and governments in major economies are still not committing enough to mitigate such damage.

D. Other 'Side' Effects

A huge negative impact of globalisation on trade and the climate can be seen in the distribution of work forces around the world by big corporations. A new mechanism used by some parts of the world has seen some effects on the way companies behave and the decisions they make. Tradable pollution permits have seen an increase in popularity around the world,⁶⁷ allowing companies to 'offset' a certain amount of GHGs and are able to trade the rest for whatever they wish.

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⁶⁵ Scott R. Milliman & Raymond Prince, Firm Incentives to Promote Technological Change in Pollution Control, 17 J. ENVIL. ECON. & MGMT. 247, 248 (1989).

⁶⁶ Meeting Coverage, U.N. General Assembly, Only 11 Years Left to Prevent Irreversible Damage from Climate Change, Speakers Warn during General Assembly High-Level Meeting, U.N. Meetings Coverage GA/12131 (Mar. 28, 2019).

⁶⁷ For example, the EU Emission Trading System (which includes Iceland, Lichtenstein and Norway), or that of the United States, New Zealand, and Australia among others.

This gives the initiative to pollute less and be able to trade the rest of the permits for money to those companies who may need more.

Perhaps the most sophisticated system can be found in the EU, with the European Union Emission Trading System (EU ETS). The EU ETS works on the cap-and-trade principle in which a cap is set on the total amount of certain GHGs that can be emitted by installations covered by the ETS. The cap is reduced over time so that total emissions eventually fall. However, there is a loophole in these types of systems, since not all companies have factories and manufacturers located in the same State as their head offices. This allows them to potentially continue to exploit the policies of less developed nations although the majority of their operations and decisions are made within the EU. The burden of the additional costs of permits is also likely to fall onto the consumer, which can impact market competition. Often, large corporations have many more widespread operations and they often take advantage of less developed countries, which allows them to benefit from cheap labour, less regulation, and, most importantly, the ability to free-ride the less obstructive systems for the protection of the planet.

For example, a global athletic apparel brand such as Nike has 533 factories in 41 different countries around the world. Although some of the countries in which Nike manufacturers have considerate national and international climate policies, others do not. Amongst others, the most prominent would include Turkey, Bulgaria, Romania, and Japan. This is not to state that Nike does not implement strategies to combat climate change. However, it is clear that the company is able to spread manufacturing around the world, whatever the reasoning may be. A giant conglomerate like Nike has the ability to bring jobs to developing economies and is likely to have an implied (or in some cases direct) impact onto the policies of that country for the continuation of a newfound increase in economic prosperity. By achieving international co-operation amongst nations on climate change policies, we could have a more balanced market competition level amongst competitors in many industries.

Regardless of any motives corporations such as Nike may have, there will be far more leniency in these nations on GHG emissions and other climate-related matters. This is due to limited budget for research, technology and overall less

⁷⁰ NIKE MANUFACTURING MAP (Nov. 2019), http://manufacturingmap.nikeinc.com/.

⁶⁸ Antoine Dechezleprêtre & Misato Sato, *The Impacts of Environmental Regulations on Competitiveness*, 11(2) REV. ENVIL. ECON. & POL'Y 183, 185 (2017).

⁶⁹ UNCTAD, supra note 61, at 3.

⁷¹ *CCPI 2020: Category Results*, CLIMATE CHANGE PERFORMANCE INDEX, https://www.climate-change-performance-index.org/category-results#climate-policy.

⁷² Frédéric Branger & Philippe Quirion, *Climate policy and the 'carbon haven' effect*, 5(1) WIRES: CLIMATE CHANGE 53, 58 (2015).

education on this type of matter.⁷³ Nevertheless, it is clear that there is a push by international organisations⁷⁴ to continue the development of the economic market for pollution permits and emission trading systems due to it being inexpensive and contributing to reducing GHG emissions,⁷⁵ alongside other methods to maximise the positive impact that trade may have on the climate. One way in which globalisation does contribute positively here is that, although some developing economies may not have the knowledge, they may be able to acquire it from neighbouring countries or by being a part of a major international organisation, through knowledge spill-overs.⁷⁶

Nonetheless, although GHG emissions may be lower in major economies as a result of more stringent policies or any type of regulation, ⁷⁷ it may be that those emissions are simply reallocated in another country across the world, causing carbon leakage. ⁷⁸ What is mostly feared is the competition between nations to attract trade and grounding of companies in their territory and, as a result, lowering the standards of their climate policies in major economies. ⁷⁹ What is encouraging is the scope of power of the millennial generation, who are shifting the conversation purely with their choices and ultimately creating pressure on major companies to create 'greener' choices for their outdated alternatives, such as the giant fashion conglomerate Hennes & Mauritz (H&M). ⁸⁰ Nevertheless, this is not a matter of which border has the least GHG emissions, or which enormous company creates a sustainable line of product for the purpose of a higher political standing or economic gain; what truly matters is the amount of GHG emissions on the planet overall.

Correspondingly, another trend of globalisation is its ability to merge forces of nations for the benefit of public welfare. Conversely, this is not as tranquil as it may seem. Perhaps one of the foremost issues of globalisation, both in respect of climate change and international trade, but also more generally, is the blissful ignorance of all the differentiating values, morals, cultures, priorities, and approaches of all the various countries involved. Not every State is pro-

⁷⁴ Such as the World Bank, the International Civil Aviation Organisation, and local development banks, among others. *See* Esty & Biniaz, *supra* note 52, at 2.

⁷⁸ Branger & Quirion, *supra* note 72, at 54.

⁷³ UNCTAD, *supra* note 61, at 5.

⁷⁵ Emission Trading Systems, ORG. ECON. CO-OPERATION & DEV. (OECD), https://www.oecd.org/environment/tools-evaluation/emissiontradingsystems.htm.

⁷⁶ UNCTAD, *supra* note 61, at 4.

⁷⁷ *Id.* at 10.

⁷⁹ Dechezleprêtre & Sato, *supra* note 68, at 183.

⁸⁰ Blake Morgan, 11 Fashion Companies Leading the Way in Sustainability, FORBES (Feb. 24, 2020), https://www.forbes.com/sites/blakemorgan/2020/02/24/11-fashion-companies-leading-the-way-in-sustainability/#3dd687b86dba.

globalisation since this ideology may not align with the principles and wishes of its citizens.81 The globalisation movement is being led by major economies of the world; however, their ideas and priorities are often outweighed by those of the smaller fish in an enormous ocean. Major economies have the resources to be able to invest in innovation and technology to fight the impacts of climate change;82 yet many do not. The EU and the other major economies are the largest GHG emitters, and therefore contribute to the GHG emissions globally, and not just locally.

Foreign direct investment (FDI) is another factor to consider. All States compete for FDI on a daily basis to be able to build on their existing infrastructures. The imposition of green policies, which may not align with investors, can cause lack of FDI, especially in developing nations. Similarly, investment and expansion of companies in individual States can also play a big role in the development of climate-change policies.

Perhaps one of the best examples of this scenario is the US. The fossil-fuel industry is still highly influential on policies, with the US government continually subsidising the extraction of fossil fuels and the respective companies that do so.83 It is no secret that giant energy companies are often funding political campaigns in America, and perhaps elsewhere in the world, alongside campaigns to block any pro-environment changes.84 A way forward would be getting rid of fossil-fuel subsidies.

China is an interesting example of FDI inflows in recent years.85 FDI in China has been increasing significantly year upon year, creating the world's second largest

⁸¹ An example here would be the exit of the United Kingdom from the EU.

⁸² UNCTAD, supra note 61, at 7.

⁸³ James Ellsmoor, United States Spend Ten Times More on Fossil Fuels Subsidies Than Education, (June 15, https://www.forbes.com/sites/jamesellsmoor/2019/06/15/united-states-spend-tentimes-more-on-fossil-fuel-subsidies-than-education/#4dff17684473.

⁸⁴ Sandra Laville, Top Oil Firms Spending Millions Lobbying to Block Climate Policies, says Report, Guardian THE (Mar.

https://www.theguardian.com/business/2019/mar/22/top-oil-firms-spending-millionslobbying-to-block-climate-change-policies-says-report.

⁸⁵ China is equally interesting in the trade field in that it has chosen, as has also Russia, to do its trade deals in its own currency, as opposed to US dollars. For instance, Russia's trade with China was nearly all in dollars in 2013; by 2020, it was less than half. See Dethroning the dollar, THE ECONOMIST, Jan. 18, 2020, at 68, 69.

economy after the US. China is, by far, the world's largest GHG emitter;86 yet its climate policies are still considered "insufficient".87 Therefore, some academics argue that the amount of relaxation in green policies determines the amount of FDI inflows.88 This seems to suggest that, should there be *real* changes in climate policy around the world, not only will the individual governments of each nation contribute financially, they may also encounter the likely loss of FDI as a result.89 The world leaders are highly likely to be aware of this, knowingly avoiding the true momentum that is necessary and scientifically suggested. As mentioned previously, the lack of enforceability is allowing such practices. It is necessary for strict mechanisms to be put in place for greater answerability.

Lastly, it is essential to examine the argument that the flow of international trade itself does have an impact on climate change, ⁹⁰ as suggested throughout this section. Some studies have concluded that, in some cases, international trade actually has lower GHG-emission value in comparison to intra-national trade. ⁹¹ Some academics argue, however, that globalisation has had a "double exposure" effect on certain areas of the world. ⁹² For example, it has been argued that, although China may have been exposed to FDI, which has helped it grow economically, it has also endangered the lives of some communities along its coastline. ⁹³ This is due to disastrous climatic events that are likely to occur if ocean levels continue to rise, for example. One is not suggesting that climate action ought to be prioritised over FDI; nonetheless, there should be careful consideration of impacts that can occur as a result of increased pollution.

⁸⁶ In 2017, China was the world's biggest importer of oil, and the second biggest importer of liquefied natural gas, after Japan, making China heavily dependent on foreign fuels. *See The Economist, "Commodities: Customs of the country,"* THE ECONOMIST, May 9, 2020, at 57.

