The Group of Twenty

Research Report

The Question of:

The effects of transitioning towards a carbonfree economy on employment

Introduction

Going carbon-free is not emitting any CO2 emissions to the biosphere[1], which is impossible as of 2019. What is possible though is sharply decreasing carbon emissions, which is what is needed to save the planet from increasing in temperature and deteriorating living circumstances for humans all around the world. There are more than a few key events that have been done on the issue, which have been listed in the Time line part of the General Overview; The Paris Climate Agreement, the climate preservation plans of the UK, Scandinavia and Europe, and the (pre- 2016) plans of the United States that were aimed to go ''waste-free''.

The concept of carbon-free economy is very intriguing and futuristic. It gives hope to the public and sets the world up for a much cleaner & sustainable cycle. Saving the environment may seem like the safest bet as of today, but there are many more sides to the issue, and our topic of unemployment caused by it is one of those sides. I'll be tackling most of the sides that lead to the futuristic revolution of the 2010s which is still continuing, and give some additional information to the general info needed to be known about the topic. I hope this General Overview shows to you that even the only way to save the world has it's downsides -large ones, in that- and that on a larger scale, cooperation is a must between states who are willing to put their faith in the plan that could risk their whole economic infrastructure. It sounds intimidating, but many countries have announced their plans to go carbon-free already, but many also have restrained from doing so.

The Committee

The G20 is a committee consisting of the 20 largest economies in the world. The 2019 attendees were the Presidents of Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom, United States, The European Council and the European Commission, with an added invitees of Chile, Egypt, the Netherlands, Senegal, Singapore, Spain, Thailand and Vietnam, also including special guests such and the heads of the IMF (International Monetary Fund) and Antonio Guterres, the UN Secretary General[1].

A rather recently founded summit, the G20, only has a history reaching back to 20 years, aiming to solve the Asian financial crisis and bring financial establishment globally. It used to only be attended by the finance ministers of the respective countries for about 10 years, but the 2008 financial crisis led the world leaders to believe that they should assess the problem(s) too, rather than solely leaving It to their financial deputies. As of 2019, the G20 is attended by Finance Ministers, Foreign Ministers and Heads of State[2].

The G20 has transformed from a purely financial summit, to an occasion where not only finance, but also things like economics and sociocultural issues were discussed. Anything said or done in the G20 can have a considerable global effect, which was the case in the last 3 G20 summits; The 12th, 13th and 14th summits, respectively the 2017 G20 in Hamburg, Germany, 2018 G20 in Buenos Aires, Argentina and 2019 G20 in Osaka, Japan drew a lot of attention from the media, mainly due to the decisions made by Heads of State. Many believe that these last few summits have led to a short-term tariff war.

Our committee will use the rules of the THIMUN procedure. That means that you will have lobbying time and will be called to the podium by raising your placards. I would sincerely appreciate everyone following their country's policy, act in a diplomatic manner and be respectful to one another. Except for that, I have nothing else to expect. I hope we'll have a very enjoyable conference. This committee is destined to be a great one, especially considering the impact the G20 has on the world.

Key Terms

Unemployment Rate: The percentage of inhabitants in a country, area or continent who are without a job; who are jobless.

The P.C.A./ Paris Climate Agreement*2: An agreement consisting of 185 parties, 11 signatories and the European Commission. The agreement aims to restrain the global temperature to less than 2 degrees.

Climate Change*3: A distinctive change in global or regional climate patterns.

Carbon-free/Low Carbon economy*1: An economy based on the minimal output of greenhouse gas emission, carbon dioxide, to be released into the biosphere

MEDC (More Economically Developed Country): A country that is more developed economic-wise in comparison to the rest of the world.

LEDC (Least/less economically Developed Country): A country that is less developed from an economic standpoint in comparison to the rest of the world.

