



ANKU COLLEGE MODEL UNITED NATIONS 2020

COMMITTEE: Economic and Social Council

ISSUE: Eliminating the harmful effects of industrialization to the environment

STUDENT OFFICER: Gökçe Kırca

POSITION: Co-Chair

Honorable Delegates,

I would like to start off by expressing my hope of this student guide being of the utmost help for each delegate's introduction to the topic. I do also hope that the conference will be a delightful one where each of you gains an unforgettable experience.

On that note, I believe a brief introduction of myself to be helpful. I am currently studying as an eleventh grader in METU DF High School and wish to study English Literature or Fine Arts in the future. I have embarked on my MUN journey upon one of my teacher's suggestion a tad cluelessly, for a lack of a better term but have indeed found it to be a priceless experience that truly engulfed the entirety of my high school years.

Furthermore, I would like to quickly add that I take part in our local Fridays for Future and make an effort to both educate myself and take an active role regarding the climate crisis which made me quite happy to be preparing a student guide on this particular topic.

Sincerely,

Gökçe Kırca

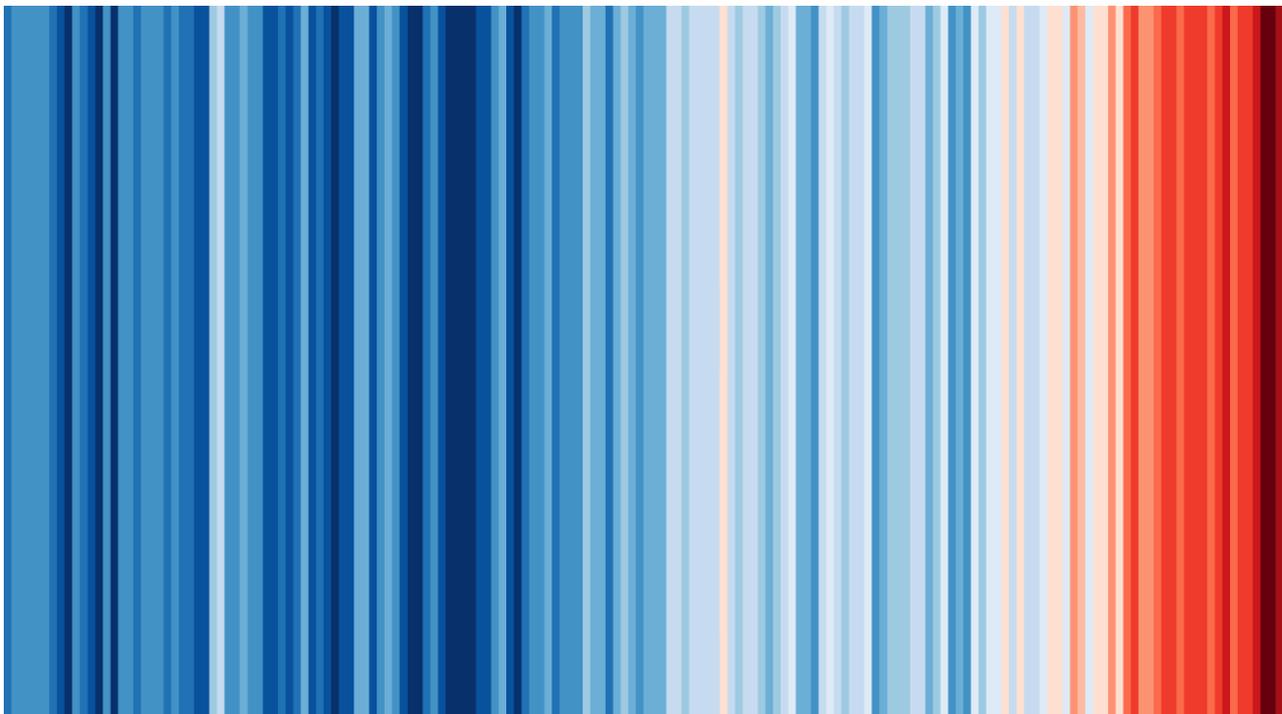
INTRODUCTION

The current climate crisis, which has been getting more attention than ever these past years, is an urgent issue that requires immediate action. Although it has been refused to be

regarded as a pressing matter by some through the last century, the current situation threatens not only biodiversity but also human life at large as IPCC reports and many studies also suggest.

Furthermore, a considerable part of the damage done is caused by industries and businesses. Prioritizing economic growth, many countries disregard their activities' impact on nature. Although the situation may seem like a problem related to business, the role of the individual is both implausible and necessary to be examined in order to get to the root of the issue. In the end, in order for a country's economy to grow, the consumer demand should be high so that production, employment and therefore wealth can be achieved. In this regard, the consumerist culture of today is of great importance and relevance to the topic at hand.

