

**HamMUN 2018**

*"Reflect the Past. Reshape the Future."*

**GROUP OF TWENTY**

**Hamburg Model United Nations**

29th November – 2nd December

[www.hammun.de](http://www.hammun.de)



## TABLE OF CONTENTS

<b>WELCOME LETTER FROM THE CHAIRS.....</b>	<b>3</b>
<b>INTRODUCTION TO THE GROUP OF TWENTY (G20) COMMITTEE.....</b>	<b>4</b>
<b>TOPIC A: GLOBAL ECONOMIC IMPLICATIONS OF THE EXTRACTION OF NATURAL RESOURCES IN ANTARCTICA AND DISPUTED TERRITORIES.....</b>	<b>5</b>
EXTRACTION OF NATURAL RESOURCES: .....	5
ECONOMIC IMPLICATIONS OF TERRITORIAL DISPUTES: .....	5
COMMON DISPUTED TERRITORIES: .....	7
<i>South China Sea:</i> .....	9
<i>Kashmir:</i> .....	11
HISTORY OF ANTARCTIC EXPLORATION: .....	13
<i>United Kingdom:</i> .....	14
<i>France</i> .....	14
<i>Norway</i> .....	14
<i>South America</i> .....	14
<i>United States Expeditions</i> .....	15
ANTARCTIC TREATY: .....	15
<i>Build-up</i> .....	15
<i>Antarctic Treaty:</i> .....	16
<i>The Protocol on Environmental Protection to the Antarctic Treaty:</i> .....	16
QUESTIONS TO ANSWER:.....	18
<b>TOPIC B: CREATING A GLOBAL TRADING PLATFORM FOR THE DEVELOPMENT OF RENEWABLE ENERGY RESOURCES.....</b>	<b>20</b>
CLIMATE CHANGE .....	20
CLIMATE CHANGE AND ITS IMPACTS.....	20
INTERNATIONAL EFFORTS TO COUNTER CLIMATE CHANGE .....	21
THE INTERNATIONAL ENERGY AGENCY.....	22
SCARCITY OF FOSSIL FUELS .....	23
<i>Coal</i> .....	23
<i>Oil</i> .....	23
<i>Natural Gas</i> .....	23
<i>Nuclear Power</i> .....	23
GLOBAL SHIFTS IN THE WORLD ENERGY SYSTEM .....	24
<i>Renewable Energy</i> .....	24
CLIMATE CHANGE AND TRADE: .....	24
<i>Fossil Fuel Dependency</i> .....	25
<i>Carbon leakage</i> .....	25
<i>The economics behind changing renewable energy:</i> .....	26
<i>Difficulties of Green Energy</i> .....	27
INTERNATIONAL BODIES TO LOOK TO:.....	28
<i>Asian Infrastructure Investment Bank (AIIB):</i> .....	28
<i>World Trade Organization:</i> .....	28
QUESTIONS TO ANSWER:.....	29



## WELCOME LETTER FROM THE CHAIRS

Distinguished delegates,

We, the chairs of the Group of Twenty at HamMUN 2018, would like to congratulate you on your acceptance to this fine council. Following the theme of this year's HamMUN conference, "Reflect on the Past, Reshape the Future", we look forward to the unique, diverse, and spectacular speeches, debates, and decisions you will bring throughout the conference's session, helping to shape the future. That said, the chairing staff would like to stress the importance of prior research and preparation and to remind you to have a good time – then again, we are the leaders of the global economy, when are we ever not enjoying ourselves. But it all seriousness, it cannot be stressed enough the importance of preparation. We expect each delegate to come to the council room with substantial and respectfully balanced material given the thorough preparation that the study guide material, suggested complexities, guiding questions and suggested readings offer on the topics. However, it is important to note that the given study guide for the topics that will be discussed during this committee session serves as an overview, and only that. This means that each delegate must do the necessary research and preparation, prior to the conference, beyond the supplied content of the study guide. Each delegate is expected to do extensive research on the policy, position, past positions, past actions, etc. of their allocated individual and the collective they represent. This is to ensure the delegates ability to keep up with and maintain the high standard of academic and intellectual discussions of the committee floor, which is demanded of you. We expect the delegates of this fine council to uphold a level of discourse, debate, and prestige deserving of the Group of Twenty.

Additionally, we remind you the importance of respect. There will be no toleration for disrespect in any form or fashion, whether inside the committee room or beyond. We, the chairing staff, expect every delegate to maintain a level of respect throughout the conference, for themselves, for the conference and effort put into to its planning and realization, and towards your fellow delegates.

Lastly, as delegates, you will be expected to submit a position paper by a given deadline. We kindly request that this deadline be respected and obeyed.

Having said that, we welcome you to the greatest HamMUN Group of Twenty Council ever. Each of the chairs is extremely excited to meet you and take full advantage of the after-session socials.

We hope to see you all there.

Best of Luck!!

*Bonus: Ari loves trivia questions. The delegate with the most intriguing trivia question, relating to the G20 or MUN, will get... TBD.*



## INTRODUCTION TO THE GROUP OF TWENTY (G20) COMMITTEE

In 1999, amidst the ruins of the 1997 Asian financial crisis, The Group of Twenty (G20) was established by the Group of Seven (G7). Its goal was to provide the necessary platform and forum to endorse a broader and more representative policy creating and collaborating body. The G20 is a pioneering forum that contains the major economies of the world, i.e. 19 countries and the European Union.<sup>1</sup> In aggregate, the G20 member states make up 85 percent of global economic output, two-thirds of the world's population, and 75 percent of international trade. The inclusive nature of the G20 is augmented by the participation of regularly invited international organizations and guest countries invited at the discretion of the hosting nation.<sup>2</sup> The G20 addresses the most pressing challenges and makes efforts to construct global collaborative policy responses. Up until now, the G20 has succeeded in providing emergency funding during the financial crisis of 2008, enacting reforms of international financial institutions, tweaking the supervision of national financial institutions, plunging the quality of financial regulatory bodies which the crisis stemmed from, and establishing a global security network to tackle the spreading of similar crises in the future. They gather annually to discuss, review, promote, and strive towards the creation and sustainment of an international body solely focused on the financial and economic aspects of situations of distress plaguing our ever increasingly intertwined international and global economy.<sup>3</sup>

While this goal was the original intention of the G20, it has since evolved into much more. After the 2008 financial crisis, the G20 shifted to become the primary and most prestigious body for effectively dealing with global financial uncertainty. This can be seen with the shift in attendees; what used to be a forum attended by finance ministers and global bankers is now one that is attended by Heads of State, or Government.<sup>4</sup> G20 meeting have discussed the issues of Tax Policy, Fiscal Policy, Trade, Employment, Anti-Corruption, the 2030 Agenda, Climate change, Anti-Terrorism financing, inclusive entrepreneurship, and the like.<sup>5</sup>

Given that the G20 is comprised of a mere 20 official members, belonging to both developed and developing markets, it is uniquely suited to efficiently and effectively discuss, promptly decide on, and adapt to new situations, issues, and challenges, without the weight of a larger overbearing membership population. It is also able to represent the entire global population giving it its unique, impactful personality.<sup>6</sup>

The G20 stands as one of the most influential, impactful, and important international forums of collaboration focusing on global economy and affairs. We are honored to invite you to join us for our upcoming summit at HamMUN 2018.

---

<sup>1</sup> <https://www.g20.org/en/g20/g20-participants>

<sup>2</sup> <https://www.g20.org/en/g20/faqs>

<sup>3</sup> <https://www.g20.org/en/g20/what-is-the-g20>

<sup>4</sup> <http://www.g20.utoronto.ca/docs/g20history.pdf>

<https://www.reuters.com/article/uk-global-g20-factbox/timeline-a-history-of-g7-g20-and-foreign-exchange-idUKKBN16H1AE>

<sup>5</sup> <https://www.g20.org/en/g20/timeline>

<sup>6</sup> <https://www.g20.org/en/g20/what-is-the-g20>



## **TOPIC A: GLOBAL ECONOMIC IMPLICATIONS OF THE EXTRACTION OF NATURAL RESOURCES IN ANTARCTICA AND DISPUTED TERRITORIES**

### **EXTRACTION OF NATURAL RESOURCES:**

The extraction of natural resources is the practice of withdrawing natural materials or resources from land or sea. This practice is one which allows for man to make use of all the available sources of materials on the planet for scientific advancement and the improvement of the quality of life. However, while highly beneficial for these uses, this practice also bears high risk and disastrous results. Take deforestation, a common practice, as an example: if the logging and removal of foliage is not done in a sustainable and environmentally-concerned manner, it could cause changes and damage. These changes affect the soil, land nutrients, and air H<sub>2</sub>O richness. In fact, even done properly, the process of deforestation or logging could change an environment. The deforestation practice is estimated to be accountable for 30% of all greenhouse gases emitted into the atmosphere. This places deforestation as the second highest cause of emissions in the energy sector, emission which are harmful to the environment and atmosphere of our planet.

Similarly, other methods of resource extraction, which, unlike deforestation, are more-often-than-not non-renewable resources and cannot be replaced, induce similar or situation-reflective unexpected, impactful, and often harmful changes or damages. Mining, land-based or oceanic, is a prime example of these drastic and often harmful changes set upon the environment, atmosphere, quality of life, and the planets landmasses. Natural gas, while deemed a clean fossil fuel, is rich in methane. Methane, a carbon-rich gas, is highly combustible and when combusted releases high levels of carbon dioxide and contributes to global warming. Open pit mining has proven to have disastrous effects when the materials and acidic liquids enter the underground fissures or runs off on the surrounding land. Its acidic content is rich in heavy metals and materials which are lethal to plant, animal and human life, as well as detrimental to the land itself. Needless to say, the affects foretell disastrous consequences, even before looking at the effect it has on population and quality of life for those in the surrounding areas and economies.<sup>7</sup>

### **ECONOMIC IMPLICATIONS OF TERRITORIAL DISPUTES:**

Territorial disputes, particularly those over natural resource containing locations, are extremely important and carry precarious and potentially detrimental possibilities. Natural resources, if used correctly, have tremendous potential to accelerate economic development, but if used in correctly,

---

<sup>7</sup> <https://www.encyclopedia.com/environment/energy-government-and-defense-magazines/resource-extraction>  
<https://www.cfr.org/background/deforestation-and-greenhouse-gas-emissions>  
<https://enviroliteracy.org/energy/fossil-fuels/natural-gas/>  
<https://www.unenvironment.org/>  
<https://voxeu.org/article/natural-resource-extraction-and-local-business-constraints>



have the ability to impact serious economic penalties.<sup>8</sup> Because of the capability of natural resources to heavily impact trade and economy, these disputes carry the weight of theoretically inflicting serious ramifications not just on local or regional trade and economies, but on the greater international trade and economic reality as a whole.<sup>9</sup>

Parties in disputed territories may find themselves experiencing restraints, sometimes voluntary or not, on exports of goods and resources. For example, in Sierra Leone, despite its rich natural quarries of diamonds and precious stones, the nation experienced a voluntary restriction on exportation as local armed groups in the conflict sought to export the stones through the black market to finance the conflict over those regions.