General Overview

It is no secret that the destructive effects of climate change are becoming inevitable, Therefore a lot of countries and unions, such as the EU, U.K. and the Scandinavian countries are very strict on transitioning towards a carbon-free economy. From the outside, it may seem like the countries who are willing to go carbon-free have risked the matter of employment, or possible lack thereof, but the strong economic histories of the respective countries show otherwise. From any government's point of view, there are two options: announcing a carbon-free economy plan and trying your best to save the world and find employment, or simply not going carbon-free and working for your own benefit. None of these are blameworthy, on one side the respective government is trying to save the world and seek possible investment opportunities, and the other side is not risking anything by keeping their same economic structure. Both benefit the countries either long-term or short-term. The most compelling argument that could be made against the ''anti climate change'' countries is that if there

isn't a world to live in, nor will there be an economy to sustain. There shouldn't be any questions asked to the countries who are against going carbon-free, but statements made. Not going carbon-free has its own risks on its own such as global destruction in the next 50 years. There's nothing to be done regarding the views of administrations of countries, as they are their own and their citizens' decisions to make.

As stated in the introduction, the repercussions of going carbon-free are very large, one of the substantial problems surrounding the issue being unemployment, especially in large sectors such as the automotive and energy industry. The next few chapters will explain why some things are done by some countries, and how they are justifiable. Not all countries can be judged the same, as even a small aspect like the location of the country may increase or decrease its sustainability due to social effects it might generate.

Unemployment effects a country's social and economic position very deeply, a country which lacks both is destined to shrink, if not already. The economic aspect of unemployment is ruinous to a country, everything regarding the negative effects of unemployment are connected, a *butterfly effect* if you will. Firstly, there are two things that are directly connected to each other: unemployment and re-entering the job market. The length of unemployment is[3,4] usually lower in MEDCs than in LEDCs, since people living in MEDCs are more likely to quit their job to pursue another one, such as an investment or because they have the CV to back them up if they are unhappy with their current job and can find a new job rather quickly, since the job market is large and there are a lot of opportunities to be pursued, whereas it's the exact opposite in LEDCs. LEDCs have smaller economies, which leads to more unemployment as a result of the lesser job market, investment opportunities and workforce skill. MEDCs' economies will constantly boost themselves, as more experience results in more jobs and more jobs result in, presumably, more job experience. It could be viewed as a constant loop of development. A LEDCs economy will be the contrary, where less job experience would result in less jobs, which would again result in less job experience. The type of worker also factors in when the difference between two economies is investigated. For instance, the career of any type of private-sector worker in an MEDCs would go as follows: He/she will start his/her career of rather slow in order to get into the job market, where he/she will most likely do some networking, and then would (given that his financial status is sufficient enough) think of an idea, or help someone establish their idea in a rather large-scaled investment opportunity, whereas that investment opportunity isn't even available in the LEDC. A blue-collar worker in an LEDC will also likely try to move to another country, as the wages, working & living conditions are significantly worse than a country that would be recognized as more developed, which would lessen the amount of workers and job experience in the LEDC even more, and speed up the cycle of economic deterioration. The incredibly scary part is just that the strong get stronger and the weak get weaker. With carbon-free economies, some states could regroup their failing economic plans, and use their GDP in order to invest in the future. In a future that's not so far away. The only advantage a smaller economic market would have over a bigger market is that smaller markets have less risk of inflation. Inflation could cause more social problems than a state could handle, in-fact, it's one of the biggest problems that could be caused as a result of unemployment.

We've seen plenty of social problems due to lack of employment and economic deterioration in the world. The recent crises in Brazil and Venezuela have shown what lack of finance and employment can do: create irreversible instability in a country. The Venezuelan instance is a combination of it being an LEDC and its alleged corruption scandal. Countries like Palestine, South Africa, Iraq & Syria struggle with high rates of unemployment[3,4] because of their situation as a country, either having newly escaped or still continuing to have conflict. Spain, Greece and Italy still have high unemployment rates, respectively 14.02%, 17.7% and 9.9% even though they are perceived as more stable, they still struggle. Spain has seen outrages due to **the** high tax rates in the Barcelona area[5] and

Greece has also seen protests regarding the extensive loans from other members of the EU that were given to the Greek Government in order to balance the debt crisis since 2010[6] Italy on the other hand has failed to accomplish what they had promised in their 1998 20-year economic plan, but have not become worse over the years as their quality of living) standards are similar to[7]when the economic plan was first announced. Thinking through the whole process of solving the unemployment process is crucial, on step skipped could mean the collapse of the whole plan. The transition towards carbon-free economy has to be as frugal as possible, at least at the start. However, being frugal doesn't mean being cheap, everything done has to be adjustable and efficient.