⁸⁷ China, CLIMATE ACTION TRACKER, https://climateactiontracker.org/countries/china/.

⁸⁸ Karen L. O'Brien & Robin M. Leichenko, *Double Exposure: Assessing the Impacts of Climate Change within the Context of Economic Globalization*, 10(3) GLOBAL ENVIL. CHANGE 221 (2000).

⁸⁹ Dechezleprêtre & Sato, *supra* note 68, at 192.

⁹⁰ See generally RAFAEL LEAL-ARCAS, CLIMATE CHANGE AND INTERNATIONAL TRADE (2013) [hereinafter LEAL-ARCAS (2013)].

⁹¹ McAusland & Millimet, supra note 46, at 413.

⁹² O'Brien & Leichenko, supra note 88.

⁹³ Id. at 230.

III. WHAT ROLE HAVE THE EU AND THE WTO PLAYED IN CLIMATE CHANGE? WHAT ROLE SHOULD THEY PLAY? CLIMATE CLUBS AS A POSSIBLE SOLUTION

A. Introduction

Global climate change is certainly the most serious issue the world will have to face in the coming decades. While the priority is not to point out the responsibilities of particular countries or organisations regarding what led us to face such a dramatic situation, it appears interesting to question ourselves on the role of certain international organisations. Indeed, international organisations have a particular power in the area of environment regulations.

The US National Space Agency (NASA) defines climate change as follows:

Climate change is a change in the usual weather found in a place. This could be a change in how much rain a place usually gets in a year. Or it could be a change in a place's usual temperature for a month or season.

Climate change is also a change in Earth's climate. This could be a change in Earth's usual temperature. Or it could be a change in where rain and snow usually fall on Earth.⁹⁴

This definition helps to establish the foundations of our reflection on the subject. When referring to climate change, we intend to consider the ways in which economical activities have been able to impact the climate, in a manner that jeopardises our civilisation.

Though this very abstract definition has to be exposed in order to understand precisely what climate change is, for the purposes of our section, we will take the introduction of climate change on the UN website as a starting point:

Climate Change is the defining issue of our time and we are at a defining moment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today,

⁹⁴ Dan Stillman & Jo Casta Green, *What is Climate Change?*, NASA (Aug. 7, 2017), https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-climate-change-k4.html.

adapting to these impacts in the future will be more difficult and costly.95

Acknowledging these elements as facts, several questions arise. We will focus on two of them: *first*, what role have the EU and the WTO played in global climate change?; and *second*, what role should they play in a globalised world?

These questions need to be considered in a particular context. The WTO and the EU, though powerful, are dependent on the will of their members and thus, on the trend of international relationships between countries. In fact, the recent trend in international trade is the formation of regional and bilateral trade arrangements, instead of multilateral arrangements, such as the pan-African free trade agreement. Therefore, it is necessary, in order to understand their actions, to take into consideration the actions of other major international actors such as the UN, which are very active on environmental issues. Moreover, it is essential to analyse the consequences of their actions as leading actors of globalisation and trade.

To answer these questions, we will first consider the role played by major international organisations such as the EU and the WTO. It appears necessary to assess the role of globalisation, and more precisely of trade expansion, encouraged by these two organisations, in climate change. However, it appears that their role changed, and we will discuss their new role as well. This Part will then aim to explore a suitable solution in order to tackle efficiently climate change. We will discuss the issue of free riding in international environmental agreements and then explore the possible benefits of climate clubs in the same context.

B. The Role of the EU and the WTO

Since the 1970s and the adoption of the first regulations in the matter of environment, climate change is a preoccupation for policymakers, especially at an international level. Though the subject is nowadays a major issue almost all economic actors decided to tackle, it is interesting to see that this awareness is very recent.

Since their creation, major international organisations, particularly the WTO and the EU, have attempted to promote their principal goal of greater globalisation by fostering exchanges between their members.⁹⁶ From the correlation between the

⁹⁵ Climate Change, UNITED NATIONS, https://www.un.org/en/sections/issues-depth/climate-change/.

⁹⁶ Marrakesh Agreement, *supra* note 51, art. II:1. It states, "The WTO shall provide the common institutional framework for the conduct of trade relations among its Members . . ."

growth of economic exchanges worldwide in these last 50 years and the aggravation of global warming,⁹⁷ we argue that globalisation has deeply damaged the environment. "Globalisation, which is partly synonymous with rising international trade, has fostered the rapid production, trade and consumption of material goods in unprecedented quantities. This has weighted the ecological footprint of human activities around the world."⁹⁸

Through a certain number of mechanisms, globalisation increases economic activity and trade resulting in an increase of damages for the environment. In 2014, exports were more than six times larger than in 1970.⁹⁹ In the meantime, CO₂ emissions have increased by about 90%.¹⁰⁰ It would be naive to think that these two major growths are unrelated. As a matter of fact, the sole growth of the volume of goods transportation (by road, sea or air) represents an important volume of GHG emissions. Every year, sea transport represents between 2% and 4% of GHG emissions worldwide. To this figure, it is necessary to add the emissions caused by route and air transport (in fourteen years, between 1990 and 2004, GHG emissions from air transportation increased by 86%).¹⁰¹

If the increase of GHG emissions coming from transportations can be seen as a direct consequence of globalisation, then growth of trade — largely encouraged by WTO and EU — has caused major damages to environment and worsened global warming. Without going into details, it appears important to highlight that the development of trade has directly impacted the development of consumption of goods and their industrial production. According to the US Environmental Protection Agency (EPA), 22% of US' GHG emissions in 2018 came from industries. The part of industries in GHGs is much more important in developing countries where industries are still the first economic sector.

Finally, it appears that the opening of markets, induced by globalisation and development of trade within the WTO, creates, for a certain number of countries, a need for space in order to be able to reach the demand, particularly in agriculture

⁹⁷ That said, mild winters due to global warming do have some benefits: less use of heating and therefore less money spent on energy bills, flu seasons are shorter and therefore fewer people die.

⁹⁸ Jean-Yves Huwart & Loïc Verdier, *What is the impact of globalisation on the environment?, in* ECONOMIC GLOBALISATION: ORIGINS AND CONSEQUENCES 108 (2013).

⁹⁹ Giovanni Federico & Antonio Tena-Junguito, A tale of two globalizations: gains from trade and openness 1800-2010, REV. WORLD ECON. (2016).

¹⁰⁰ Gregg Marland et al., *Global, Regional, and National Fossil-Fuel CO₂ Emissions*, CARBON DIOXIDE INFO. ANALYSIS CTR., OAK RIDGE NAT'L LABORATORY (2017).
¹⁰¹ *Id.* at 4.

¹⁰² U.S. Envtl. Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018 (2020).

sector. This space is often found using forests. According to a satellite-based study, the Earth has lost 1.3 million square kilometres of forest since 1990. Between 1990 and 2015, every hour, the equivalent of 1,000 football fields of forest has been lost due to deforestation. The reasons that lead to all these phenomena are not, in our opinion, difficult to understand. It would be hypocritical to judge, *a posteriori*, countries for having invested in the development of their economies and playing in a competitive globalised world with their own resources. China developed its industry leaning on its enormous workforce and Brazil invested in agriculture taking advantage of a favourable climate and huge cultivable space taken to the rainforest.

We will not argue here that the solution to climate change issue is the "degrowth" theory, which is mainly inspired by the work of economist Nicholas Georgescu-Roegen.¹⁰⁴ This would lead to a reduction of trade and exchanges between countries all over the world and this Part defends the idea that only a world-based solution, aiming to gather the larger possible number of countries in a common effort, will be able to tackle the issue of climate change.

Taking into account the observations made above, international organisations such as EU and WTO have changed their paradigms of functioning these last years. The awareness of climate change and the absolute need to fight it forced international organisations as well as most of the countries to adapt their economic policies in order to take this new goal into account.

In this process, the WTO and the EU are, of course, accompanied by the UN. In this logic, the UNFCCC was adopted on May 1992. The objective of this convention is clearly set up in Article 2:

The ultimate objective of this Convention . . . is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. ¹⁰⁵

Every year, the parties to the UNFCCC gather in a Conference of Parties (COP) in order to assess the progress made in the final goal of reducing GHG emissions. At these COPs, countries have concluded international agreements creating binding

103 Thomas Crowther et al., Mapping tree density at a global scale, 525 NATURE 201, 205 (2015).

¹⁰⁴ Antoine Missemer, *Nicholas Georgescu-Roegen and Degrowth*, 24(3) EUR. J. HIST. ECON. THOUGHT 493 (2017).

¹⁰⁵ United Nations Framework Convention on Climate Change, art. 2, May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC].

obligations (mainly for developed countries) to reduce their GHG emissions. In 1997, in Japan, the Kyoto Protocol was adopted and became an extension of UNFCCC. 192 countries are parties to this protocol that came into force in 2005.

The Kyoto Protocol relied on the principle of common but differentiated responsibilities. This principle is stated directly in Article 3 of the UNFCCC:

The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof. 106

According to this Article, not every country shall bear the same responsibility in the fight against global warming. Developed countries, considering the strength of their economy but also their historic responsibility in the level of GHG in atmosphere, are made responsible for the largest effort of reduction.

The Kyoto Protocol is widely considered a failure. However, it appears that among the 36 countries involved in the application of the protocol, only nine emitted higher level of GHGs than the Kyoto set target. Even if some good results need to be highlighted, a certain number of them were the consequence of the dissolution of the Soviet Union in 1991 and of the 2007 economic crisis. ¹⁰⁷ Though important in the history of the development of environment regulations at a global scale, the Kyoto Protocol lacked ambition. These considerations led to the adoption of the Paris Agreement in 2015. 189 counties have become parties to it, as of February 2020. We will discuss in depth the issue of the Paris Agreement later in our discussion.