Despite this seemingly circularly repetitive system, the armed groups successfully placed restraints on the availability of legal exportations from the nation.<sup>10</sup> This reality of restricted exportation in Sierra Leone can be seen in other areas of conflict, amongst others, in the form of boycotting acts to certain markets or brands. While it is true that this form of export restriction does not actually involve tariffs or quotas and so, does not meet the general definition of a barrier to trade, its effects on local trade are undeniable, and the trade limitation which it causes impacts the territory's ability to thrive from the resource. Most of the time, the area becomes wrought with conflict and ever-decreasing quality of life.<sup>11</sup> Additionally, in a dispute between two parties, acts of defamation and counter-marketing of goods, services, and resources can often be found. For example, Arab States speak out against Israel and vis-versa because of the Arab-Israeli conflict. They each are attempting to defame and verbally ruin the credibility, reputation, and success (economic and diplomatic) of their adversaries.<sup>12</sup> In fact, the impact of these attempts can be seen with the rise of boycotting movements against goods from the nation. As a result, companies in areas of conflict may seek to temporarily cease operations until the boycotting, defamation, or vandalism dies out.

Standard and Poor's (S&P) provides an alternative view on these claims, insisting that territorial disputes do not necessarily result in poorer performing economies.<sup>13</sup> S&P argues that a region's economic importance will affect the geopolitical stability, and thus in regions of high economic activity disputes may not have such a high impact as expected. However, S&P does acknowledge the impact on the economic credibility of a nation in the long run. Long-term downward pressure on creditworthiness will more than likely decrease the foreign direct investments in affected

---

<sup>8</sup> <https://helpsavenature.com/how-do-natural-resources-affect-economic-development>

<https://www.cmi.no/topics/natural-resources>

<http://www.paulhensel.org/Research/isa14.pdf>

<sup>9</sup>[http://www.oecd.org/env/outreach/2011\\_AB\\_Economic%20significance%20of%20NR%20in%20EECCA\\_ENG.pdf](http://www.oecd.org/env/outreach/2011_AB_Economic%20significance%20of%20NR%20in%20EECCA_ENG.pdf)

Mideksa, T. K. (2013). The economic impact of natural resources. *Journal of Environmental Economics and Management*, 65(2), 277-289. doi:10.1016/j.jeem.2012.07.005

<http://www.greenvillebusinessmag.com/2018/01/24/165429/study-shows-economic-impact-of-natural-resources>

<sup>10</sup> [https://unctad.org/en/PublicationsLibrary/suc2017d9\\_en.pdf](https://unctad.org/en/PublicationsLibrary/suc2017d9_en.pdf)

<https://www.un.org/africarenewal/magazine/december-2001/conflict-diamonds-evade-un-sanctions>

[https://www.eli.org/sites/default/files/121-145\\_kawamoto.pdf](https://www.eli.org/sites/default/files/121-145_kawamoto.pdf)

<sup>11</sup> <http://www.paulhensel.org/Research/isa14.pdf>

<sup>12</sup> <https://www.jpost.com/Arab-Israeli-Conflict/Flotilla-activist-Theyre-for-propaganda-not-humanitarian-goals-505574>

<https://foreignpolicy.com/2010/12/16/linkage-and-its-discontents-what-wikileaks-reveals-about-israel-palestine/>

[http://mfa.gov.il/MFA/ForeignPolicy/FAQ/Pages/FAQ\\_Attack\\_Israeli\\_Values.aspx](http://mfa.gov.il/MFA/ForeignPolicy/FAQ/Pages/FAQ_Attack_Israeli_Values.aspx)

[https://www.huffingtonpost.com/t-a-ridout/emotion-reason-and-the-is\\_b\\_3442392.html](https://www.huffingtonpost.com/t-a-ridout/emotion-reason-and-the-is_b_3442392.html)

<sup>13</sup> <https://business.inquirer.net/164034/sp-warns-against-impact-of-territorial-disputes>



regions, and eventually play out on the economy as a whole.<sup>14</sup> The commercial and corporate stand-point has always been to avoid regions with high geopolitical instability. Investors will try to avoid these regions due to, among other reasons, the negative image and controversy surrounding investments in disputed regions. They will also try to avoid the likelihood of violent conflict, which puts them, their investors, their assets, and their employees, at high risk.<sup>15</sup>

Commercial actors therefore, hold a unique capability to impact, shape, and influence disputed areas, and can use it to their benefit. Where revenue-generating activity (for example, the exploitation of hydrocarbons or, indeed, even fishing) is hindered by ongoing boundary disputes, commercial actors can put further pressure on, and provide motivation for States to reach a resolution where possible. Commercial actors could therefore play a huge and important role bringing States together.

### **COMMON DISPUTED TERRITORIES:**

Disputes are an inescapable and predictable part of international relations in today's interconnected and sovereignty-obsessed international system. It comes at no measure of surprise that of all the natures seen in international disputes, those of territorial or territorially-related natures are of the strongest and most complicated. In fact, territorial disputes go back beyond the pre-nation state feudal system. A territorial dispute arises from a disagreement over a newly discovered territory, a disagreement of boarder location, or even over whether a territory is independent or not. These disputes have continuously been closely attributed to power - as in the time of Genghis Khan, Napoleon Bonaparte, British and French colonialization, etc. - and have historically been one of the prime reasons for war. In fact, it is only since the 1928 Kellogg-Briand Pact that states, and therein man, renounced war as a dispute settlement policy and turned to the fashion of diplomacy instead.<sup>16</sup>

This turn in the internationally accepted dispute-settlement policy was reinforced with the end of the Second World War and the United Nations Charter in 1945.<sup>17</sup> According to the UN charter, as stated in Article 2 (3, 4), disputes are meant to be peacefully resolved, without the use of force. Disputing States are encouraged by United Nations Convention on the Law of the Sea (UNCLOS)

---

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> <https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1227&context=dlj>

[http://www.un.org/depts/los/nippon/unnff\\_programme\\_home/fellows\\_pages/fellows\\_papers/nguyen\\_0506\\_vietnam.pdf](http://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/fellows_papers/nguyen_0506_vietnam.pdf)

<https://www.thoughtco.com/the-mongol-empire-195041>

<https://www.history.com/topics/france/napoleon>

[http://www.historyofwar.org/articles/people\\_napoleon.html](http://www.historyofwar.org/articles/people_napoleon.html)

<https://cfsd.chipfalls.k12.wi.us/faculty/hillal/worldhistory/notes/napoleon/Napoleons%20Expansion%20of%20the%20French%20Empire.pdf>

<https://www.britishempire.co.uk/>

<https://www.britannica.com/place/British-Empire>

<http://www.oxfordbibliographies.com/view/document/obo-9780199846733/obo-9780199846733-0029.xml>

<http://www.historyworld.net/wrldhis/PlainTextHistories.asp?ParagraphID=oxy>

<https://www.the-map-as-history.com/European-colonization-19th-20th-centuries>

[http://avalon.law.yale.edu/20th\\_century/kbpact.asp](http://avalon.law.yale.edu/20th_century/kbpact.asp)

<sup>17</sup> <http://www.un.org/en/charter-united-nations/>



to make “every effort to enter into provisional arrangements of a practical nature”.<sup>18</sup> Yet, permanent agreements are often quite difficult to accomplish and often take many years of debate, negotiations, and conciliations to finalize. Therefore, States are given the ability to reach an agreement by establishing a Joint Development Zone (JDZ), allowing those states to explore and develop natural resources within the disputed territory before a permanent agreement is reached and finalized.<sup>19</sup>

A JDZ agreement is a platform where states dispense with their disputes of sovereignty and territory, and formulate structures, guidelines, and conditions for respective development and reach an agreement of division on the returns. Whilst the terms, limits, and specificities differ from each JDZ and its respective agreements, the creation of a JDZ quite often leads to a collaboration between two States. The States, in their collaboration, hold licensing rounds on the development and extraction of the territory’s location and resources on a joint basis. If, however, the States feel the need for it, they can also devolve their sovereign and regulatory rights and powers to a joint development authority, as seen in the Nigeria / Sao Tome case with the Joint Development Authority established via a treaty.<sup>20</sup>

An enticing reason to convince States to come to an agreement and establish a JDZ is the economic benefits. A JDZ can be a positive step which provides more security for commercial stakeholders in both national and private companies involved in the extraction or development of the land. Yet, even JDZs are not free from certain points of uncertainty, such as the possibility for adjustments and renegotiation; location and treatment of the JDZ borders; division, sovereignty or control, and treatment of discovered natural gas or natural resources which sit on the JDZ border; and the like.<sup>21</sup>

Yet, even with this turn to a solution of discussion, diplomacy, and agreements, the problem persists. This new solution has indeed made disputes turn to the power of the pen over that of the sword, but at the cost of time and efficiency. As it stands currently, territory remains a leading issue leading to conflict and has only become more heated since the land of the known world has been fully discovered. Today, disputes over territory are not restricted to land but oftentimes even includes maritime boundaries as well. So, whether it be the South China Sea, Crimea, Kashmir, the Arctic seafloor, Antarctica’s land mass, or any of the other disputed territories today, territorial conflicts are still present today. In fact, with the increasing interconnectedness and rise of international trade and economy, one might argue that they are more complicated than ever.<sup>22</sup>

---

<sup>18</sup> [http://www.un.org/depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf)

<sup>19</sup> <https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=https://www.google.co.il/&httpsredir=1&article=2627&context=lhapapers>  
Lagoni, R., & Vignes, D. (2006). *Joint Development Zones As An Alternative Dispute Settlement Approach In Maritime Boundary Delimitation*. Leiden: Martinus Nijhoff.