Implementing a carbon-free economy means a new giant in the global market, meaning more investment opportunities, but isn't as self-assuring as one would expect, since it also negates other markets such as the automotive and energy industries. 9 million people need to be employed for the production of 64 million vehicles[8] , the predicted automobile (excluding any other means of transport other than cars) sales in 2019 will reach 79 millions , which will mean an approximate 11.12 Million people employed. Set side by side, only 9.8 million people were employed in 2017 regarding renewable energy, a gap of 2 million people each year is very alarming, and that's only for the automobile part of the automotive industry. The U.K. is a very good example of how the process should be managed. Sadly, not all countries have enough funding to accomplish such a goal. With the larger economies not partaking as much as they are capable of and small countries not enough funding, it is up to the governments who are willing to participate who are going to try & save the planet at the end, even if it means unemployment. Similar to the question against the anti-climate change in paragraph 1 of this General Overview, a very compelling argument also stands for the pro-carbon-free economists: Is the world worth saving if no one is employed, the free-market isn't ''free'' anymore and most of a country's gain is controlled by the wealthy? Most would answer no, nevertheless, both anti- climate change and pro- carbon-free economy is up for discussion. Our topic is Unemployment caused by the carbon-free economy, and we shouldn't deviate from it, but it's impossible to solve the issue as a whole focusing on only the unemployment part. A healthy balance is all that is needed.

In conclusion, there are a hefty amount of questions to be answered on the issue. Harm caused by unemployment has Social, Economic and Cultural repercussions, debatably also political ones; the power of a country's stance is more questionable if they have weak social structure, economy and culture isn't immense, because that means they haven't solved the critical issues in their own country. Climate change isn't something to be stuffed under the bed. Saving the planet isn't as easy as people complain about, nor is it as hard as others make it out to be. It's what the G20 is here for. 20 Ministers of finance and heads of state have attended the 2019 G20 conference. A big movement is needed, and can only be done if cooperation exists. The problems are ours to solve.

Major Parties Involved

The United Kingdom: The United Kingdom was the first country to set carbon reduction goals[9], thus being perceived as the country who guides and is a 'role model' for other member states regarding carbon-free economy. The U.K. has a 2019 unemployment rate of 3.8%[1013], which is a bit lower the average unemployment rate in an MEDC, meaning that their carbon reduction goals haven't affected them as much as economists have estimated, which is a positive if one is aiming to reduce carbon in a manner that won't affect the people living in it as much.

From a political standpoint, the U.K. doesn't possess any hostility toward most countries, except for the Russian Federation because of the 2018 Nerve Gas incident. They continue to push BREXIT upon the EU, but seem to agree that that deal shouldn't affect the Paris Agreement. As their policy toward the whole situation goes, the U.K. doesn't agree with the U.S. views and ideals regarding the subject, but that doesn't mean is that they have any sort of tension with each other on other subjects. What that does mean is the U.K. defending their carbon reduction goals as much as they can, as their parliament fully believes that it's the best way to go regarding both economics and financial stability.