EU countries are fully involved in the fight against climate change. Though economic considerations are still a break against radical and more efficient actions, environment preoccupation has become a central object of EU policies. In this matter, the EU adopted the European Green Deal in 2019. The purpose of this new ambitious policy is to gather all European efforts aiming to tackle global warming issue. The stated goal of the European Green Deal is, "to transform the EU into a fair and prosperous society, with a modern, resource-efficient and

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¹⁰⁶ *Id.* art 3.

¹⁰⁷ Igor Shishlov et al., Compliance of the Parties to the Kyoto Protocol in the first commitment period, 16(6) CLIMATE POL'Y 768 (2016).

competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use."108

Moreover, it appears that the EU in its international-trade-treaty negotiations has adopted a more environment-oriented logic, imposing on its contracting parties ambitious environment-related rules as a condition for the conclusion of its treaties. It has been particularly true in the context of the negotiation of EU-MERCOSUR Free-Trade Agreement, where the French President, Emmanuel Macron, expressed his opposition to the agreement, considering that the engagement of Brazil was not sufficient in order to defend the rainforest. He considered that a withdrawal of Brazil from the Paris Agreement would make any agreement impossible. 109

Implementing climate change mitigation policies directly in bilateral free trade agreement is considered by observers as a good and efficient manner to use free trade and globalisation as a tool in fighting climate change. 110

The WTO has a much more ambiguous attitude concerning environment regulations. For example, the Director-General of the organization, Roberto Azevêdo, expressed his doubt about the link between international trade and climate change during a discussion at the World Economic Forum's annual meeting in Davos: "This whole argument that there is an impact (of international trade) on the environment, I stand to be corrected, but I haven't seen one, single credible study that shows that."111

Many studies affirm that international trade and economic growth, allowing economies to become mature and developed, have in fine virtuous effects on the

¹⁰⁸ Communication from the Commission to the European Parliament, The European Council, The Council, the European Economic and Social Committee and the Committee of the Regions, COM (2019) 640 final (Dec. 11, 2019).

¹⁰⁹ Jon Stone, Emmanuel Macron says he will block EU trade deal with Brazil over Amazon forest INDEPENDENT (Aug.

https://www.independent.co.uk/news/world/europe/macron-amazon-forest-fires-vetomercosur-eu-trade-deal-brazil-a9076181.html.

¹¹⁰ See LEAL-ARCAS (2013), supra note 90.

¹¹¹ Sewing, Azevedo, Malmstrom on Global Trade: Davos Panel, BLOOMBERG (Jan. 24. 2019), https://www.bloomberg.com/news/videos/2019-01-24/sewing-azevedo-malmstrom-onglobal-trade-davos-panel-video.

environment.¹¹² Others have shown that in the process, intentional trade has a tangible effect on the environment, particularly on deforestation¹¹³.

C. Climate Clubs as a Possible Solution

Considering the aforesaid considerations, global environmental agreements are of great importance. It seems interesting to analyse the issue of free riding within these agreements. Facing this issue, some may think that forming climate clubs would be the best solution in order to tackle the issue of free riders and, finally, in order to mitigate climate change.

As mentioned above, after the 'failure' of the Kyoto Protocol, the adoption of the Paris Agreement in 2015 has been perceived as a game changer in the fight against global warming. The purpose of the Paris Agreement is set up in Article 2: "This Agreement . . . aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty."¹¹⁴ Countries' efforts, in the same vein of what was decided for the Kyoto Protocol, are based on the principle of "common but differentiated responsibilities and respective capabilities."¹¹⁵ The objective of this agreement is clearly to install an efficient mitigation of climate change while preserving equity between countries. More precisely, the Agreement aims to hold the increase of global average temperature below 2 degrees Celsius above pre-industrial levels.

If the Paris Agreement is considered as ambitious by most of the observers, some consider that it is still not enough. Though the agreement appears to be a great achievement from the perspective of its scope (no previous agreement has ever gathered such a number of countries around environmental subject), the lack of enforcement mechanisms and strict obligations seem to hurt its announced ambitions.¹¹⁶

As a matter of fact, the Paris Agreement is based on the goodwill of countries to reach their commitments. The Agreement is based on a bottom-up approach, where countries determine freely their contributions to the objectives set up in the Agreement. These contributions are called Nationally Determined Contributions

 $^{^{112}}$ See, e.g., Jeffrey Frankel, Environmental Effects of International Trade (2009).

¹¹³ Ruth Defries et al., Deforestation Drive by Urban Population Growth and Agricultural Trade in the Twenty-First Century, 3(3) NATURE GEOSCIENCE 178 (2010).

 ¹¹⁴ Paris Agreement to the United Nations Framework Convention on Climate Change art.
 2, Dec. 12, 2015, T.I.A.S. No. 16-1104 [hereinafter Paris Agreement].
 ¹¹⁵ *Id.* art. 20.

¹¹⁶ Joeri Rogelj et al., Paris Agreement climate proposals need a boost to keep warming well below 2° C, NATURE 631 (2016).

(NDCs). This system poses the risk of facing the same issue as previous environment agreements: the problem of free riding.

NDCs have the advantage of having more incentive for poor countries that could opt for low-cost mitigation measures than what could be decided at a global level. Primary NDCs to fight GHG emissions are related to carbon pricing with two types of measures: the implementation of a carbon tax or of an ETS. In the eventuality of a carbon tax, countries will set up a price for the GHG ton that will be paid by the emitter business. One should also remember that the externalities of GHG emissions are not properly priced in the real cost of energy. Given how low energy prices are, it is easier to introduce a tax on carbon.

In the ETS, "[g]overnments instead put a cap on overall emissions, which is tightened over time, allocate allowances that emitters have to submit for every tonne of GHGs, and allow participants to trade these emission units among themselves."¹¹⁷ The ETS seems more effective in encouraging the private-sector to actively participate in the aim of reducing GHG emissions. By allowing small emitters to sell a part of their allowance to bigger ones, it will encourage the former to reduce their emissions in order to make a real profit selling their surplus to the latter. Larger emitters will be encouraged to reduce their emissions too in order to reduce the cost associated to their emissions of GHGs.

However, the risk of unequal fight against GHG emission is still real and so is the risk of carbon leakage. The European Commission defines carbon leakage as "the situation that may occur if, for reasons of costs related to climate policies, businesses were to transfer production to other countries with laxer emission constraints." This situation will occur if a country or a group of countries implement rigorous NDCs in order to reach the goals set up in the Paris Agreement, while other countries do not implement NDCs or at least implement less rigorous ones. Companies from the first group of countries will be tempted to move their polluter businesses to countries with less stringent regulations.

At the same time, lesser regulated countries will enjoy the benefits of ambitious mitigation policies adopted by the other counties. This situation is called free-riding. William Nordhaus, author of reference in matter of climate clubs, defines free riding as follows: "Free-riding occurs when a party receives the benefits of a

¹¹⁷ Sonja Hawkins, Int'l Ctr. for Trade & Sustainable Dev., Carbon Market Clubs under the Paris Climate Regime: Climate and Trade Policy Considerations (2016).

¹¹⁸ Carbon Leakage, EUROPEAN COMMISSION, https://ec.europa.eu/clima/policies/ets/allowances/leakage_en.

public good without contributing to the costs."¹¹⁹ Nordhaus identified two main free-riding dimensions. The geographical free-riding: when countries enjoy the reduction of GHG emissions from other countries without taking any climate change mitigation policies; and the temporal free-riding: "the present generation benefits from enjoying the consumption benefits of high carbon emissions, while future generations pay for those emissions in lower consumption or a degraded environment." He argues that this free-riding phenomenon is the consequence of the Westphalian Dilemma, of exclusive national sovereignty versus global public goods. International relations are essentially based on the consent of countries in joining and applying international treaties.

Nordhaus was one of the first to identify a solution to free-riding issue. He explained that the formation of clubs of countries could be a suitable solution. He identifies four main elements necessary for a climate club:

- (i) that there is a public-good-type resource that can be shared (whether the benefits from a military alliance or the enjoyment of a golf course);
- (ii) that the cooperative arrangement, including the dues, is beneficial for each of the members;
- (iii) that non- members can be excluded or penalized at relatively low cost to members; and
- (iv) that the membership is stable in the sense that no one wants to leave. 120

Since then, Nordhaus has been joined in his analysis by many scholars and observers. Studies analysing the solution of climate clubs, and more specifically of carbon market clubs, in the context of the Paris Agreement flourish. Most of the proposals are oriented towards the creation of a carbon market club.¹²¹ The result would be a harmonisation of carbon tax and ETS that would be effective internationally.

The most interesting of these proposals is the possibility offered to spread the ETS at an international level, rather than at a purely national level. This system could be put in place amongst the members of a club exclusively. A condition to the effectiveness of the system would be a harmonisation of accounting standards as well as on maximum GHG emissions caps.

¹¹⁹ William Nordhaus, *Climate Clubs: Overcoming Free-Riding in International Climate Policy*, 105(4) AM. ECON. REV. (2015).

¹²⁰ Id. at 25.

¹²¹ See HAWKINS, supra note 117.

Carbon markets already exist. The EU has had an ETS in place for several years. The purpose of a club would be to standardise carbon-pricing amongst countries. That could be a solution to tackle the two major issues of carbon-based mitigation policies: competitiveness and carbon leakage. If members of the club fix a specific price for carbon, it will reduce possibilities (and interest) for companies to seek lower carbon prices abroad. Then, the members of the club would lose less competitiveness compared to other counties (but it will of course depend on the number of club members). Some issues have been raised related to these types of carbon market clubs. The issue here is to know if the creation of a carbon market club would be in accordance with WTO rules. Some scholars argue that carbon is neither a "good" nor a "service", and should not follow General Agreement on Tariffs and Trade (GATT) or General Agreement on Trade in Services (GATS) rules.