The root of the problem may lie in features of our society developed over the course of the time that has passed since the Industrial Revolution, however, the manner in which we perform this production is also worthy of examination. For all its grandeur, the post-industrialist age does also entail not only greenhouse gas emissions but also ever-increasing amounts of waste that pollute the very soil we walk on, our water and our air. Not only is this pollution a grave danger to biodiversity it is also in most cases almost impossible to be completely effaced.



Above, you can see the global temperature from 1850 to today, represented with colours.

DEFINITION OF KEY TERMS

Industrialization: Industrialization is the extensive organization of an economy for the purpose of manufacturing [1]. This manufacturing, ever since mass production became possible by the means of technological innovations, requires vast amounts of energy which is mainly acquired via burning fossil fuels.

Greenhouse Effect: First studied by Joseph Fourier, this explains the natural process in which sunlight reaches the earth to be either absorbed or be reflected from the surface and as a result, some of the reflected sunlight returns to space while the rest is either absorbed or reflected back by the greenhouse gases. Although this process is essential to keep the temperature at a level which allows life on earth, the enhanced greenhouse effect we observe today is the reason behind global warming.

Greenhouse Gases: Gases such as carbon dioxide, methane and nitrous oxide whose concentration in the atmosphere is constantly increasing because of the burning of fossil fuels, land-use change and forestry which is explained by UNFCCC as [2] "greenhouse gas inventory sector that covers emissions and removals of greenhouse gases resulting from direct human-induced land use such as settlements and commercial uses, land-use change, and forestry activities.", agricultural activities, livestock, meat production and cement manufacturing to give a few examples.

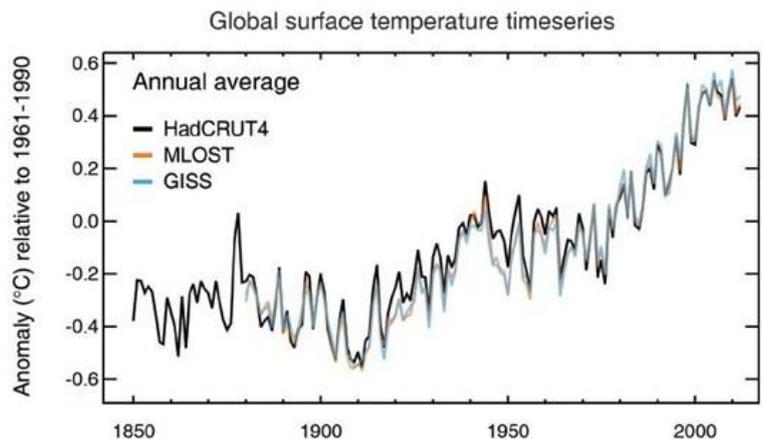
Anthropogenic Activities: Namely human activities which have been accepted to be the chief reason behind climate change.

OVERVIEW

It is essential to reach a deeper understanding of the Industrial Revolution, which will give much more insight into the world of today and the problems we face within it. Indeed, it is a revolution, which the likes of can only be seen in perhaps the Agricultural Revolution as it completely and substantially altered our lifestyles and our societies. With the aid of the steam engine and the technological innovations it entailed, mass production became possible thus replacing the handcrafted goods. However, the energy that powered these developments, the production and the distribution were obtained by burning fossil fuels - which remains to be an issue today.

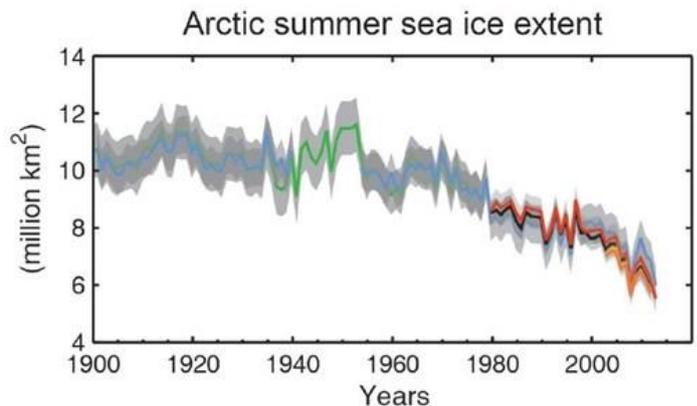
Anthropogenic activities which were shaped after the Industrial Revolution cause ever-increasing amounts of greenhouse gas emissions which ultimately contribute to climate change. However, for a long time, the negative effects of industrialization were mostly disregarded and people instead focused on the small luxuries that were available to a growing number of people by each passing day. The Roaring 20s of the USA is perhaps one of the more extreme examples of this phenomenon. In the end, the higher the consumer demand is, the more the production and employment are which as a result creates a better economy.