The United States: The U.S. has been very aware of the Climate agreement, initially signing it under the Obama Administration, but later on pulling out under the Trump administration as the president has expressed his views on his beliefs on climate change being a ''Hoax''. This situation puts the rest of the world under a lot of pressure from a financial point of view. The $19 Trillion GDP giant that is the U.S. will focus the attention on P.R. China, The Russian Federation, the EU and the UK to develop a proper global economic plan, at least until the term of President Trump ends in 2020 or 2024. The U.S. has 17.4% for their ratification into the agreement, but seem to plan not to do so as the visions of President Trump do not parallel with the ones of the P.C.A. The U.S. is second in carbon emissions[10] by year, only falling behind The People's Republic of China. The U.S. has a lower unemployment rate than the U.K. at 3.7%, which they are owe to their petrol-based automotive industry. To the contrary, States such as Washington D.C. have committed to going 100% carbon-free in the next few years.

P.R. China: Looking for any opportunity to get ahead of the G5 on every aspect possible and boost their economy even more, the Chinese Government decided not to pullout of the Paris Climate Agreement as they most likely believe there are investment opportunities lying in the future. Although China is a party of the agreement, they still have 20.4% for their ratification, while topping the world in carbon emissions[10]. *China* also has a similar unemployment rate to the U.S. at 3.69%, but seem to be willing to risk it rising in order to seek investment opportunities.

India: India is, similar to China, one of the most densely populated countries in the world, thus they are 3rd in carbon emissions, falling behind China and the U.S. and being only one spot above the Russian Federation. Considered and LEDC by some, India is a big question mark regarding their economic situation and their history of being environmentally friendly. Although a party of the P.C.A., the Indian government doesn't seem to be taking action that has great effect on the world. India carrying their own weight regarding carbon emissions should be more than enough, as they have 1.33 Billion people living, only second to China's 1.37 Billion.

The Russian Federation: The Russian Federation is a signee of the agreement, and has lowered their carbon emissions since 2015. They are the 4th most carbon-emitting country in the world[10] and get most of their economy by selling petrol. A very diverse position from a political standpoint, but apparently willing to approach the issue.

The leading economies of the European Union (France, Germany, The Netherlands, Italy, Switzerland, Spain, Sweden, Poland, Belgium): All of these countries have a similar goal; saving the environment and investing in the future while doing so. These countries are the absolute go-to's of the carbon-free movement (With the addition of the U.K.) and approach the issues directly, definitely, and give no quarter to anti-environmental policies unless forced to do-so. It's a big question for the EU's economy, but they have been issuing their policy for a long time, and seem to plan on doing so.

Timeline of Events

Date:	Event:	Organized by:	It's Effect:
Feb. 27, 2003	**Plans to build the first zero-emission powerplant, FutureGen, were announced.[11]**	**The U.S. Department of Energy (DOE).**	**This was hoped to set the standard of futuristic energy for years to come.**
Oct. 30, 2006	**'Stern Review' a book on climate change and it's economics is released, also called the "Stern Report"[12]**	**Nicholas Stern, Baron Stern of Brentford**	**Provoked most of the European region on Climate Change**
July 2006	**The M.I.T. releases their report on Climate Change and it's economic repercussions.**	**The Massachusetts Institute of Technology**	**Drew attention to the pros and cons of the Climate Change movement**
Nov. 17, 2007	**A report published by the IPCC (Intergovernmental Panel on Climate Change) provides that Climate Change is real, and also that it is mostly provoked by humans.[11]**	**The Intergovernmental Panel on Climate Change**	**Made the American continent realize that climate change was in fact a real thing, and that it was destroying our world.**
Oct. 16, 2008	**The U.K. commits to a carbon reduction deal, that would potentially lower carbon emissions by 80% until 2050.[10,13]**	**The U.K. government**	**A country with that large of an economy signing a deal as this one was a breakthrough on the financial side of the problems**
2008	**International Labour Office release discussion paper no.12 of their GURN (Global Union Research Network) project, named** *'The Employment Effects of Climate Change and Climate Change Responses: A Role for International Labor Standards?'*	**The ILO (International Labour Office) and the University of Geneva**	**Publishing a report on the unemployment side of going carbon-free showed that there were also possibly negative consequences to the new climate plans.**
March 11, 2011	**The Fukushima earthquake damages 6 powerplants and the nuclear crisis reaches the highest level possible (Lv.7)[11]**		**Drew attention to the horrifying scale nuclear energy can get, as many died and many were injured.**