Other options could be considered such as using the general exceptions of Article XX of the GATT and Article XIV of the GATS, both relating to "the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption." In this sense, emission units trading among the club members may be governed by a regional trade agreement, which is permitted under the WTO framework. Moreover, the object and purpose of a club of carbon markets can be justified as one of the recognized exceptions under GATT Article XX. We argue that potential trade concerns should not be an obstacle for the formation of a club of carbon markets in a climate club.

In US — Shrimp,¹²³ WTO panel accepted an exception to GATT rules in order to preserve the environment. There are no existing rules within WTO agreements that provide a harmonisation of environment rules as a prerequisite before entering WTO. Maybe such a provision should be considered as a tool to reduce the risk of carbon leakage and free-riding. This could be viewed as a first step towards the formation of a climate club combining strong climate change mitigation efforts with a more sustainable international trade system.

Further options that should be considered would be the creation of a plurilateral WTO Agreement — to deal with coalitions of the willing — or a preferential trade agreement. Agreements concluded in this form would be in accordance with WTO rules as long as they provide benefits for the members of the agreements without sanctioning non-members. The best incentive of such an agreement would certainly be the creation of free-trade zones between the members of the climate club. The respect of strict and ambitious mitigation policies would offer the access

¹²² Annie Petsonk & Nathaniel Keohane, *Creating a Club of Carbon Markets: Implications of the Trade System, E15 INITIATIVE* (2015).

to important markets. Nonetheless, it appears that the great progress made against climate change since 2015 is not enough to consider the fight against climate change a success.

IV. A CLIMATE CLUB TO ENFORCE THE COMMITMENTS OF THE PARIS AGREEMENT AND ENHANCE FREE TRADE

A. Introduction

One of the current major global problems that are extremely important is global climate change. Since the severity of the problem has increased dramatically, higher temperatures increase the frequency of many types of disasters, including storms, floods, heatwaves, and droughts. Moreover, this situation can create devastating and costly consequences, jeopardising access to clean drinking water, fuelling out-of-control wildfires, damaging property, creating hazardous-material spills, polluting the air, 124 and leading to loss of life. 125

World leaders hail the Paris Agreement as a "major leap for mankind". The Paris Agreement's status is comparable to the light at the end of the tunnel that brings hope to humankind. However, despite being highly appreciated, analytical studies appeared to show its important weaknesses, which might be the obstacles to the implementation of this accord. The result of the worst-case scenario will lead to the failure of this agreement like many other international agreements.

To deal with climate issues, many countries, especially the countries that are members of the EU, have developed a new approach by creating a friendly group called climate club. Considering the results of the implementation of this integration, it is found that the climate club is effective in dealing with the climate issues, and seems to be able to cope with the climate change commitments of the Paris Agreement better than the Paris Agreement itself, and the climate club also enhances free trade. This Part will discuss the inefficiency of the Paris Agreement and will discuss the potential of the climate club model for the enforcement of the

¹²³ Panel Report, *United States* — *Import prohibition of certain shrimp and shrimp products*, WTO Doc. WT/DS58/R (adopted Nov. 6, 1998).

¹²⁴ One benefit of the COVID-19 confinement in China is that there was cleaner air, which "may have saved 17 times more lives than the (official) number lost to the virus." *See India on lockdown: Impossible sums*, THE ECONOMIST, Apr. 25, 2020, at 30.

¹²⁵ Melissa Denchak, *Global Climate Change: What You Need to Know*, NRDC (Feb. 23, 2017), https://www.nrdc.org/stories/global-climate-change-what-you-need-know.

¹²⁶ John Vidal et al., World leaders hail Paris climate deal as 'major leap for mankind', THE GUARDIAN (Dec. 13, 2015),

https://www.theguardian.com/environment/2015/dec/13/world-leaders-hail-parisclimate-deal.

climate change commitments of the 2015 Paris Agreement. It will then focus on EU policies related to climate change mitigation. The Part has been divided into three sub-parts: *first*, the limitations of the Paris Agreement; *second*, the advantages of the climate club model compared to the Paris Agreement; and *third*, the EU policies that relate to the climate club notion.

B. The Paris Agreement

188 States and the EU have ratified the Paris Agreement, meaning more than 87% of global GHG emissions are ready to be covered in the Paris Agreement. Moreover, China, the US, and India, the countries which are considered the major GHG emitters out of the UNFCCC members, have a positive opinion on this accord. Although the US decided to withdraw from the Paris Agreement in 2017 and began the process of the same in November 2019,¹²⁷ it can be considered that from this point, the Paris Agreement is very close to perfection. However, despite the great success of the Paris Agreement in terms of the number of ratification members, the Paris Agreement still has problems in terms of features and characteristics similar to other international agreements. Since negotiating and ratifying agreements takes years, by the time their rules are ready, the world has moved on.

Although the Paris Agreement is able to demonstrate the unity of international cooperation, the content and methods of implementing the proposals of this agreement cannot be accessed and resolved in the Global Climate Change issues. The standard set by academics is called 'the people's test', which specifies the requirements of an agreement that is effective enough to deal with this problem, which is as follows:

- 1. Catalyse immediate, urgent and drastic emission reductions;
- 2. Provide adequate support for transformation;
- 3. Deliver justice for impacted people; and
- 4. Focus on genuine, effective action rather than false solutions."128

¹²⁷ On the notification of the United States' withdrawal from the UNFCC Paris Climate Agreement, see Press Statement, Michael Pompeo, On The U.S. Withdrawal from the Paris Agreement, U.S. DEPT. STATE (Nov. 4, 2019), https://www.state.gov/on-the-u-s-withdrawal-from-the-paris-agreement/.

¹²⁸ Danny Chivers & Jess Worth, *Paris deal: Epic fail on a planetary scale*, NEW INTERNATIONALIST (Dec. 12, 2015), https://newint.org/features/web-exclusive/2015/12/12/cop21-paris-deal-epi-fail-on-planetary-

scale/#sthash.QKYIkcmY.dpuf, reprinted in JOHN FORAN, THE FIRST DRAFT OF HISTORY THIRTY-FOUR OF THE BEST PIECES ON THE PARIS AGREEMENT AT COP 21 (2016), https://ejcj.orfaleacenter.ucsb.edu/wp-content/uploads/2018/02/2016.-John-Foran-The-

Of the four items, the Paris Agreement cannot meet these conditions, nor can it make people have confidence in it.

As for the NDCs model that is highly flexible, it was seen as being too open to the point that there was no concrete action plan to hold. This system may be able to operate if every country works together and sacrifices its own interests for the benefit of the public. This fanciful idea is almost impossible in reality. Importantly, we must not forget that each country has a different standard of living. Developing countries that have not yet utilised the industry in their own countries so as to achieve greater prosperity and development would not accept exploitation at the hands of developed countries such as the US and the UK. This is particularly so because these developed countries already use coal or other fossil fuels and have heavily released GHG emissions into the atmosphere in the past. Conversely, developed countries may consider that developing countries are using this status as an advantage for pushing the burden of solving global climate change on them, like the conflict that has already occurred between the US and China over the refusal by the US to ratify the Kyoto Protocol of 1997. Therefore, the expectation to believe that each country will go back and write NDCs that harm their economies does not sound reasonable.

In addition to the fact that countries may fail to realise these already ambiguous NDCs, the achievement of the current Paris Agreement goal seems unrealistic as the current climate crisis being faced requires much more effort and more stringent commitments than the ones currently under the Paris Agreement. It will result in the increase of global average temperature at the rate that the commitments of the agreement cannot follow. 129 Secondly, the commitments under the Paris Agreement are not legally binding. 130 With the concept of NDCs model, it creates the bottom-up architecture of the Paris Agreement instead of a top-down structure like the most international treaties, which is great; however, without the binding there are no such things to guarantee that each country will follow the beautifully drawn NDCs plan. The final result will lead to the failure of achieving global temperature control to the desired level. The lack of binding provisions and the motivation to comply with this accord is considered a very serious weakness in every type of laws and regulations because when there is no one taking it seriously, those laws or regulations are considered as though it did not exist at all. This weakness, combined with the differences in the status of each

First-Draft-of-History-January-4-2016-Thirty-Four-of-the-Best-Pieces-on-the-Paris-Agreement-at-COP-21.pdf.

¹²⁹ Rogelj, *supra* note 116.

¹³⁰ Antero Ollila, *Challenging the scientific basis of the Paris climate agreement*, 11(1) INT'L J. CLIMATE CHANGE STRATEGIES & MGMT. 18 (2019).

country, the implementation of the NDCs, or even the drafting of the NDCs such that every country is in line with the goals of the Paris Agreement, is almost impossible. Poor countries still have to rely on the carbon economy to develop their future.¹³¹ This prisoner's dilemma — the game theory of decision-making — is one of the challenges that international cooperation must face.

Besides, the absence of binding and the motivation for implementing NDCs will naturally open the room for the free-riding to continue. When there is no need or benefit from any adverse actions or non-compliance with NDCs, countries that see this fact could take advantage of this weakness by not taking steps to help reduce GHG emissions and take advantage of the committed countries that have taken serious action in addressing the global climate change. If the problem of free-riders cannot be resolved, the Paris Agreement is likely to fail like the Kyoto Protocol.

C. A Climate Club

Considering the weaknesses of the Paris Agreement discussed above makes it possible to predict the success rate of the Paris Agreement. Accordingly, looking at the problem from different perspectives seeking to create new innovations is necessary. The climate club is one such innovation.

The facts that international environmental agreements at the world level mostly end up in failure does not mean that an international partnership should not be established. Conversely, this is the core concept to solve the global climate change, because this is a big and very complex problem, and affects every country. Therefore, it is a problem that a single country cannot handle alone.

From the previous topic, the international environmental agreements such as the Paris Agreement or the Kyoto Protocol failed, not because they have the concept of international cooperation, but instead, it is because of an ineffective architecture of the concept. Then, to make the international cooperation that has the potential to be successful, the change in its architecture will be the priority. The climate club comes up with the new idea to deal with the Paris Agreement's weaknesses and changes it from a voluntary agreement to one with strong incentives to participate.