<sup>20</sup> <http://nstpjda.org/>

<https://www.herbertsmithfreehills.com/latest-thinking/the-impact-of-sovereignty-and-boundary-disputes-on-commercial-investments>

<sup>21</sup> Ibid.

<sup>22</sup> <https://ourworldindata.org/war-and-peace>

<https://globalriskinsights.com/2017/01/5-territorial-disputes-watch-2017/>



### **SOUTH CHINA SEA:**

A key example of a disputed territory is the South China Sea territorial maritime dispute. The South China Sea, a 3.5 million square kilometer region located within the Pacific Ocean, is bordered by the People's Republic of China (PRC), Taiwan, the Philippines, Malaysia, Brunei, Indonesia, Singapore and Vietnam, all of which express maritime territorial claims to portions of PRC's southern Maritime waters.<sup>23</sup> This maritime territory facilitates a multitude of trade passages that host nearly half of the world's shipping, valuing over \$3 trillion and so is of huge importance itself.<sup>24</sup> Yet beyond its massive economic and global trade importance, the sea is also home to a near third of the world's marine biodiversity, numerous oil and natural gas reserves, and hundreds of small (mostly uninhabited) islands.<sup>25</sup>

A key section of natural resources is the "Energy Sector". This is the sector related to the production, supply, and exportation of energy, and it is made up of companies who are involved in exploration and development of oil / gas reserves or drilling. Driven and maintained by the supply and demand of energy worldwide, this sector is sensitive to political events, particularly as it pertains to natural resources such as oil.<sup>26</sup> Oil, a pivotal resource worldwide, can be found in almost every aspect and part of our lives. However, oil is unfortunately not a renewable resource, this means that once some is used that with every use, the amount of available oil is dwindling, and oil is slowly but surely becoming scarcer by the moment. In fact, it is believed that at this rate, the production of accessible petroleum reserves will reach its limit by the year 2020, a mere year away.<sup>27</sup> This will have disastrous effects if a suitable replacement is not found and substituted in time.

Oil is not only an important resource due to its usage as gasoline, but also due to its various usages in the production of clothing, toothbrushes and many other products which we use in our day to day lives. Furthermore, oil is the most traded commodity, amounting about 10% of the total world exports, which means that changes in the oil trade market have direct and indirect effects on the global economy.<sup>28</sup> It is important to point out that world trade and GDP tend to grow together, but trade experiences stronger fluctuations, particularly in declines. Moreover, countries which present the highest growth tend to be the suppliers of primary products required for industrial production, for example, oil exporters.<sup>29</sup> The South China Sea is one of the most important energy trade routes in the world, almost a third of global crude oil and over half of global liquefied natural gas passes through there each year.<sup>30</sup> Additionally, it is estimated that the South China Sea contains around 11 billion barrels of oil reserves and 190 trillion cubic feet of natural oil reserves. This presents its territorial maritime disputes as a key dispute which holds global economic implications.<sup>31</sup>

---

<sup>23</sup> <https://www.eia.gov/beta/international/regions-topics.cfm?RegionTopicID=SCS>

<sup>24</sup> <https://chinapower.csis.org/much-trade-transits-south-china-sea/#easy-footnote-bottom-1-3073>  
[https://unctad.org/en/PublicationsLibrary/rmt2016\\_en.pdf](https://unctad.org/en/PublicationsLibrary/rmt2016_en.pdf)

<sup>25</sup> <https://www.eia.gov/beta/international/regions-topics.cfm?RegionTopicID=SCS>

<sup>26</sup> [http://www.investopedia.com/terms/e/energy\\_sector.asp](http://www.investopedia.com/terms/e/energy_sector.asp)

<sup>27</sup> <http://www.resilientcity.org/index.cfm?id=11897>

<sup>28</sup> <https://goo.gl/vVysrP>

<sup>29</sup> <https://goo.gl/uwmUK2>

<sup>30</sup> <https://goo.gl/mw99ih>

<sup>31</sup> <https://goo.gl/wU9A2P>



The PRC's actions in recent years in the South China Sea have raised concerns in its regional neighbours, as well as the greater international community. In particular, the 'nine-dash-line' it proposed, which outlines a would-be 90 percent of the maritime territory of the South China Sea incidentally covering the great majority of all the local natural resource locations as well as the trade and travel passages of the region. Furthermore, the line intersects with the Exclusive Economic Zone (EEZ) of 6 of its neighbors. The EEZ according to Article 55 of the UNCLOS is an area located beyond, yet adjacent to, "the territorial sea" of a country. It is "subject to a uniquely specific legal regime established in this part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions" of the UNCLOS.<sup>32</sup> It continues in Article 56 and states that in the EEZ of a coastal State, said State has "sovereign rights for the purpose of exploring and exploiting, conserving and managing natural resources, whether living or non-living of the waters superjacent to the seabed and of the seabed...". Furthermore, the State is provided jurisdiction for the "establishment and use of artificial islands [...] marine scientific research [and] the protection and preservation of marine environment".<sup>33</sup> This nine-dash-line, along with the construction and establishment of artificial islands on the Spratly Islands inside its territory, stand out as the most notable and impactful actions of the dispute.<sup>34</sup> So far, all claimants, nations adjacent to the regional maritime waters, have contributed actions to attempt to cement their claim on the area, including establishing guidelines, providing commercial research contracts, as well as constructing oil rigs.<sup>35</sup> It is important to recognize the UNCLOS, which establishes the EEZ to 200 nautical miles from coastal nations.<sup>36</sup>

Disputes such as this, particularly given the EEZ outlined by the UNCLOS, provide investors and nations with huge amounts of uncertainty in regard to global trade. Since the region sees such a high amount of trade passing through, it is vital to reach an agreement to protect both the economic interests of all parties, as well as securing peaceful cooperation in the future. The Association of Southeast Asian Nations (ASEAN) has tried many times to broker a diplomatic agreement between the sides involved, beginning with the 1992 Declaration on the South China Sea.<sup>37</sup> The Declaration urged all parties to exercise self-restraint, promote friendship and harmony, and sought to promote consensus on the South China Sea. There has been no success at reaching an agreement. However, as of July of 2016, the association has been successful at deterring a major military conflict. It is important to note that PRC prefers entering into bilateral talks with countries in dispute and has reached a few agreements in this fashion.<sup>38</sup> Several

---

<sup>32</sup> [http://www.un.org/Depts/los/convention\\_agreements/texts/unclos/part5.htm](http://www.un.org/Depts/los/convention_agreements/texts/unclos/part5.htm)

<sup>33</sup> Ibid.

<sup>34</sup> <http://www.mapsymbols.com/SouthChinaSeaMatrixGame.pdf>

<https://www.cambridge.org/core/journals/american-journal-of-international-law/article/div-classtitlethe-nine-dash-line-in-the-south-china-sea-history-status-and-implicationsdiv/1567B80D8BD284499F704496278DFF9D>

<http://www.defence.gov.au/ADC/Publications/IndoPac/R23177603-3.pdf>

<sup>35</sup> <https://oilprice.com/Energy/General/How-Oil-Drives-The-South-China-Sea-Conflict.html>

<https://www.offshoreenergytoday.com/tag/south-china-sea/>

<https://www.offshore-technology.com/projects/liwan/>

<https://goo.gl/wU9A2P>

<sup>36</sup> <https://oceanservice.noaa.gov/facts/eez.html>

<sup>37</sup> <https://cil.nus.edu.sg/rp/pdf/1992%20ASEAN%20Declaration%20on%20the%20South%20China%20Sea.pdf>

<sup>38</sup> [https://www.nytimes.com/2016/11/03/world/asia/philippines-duterte-south-china-sea.html?\\_r=0](https://www.nytimes.com/2016/11/03/world/asia/philippines-duterte-south-china-sea.html?_r=0)



countries refuse to enter into bilateral talks considering PRC's size, power and the fact that there are often more than just two countries that lay claim to a region.<sup>39</sup>

In 2016, a legal solution was sought when PRC was brought before an international tribunal at The Hague on the legality of its 'nine dash line'. The tribunal found that PRC's claim was not recognized under international law and ruled that PRC must give up its claims to those territories; the PRC has since rejected this ruling.<sup>40</sup> ASEAN attempted to find an agreed upon approach on the South China Sea issue which concluded with Cambodia obtaining from issuing a joint statement. This, along with ASEAN's failure to reach a consensus on the issue directly, shows the complexity of the issue.<sup>41</sup>

There has been limited success of a JDZ in some cases, allowing for continued economic growth even despite the conflict being far from resolved. For example, Philippine's president Rodrigo Duterte has assured the international community that he will reclaim the disputed reef that had been seized by PRC. Since taking office, he has notably extended the hand of economic friendship by agreeing billion-dollar trade deals.<sup>42</sup>

Despite the limited JDZ agreements, the PRC has still refused to acknowledge the tribunal ruling and continues to build man-made islands in disputed territory. Furthermore, the issues of cross-fishing, piracy, and small military skirmishes are still ever-present and plaguing to the region. This causes local resources to remain untouched, and the dangers of passing through the South China Sea's waters present an impediment to international trade. The South China Sea issue is progressed by the actions and reactions of ASEAN, PRC, and foreign actors which circle in effect and push further damage and conflict. Although one can argue that the PRC seeks bilateral negotiations with other actors due to their size, it must be noted that there is no consensus among the ASEAN members and therefore the nations are unable to bandwagon together in negotiations with PRC.<sup>43</sup>

### **KASHMIR:**

The Kashmir dispute between India and Pakistan was born out of the 1947 India-Pakistan partition and continues today.<sup>44</sup> The Indian sub-continent partition along religious lines led to the formation of India and Pakistan; because of its location, Kashmir could choose to join either India or Pakistan. Maharaja Hari Singh, the then ruler of Kashmir, was Hindu, yet most of his subjects were Muslim. Unable to decide which nation Kashmir should join, Hari Singh chose to remain neutral. However, in doing so, he began what would continue on to be a serious, deadly, and long-lasting dispute over border territory and locations.<sup>45</sup> The Kashmir region, as a result of the continuous conflict and the religious dynamic and difference between the Hinduist-majority India

---

<sup>39</sup> <http://web.isanet.org/Web/Conferences/FLACSO-ISA%20BuenosAires%202014/Archive/b1d7cb3a-0487-493a-92e5-4c85727ba1b9.pdf>