Nov. 6, 2012	**Donald J. Trump says that he believes climate change is a hoax, tweeting** *"The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing more competitive"*		
June 25, 2013	**President Obama announces his plan to battle climate change: The Climate Action Plan.** **The plan was compromised of restrictions on the carbon emissions of powerplants and emphasis to renewable energy.**[11]	**The 2012-2016 Obama administration**	**Was the U.S. Government's first large scaled plan to battle climate change.**
June 3, 2014	**Donald J. Trump tweets his thoughts on Obama's Climate Plan, writing "** *Obama's war on coal is killing American jobs, making us more energy dependent on our enemies & creating a great business disadvantage."*[14]	**Donald J. Trump**	**Was one of the first instances of criticism done by a celebrity & a businessman on the Climate Action plan**
June 1, 2017	**The U.S. pulls out of the climate agreement.**	**The 2016-2020 Trump Administration**	**Led one of the most-emitting countries in the world**

Previous attempts to solve the issue

The attempts to solve climate change and going carbon-free are very extensive, but how to battle the unemployment caused by it is very limited. Most countries' coping mechanisms have been, especially for the ones with larger economies, creating the best economy plans they can have. By having a good economic plan for the future, the unemployment rate could be significantly lowered than the estimated values after going free, if not stabilize their current unemployment rates, which is big for any country with over 10 million inhabitants. For a country with a 4% unemployment rate to stay the same after going fully carbon-free is a near-utopian plan, but is what has to be tried if the battle against unemployment must continue.

The Future

What happens in the next few years will very likely change the landscape of how this problem is approached and intended to be exhibited. With the 2020 U.S. elections approaching, the $19 trillion dollar GDP U.S. will have the ability to either deteriorate or significantly advance the process of

battling climate change. China & The U.S. are two of the biggest employers around the globe, with job & investment opportunities. MEDCs (More Economically Developed Countries) could be the key to balancing out the unemployment rates in LEDCs (Less Economically Developed Countries), but no consequential action has been taken by densely populated states and few of the largest economies of the world; Russia, China and the U.S. have not made any substantial arrangement regarding going carbon-free, and undoubtedly won't do so in the unemployment rates that could possibly rise after transitioning towards carbon-free economies.

Questions a Resolution Must Answer (Q.A.R.M.A.)

Dear Delegates, a resolution should address the mentioned parts of the issue, but the more ways to solve a problem there are, the better any resolution will get, so please don't limit yourselves to the things I've written in both this Q.A.R.M.A part and the Research Report as a whole. It doesn't only have to be the mentioned points. Solutions could be added or replaced if believed to be more beneficial for the UN and the world as a whole. -Kuzey Mungan

The most effective way known to reduce carbon emissions is going carbon-free. Like most other issues in MUN, this also has two sides, the side of saving the world, and the incredibly alarming unemployment that will be most likely caused by it unless a way to solve it is found. The Paris Climate Agreement, in which 185 parties, 11 signatories and the European Commission are a part of, states that the goal is to not go more than 2° Celsius[15] below the pre-industrial levels. It's clear that countries are willing to participate, and it's time to take action. The main question is: How do we keep both unemployment and the earth's temperature at a safe rate?

- How is it possible to keep unemployment at a safe rate?
  - Would a safe rate be considered the same rate of today after going carbon-free?

- How would the lower classes and middle classes of countries adjust to the carbon-free economy?
  - What would the social repercussions be?

- How can LEDCs (Least Economically Developed Countries) adapt to the economic hit taken by the carbon-free movement?

- How will MEDCs becoming more powerful due to the possible investment market created through the carbon-free movement justified?
  - If so, how would that guarantee that other countries won't pullout of the Paris Climate Agreement?

- Although most member states are parties of the Paris Climate Agreement, how will it be provided LEDCs react positively to MEDCs gaining more control over due to their large investments and big returns?