Overall, a very important factor in the creation of the climate club, which is characterised as a club of nations' success, is the mutual benefits of the club's members. Although the climate club might look like a voluntary group similar to the actions taken by NDCs, pushing the club to the successful point will result in a

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¹³¹ Tucker Davey, *Developing Countries Can't Afford Climate Change*, FUTURE OF LIFE (Aug. 5, 2016) https://futureoflife.org/2016/08/05/developing-countries-cant-afford-climate-change/?cn-reloaded=1.

clearer, and more tangible benefit than the implementation of the Paris Agreement that members will receive from supporting the climate club, whether it is for international trade benefits, such as receiving tax privileges or even the benefits of having a military alliance. Membership benefits are a must for a climate club to function effectively, and they should outweigh obligations. Due to these benefits, this method is likely to be well-received, and even paying club membership fees and compliance with the club's rules would be appealing.

According to William Nordhaus, "[i]ndividual countries are assumed to adopt climate policies that maximise their national economic welfare." This statement clearly highlights the root idea that develops to be the climate club model. The key features of the climate club that make it different from international treaties are the rules for membership and the incentives/penalties system. First, a climate club would have clear rules for membership, such as setting a limit for GHG emissions, in which they must agree to undertake to participate in the community and share the common interests of club members. This point can be compared to a sports club or gym membership—if people want to exercise by using the gym equipment or using the tennis court, they will have to pay fees, and must also comply with the rules and regulations set forth as well. This idea makes the club stronger compared to the cooperation that is bound by promises.

Second, the climate club model demonstrates the benefits and disadvantages of joining or not joining the club, which can be said to be a form of reward or punishment that is clearer and more concrete than the Paris Agreement and will both attach and indirectly force countries to participate in the said climate club. Further, in regards to the punishment, there are many forms of it; however, the most effective seems to be the administration of tariffs on the imports of non-cooperative countries. This will create conditions for those countries to choose to cooperate with the climate club or to accept import disadvantages that create more burdens.

The presence of a mechanism in the form of incentives and penalties can be said to be indirect coercion for each country to take serious environmental problems. However, this does not mean that it can be enforced only by countries that are members of the club because when creating a strong community, the negotiation power of that climate club is also stronger. Countries that are not members of the club that wish to conduct international activities with the club or the countries under the club, especially activities in international trade and investment, must naturally comply with various regulations resulting from the determination of such climate club, otherwise, it may not be able to continue the activity or the activities may not go smoothly. With this core concept, by using the power of international

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¹³² Nordhaus, supra note 119.

trade and investment, the climate club can narrow down the way that free-riders can easily slip away, and drag them to take the responsibility like other countries.

However, the climate club potential relies on the strength of the founder of the club, wherein the weak or poor leader the club will not find the benefits to lure other countries to participate and also cannot create sanctions that force others to accept the deal. In the next paragraph, the policies and strategy of the EU, one of the strongest international pacts, which is considered the world leader in terms of environmental protection will be the main discussion. The EU, a leader in environmental protection and a developed economy, could also lead the founding of climate clubs to combat climate change. In fact, based on its experience as a successful regional economic bloc, the EU is uniquely positioned to enforce rewards and punishments, and drive the proliferation of climate clubs as an effective means to address climate issues.

D. EU Policies

Being a leader in the field of environmental protection, the EU has set the goal of dealing with the problems of global climate change and has a new ambition called "the European Green Deal". The deal can be summarised briefly thus: the EU will work with all parties to make the EU become the world's first climate-neutral continent by 2050. For that to happen, we will need more investment in renewable energy, improve on energy efficiency, invest much more on the circular economy (given that our natural resources are not unlimited), and implement the energy transition faster, *inter alia.*¹³³ In other words, we need to invest in the future. We need to think of efficiency and sufficiency; we need to redefine leadership and move towards a bottom-up/flexible approach to climate change mitigation; we need to change the way we live as well as the way we produce and consume; and we need to share sovereignty to reach more international cooperation. ¹³⁴

The European Green Deal will tackle many challenges. In the next Part, some of these challenges are raised.

The EU Emissions Trading System

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¹³³ See generally Rafael Leal-Arcas, Solutions for Sustainability: How The International Trade, Energy and Climate Change Regimes Can Help (2019); Rafael Leal-Arcas, Sustainability, common concern and public goods, 49(4) Geo. Wash. Int'l L. Rev. 801-877 (2017).

¹³⁴ For an analysis of the implementation of the European Green Deal, see SYSTEMIQ, A SYSTEM CHANGE COMPASS: IMPLEMENTING THE EUROPEAN GREEN DEAL IN A TIME OF RECOVERY (2020).

Having the world's first international emissions trading system since 2005, the EU set the "Cap and Trade" principle by setting a cap to limit the total amount of GHGs that the unit can emit, and this quota can be traded with other companies. This method has proved itself by making the amount of GHGs emissions fall. The 2019 Report on the Functioning of the EU Carbon Market asserts that "each year around 99% of the emissions are covered by the required number of allowances on time." Under the European Green Deal, the EU plans to lower GHG emissions further, which in 2020 it seems to be sure that the GHGs emissions in the system will be lower from 2005 by around 21%, and on track to drop down to about 43% from 2005 in 2030. However, the cap and trade system is not perfect; it still has not led to the social awareness of the emitters. By setting the price for carbon emissions, the behaviour of entrepreneurs would change.

2. Forests

Forests are important for dealing with carbon emissions. They absorb the CO₂ to use within their system. This is one of the most functional ways to deal with GHGs emissions because it is very effective and sustainable. However, this approach is of long-term carbon removal, and it requires a vast number of trees. Widespread deforestation to expand human activities, mostly for agriculture, is the obstacle to this method. With this sense of awareness, the EU has developed the EU forest strategy and the EU Forest Policy. These will cover sustainable forest management, optimising the use of the forest, and promoting social awareness, which will create a sense of global forest responsibility.

3. Transportation

Transport accounts for about 25% of Europe's GHGs emissions, and is also a major cause of air pollution in cities.¹⁴⁰ Therefore, the EU is pushing a strategy

¹³⁹ The European Union and Forests, European Parliament, https://www.europarl.europa.eu/factsheets/en/sheet/105/the-european-union-and-forests.

¹³⁵ EU Emissions Trading System (EU ETS), EUROPEAN COMMISSION, https://ec.europa.eu/clima/policies/ets.

¹³⁶ Report on the functioning of the European carbon market, COM (2019) 557 final/2, at 39 (Jan. 16, 2020), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019DC0557R(01)&from=EN.

¹³⁷ EU ETS, supra note 135.

¹³⁸ *Id*.

¹⁴⁰ Air Pollution and Transport, ENVIRONNENT PROTECTION UK, https://www.environmental-protection.org.uk/policy-areas/air-quality/air-pollution-and-transport/.

called "the Commission's low-emission mobility strategy", which consists of three main concepts:

- Increasing the efficiency of the transport system;
- Speeding up the deployment of low-emission alternative energy for transport;
- Moving towards zero-emission vehicles."141 3.

However, this strategy needs participation from cities and local authorities to help to create green cities.

Trade Policies

In 2020, the EU is seeking more sustainable development. They tend to focus on the reservation of resources for future generations, whether economic, social or environmental. Therefore, the policies in the field of international trade and investment of the EU must be in the same lane. As of today, signing a trade agreement with the EU is more complicated; the agreement must meet the requirements which considered the standard of the EU sustainable development. 142 For instance, this idea can be seen in the Comprehensive and Economic Trade Agreement (CETA), an agreement between the EU and Canada, which includes this concept of environment protection in many chapters, especially in Chapter 24, which is about environmental protection of each party and also encourages conservation and sustainable management of forests 143 or in Chapter 16 of the EU-Japan Economic Partnership Agreement, 144 etc. It will greatly benefit the EU on the world stage, and being a group of countries that are important to the world economy, the EU has a very high bargaining advantage. Therefore, this makes the EU one of the leaders in the fight against global climate change.

V. HOW CAN EU BILATERAL INVESTMENT TREATIES CONTRIBUTE TO CLIMATE ACTION AND SUSTAINABLE ENERGY IN THE BROADER CONTEXT OF SUSTAINABLE DEVELOPMENT?

European Strategy for low-emission mobility, EUROPEAN COMMISSION, https://ec.europa.eu/clima/policies/transport. ¹⁴²Sustainable</sup>

EUROPEAN

COMMISSION,

https://ec.europa.eu/trade/policy/policy-making/sustainable-development/.

Development,

¹⁴³ The EU-Canada Comprehensive Economic and Trade Agreement (CETA) between Canada, of the one part, and the European Union and its Member States, of the other part, Comprehensive Economic and Trade Agreement, EU-Can., Sept. 21, 2017, O.J. (L 11).

¹⁴⁴ Agreement between the European Union and Japan for an Economic Partnership, EU-Japan, Feb. 1, 2019, O.J. (L 330).

A. Introduction

International Investment Agreements (IIAs) have the main purpose of protecting foreign investors and their covered investments in the host country. However, IIAs have also been used for a myriad of other purposes such as attracting FDI, However, levelling the playing field, However, and facilitating with domestic reforms. However, While the EU and/or its Member States are parties to several international treaties which protect social aspects (such as human rights Hope and labour rights Hope) as well as treaties dealing with specific environmental issues (such as nuclear damage Hope) have not been able to effectively address issues of sustainable development.

Leaving aside the discussion whether IIAs are the proper fora to address issues related to sustainable development, this paper proposes that EU IPAs have, till

¹⁴⁵ RUDOLF DOLZER & CHRISTOPH SCHREUER, PRINCIPLES OF INTERNATIONAL INVESTMENT LAW 13 (2nd ed., 2012). "BITs provide guarantees for the investment of investors from one of the contracting states in the other contracting state."