<sup>40</sup> <https://www.pcacases.com/web/sendAttach/1801>

<sup>41</sup> <http://www.bbc.com/news/world-asia-18825148>

<sup>42</sup> <https://www.bloomberg.com/news/articles/2016-10-16/duterte-heads-to-beijing-looking-for-more-chinese-business-deals>

<sup>43</sup> <http://www.bbc.com/news/world-asia-pacific-13748349>

<sup>44</sup> <https://www.peaceinsight.org/conflicts/kashmir/>

<sup>45</sup> <https://www.telegraph.co.uk/news/1399992/A-brief-history-of-the-Kashmir-conflict.html>



and the Islamic-Pakistan, is largely considered to be one of the world's most dangerous flashpoints. The militant and terrorist group makeup in the region places it as a real threat to counterterrorism efforts in the region. Having been subjected to two major wars and a long-ongoing territorial conflict, Kashmir is often seen to be at the root of these disputes and rise in violence.<sup>46</sup>

Despite having signed on Kashmir's accession to India in 1947, it took a full decade until it was formally incorporated into the Indian Union. Upon its formal incorporation, Kashmir was granted a special status via India's Constitution Article 370, ensuring that only native Kashmiris can purchase property in the region, solidifying the Kashmiri native's security in its pseudo-independence under Indian rule.<sup>47</sup>

However, the continuous violence and skirmishes in its region after incorporation into the Indian Union left Kashmir as a hot-spot or radicalization and violence in the rapidly growing India.<sup>48</sup> As the conflict progressed, the PRC became involved as well, claiming the northern parts of Kashmir for itself for energy, economical, and military superiority reasoning.<sup>49</sup> Kashmir holds a particular significance in geo-strategic location for the PRC due to the PRC's new One-Belt-One-Road (OBOR) project. The PRC is the one of the world's leading economic power players and its growing at incredible speeds. In order to maintain its meteoric rise, it requires a huge energy source, and is looking to expand its economic connections with other States to build a 'belt-way' of economic partners. This 'belt-way' idea is referred to as the OBOR. It aims to create a raw material highway reaching all corners of the world via a highway which runs, among other places, through the Gilgit-Baltistan territory, a territory that both India and Pakistan include as their rightful territory in their constitutions.<sup>50</sup> Yet whilst Pakistan saw the Gilgit-Baltistan territory as their rightful territory, it also recognized the significance and benefit of cooperation with the PRC due to the mutual ability for the two nations to undermine India's security as well as partner-up against the economic threat India posed. India disproves of the cooperation between Pakistan and PRC in the construction of this highway and has gone as far as to blame the PRC of wanting to expand its sphere of influence to further isolate its Asian neighbours. The PRC has since taken a neutral stance and is interested in a reduced tension reality between the two States warring over the Kashmir territory.<sup>51</sup>

As previously mentioned, the Kashmir region, which is plagued by violence, war, and extended conflict, is a hot-bed of militia and terror organization activity. A common counter-terrorism /

---

<sup>46</sup> <https://www.peaceinsight.org/conflicts/kashmir/>

<https://www.cfr.org/expert-roundup/how-kashmir-dispute-affects-security-south-asia>

[http://censusindia.gov.in/Census\\_And\\_You/religion.aspx](http://censusindia.gov.in/Census_And_You/religion.aspx)

<http://www.pbs.gov.pk/content/population-religion>

<https://www.usip.org/events/kashmir-problem-and-its-resolution>

<sup>47</sup> <https://www.telegraph.co.uk/news/1399992/A-brief-history-of-the-Kashmir-conflict.html>

<sup>48</sup> <https://www.cfr.org/expert-roundup/how-kashmir-dispute-affects-security-south-asia>

<https://www.usip.org/events/kashmir-problem-and-its-resolution>

<sup>49</sup> <https://www.mul.edu.pk/crd/assets/jprss/Chinaapproachtokashmirnew.pdf>

<sup>50</sup> Ibid.

<sup>51</sup> <https://www.mul.edu.pk/crd/assets/jprss/Chinaapproachtokashmirnew.pdf>

<https://economictimes.indiatimes.com/news/politics-and-nation/china-says-willing-to-play-constructive-role-over-kashmir/articleshow/59562210.cms>

<https://www.oneindia.com/india/explained-what-exactly-is-china-doing-in-kashmir-2497593.html>

<https://www.oneindia.com/india/explained-what-exactly-is-china-doing-in-kashmir-2497593.html>



counter-radicalization tactic is investments and economic aid. Yet, such conflicts present incredible threats to investments which would aid in the de-escalation of the conflicting sides not only in Kashmir, but in India and Pakistan as a whole.<sup>52</sup> This is common in many areas home to valuable natural resources. The fight for control and governorship of the resources, or sovereignty of the territory, leads to a reality of armed conflict which tend result in experience downturns in investment and economic growth, not to mention poverty and suffering for the local societies as seen in many African countries.<sup>53</sup> It is therefore necessary to find methods which will both mitigate the economic impact of these conflicts on a global scale, and secure the current investments aimed at improving the welfare of the people in those areas.

### **HISTORY OF ANTARCTIC EXPLORATION:**

Although there are plenty of additional disputed territories, for the sake of the Study Guide we will touch on just one more, albeit a big one at that; The Antarctica Continent.

Antarctica remains as one of the final frontiers of human exploration on Earth, constituting the largest piece of unclaimed territory in our world today, and questions of its sovereignty have been brought up sporadically. Admits territorial claims and a clear lack of international legal structure or rules have led to the overall uneasiness of the topic of Antarctic sovereignty, and its discussion and debate in the last century have been complicated to say the least.<sup>54</sup>

The belief in the existence of Antarctica dates back to the late 15<sup>th</sup> century, with the claim of the Spanish Empire to all lands below the Straits of Magellan. Yet, it wasn't until James Cook discovered several islands near the Antarctic Circle in 1776 that proof for the existence of a *Terra Australis Incognita* ("Unknown Southern Land") was discovered, despite the crew never actually discovering the continent of Antarctica itself. Moreover, it was only in 1820, that the actual discovery of the continents land was finally brought about by Fabian Gottlieb von Bellingshausen, a captain in the Imperial Russian Navy.<sup>55</sup>

Following the 1820 Antarctic discovery expeditions to the newly discovered land took off. This new rush of exploration brought about multiple land claims by nations attempting to lay claim to the territory, namely: Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom. Today, these nations still maintain territorial claims to the region, and have since established scientific facilities within their respective claimed territories.<sup>56</sup>

---

<sup>52</sup> <https://www.cfr.org/expert-roundup/how-kashmir-dispute-affects-security-south-asia>

<sup>53</sup> <https://www.theatlantic.com/international/archive/2012/04/why-natural-resources-are-a-curse-on-developing-countries-and-how-to-fix-it/256508/>

<http://www.paulhensel.org/Research/isa14.pdf>

<sup>54</sup> <https://www.cia.gov/library/readingroom/docs/CIA-RDP79-00976A000100010001-7.pdf>

[https://ir.canterbury.ac.nz/bitstream/handle/10092/14152/Broughton%20-](https://ir.canterbury.ac.nz/bitstream/handle/10092/14152/Broughton%20-The%20potential%20for%20mineral%20exploration%20and%20extraction%20in%20Antarctica.pdf?sequence=1)

[The%20potential%20for%20mineral%20exploration%20and%20extraction%20in%20Antarctica.pdf?sequence=1](https://ir.canterbury.ac.nz/bitstream/handle/10092/14152/Broughton%20-The%20potential%20for%20mineral%20exploration%20and%20extraction%20in%20Antarctica.pdf?sequence=1)

<sup>55</sup> [https://www.cambridge.org/core/journals/polar-record/article/bellingshausen-and-the-discovery-of-](https://www.cambridge.org/core/journals/polar-record/article/bellingshausen-and-the-discovery-of-antarctica/C3645AD5995D47C1E3E2B8218D991E0E)

[antarctica/C3645AD5995D47C1E3E2B8218D991E0E](https://www.cambridge.org/core/journals/polar-record/article/bellingshausen-and-the-discovery-of-antarctica/C3645AD5995D47C1E3E2B8218D991E0E)

<sup>56</sup> <https://www.cia.gov/library/readingroom/docs/CIA-RDP79-00976A000100010001-7.pdf>

**UNITED KINGDOM:**

British claims on Antarctica are directly tied to their presence in the Falkland Islands. In 1908, the British government administered control over a number of Islands in the area, as well as the 50<sup>th</sup> parallel on the Antarctic continent itself, under the Falkland Islands Dependencies. The aims of this claim were to secure the taxation of the whaling industry in the area. The claim was modified in 1917, so as to include all territories south of the South Pole, with the hope of an eventual incorporation of the entire Antarctic continent into the British Empire. Britain continued to pursue and cast claims to Antarctic territories until 1959, when the Antarctic Treaty was signed.<sup>57</sup>

**FRANCE**

France's claims in the region resulted in an attempt to limit the unilateral declarations by the British.<sup>58</sup> In 1924 France laid claim to Adélie Land, which was discovered by French explorer Jules Dumont d'Urville in 1840.<sup>59</sup> Following the UK's recognition of this claim, the border between Adélie Land and the Australian Antarctic Territory was fixed in 1938.<sup>60</sup>

**NORWAY**

Concerned with British taxation on the whaling industry and with being commercially excluded from the continent, Norway began laying claim to Antarctic territories as well. In 1931, Norway laid claim to islands near the continent through a royal proclamation. In 1933 these were declared a Norwegian dependency. After negotiation with the British in 1938, a western border for Queen Maud Land was agreed upon; these claims were disputed by the United States, Chile, the Soviet Union, and Germany. In 1939, Norway successfully annexed the area and it was brought under Norwegian sovereignty.<sup>61</sup>

**SOUTH AMERICA**

Along with European nations laying claim to territories on the continent, Chile and Argentina also began to make their demands of land. With the onset of World War II, Chile took advantage of a broken Europe and established Chilean Antarctic Territory in areas claimed by Britain.<sup>62</sup>

Argentina was far more active in the periods working up to and after the Second World War. In 1904, Argentina began permanently occupying islands and purchased a meteorological station

---

<sup>57</sup> Ibid.