- When will the new employment standards be enforced?

  - Who will it be enforced by?

- How will the general public's reaction be calmed?
  - Is there anything keeping them from overreacting?

Further Reading

[It can be really helpful to delegates if they have a few websites where they can read more about your issue. You can refer to useful websites here.]

- The M.I.T.'s take on the unemployment that could be caused by climate change & it's possible justification:
  - https://economics.mit.edu/files/2438

- An article Christina Figurees and Guy Ryder regarding how to create jobs while tackling climate change:
  - https://www.weforum.org/agenda/2014/09/climate-change-unemployment-clean-jobs/

- Resourcesmag.com's take on the carbon-free economy's effect on employment, written by Marc Hafstead, Robert C. Williams III & Yunguang Chen:
  - https://www.resourcesmag.org/common-resources/job-killing-carbon-taxes/

- The Imperial College London's report on transitioning towards a low-carbon economy:
  - https://www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/26.-Towards-a-just-and-equitable-low-carbon-energy-transition.pdf

Bibliography

Bibliography for the definitions of key-words:

*1: https://en.wikipedia.org/wiki/Low-carbon_economy **(Description of Low-Carbon economy)**

*2: https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement **(Description and abbreviation of the Paris Climate Agreement)**

*3: https://www.google.com/search?ei=pXI5XY6sIoPDwAKpn6ngAw&q=climate+change+definition&oq=climate+change+def&gs_l=psy-ab.3.0.0i203l10.5841.8009..9022...0.0..0.105.1488.14j4.....0....1..gws-wiz.....0i71j35i39j0i67j0j0i10.XNwsPD_RpkU **(Description of climate change by Google)**

Others:

1: https://g20.org/en/summit/about/ **(Information on the G20 summit[s] and the attendees)**

2: https://www.thebalance.com/what-is-the-g20-3306114 **(G20 Attendees & general info)**

3: https://stats.oecd.org/index.aspx?DataSetCode=AVD_DUR **(The average length of unemployment statistics)**

4: https://www.thebalance.com/natural-rate-of-unemployment-definition-and-trends-3305950 **(The natural length of unemployment)**

[5]: https://www.bbc.com/news/business-45723474), **(Barcelona's issues with finance)**

[6]: https://www.thebalance.com/what-is-the-greece-debt-crisis-3305525 **(The 2010 Greek Debt Crisis)**

[7]: https://www.forbes.com/sites/marcoannunziata/2018/04/14/twenty-years-and-nothing-to-show-for-it-italys-broken-economic-model/#5383892311a3 **(Italy's overly consistent stable economic plan)**

[8]: https://www.fircroft.com/blogs/the-automotive-industry-employs-more-people-than-you-think-71462610395 **(Workers in the Automotive Industry)**

[9]: https://www.economist.com/britain/2019/03/07/how-britain-cut-carbon-emissions-more-than-nearly-any-other-country **(UK Carbon Reduction Plan)**

[10]: https://www.weforum.org/agenda/2019/06/chart-of-the-day-these-countries-create-most-of-the-world-s-co2-emissions/ **(Global Carbon Emission Chart)**

[11]: https://alternativeenergy.procon.org/view.timeline.php?timelineID=000015 **(Timeline of events related to sustainable energy)**

[12]:
https://www.google.com/search?q=2006+stern+report&oq=2006+stern+report&aqs=chrome..69i57j0l5.4930j0j7&sourceid=chrome&ie=UTF-8 **(Information & Background on The Stern Report)**

[13]: https://www.theguardian.com/politics/2008/oct/16/greenpolitics-edmiliband (The U.K.'s ''green'' policy)

[14]: https://theconversation.com/do-climate-policies-kill-jobs-an-economist-on-why-they-dont-cause-massive-unemployment-106928 **(Theconversation.com's take on Donald Trump's tweet about labour problems regarding unemployment)**

[15]:https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement **(The Clauses of the Paris Climate Agreement by UN Climate Change)**