¹⁴⁶ U.N. Conference on Trade and Development, *The role of international investment agreements in attracting foreign direct investment to developing countries*, ¶vi, U.N. Doc. UNCTAD/DIAE/IA/2009/5 (2009). "Since they [IIAs] are a key instrument in the strategy of most countries . . . to attract foreign investment."

¹⁴⁷ JONATHAN BONNITCHA, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT (IISD), ASSESSING THE IMPACT OF INVESTMENT TREATIES: OVERVIEW OF THE EVIDENCE 5 (2017). "Both the EU and the United States cite 'levelling the playing field' between domestic and foreign investors as a core justification for the investment chapter in the proposed . . . (TTIP). This rationale is equally relevant to investment treaties involving developing countries."

¹⁴⁸ DOLZER & SCHREUER, *supra* note 145, at 25. "Thus, investment treaties provide for external constraints and disciplines which foster and reinforce values similar to the principle of good governance with its emphasis on domestic institutions and policies."

¹⁴⁹ See, e.g., Convention for the Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, 213 U.N.T.S. 221; G.A. Res.217 (lll) A, Universal Declaration of Human Rights (Dec. 10, 1948).

¹⁵⁰ See, e.g., International Labour Organization Abolition of Forced Labour Convention, C105, Jun. 25, 1957, 320 U.N.T.S. 291.

¹⁵¹ See, e.g., Council Directive 2013/59 of Dec. 5, 2013, Laying down basic safety standards for protection against the dangers arising from exposure to ionizing radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom, 2013 O.J. (L 13).

¹⁵² See, e.g., European Parliament legislative resolution on the proposal for a Council Decision, Authorizing the Member States to sign, ratify or accede to, in the interest of the European Community, the Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992, and authorizing Austria and Luxembourg, in the interest of the European Community, to accede to the underlying instruments, 2004 O.J. (C 97E).

date, not sufficiently addressed the issues of sustainable development and in particular those related to climate action and sustainable energy. While recognising the latter, this section argues that EU IPAs could; however, be used as a vehicle to contribute to climate action and sustainable energy as IIAs have, although arguably, been contributing to market-orientated reforms and domestic standards, such as transparency.¹⁵³

In assessing the latter, we shall look into the most recent IPA of the EU, which was concluded with Vietnam on June 30, 2019. The reason being that, apart from it being the most recent European IPA, the parties to the latter have had access to more information regarding climate change and the need for sustainable development, as well as opportunities to ascertain more (non-binding) legal obligations regarding such.

In order to assess the (lack of) contribution and the opportunity to use the future EU IPAs as a vehicle to contribute to climate action and sustainable energy, this Part shall follow the following structure. First, we shall briefly look into the notions of climate action and sustainable energy. Second, we shall look at the investment relationship between the EU and Vietnam. Third, we shall look into sustainable development in the broader context of the EU-Vietnam Free Trade Agreement (EVFTA), therefore, analysing not only the IPA but also the chapter on trade and sustainable development and the schedules of commitments. Lastly, we shall look into the opportunities to use EU IPAs as a vehicle to contribute to climate action and sustainable energy, before presenting some conclusions.

B. Sustainable Development

Sustainable development can be defined in a number of ways, taking into consideration various aspects. The Oxford Dictionary has defined sustainable development as the "concept used to describe community and economic development in terms of meeting the needs of the present without compromising the ability of future generations to meet their needs." The UN, however, sets out seventeen SDGs, addressing global challenges to achieve a sustainable future. These include no poverty, gender equality, clean energy and climate action. 155 Considering the scope of this paper, we shall now briefly look at the notions of

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¹⁵³ BONNITCHA, *supra* note 147, at 7 "[I]nvestment treaties could facilitate domestic reforms in the countries that sign them. However, to date there is little evidence to support this supposed benefit".

¹⁵⁴ Sustainable Development, OXFORD REFERENCE, https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100544392.
155 About the Sustainable Development Goals, UNITED NATIONS: SUSTAINABLE DEVELOPMENT GOALS, https://www.un.org/sustainabledevelopment/sustainable-development-goals/.

climate action and sustainable energy in the broader context of sustainable development.

Climate action has been defined as stepped up efforts to reduce GHG emissions and resilience and adaptive capacity to climate-induced impact.¹⁵⁶ Sustainable energy can be defined as energy that is produced using the sun, wind, etc., rather than using fuels which cannot be replaced.¹⁵⁷ Sustainable energy is, therefore, seen as central to climate action, as it reduces, *inter alia*, the emission of GHGs.¹⁵⁸ There have been an array of efforts to enhance climate action and sustainable energy such as the Paris Agreement¹⁵⁹ and the efforts by the G7.¹⁶⁰

It has been argued that sustainable development has become the guiding paradigm in the continuing reform of international investment law, as several IIAs have included sustainable development at the centre of the same, providing a greater balance between public policy and investor rights. However, as the main purpose remains the protection of foreign investors in host countries, the significance of the latter has been debated. However, as the significance of the latter has been debated.

¹⁵⁶ Goal 13: Climate action, UNITED NATIONS DEVELOPMENT PROGRAMME: FINANCING SOLUTIONS FOR SUSTAINABLE DEVELOPMENT, https://www.sdfinance.undp.org/content/sdfinance/en/home/sdg/goal-13--climate-action.html.

¹⁵⁷Sustainable energy, CAMBRIDGE DICTIONARY, https://dictionary.cambridge.org/dictionary/english/sustainable-energy.

¹⁵⁸ Benefits of Renewable Energy Use, UNION OF CONCERNED SCIENTISTS (Dec 20, 2017), https://www.ucsusa.org/resources/benefits-renewable-energy-use. "Increasing the supply of renewable energy would allow us to replace carbon-intensive energy sources and significantly reduce US global warming emissions."

¹⁵⁹ Paris Agreement, *supra* note 114, at art. 14, ¶3. It reads, ". . . as well as in enhancing international cooperation for climate action."

¹⁶⁰ Leila Mead, *G7 Ministerial Addresses Climate Change, Oceans and Clean Energy*, IISD: SDG KNOWLEDGE HUB (Sept. 25, 2018), https://sdg.iisd.org/news/g7-ministerial-addresses-climate-change-oceans-and-clean-energy/. "The . . . G7 environment, oceans and energy ministers met on the theme, 'Working Together on Climate Change, Oceans and Clean Energy.' The meeting marked the first time a G7 ministerial meeting linked together the three issues . . ."

¹⁶¹ STEFANIE SCHACHERER, IISD, INTERNATIONAL INVESTMENT LAW AND SUSTAINABLE DEVELOPMENT: KEY CASES FROM THE 2010s 1-3 (2018).

¹⁶² See, e.g., Bilcon of Delaware et al. v. Government of Canada, Dissenting Opinion of Professor Donald McRae, PCA Case No. 2009-04, ¶51 (Perm. Ct. Arb. 2015). He states that, "Once again, a chill will be imposed on environmental review panels which will be concerned not to give too much weight to socio-economic considerations or other considerations of the human environment in case the result is a claim for damages under NAFTA Chapter 11."

C. Investment Relations Between the EU and Vietnam

The investment relationships between the EU and Vietnam have grown firmly since the first formal diplomatic ties in 1996.¹⁶³ The EU is ranked fifth out of Vietnam's eighty FDI partners, having invested more than 23.927 billion US dollars at the end of 2018.¹⁶⁴ The most important sectors for FDI are manufacturing, electricity production and transmission, and, real estate; with the Netherlands having the highest number of investors.¹⁶⁵

The economy of Vietnam is predominantly based on industries which are State-owned, with agriculture employing most of its workforce. While the industrial and service sectors are also significant, the energy sector has notably grown. This is evident in Vietnam, although being fairly new in the oil industry, becoming the third-largest South-Asian oil producer.

Whilst this is true, efforts have been made to rely on other energy sources, such as coal and hydropower. Regarding the former, the presumption is that coal plants will not be affordable in the medium term, which is why some countries might be thinking of increasingly investing in wind and solar energy. The latter is specifically important as the rapid economic growth is expected to result in an energy demand that is eightfold in 2030. To Keeping the latter in mind, Vietnam has focused on investments in clean and renewably energy, the diversification of energy sources

166 Vietnamese economic outline, SANTANDER TRADE MARKETS (Apr. 2020), https://santandertrade.com/en/portal/analyse-markets/vietnam/economic-outline. It states, "Vietnam's economy is based on large state-owned industries such as . . . Agriculture represents 14.7% of GDP and employs 39.4% of the total workforce."

¹⁶³ DELEGATION OF THE EUROPEAN UNION TO VIETNAM, GUIDE TO THE EU-VIETNAM TRADE AND INVESTMENT AGREEMENTS 12 (2019). "Bilateral trade and investment links between the EU and Vietnam have steadily strengthened since the two sides established formal diplomatic realties in 1996."

¹⁶⁴ *Id.* at 18.

¹⁶⁵ Id. at 18.

¹⁶⁷ *Id.* "Industry contributes 34.2% of GDP and employs 25.8% of the total workforce . . . Services represent 45.5% of GDP and employ 34.7% of the total workforce."

¹⁶⁸ Id. "Despite being a 'newcomer' in the oil industry, Vietnam has become the third-largest Southeast Asian producer."

¹⁶⁹ RENEWABLE ENERGY IN VIETNAM, KINGDOM OF THE NETHERLANDS 2 (2018). "The Vietnamese government is committed to the promotion of renewable energy and energy efficiency has taken several measures (including mechanisms, policies, incentives and supporting schemes) to improve the environment for expansion over the last few years."