<https://www.chimuadventures.com/blog/2016/08/territorial-claims-politics-antarctica/>

<http://www.statoids.com/uaq.html>

[https://www.coolantarctica.com/Antarctica%20fact%20file/activity\\_of\\_UK\\_in\\_antarctica.php](https://www.coolantarctica.com/Antarctica%20fact%20file/activity_of_UK_in_antarctica.php)

<sup>58</sup> [https://www.coolantarctica.com/Antarctica%20fact%20file/activity\\_of\\_France\\_in\\_antarctica.php](https://www.coolantarctica.com/Antarctica%20fact%20file/activity_of_France_in_antarctica.php)

<sup>59</sup> Ibid.

Dunmore, J. (n.d.). From Venus to Antarctica: The Life of Dumont D'Urville. Retrieved from:

<https://www.scribd.com/book/358392842/From-Venus-to-Antarctica-The-life-of-Dumont-d-Urville>

<http://www.statoids.com/uaq.html>

<sup>60</sup> <https://www.cia.gov/library/readingroom/docs/CIA-RDP79-00976A000100010001-7.pdf>

[http://www.academia.edu/8142339/The\\_French\\_Segment\\_of\\_Antarctica\\_The\\_question\\_of\\_sovereignty\\_over\\_Ad%C3%A9lie\\_Land\\_in\\_1924](http://www.academia.edu/8142339/The_French_Segment_of_Antarctica_The_question_of_sovereignty_over_Ad%C3%A9lie_Land_in_1924)

<sup>61</sup> <https://www.cia.gov/library/readingroom/docs/CIA-RDP79-00976A000100010001-7.pdf>

<https://www.regjeringen.no/contentassets/cef2a67e958849689aa7e89341159f29/en-gb/pdfs/stm201420150032000engpdfs.pdf>

<https://brage.bibsys.no/xmlui/bitstream/id/238587/>

<sup>62</sup> <https://www.cia.gov/library/readingroom/docs/CIA-RDP79-00976A000100010001-7.pdf>



on Laurie Island from the Scottish National Antarctic Expedition. Similarly to Chile, during WWII, Argentina established *Argentine Antarctica* (1943) on a territory overlapping that of the British and Chilean claims.<sup>63</sup>

### UNITED STATES EXPEDITIONS

Unlike other nations, the United States of America only ever looked towards Antarctica for research and testing purposes and did not declare any territorial claims. From 1928-1941, the United States Antarctic Service Expedition and Rear Admiral Richard E. Byrd Jr. set several arctic expeditions aimed to establish research bases, and succeeded in establishing 3 bases named Little America I, II, & III, erecting a flagpole as part of the camp location on behalf of the U.S. Government. In 1946, under immense pressures of the increasing strategic considerations of the Arctic continent, the U.S. launched yet another expedition named *Operation High Jump*. This expedition became the largest manned expedition, with the greatest amount of money and equipment ever sent to the continent. With over “4,700 men aboard 13 navy vessels”, as well as 23 aircrafts, Rear Admiral Richard E. Byrd Jr. was named Officer-in-charge, and set on yet another expedition, his fourth in the Arctic continent, to establish the Antarctic research base Little America IV.<sup>64</sup> This was conducted to test equipment in frigid conditions and to train personnel for combat in freezing temperatures.<sup>65</sup>

### ANTARCTIC TREATY:

#### BUILD-UP

Following the claims by Chile and Argentina, the United Kingdom submitted an application to the International Court of Justice (ICJ) in 1955, aiming for a compromise on the conflicting claims it had with Argentina and Chile; this proposal failed due to the refusal of both Chile and Argentina<sup>66</sup>. The years 1955-1958 brought the rise of joint scientific expeditions and exploration to Antarctica, a cooperative effort of over 70 organizations to understand and research the region. These years saw the entrance of new state actors in the region, such as Japan.<sup>67</sup>

With the heightening threat levels of the Cold War, however, it became more apparent that the Antarctic territories held the potential to function as a testing group for major powers to test out nuclear weapons, and/or as a source of escalation of the Cold War conflict to military conflict. In an attempt to prevent this from happening, the United States, United Kingdom, Soviet Union, and

---

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<https://www.britannica.com/place/Little-America-research-station-Antarctica>

<http://www.americanpolar.org/polar-compendium/aps-history/>

<https://library.osu.edu/projects/conquering-the-ice/littleamerica.html>

<sup>65</sup> Ibid.

<https://www.cia.gov/library/readingroom/docs/CIA-RDP79-00976A000100010001-7.pdf>

<sup>66</sup> <https://www.icj-cij.org/en/case/27>

<https://www.icj-cij.org/files/case-related/27/027-19550504-APP-1-00-EN.pdf>

<sup>67</sup> [https://ir.canterbury.ac.nz/bitstream/handle/10092/10485/thesis\\_fulltext.pdf;sequence=1](https://ir.canterbury.ac.nz/bitstream/handle/10092/10485/thesis_fulltext.pdf;sequence=1)

<https://www.cia.gov/library/readingroom/docs/CIA-RDP79-00976A000100010001-7.pdf>



9 other countries negotiated and signed the Antarctic Treaty in 1959. This was to become the first arms control agreement established during the Cold War.<sup>68</sup>

### **ANTARCTIC TREATY:**

The treaty itself came into force in 1961 and set Antarctica aside as a scientific reserve, while establishing freedom of scientific investigation and banning military activity on the continent.<sup>69</sup> It was built on the principles on the Common Heritage of Mankind, stipulating that this territory is an element of human heritage and should not be exploited by any nations or corporations. As of 2018, 53 states recognize and adhere to the treaty.<sup>70</sup> Among other things, the treaty most notably forbids Military activities (Art. 1), does not recognize current standing territorial disputes (Art. 4), and prohibits nuclear explosions (Art. 5). Among these articles, the one most notable to commercial interests on the continent is Article 7.<sup>71</sup>

Article 7 discusses the right of any “Contracting Party whose representatives are entitled to participate in the meetings referred to in Article IX of the Treaty shall have the right to designate observers to carry out any inspection provided for by the present Article”. The Article dictates that observers shall have access to any and all parts of Antarctica, and that all parts, equipment, vehicles, and the like shall be open to any observer sent by a Contracting party for inspection. Furthermore, the Article dictates that all members must give notice in advance of any inspection, expeditions, and military personnel or equipment to be brought to the continent.<sup>72</sup> This article alone, in essence, regulates and sets a 'checks and balances' system to ensure the continuation of peaceful relations, research expeditions, and use of the Antarctic territories.

### **THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY:**

Initially, the Antarctica treaty did not include any moratorium or agreement on mining in the region.<sup>73</sup> Because unregulated exploration and mining was a potentially explosive topic which would have caused serious issues both environmentally and politically, the Treaty nations took a more uncertain approach. In 1976 they imposed a voluntary memorandum on exploration and exploitation of Antarctic resources and minerals. It was not until 1981 that the treaty nations agreed to start negotiations and discussions to form the Antarctic mineral regime comprehensively. Yet the topic was so complicated and uneasy that it took 7 years, until 1988, for the parties to come to an agreement. This agreement became the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA). CRAMRA originally regulated the exploitation of minerals in the continent but still permitting it as long as all parties agreed that there was no risk to the environment<sup>74</sup>. International campaigns, however, sought to alter this given the

---

<sup>68</sup> [https://www.ats.aq/index\\_e.htm](https://www.ats.aq/index_e.htm)  
[https://www.nti.org/media/pdfs/aptanta.pdf?\\_=1316542691](https://www.nti.org/media/pdfs/aptanta.pdf?_=1316542691)  
<https://www.state.gov/documents/organization/15272.pdf>

<sup>69</sup> <https://www.ats.aq/e/ats.htm>  
[https://www.nti.org/media/pdfs/aptanta.pdf?\\_=1316542691](https://www.nti.org/media/pdfs/aptanta.pdf?_=1316542691)  
<https://www.scar.org/policy/antarctic-treaty-system/>

<sup>70</sup> <https://www.nti.org/learn/treaties-and-regimes/antarctic-treaty/>

<sup>71</sup> [https://www.nti.org/media/pdfs/aptanta.pdf?\\_=1316542691](https://www.nti.org/media/pdfs/aptanta.pdf?_=1316542691)

<sup>72</sup> Ibid.

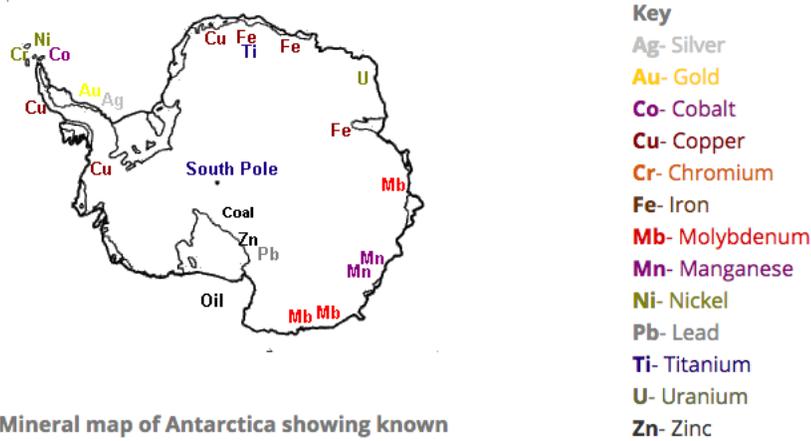
<sup>73</sup> <https://www.bas.ac.uk/about/antarctica/environmental-protection/mining/>

<sup>74</sup> <https://www.state.gov/documents/organization/15282.pdf>

involvement of Apartheid South Africa and the restriction CRAMRA would place on nations ability to extract minerals from their territories, so after international outrage the CRAMRA was altered, yet never went into force.<sup>75</sup> However, in 1991, the Protocol on Environmental Protection to the Antarctic Treaty was signed, and in 1998 went into force. The Environment Protocol, in Article 2, designates the entire Antarctica territory as “natural reserve, devoted to peace and science”. Additionally, the Environment Protocol effectively bans all mining on the continent. However, Art. 25 states that “If, after the expiration of 50 years any of the Antarctic Treaty Consultative Parties so requests, a conference shall be held as soon as practicable to review the operation of this Protocol”. This means that until 2048 mining is illegal in the region, but if a binding legal regime on all Antarctic minerals resource activities is in place and in force by that time, then the bans can be overturned or altered, and signatories could start mining for minerals legally.<sup>76</sup>

Antarctica’s natural resources:

Mining in Antarctica



Mineral map of Antarctica showing known significant deposits of minerals

The Antarctic continent is known to have vast amounts of resources both in its land-based and maritime territories. The mineral deposits are estimated to surpass those of other regions of comparable size; however, the main difficulty lies in reaching them. Antarctica’s weather, environment, and distance from industrialized areas renders any attempt to extract minerals or oil extremely expensive and possible only via dangerous methods of extraction. The surrounding oceans are also extremely dangerous and tricky to navigate due partially to the vast regions of frozen waters and treacherous icebergs. Even if the resources were to be extracted, the icebergs would also pose a threat to piping or transportation. Furthermore, it is estimated that the easily accessible large deposits may not even be economically viable to mine, given the costs of extraction, transportation, and the quality of the minerals.<sup>77</sup>

<sup>75</sup> Van der Watt, L. (2012, December 14). Return to Gondwanaland: South Africa, Antarctica, minerals and apartheid. Retrieved from <http://www.tandfonline.com/toc/rpol20/3/1?nav=toCList>

<sup>76</sup> <https://www.ats.aq/e/ep.htm>  
[https://www.ats.aq/documents/recatt/Att006\\_e.pdf](https://www.ats.aq/documents/recatt/Att006_e.pdf)

<sup>77</sup> [https://www.coolantarctica.com/Antarctica%20fact%20file/science/threats\\_mining\\_oil.php](https://www.coolantarctica.com/Antarctica%20fact%20file/science/threats_mining_oil.php)



Coal has been found in two separate regions on the continent (the Transantarctic Mountains and Prince Charles Mountains). Apart from the poor locations of these deposits, the quality of the coal itself was deemed subpar and thus not worth the effort. Iron ore is also present on the surface, as well as deep under the ice. However, similarly to coal on the continent, it has poor iron content and its depth makes it highly impractical to extract. Two locations theoretically also hold stores of chromium and other minerals and are claimed to contain gas and oil. No drilling to discover oil has been undertaken yet but estimates range between vast stores to minute and isolated ones. Despite this, it is estimated that the costs of extracting oil and gas in Antarctica could cost up to \$100 per barrel, which greatly surpasses the 2015 selling price of \$58.<sup>78</sup>

As a result, researchers imply that resource extraction in the region may not be viable in any way for the time being.<sup>79</sup> However, until 2048 we may see new developments in terms of climate change. Stores that used to be covered by ice millions of years old may be more exposed and accessible than ever before, posing a fantastic opportunity to commercially mine the surface of the continent. At the moment, the need for oil and gas is satiable with the current sources available.<sup>80</sup> By 2048, however, should the transition towards green energy not have been as successful as hoped, and the need to look towards other sources of fuel and minerals arise, the ban on mining may thus be lifted and commercial mining, although deemed extremely hazardous and currently not financially beneficial to attempt, could follow.<sup>81</sup> Thus, it is important to be prepared for any situation or possibility.

### QUESTIONS TO ANSWER:

- Should a framework be established to begin revising the Antarctic Treaty?
- What role should the G20 have in facilitating commercial investments in disputed territories?
- Is there a possibility of resolving territorial disputes through an economic approach?
- How can the G20 secure trade within disputed territories?
- How can trade routes passing through disputed territories be secured by the international community?
- Do nations have the right to influence disputed territories to their own economic advantage?
- Should frameworks to secure Multinational Firms affected by territorial disputes be established? If so, how?
- Should the council encourage efforts to investigate the prospect of commercial investments in the area? Why? How?

---

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>80</sup> <https://www.eia.gov/tools/faqs/faq.php?id=38&t=6>

<sup>81</sup> <https://www.ats.aq/e/ep.htm>

[https://www.ats.aq/documents/recatt/Att006\\_e.pdf](https://www.ats.aq/documents/recatt/Att006_e.pdf)

<http://www.mining.com/mining-the-antarctic-a-big-no-no-57506/>



- How can the council secure a viable platform to conduct trade or economic activity in the face of disputed territories, and what needs to be addressed and / or agreed upon to reach this platform?
- How can multilateral trade agreements be used to help mitigate territorial disputes?
- Can regional trade unions help mitigate territorial disputes?
- Can frameworks be implemented to secure commercial investors and Multi-National Corporations from territorial disputes in order to allow free trade to continue unimpeded by these disputes?



## **TOPIC B: CREATING A GLOBAL TRADING PLATFORM FOR THE DEVELOPMENT OF RENEWABLE ENERGY RESOURCES**

### **CLIMATE CHANGE**

There is a wide consensus among the international community regarding the existence of climate change and its promotion by human and machine activity.<sup>82</sup> The Framework Convention on Climate Change (UNFCCC) defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable periods” (Article 1).<sup>83</sup> Climate change is therefore one of the biggest challenges humanity is facing, as it adds considerable stress to the environment and our societies. In the past two decades the evolution of an international climate change regime has been created. Various attempts towards mitigating the negative effects of climate change have been made; organizations such as the International Energy Agency (IEA), the UNFCCC, and even the World Bank Organization (WBO) have made progress towards this goal. The regime has gathered support and validity with the UNFCCC and the Kyoto Protocol as its main supporting pillars. The Kyoto Protocol set international limitations restricting developed nation’s greenhouse gas emissions and established a carbon market aiming to decrease the cost of reducing emissions and increase private investments. This in turn set the stage for States to begin the formation of their national strategies concerning climate change management and its implications. However, there remain those who claim climate change is not a cause warranting alarm, even given the significant scientific proof of its existence.<sup>84</sup> Moreover, the regime remains very limited, as can be seen by its failure to decrease greenhouse gas emissions, which have actually increased since the regime’s creation, and the efforts have only provided negligible support to developing nations and have been largely unsuccessful in gathering a cooperation in research, development, funding concerning technology acquisition for the creation of low-carbon. Even the Clean Development Mechanism (CDM) has failed to bring substantial change.<sup>85</sup>

### **CLIMATE CHANGE AND ITS IMPACTS**

Between 1880 and 2012, the average global temperature increased by 0.85°C. However, the warming of the global system since the 1950s has been unprecedented, with the atmosphere and oceans having warmed, the amounts of snow and ice having diminished, sea levels having risen, and the concentration of greenhouse gases having increased. It is evident that the changes in the

---

<sup>82</sup> <http://www.consilium.europa.eu/en/policies/climate-change/international-agreements-climate-action/>

<sup>83</sup> UN Framework Convention on Climate Change, 1992: <https://unfccc.int/resource/docs/convkp/conveng.pdf>

<sup>84</sup> Rahmstorf, S., 2004, *The climate sceptics: Weather Catastrophes and Climate Change—Is There Still Hope For Us?* (Munich: PG Verlag) pp 76–83

<sup>85</sup> *Integrating development into a global climate regime (PDF)*, in World Bank 2010, p. 233



climate system are largely caused by human influence, mainly resulting from increasing greenhouse gas emissions, to the extent that it is extremely like that human influence has been the dominant cause of the observed warming since the mid-20<sup>th</sup> century. Continued emissions of greenhouse gases will lead to further warming and changes in the climate system. Limiting these changes will require substantial and sustained reductions of greenhouse gas emissions. Given the current concentrations and ongoing emissions of greenhouse gases, it is predicted that at the end of this century we will see a 1-2°C increase in global mean temperature relative to 1990. Average sea level rise it predicted to be between 24-30 cm by 2065.<sup>86</sup>

The impacts of climate change on our natural and human systems are vast. Changing precipitation or melting snow and ice are affecting water resources in terms of quantity and quality and climate change has also had a negative impact on crop yields. Climate change has caused increasing vulnerability of some ecosystems and human systems, largely due to heat waves, droughts, floods and wildfires. Such climate-related hazards affect the poorer populations through impacts on livelihood, reductions in crop yield, destruction of homes and in a further step through increased food prices.<sup>87</sup> Some argue that the alarming evidence suggests that important tipping points have already been reached, meaning that irreversible changes have been caused to ecosystems and the climate system in general.<sup>88</sup>

## INTERNATIONAL EFFORTS TO COUNTER CLIMATE CHANGE

The need to counter the phenomenon of climate change is obvious and many attempts towards mitigating the negative effects of global warming have been made. The Intergovernmental Panel on Climate Change (IPCC)<sup>89</sup> was set up by the World Meteorological Organization (WMO)<sup>90</sup> and the United Nations Environment Programme (UNEP)<sup>91</sup> in order to provide an objective source of scientific information. At the “Earth Summit” in 1992, the UN established the United Nations Framework Convention on Climate Change (UNFCCC), which was considered a first step in addressing the climate change problem<sup>92</sup>. Today, it has near-universal membership with 197 signatories, and aims at preventing dangerous human interference with the climate system.<sup>93</sup>

In 1997, the Kyoto Protocol was adopted, which introduced legally binding emission reduction targets for the UNFCCC parties. Under the principle of “common but differentiated responsibilities”, the Protocol places a heavier burden on developed countries, recognizing that they are responsible for the larger part of greenhouse gas emissions as a result of more than 150

---

<sup>86</sup> IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis: [https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5\\_SPM\\_FINAL.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_SPM_FINAL.pdf)

<sup>87</sup> IPCC, 2014: Summary for policymakers. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects: [https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5\\_wgII\\_spm\\_en.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf)

<sup>88</sup> Climate Change. (n.d.). Retrieved from <http://www.un.org/en/sections/issues-depth/climate-change/>

<sup>89</sup> <https://www.ipcc.ch/>

<sup>90</sup> [https://www.wmo.int/pages/index\\_en.html](https://www.wmo.int/pages/index_en.html)

<sup>91</sup> <https://www.unenvironment.org/>

<sup>92</sup> <https://unfccc.int/resource/docs/convkp/conveng.pdf>

<sup>93</sup> <https://unfccc.int/>



years of industrial activity.<sup>94</sup> The fact that the Kyoto protocol only requires developed countries to take action is considered its main weakness. More than that, the United States never signed the Protocol, Canada pulled out before the end of the first commitment period and Russia, Japan and New Zealand are not taking part in the second commitment period. That means that currently the Protocol only applies to around 14% of the world's emissions.<sup>95</sup>