¹⁷⁰ Id. at 1. "[D]ifferent estimations of energy demand in Vietnam vary from increasing threefold to eightfold from 2015 to 2030."

and energy efficiency.¹⁷¹ The steps taken are significant and produce opportunities for EU investors in a myriad of sectors, however, it has been noted that more changes are needed to attract FDI and expand its scope.¹⁷²

D. Textual Analysis of the FTA

This part of the paper shall look at how the notions about sustainable development, and in particular climate action and sustainable energy, are addressed in the EU-Vietnam Free trade and Investment Agreement.¹⁷³ In doing so, we shall look into: (1) the IPA,¹⁷⁴ (2) the chapter on sustainability,¹⁷⁵ and (3) the schedules of commitments under the EVFTA.¹⁷⁶

1. The IPA

There are three articles related to sustainable development. Each of them shall be discussed below. First, there are two preambular references to sustainable development.¹⁷⁷ It should, however, be kept in mind that preambular references

¹⁷¹ Energy in Vietnam, KINGDOM OF THE NETHERLANDS (2019), https://www.netherlandsworldwide.nl/countries/vietnam/doing-business/key-sectors/energy.

[&]quot;To ensure that the supply of energy meets the rise in consumption, Vietnamese policy emphasizes the need to diversify the country's energy mix, whilst maximizing the use of local energy reserves. There has been an increased focus in recent years on increased investment in the clean-technology sector and particularly energy efficiency, renewable energy technologies and waste management."

¹⁷² U.N. CONFERENCE ON TRADE & DEV., INVESTMENT POLICY REVIEW: VIET NAM, AT 88-91, U. N. DOC. UNCTAD/ITE/IPC/2007/10, U.N. SALES NO. E.08.II.D.12 (2008).

¹⁷³ EU-Vietnam trade and investment agreements, EUROPEAN COMMISSION, http://trade.ec.europa.eu/doclib/press/index.cfm?id=1437.

¹⁷⁴ Council Decision 2019/753 of Mar. 30, 2020, Free Trade Agreement between the European Union and the Socialist Republic of Viet Nam, art. 13, 2020 O.J. (L 186) [hereinafter EVFTA].

¹⁷⁵ *Id.* art. 13.

¹⁷⁶ *Id.* art. 8.

¹⁷⁷ *Id.* at 3. The Preamble states,

[&]quot;DETERMINED to strengthen their economic, trade and investment relationship in accordance with the objective of sustainable development, in its economic, social and environmental dimensions, and to promote trade and investment under this Agreement in a manner mindful of high levels of environmental and labour protection and relevant internationally recognised standards and agreements . . . REAFFIRMING their commitments to the principles of sustainable development in the Free trade agreement."

are not binding and can only assist in interpreting the obligations included in the agreement itself.¹⁷⁸ Furthermore, it should be noted that the latter references contain broad, undefined wording from which no obligations stem.

Second, Article 2.2 contains an exception which "[r]eaffirms the right to regulate to achieve legitimate policy objectives, such as the protection of the environment." This exception clarifies that the protection of the environment, which is linked to climate action and therefore sustainable development, may be used. However, such may not negatively affect the operations of investments or the investor's expectations of profits. 180

Third, as to the obligation of national treatment (NT),¹⁸¹ Vietnam is exempted from the same.¹⁸² In particular, NT shall not apply to areas crucial to sustainable energy such as oil and gas, hydroelectricity and power transmission and/or distribution.¹⁸³

To conclude, the IPA contains a non-binding preambular reference, an exception in favour of sustainable development which may only be applied under stringent conditions, and a derogation from NT in sectors crucial to sustainable energy is allowed.

2. The Chapter on Sustainable Development

Chapter 13 of the EVFTA has the objective of promoting sustainable development by fostering the contribution of trade and investment-related aspects of environmental issues. 184 The articles of this chapter can be distinguished into two categories: (1) where no or very weak obligation is present, and (2) where a weak obligation is present. After discussing the latter, we shall briefly look into the (one) exception and the enforcement mechanism of chapter 13.

¹⁸¹ *Id.* at art. 2.3. It states, "Each party shall accord to investors of the other Party and to covered investments, with respect to the operation of the covered investments, treatment no less favorable than it accords, in like situations, to its own investors and to their investments."

¹⁷⁸ Vienna Convention on the Law of Treaties art. 31.1, opened for signature May 23, 1969, 1155 U.N.T.S. 331. The Article states, "A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty and in the light of its object and purpose."

¹⁷⁹ EVFTA, *supra* note 174, art. 2.2.

¹⁸⁰ *Id.* at art. 2.2.4.

¹⁸² *Id.* at Annex 2.

¹⁸³ *Id.* at Annex 2; art. 1(g) & (h).

¹⁸⁴ *Id.* at art.13.1, ¶1.

As to the first category, it contains articles which do not create any or very weak enforceable obligations upon the parties. These include, the reaffirmation obligations under a myriad of multilateral environmental agreement and recognising their inter-dependency, ¹⁸⁵ as well as the endeavour to facilitate trade and investment relevant to climate mitigation. ¹⁸⁶ These obligations form little to no enforceable obligations, due to the broad, ambiguous wording and standards such as "endeavour" and "recognition". What the latter words hold for obligations is not included, nor what would lead to a violation of such.

As to the second category, it contains articles which contain a weak, however, enforceable obligation. Article 13.3 contains the obligations of parties not to waive or derogate or offer to do so, from its environmental or labour laws, in a manner affecting trade and investment between the parties.¹⁸⁷ Reading this article, it should be noted that the scope is very narrow (namely when it affects investment between the parties). It is also unclear what would amount to the latter, and whether there is a de-minimis. 188 Secondly, there is an obligation to take into account scientific information when preparing/implementing measures for the protection of the environment.¹⁸⁹ This obligation, like the previous one, lacks specificity and the standard (to take into account) is ambiguous, as it does not set a floor or ceiling. Lastly, there is an obligation of consultations and cooperation of trade issues related to the environment (where there is mutual interest), as well as the sharing of information, experience and progress to ratifications or amendments to multilateral environmental agreements.¹⁹⁰ While these obligations, although narrow, are a little more specific; their implications to the contribution of sustainable energy are little.

Turning to the exception, Chapter 13 contains only one: not to apply environmental law in a way that it results in arbitrary or unjustifiable discrimination. This, while containing some specificity, does not provide a *deminimis* or a test to assess the discrimination. Having discussed that, attention should be drawn to the ability to enforce the obligations set out above. The dispute settlement mechanism and the mediation mechanism included in the EVFTA do not apply to the obligations included in this chapter. The only way of enforcing

188De Minimis, Thomson Reuters: Practical

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¹⁸⁵ *Id.*at art.13.1, ¶2-3; art.13.5, ¶2; art.13.6, ¶1; art.13.10, ¶1.

¹⁸⁶ *Id.* at art.13.10, \P 2(c).

¹⁸⁷ *Id.* at art. 13.3.

LAW, https://uk.practicallaw.thomsonreuters.com/1-382-

^{3382?}transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1.

¹⁸⁹ EVFTA, *supra* note 174, art.13.11.

¹⁹⁰ *Id.* at 161, at art.13.5, ¶1-3; art.13.6, ¶1-2.

¹⁹¹ *Id.* at art.13.1, ¶4; art.13.5, ¶4.

¹⁹² *Id.* at art. 15; Annex 15-C.

the latter is by consultations followed by a report of recommendations by the committee of trade and sustainable development or a panel of experts, who shall monitor the follow up of such.¹⁹³ Needless to say, the enforceability of the already weak obligations is limited and inadequate to effectively contribute to sustainable development.

To conclude, Chapter 13 contains weak obligations for sustainable development, which cannot be effectively enforced.

3. The Schedule of Commitments

This part shall look at the schedules of commitment of the EU and Vietnam.

The schedule of commitments of Vietnam contains two exceptions. First, measures seeking to ensure the protection of natural resources and the environment may be adopted or maintained and shall not be seen as a violation of market access, whether or not included in the schedule.¹⁹⁴ This gives a broad exemption in favour of the protection of the environment.

Second, Vietnam significantly limits the liberalisation in the field of energy, as can be seen in graph 1 below.¹⁹⁵ This means that there is no obligation of market access or NT in areas crucial to sustainable energy,¹⁹⁶ thereby limiting new investments in the latter.

Graph 1:

¹⁹³ *Id.* at art. 13.16, ¶2-3; art.13.17.

¹⁹⁴ *Id.* at art. 8; Annex 8-B; Appendix 8-B-1, ¶6.

¹⁹⁵ *Id.* at 83.

¹⁹⁶ *Id*.

Sector or sub-sector	Description of reservations
PRODUCTION; TRANSMISSION AND DISTRIBUTION ON OWN ACCOUNT OF ELECTRICITY, GAS, STEAM AND HOT WATER *8 (exchading Nuclear Based Electricity Generation)	
Production of electricity; transmission and distribution of electricity on own account (part of ISIC sev 3.1: 4010) ²⁹	Unbound.
Manufacture of gas: distribution of gaseous facls through mains on own account (part of ISIC rev 3.1: 4020) ⁵⁰⁰	Unbound.
C. Production of steam and hot water; distribution of steam and hot water on own account (part of ISIC rev 3.1: 4030) ⁶⁰	Unbound

The horizontal limitation on public utilities applies.

and gaseous facts, which are energy services.

Does not include transmission and distribution of steam and bot water on a fee or contract basis and sales of steam and hot water, which are energy services.

Source: EU-Vietnam FTA¹⁹⁷

When discussing the second exemption above, it is important to note that most of the energy production is State-owned, as discussed earlier. Therefore, Chapter 11 of the EVFTA should be taken into account. The latter makes clear that the principle of non-discrimination and transparency shall not apply to a number of areas related to sustainable energy, 198 such as oil and gas exploration or services related to such, ¹⁹⁹ hydropower, and, the transmission or distribution of all types of energy, power and alternatives or substitutes for electricity. 200 Therefore, while the one exception can be interpreted as being in favour of climate action, the second exception, as discussed in the part of the IPA, significantly restricts the liberalisation necessary to achieve sustainability of energy.

198 Id. at Annex 11, ¶4. It states, "Articles 11.4 (Non-Discrimination and Commercial Considerations) and 11.6 (Transparency) do not apply to the following enterprises, their subsidiaries and successors pursuing the same public mandate, engaged in, and limited to, the activities described below . . ."

Does not include operation of electricity transmission and distribution systems on a fee or contract basis, which are energy services.

Does not include transportation of natural gas and gaseous facts via pipelines, transmission and distribution of gas on a fee or contract basis, and safes of natural gas

¹⁹⁷ Id. at 1060.

¹⁹⁹ Id. ¶5.1. It states, "Vietnam Oil and Gas Group: activities: . . . exploration of oil and gas and flight operation, services for oil and gas activities."

²⁰⁰ Id. at Annex 11, ¶5.2: "Vietnam Electricity and any enterprise: 'activities: power generations by hydropower, nuclear power . . . transmission; distribution of all types of electricity, power and alternatives or substitutes for electricity."

The EU, on the other hand, contains very little exceptions compared to Vietnam. When analysing this, it should be kept in mind that the EU consists of Member-States, which can have differences in the extent of liberalisation.²⁰¹

First, it should be noted that the schedule makes it clear that there are no reservations as to environmental services. ²⁰² By doing so, the EU liberalises the EU market of environmental services, thereby supporting sustainable development. However, the EU is not bound when it comes to the production of electricity and the transmission and distribution of the latter. ²⁰³ This is also true for energy services where the EU has mostly opted-out, ²⁰⁴ apart from a few exceptions in certain EU Member-States. ²⁰⁵ By restricting the liberalisation of the latter sectors, the EU limits investments which are crucial to sustainable energy. Thus, while the EU liberalises environmental services, the liberalisation in the energy sector is highly restricted.

The textual analysis of the FTA has, therefore, shown that: (1) the IPA contains non-binding obligations, derogations from NT and stringent conditions to apply sustainable development rules, (2) Chapter 13 contains weak obligations for sustainable development, which cannot be effectively enforced, and, (3) both Vietnam and the EU, while containing some commitments in favour of sustainable development, restrict the liberalisation particularly necessary to achieve sustainable energy.

E. The Way Forward

Taking into consideration the aforementioned analysis and recalling the object and purpose of EU Bilateral Investment Treaties (BITs), we would like to propose three steps due to which such could contribute more effectively and efficiently to climate action and sustainable energy in the broader context of sustainable development.

First, weak and very weak obligations (as discussed under the textual analysis of Chapter 13) should be made less ambiguous, so as to form enforceable obligations. Most notably, the weak and unenforceable standard of not lowering one's

²⁰¹ *Id.* at art. 8; Annex 8-A; Appendix 8-A-2, ¶9. "The Union takes commitments differentiated by its Member States, where applicable."

²⁰² *Id.* at 1076, Appendix 8-A-2.

²⁰³ *Id.* at 1060, Appendix 8-A-2.

²⁰⁴ *Id.* at 1088, Appendix 8-A-2.

²⁰⁵ Id.

environmental laws, or offering to do so, is a negative obligation which can have a great impact on the contribution of sustainable development if enforced.

As to enforceability, these standards could be subject to enforceability as they are clear and precise enough and contain no *de minimis*. In this regard, it should be noted that human rights, a much more controversial aspect related to international investment law, has been included in IIA and are subject to enforceability. ²⁰⁶ This form of enforceability, if amended to the particularities of environmental protection whilst balancing the liberalisation of investment, could contribute significantly to climate action and sustainable energy. For example, the very weak obligations in Chapter 13 combined with the proposal above, could be amended in a way in which the interdependent international environmental agreements are to be upheld. This could be done by not lowering the steps taken in pursuit of the latter agreements, and holding investors taking advantage of the lowering of such accountable in the home State. ²⁰⁷

Third, derogations from standards, such as non-discrimination and transparency, should be prohibited in sectors crucial to sustainable development. Vietnam is especially desirable for investors in the sectors relating to sustainable energy, 208 however, the derogation from such substantial standards are undesirable and form a hurdle to investments. Taking into consideration the schedule of commitments of Vietnam, the negotiation of such and the energy market, abiding by internationally recognised standards would be a first, but nonetheless important, step for the liberalisation, promotion and development of sustainable energy.

VI. CONCLUSION

Although the shift to clean energy involves risks of various natures, the 21st century clean-energy system is expected to be better than what we had in the oilcentric 20th century: more politically stable, less economically volatile, and better for human health. It is presumed that all the pollution from burning fossil fuels in the mega-cities of the world will be drastically minimized thanks to a clean-energy system in the 21st century, and that competition and gradual efficiency gains will

²⁰⁶ Reciprocal Investment Promotion and Protection Agreement between the Government of the Kingdom of Morocco and the Government of the Federal Republic of Nigeria art. 18.2 & art. 20, Dec. 3, 2016.

²⁰⁷ *Id.* As is done by in the field of human rights in the Reciprocal investment promotion and protection agreement between the government of the kingdom of Morocco and the government of the federal republic of Nigeria.

²⁰⁸ RENEWABLE ENERGY IN VIETNAM, *supra* note 169, at 1. ". . . [t]he Vietnamese government actively supports renewable energy, and the sector is thereby becoming increasingly interesting for Dutch companies and organisations. While realising challenges, business opportunities can be found in biomass, wind and solar and solar energy."

determine electricity prices. Lack of demand, not supply, will cause the production of oil, natural gas, and coal to go down, which, in turn, is one of the ways to mitigate climate change. In addition to shifting the balance of power from producers to consumers, it remains to be seen whether an accelerated shift towards a clean-energy world may cause geopolitical tension.

Regarding how globalisation has affected international trade and climate change impacts on major economies, the economic means of the major economies of the world and their efforts should be maximised to facilitate and help the world overall, not just within their own domain. Evidently, this is not the precedence of most nations. Due to political disagreements and differences, there has recently been a shift to a more hostile and sovereign attitude. Those who want the benefits of globalisation should share and resolve the problems that it comes with.

We conclude that it is possible to reduce energy dependence and grow macro-economically and that environmental protection does not necessarily have to translate into being the opposite of economic production. But there needs to be a greater effort from the major economies and the world's biggest GHG emitters not to simply reach set targets. Undoubtedly, they must combine financial efforts with knowledge and technology for the benefit of the rest of the world. It is not enough for nations to continue to operate their climate preservation within their borders anymore,²⁰⁹ or stay within the comfort of belonging to an organisation for a higher political merit. However, this is easier said than put into practice. It is clear from many events, both recent and past, that there has always been a cloud of cautiousness over almost every nation to contribute collectively with finances, political power, technology until it is absolutely necessary. Therefore, such a global effort is unlikely to happen, unless perhaps a disastrous event occurs.

On one hand, globalisation and the expansion of international trade have, undoubtedly, damaged our environment and increased global warming. On the other hand, globalisation and free trade have played a major role in the enrichment of life conditions and social conditions of billions of people across the world. The point here is not to blame any part of the system, but to highlight responsibilities and to explore the possibilities offered in order to fight global warming and to adopt a sustainable development. Most likely, the youth will vote in liberal democracies to change politics towards more sustainability since there is ever more recognition of the issue.

On the role of the EU and the WTO in climate change, if the EU and the WTO have, in our opinion, damaged environment through the years, they have at their disposal formidable tools in order reverse the trend. The harmonisation of

²⁰⁹ Branger & Quirion, *supra* note 72, at 54.

European rules in matter of environment, the adoption of ambitious standards in international treaties and the creation of climate clubs seem to offer some hope. Some would argue that international based solutions, requiring consensus, are not the best solutions as they will always be less ambitious than unilateral ones. We have argued that the only sustainable solution that would allow the creation of a new logic of trade and production taking into account environment is required at an international scale. The bottom-up approach of the Paris Agreement offers wide possibilities for parties to act unilaterally, bilaterally or multilaterally in order to tackle global warming. In a world where supply chains are highly vulnerable, protectionism, economic nationalism, and mistrust are not the solution.

To tackle global climate change, international agreements were created; however, they were not always successful. The Paris Agreement is one of such agreement. Even if it has shown the unity of the world in the climate change war, it still just a promise. There is no concrete and suitable plan shown in the Paris Agreement. The NDCs model is just the way that can drag every nation to agree on the accord. With an alternative type of cooperation, the climate club seems to be more functional than the world accord. With the incentive-based system, the club can directly tackle environmental issues while promoting international trade and investment. However, to be a success the climate club needs the strong founder countries that can make visible incentive and punishment.

By being called the leader in the field of environmental protection, the EU has already shown the effort by making the policies and the strategies that seem to be effective. Therefore, it is not difficult to prove that with the sustainable-development mindset, the EU has become the world leader for fighting global climate change.

As for BITs, having looked at the notions of climate action and sustainable energy, the investment relationship between the EU and Vietnam, and having done a textual analysis of the IPA and the EVFTA, it can be concluded that EU IPAs have, till date, not sufficiently addressed the issues of sustainable development and in particular those related to climate action and sustainable energy. In particular, the IPA contained several non-binding obligations, derogations from NT and stringent conditions to apply sustainable development rules, the chapter on sustainable development contained weak and not sufficiently enforceable obligations, and, the liberalisation of areas related to sustainable development in the broader context are limited. While recognising the latter, we have proposed three ways in which this IIA could, however, be used as a vehicle to contribute to climate action and sustainable energy as IIAs have, although arguably, been contributing to market-orientated reforms and domestic standards, such as transparency. By revising weak and ambiguous standards, including an enforcement mechanism used for other controversial aspects of investment law,

and upholding internationally recognised standards; EU IIAs could contribute significantly to climate action, sustainable energy and sustainable development.

Lastly, technology is a great enabler for education, climate change mitigation, access to energy for all, and for getting the benefits of international trade and investment. It democratises the system to make it inclusive, irrespective of the economic background. One can learn from anywhere and therefore have a prosperous future thanks to digital transformation. We need to shift from the future we fear to the future we want.