In 2015, the parties to the UNFCCC reached another landmark agreement, the Paris Agreement, to combat climate change and to accelerate and intensify the actions needed to lower carbon emissions. The Paris Agreement's central aim is to keep the global temperature rise until the end of the century below 2°C (relative to pre-industrial levels). The agreement also seeks to increase the ability of countries to deal with the impacts of climate change, while also making finance flows consistent with low greenhouse gas emissions. The Agreement seeks to encourage all parties to make best possible efforts by requiring them to report regularly on their emissions and their implementation efforts.<sup>96</sup> It was ratified by at least 55 countries accounting for over 55% of global greenhouse gas emissions. Met with great international support, it has lost some of its traction since first coming into action. With the United States stepping out of the Agreement, and other nations failing to meet the requirements it is still debatable how great of an impact the agreement will really have. Despite this, it is considered by many to be the first step in the right direction.<sup>97</sup>

## THE INTERNATIONAL ENERGY AGENCY

In 1974, the International Energy Agency was founded to help countries coordinate a collective response to major disruptions in the supply of oil, such as was the case in the crisis of 1973/4.<sup>98</sup> Today, the IEA has evolved and expanded significantly, standing at the heart of global dialogue on energy. It focuses on the areas of energy security, economic development, environmental awareness and worldwide engagement for finding solutions to energy concerns. It serves as a source of information about the international oil market and provides statistics and analysis regarding energy issues, advocating policies that enhance reliability, affordability and sustainability of energy.<sup>99</sup> Furthermore, the IEA works with member and partner nations to develop cost-effective and efficient energy policies, including trading mechanisms and low-carbon technologies.<sup>100</sup>

---

<sup>94</sup> <https://unfccc.int/process-and-meetings/the-kyoto-protocol/what-is-the-kyoto-protocol>

<sup>95</sup> <http://www.consilium.europa.eu/en/policies/climate-change/international-agreements-climate-action/>

<sup>96</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>

<sup>97</sup> <http://www.consilium.europa.eu/en/policies/climate-change/international-agreements-climate-action/>

<sup>98</sup> Scott, Richard (1994). *History of the IEA: The First 20 Years (PDF)*. Volume I: *Origins and Structure*. OECD/IEA. ISBN 92-64-14059-X. Archived from the original (PDF) on 2007-04-15

<sup>99</sup> <https://www.iea.org/about/history/>

<sup>100</sup> *International Energy Agency (IEA) (2012). A Policy Strategy for Carbon Capture and Storage (PDF) (Report)*



## SCARCITY OF FOSSIL FUELS

### COAL

In 2016, 27.1% of the world's total primary energy supply was made up by coal and 31.9% by oil, 22.1% by natural gas. That means that coal supplies a third of all energy used worldwide. In addition, it makes up 40% of electricity generation and plays a crucial role in industries such as iron and steel. Even though there are legitimate concerns regarding air pollution and greenhouse gas emissions when processing coals, it will continue to be a significant source of energy in the future.<sup>101</sup> While there was a significant decline in the use of coal in the United States, China (the largest coal consumer by far) and the United Kingdom, rising coal use was registered in India and other Asian countries in 2016. In Europe, the prospects for coal use are bleak and mainly tied to Poland and Germany, accounting for more than half of the coal consumed in the European Union. These contrasting trends result in a global stagnation of coal use.<sup>102</sup>

### OIL

The global oil demand is constantly, though slowly, increasing. Oil production growth from the United States, Brazil, Canada and Norway can keep the world well supplied. Over the next three years, gains from the United States alone will cover 80% of the world's demand growth. Boosted by economic growth in Asia and a resurgent petrochemicals industry in the United States, global oil demand will increase by 6.9 mb/d by 2023, to 104.7 mb/d. China is the main engine of demand growth, but policies to curb air pollution will slow the growth down.<sup>103</sup>

### NATURAL GAS

Natural gas supplies 22% of the energy used worldwide and makes up almost 25% of electricity generation. Natural gas is versatile and the growth in its use is due to its environmental benefits compared to other fossil fuels, particularly for air quality as well as greenhouse gas emissions. China is by far the largest consumer of natural gas, followed by the Middle East, North American and Asia Pacific.<sup>104</sup>

### NUCLEAR POWER

Nuclear energy provides access to clean, reliable and affordable energy, mitigating the negative impacts of climate change. Nuclear power has historically been the larger contributor of carbon-free electricity and therefore its potential to contribute to power sector decarbonization is

---

<sup>101</sup> <https://www.iea.org/topics/coal/>

<sup>102</sup> <https://www.iea.org/coal2017/>

<sup>103</sup> <https://www.iea.org/newsroom/news/2018/march/record-oil-output-from-us-brazil-canada-and-norway-to-keep-global-markets-well-.html>

<sup>104</sup> <https://www.iea.org/topics/naturalgas/>



significant. At the same time, nuclear power often faces restrictions under different jurisdictions, due to concerns over safety and the lack of public acceptance. Currently China and India account for 91% of the increase in nuclear output worldwide.<sup>105</sup>

## **GLOBAL SHIFTS IN THE WORLD ENERGY SYSTEM**

Long-term global economic growth cannot be achieved without adequate and affordable energy supplies, which will require continuing significant contributions from fossil fuels, including coal. The world economy and population has more than doubled in the last 50 years, bringing with it extreme and ever-increasing demands of the environment and energy resources.<sup>106</sup>

Organizations such as the International Energy Agency (IEA), The United Nations Framework Convention on Climate Change (UNFCCC), and even the World Bank Organization (WBO) have made significant progress towards the goal of shifting to more affordable energy supplies. However, these efforts are

G20 members account for 85% of the global economy, 75% of world trade and two-thirds of the global population. The energy mix in G20 economies varies strongly but most countries rely on a high share of fossil fuels in total energy supply<sup>107</sup>. At the same time, together, G20 economies account for 81% of global renewable power capacity, 82% of global energy-related CO<sub>2</sub> emissions and 77% of global energy consumption.

## **RENEWABLE ENERGY**

Carbon dioxide emissions have stabilized over the past three years, but global energy consumption is nevertheless predicted to increase by 48 percent by 2040.

## **CLIMATE CHANGE AND TRADE:**

Open markets improve resource allocation, allowing goods to be produced where they are more efficiently produced (environmentally and economically). Increased trade can support economic growth, development and social welfare, thereby contributing to a greater capacity to manage the environment more effectively. The lowering of trade barriers internationally has allowed international trade to flourish, increasing the overall economic welfare. By producing goods in markets with a competitive advantage, these markets are able to increase their relative welfare, while contributing to the benefit of global trade. This allows economies of scale to develop, further

---

<sup>105</sup> <https://www.iea.org/topics/nuclear/>

<sup>106</sup> <https://ourworldindata.org/economic-growth>  
<https://web.stanford.edu/~chadj/facts.pdf>  
<https://ourworldindata.org/world-population-growth>

<sup>107</sup> <https://www.iea.org/topics/engagementworldwide/subtopics/co-operationwithkeyinternationalfora/g20/>



reducing prices of certain commodities. With the increased free trade of 7% since 1947, playing a key role in overall economic growth<sup>108</sup>. It is thus crucial to understand the relationship between trade and pollution, if global trade is to continue to thrive. The key aspects of this relation are the dependency on fossil fuels, carbon leakage, and the high cost of renewable energy sources.

### **FOSSIL FUEL DEPENDENCY**

Many economies, as well as many G20 economies rely on the trade of fossil fuels. This dependence on these resources is referred to as the “Dutch Disease”. This describes high economic gain from fossil fuels and the crowding out of other sectors of the economy. Named after the discovery of natural gas in the Netherlands in the early 1970’s, countries affected by this see less growth in manufacturing sectors, as well as a decrease of other exports due to an appreciating currency<sup>109</sup>.

Many nations are reliant on either national gas and oil companies (OPEC and Russia), or large private companies. In order to facilitate the transition to renewables, these industries and firms need to be guaranteed a secure environment to continue operating, otherwise a transition to a green future may be impossible. Securing these firms requires new institutional frameworks, both nationally and internationally<sup>110</sup>.

### **CARBON LEAKAGE**

This leads to another crucial point on trade and climate change: Carbon leakage. Globalization has made it easier for firms to delocalize, but this has also given rise to increased pollution levels in developing nations. Harsh environmental regulation in one country may lead to the firm moving production to countries with less regulation. In that sense, less regulation promotes excessive pollution.

Under the UNFCCC, nations agree on their individual responsibility on regulation, but the principle of “Common but Differentiated Responsibilities” (CBDR) raises confusion among each member’s duties. Under this, developing nations are expected to not be able to contribute as much as developed nations, and should not be hampered in their progress towards economic development<sup>111</sup>. As a result, other nations with larger market power are able to use this power to enforce the treaties through trade agreements. This is against one of the fundamental agreements of the UNFCC Article 3.5, and the General Agreement on Tariffs and Trade, which

---

<sup>108</sup> <https://www.nrel.gov/docs/fy17osti/68149.pdf>

<sup>109</sup> Boschini, A. D., Pettersson, J. and Roine, J. (2007), Resource Curse or Not: A Question of Appropriability. *The Scandinavian Journal of Economics*, 109: 593–617.

<sup>110</sup> Mehlum, H., Moene, K. and Torvik, R. (2006), Institutions and the Resource Curse. *Economic Journal* 116, 1–20

<sup>111</sup> Stone, C. D. (2004). Common but Differentiated Responsibilities in International Law. *The American Journal of International Law*, 98(2). 276-301. Cambridge: Cambridge University Press.



both condemn the use of unilateral agreements by one country with large market power to force the hands of less developed nations<sup>112</sup>.

#### **THE ECONOMICS BEHIND CHANGING RENEWABLE ENERGY:**

The transition from fossil fuels to renewable energy faces yet another obstacle - the cost. However, this may not be an issue in some countries, while in others it presents the main reason why they are not adopted yet. As it stands, the cost of producing 1 megawatt-hour of electricity is around \$50 for solar energy in the United States, which is considerably lower than the \$100 price tag for coal in the United States<sup>113</sup>. However, the same cannot be said for a developing nation like Indonesia, where the cost of renewable energy is far higher than fossil fuels, mainly due to the high demand for low-cost alternatives rather than green energy<sup>114</sup>.

Another hurdle to face with renewable energy is the cost of storing renewable power. Solar energy is dependent on the sun, meaning that cloudy days result in no power being generated. Similarly, windmills cannot produce electricity on non-windy days. Alternatively, fossil fuels can be burned at any moment, and nuclear reactors can run at any time of the day, independent of weather conditions. Battery and storage capabilities, therefore, need to improve before being fully adopted<sup>115</sup>. Until then, nations can use a mix of renewable and traditional energy sources, or even revert to selling excess electricity to neighboring countries. Selling renewable energy can have the benefit of opening a new exportable commodity, and can also power regions experiencing current hurdles in weather.

Furthermore, the transition to renewable energy can happen on a more commercial level. Many corporations are already making the move towards 100% renewable energy consumption, and researchers believe that with an extra incentive by the global political environment this switch may happen sooner and at lower cost<sup>116</sup>. Much of this is attributed to increasing a firm's Corporate Social Responsibility (CSR), where implementing such corporate policies can be used as a marketing strategy to make the firm seem more environmentally friendly<sup>117</sup>. However, with the example of the European Union, these policies may actually be incorporated so as to avoid further taxation.

As mentioned previously, facilitating trade opens the path towards innovation. Open trade allows for foreign competition, driving prices down and quality up. Thus, the same can be expected for renewable energy and related technologies. Market research shows that current renewable energy technology is concentrated in few markets and limited by protectionist policies aimed at protecting domestic energy suppliers. Possible ways of moving forward can include promoting trade as a whole. The World Trade Organization (WTO) may just yet rise as the platform for the liberalisation of trade of renewable energy technologies. In 2013 the WTO rules against local

---

<sup>112</sup> Droege, S., Asselt, H., van, Das, K., & Mehling, M. (2016). The Trade System and Climate Action: Ways Forward Under the Paris Agreement. *Climate Strategies*

<sup>113</sup> <https://www.businessinsider.nl/solar-power-cost-decrease-2018-5/?international=true&r=US>

<sup>114</sup> <https://www.reuters.com/article/us-indonesia-coal/indonesia-caps-domestic-coal-price-for-power-stations-could-hit-miners-idUSKCN1GL0F7>

<sup>115</sup> <https://www.businessinsider.nl/solar-power-cost-decrease-2018-5/?international=true&r=US>

<sup>116</sup> <https://www.nrel.gov/docs/fy17osti/68149.pdf>

<sup>117</sup> Hamideh, Maria. "A Survey of Effects of International Trade on Growth." *International Trade from Economic and Policy Perspective*, 2012, doi:10.5772/50097.



measures to secure jobs in the renewable energy sector of Ontario in a dispute between Japan Canada<sup>118</sup>.

### DIFFICULTIES OF GREEN ENERGY

Unlike fossil fuels or nuclear energy, renewable energy sources are almost entirely dependent on weather conditions and other natural factors. Energy from the capturing of wind flow using windmills is a technology that has been used in one way or another for centuries. Modern windmills are used to supply energy to supplement an existing energy supply to take advantage of windier days<sup>119</sup>. These 'wind farms' are also able to generate electricity that can be purchased contractually or through competitive bidding by other power suppliers. This allows suppliers of wind energy to make a profit of excess energy, and also allows energy suppliers to spare their fossil fuels and purchase excess energy. This leads to economies of scale, since smaller farms or even residential scale turbines cost less overall, but are more expensive per kilowatt of energy produced<sup>120</sup>. The current market sees two major players, namely the American General Electric (GE) and German Siemens. The competition between the two has resulted in continuous improvement in technology and efficiency, and most importantly, has helped reduce cost. Research shows the connection between local research and development in renewable energy technologies and the increase in international trade of these products<sup>121</sup>. More competition could therefore provide an incentive for increased R&D in that manner.

Solar energy is the conversion of light into heat, which is then used to boil a conventional steam generator or turbine. As mentioned previously, another issue concerning solar energy is the sun itself. Cloudy days render the harnessing of solar energy impossible, and the inability to store the energy means that it is both inefficient and risky to rely solely on solar energy.

Other sources include hydroelectricity from kinetic energy from flowing rivers, and carbon capture. Hydroelectricity is dependent on the body of water that is being used to harness the energy, and is therefore not applicable in every location. Carbon capture and storage (CCS), however, is not a form of generating energy, but a form of storing CO<sub>2</sub> released by the burning of fossil fuels. This is seen as a way to mitigate the effect of the emission of CO<sub>2</sub> into the atmosphere, and instead redirecting the gas into geological formations underground. Since it may not be feasible for developing nations to immediately lower their dependency on coal, studies suggest CCS to be a necessary intermediary step<sup>122</sup>. This option could also be explored for gas, or the substitution of gas for coal.

---

<sup>118</sup> Jha, Veena. "Removing Trade Barriers on Selected Renewable Energy Products in the Context of Energy Sector Reforms." Oct. 2013, doi:10.7215/gp\_bp\_20131210.

<sup>119</sup> Bird, Lori, et al. "Policies for Enabling Corporate Sourcing of Renewable Energy Internationally: A 21st Century Power Partnership Report." 2017, doi:10.2172/1360891.

<sup>120</sup> <https://blogs.scientificamerican.com/plugged-in/wind-energy-is-one-of-the-cheapest-sources-of-electricity-and-its-getting-cheaper/>

<sup>121</sup> Kim, Kyunam, and Yeonbae Kim. "Role of Policy in Innovation and International Trade of Renewable Energy Technology: Empirical Study of Solar PV and Wind Power Technology." *Renewable and Sustainable Energy Reviews*, vol. 44, 2015, pp. 717–727., doi:10.1016/j.rser.2015.01.033.

<sup>122</sup> Jha, Veena. "Removing Trade Barriers on Selected Renewable Energy Products in the Context of Energy Sector Reforms." Oct. 2013, doi:10.7215/gp\_bp\_20131210.



## INTERNATIONAL BODIES TO LOOK TO:

### ASIAN INFRASTRUCTURE INVESTMENT BANK (AIIB):

Proposed in 2013, the initiative towards an Asian Infrastructure Investment Bank (AIIB) came into force in 2014. It is a multilateral development bank that aims to support the building of infrastructure in the Asia-Pacific region with a focus on sustainable infrastructure, cross-border connectivity and private capital mobilization. Its credit rating rivals the World Bank and International Monetary Fund. The United Nations sees the AIIB of having the potential to “scale up financing for sustainable development”<sup>123</sup>.

With the capacity that the AIIB has to invest, it is quite possible to see this as the first step towards facilitating the switch towards renewable energy. An investment bank geared towards the Sustainable Development of a region makes it possible for investment into new renewable technologies to occur at lower costs. 45% of all projects financed by the AIIB are in the energy sector, and the bank boasts the Sustainable Energy for Asia Strategy, aimed at investing in energy projects that increase access to clean energy<sup>124</sup>. This, however, is only focused on the Asia-Pacific region and is criticised as being a project spearheaded solely by China<sup>125</sup>. Using the AIIB as inspiration, it may be possible to follow suit on the global platform, using similar investment banking approaches.

### WORLD TRADE ORGANIZATION:

Transformed from the old GATT, the World Trade Organization (WTO) was founded in 1994. Based in Geneva with 164 members, the WTO is best known for its Dispute Settlement Mechanism (DSM), its own method of adjudication for disputes. It relies on the compliance of its members to go with its decisions, enforced by allowing the complaining member to retaliate.

As mentioned previously, the WTO managed to clear the first dispute on renewable energies in 2014. The role of the WTO could be extended to more than just dispute settling. Economists suggest liberalising trade on goods related to renewable energies by reducing tariffs down to 5%<sup>126</sup>. Tariffs on these goods are in place to protect domestic producers, encourage investments in domestic producers, and to generate revenue. Producers cut production, owing to this reduction in demand, which causes job losses. These job losses impact other industries, as the demand for consumer products decreases because of the reduced employment. A reduction of the tariffs to 5% will result in increased production capacity in most cases, while also increasing the import and export of renewable energy across borders<sup>127</sup>.

---

<sup>123</sup> <https://www.aiib.org/en/index.html>

<sup>124</sup> [http://ris.org.in/pdf/aiib/14may2018/Inaugural/Laurel\\_Ostfield.pdf](http://ris.org.in/pdf/aiib/14may2018/Inaugural/Laurel_Ostfield.pdf)

<sup>125</sup> Mathews, John A., and Hao Tan. “China’s Renewable Energy Revolution.” 2015, doi:10.1057/9781137546258.

<sup>126</sup> Jha, Veena. “Removing Trade Barriers on Selected Renewable Energy Products in the Context of Energy Sector Reforms.” Oct. 2013, doi:10.7215/gp\_bp\_20131210.

<sup>127</sup> Jha, Veena. “Removing Trade Barriers on Selected Renewable Energy Products in the Context of Energy Sector Reforms.” Oct. 2013, doi:10.7215/gp\_bp\_20131210



The involvement of the WTO would be an example of multilateral systems, applicable to all 164 member states. Nations may also be involved in Regional systems, referring to treaties and organizations such as the European Union (EU), MERCOSUR, or the Association of South-East Asian Nations (ASEAN). These are aimed at further liberalization of matters that may or may not be covered in the multilateral agreements of the WTO. On the other hand, nations may engage in bilateral agreements, in which an agreement is made between two parties. These can take advantage of good relations between nations, resulting in agreements that could be more inclusive or beneficial for both parties. However, these agreements must abide with Article XI of the GATT, which prohibits a quantitative restriction (quotas) under trade rules, as well as Article XXIV which ensures that any bilateral trade agreement does not result in further restriction on global trade. Whether renewable energies should become part of multilateral trade agreements that may benefit certain nations more than others, or arranged through bilateral agreements aimed towards freer trade amongst two nations is still up for question.

### QUESTIONS TO ANSWER:

- Should nations focus more on transitional methods rather than moving straight into renewable energy?
- What role should the G20 have in facilitating investments into renewable energy?
- Is there a potential for climate change to be addressed effectively through trade policy?
- Are multi- or bilateral agreements, or even regional trade systems more suited for the trade of renewable energy goods?
- Can an investment bank similar to the AIIB be established amongst the G20 focused on renewable energy?
- What role does the WTO play in promoting investments in renewable energy?
- Should treaties and agreements be enforced through economic policy?
- What steps can be taken to reduce the economic disadvantages to changing to renewable energy?
- How can developing nations be made to benefit from renewable energy without giving up their potential for economic growth?
- What agreements or policies can be implemented that do not disadvantage nations dependent on a certain fossil fuel?
- How can the costs of renewable energy be made affordable for the majority of the population?