However, through the course of the 20th and 21st century, many noteworthy occurrences took place such as the ever-increasing effort by UN and its several bodies and the scientific studies done by thousands of scientist all around the world to better understand and



therefore solve this issue. Furthermore, climate activism has also flourished in the last few years, the most memorable face of all being the Swedish teenager Greta Thunberg's.

The reports conducted by the Intergovernmental Panel on Climate Change (IPCC) are indeed very frightening. As you can see by the graphs also provided the IPCC, global warming is reaching record heights while the arctics are rapidly melting. As mentioned in the reports, [3] anthropogenic activities have already contributed 0.8–1.2°C of warming above pre-industrial levels and [4] is likely to reach 1.5°C between 2030 and 2052 if it continues to rise with the same rate.



Causes and Effects:

Another issue worth mentioning would be overpopulation. Up until the Industrial Revolution, the population had remained almost the same throughout the centuries. However, as living conditions got drastically better, a simple example being canned food preventing foodborne diseases, the population also grew. Naturally, the higher the population, the higher the consumer demand and as a result the production is. Therefore, the overpopulation we observe today is one of the causes of climate change.

In order to fully understand the issue with all its ramifications, it is essential to examine each and every stage of the production system. The natural source extraction is the first and foremost stage in which many environmentally damaging actions may take place such as the depletion of natural sources and deforestation which is the clearing of forests to make room for agriculture. The latter, which is also called land-use change is a somewhat common occurrence today. It is implemented chiefly in order to meet consumer demands, two examples being palm oil which is used in a vast number of different industries or animal feed which is essential in order to meet the very high meat demands.

The second stage would be the distribution which is seen in both the transportation of the natural resources and that of the finished products. In today's world, this is an exceedingly easy process yet it doesn't necessarily mean it is good. The emissions from shipping and aviation are both majorly harmful. Moreover, the production stage also deserves attention in terms of the pollutants released and waste created during it.

Lastly, as insignificant as it may seem, the role of the consumer is undeniably important. Being an ethical consumer who chooses to buy ethically manufactured, durable goods and those of which one needs both help support ethical brands, creates less trash and decreases the consumer demand as the consumer will buy more quality products in lesser amounts.

Evaluation of Other Issues:

Industrialization's impact on nature is observed in various different ways, one such being the danger it poses to biodiversity. The climate change of today has reached an unprecedented acceleration which makes it impossible for animals to adapt to this change which would normally take many years. Moreover, deforestation which destroys these animal's habitats and the pollution our industrial activities cause are all reasons why many species are going extinct. According to Stanford University, in the past 500 years, human activity has led to 500 species of land animals going extinct [6]. Although action is being

taken such as the work being done on preparing the Post-2020 Global Biodiversity Framework whose zero draft has been published this year, there is still much yet to be done.

RELEVANT ACTORS AND BODIES:

European Environment Agency (EEA):

This organization defines itself as a source of independent information for both the general public and policymakers. It aims to provide this information in order to enable member states to make informed decisions concerning environmental matters.

United Nations Environment Programme (UNEP):

This is the organization that has authority over the other environmental agencies amongst UN and it focuses on a wide range of topics while other agencies deal with the more specific ones.

World Meteorological Organization (WMO):

For more than 25 years, WMO has been issuing an annual Statement on the State of the Global Climate which includes information on the global climate and the extreme weather events that have occurred in order to inform both the general public and policymakers.

The Intergovernmental Panel on Climate Change (IPCC):

Established by UNEP and WMO, this panel creates reports on the cause, consequence and possible solutions of climate change.

TREATIES AND INITIATIVES:

Montreal Protocol (1987):

Although climate change was not the issue focused on, this protocol's effect on the reduction of substances which cause thinning of the ozone layer was more successful than that of the Kyoto Protocol.

United Nations Framework Convention on Climate Change (UNFCCC) (1992):

A treaty whose main goal is to stabilize greenhouse gases and prevent their harmful effects on the climate system.

UN Biological Diversity Convention

Kyoto Protocol (1997):

It is the extension of the UNFCC which also aimed to lower emissions and became law for the member states who had signed it in 2005.

Paris Agreement (2015):

This protocol aims to enhance the efforts in combatting climate change and its effects, mainly through keeping the global temperature rise under 2°C and preferably 1.5°C above pre-industrial levels.

SPECIFIC ANALYSIS ON RELEVANT CONFLICTS AND PROBLEMS:

Occurring most violently during the summer of 2019, the Amazon wildfires which happened in Bolivia, Peru, Paraguay and mainly Brazil consumed over 906 thousand hectares of the rain forest and has released as much as 140 million metric tons of carbon dioxide as well as large amounts of carbon monoxide. Although the area does face forest fires, particularly during the dry season, The National Institute for Space Research (INPE) states that there is an 84% increase of forest fires in the same period compared to 2018.

As the name “lungs of the earth” suggests, the Amazon rainforest produces a large amount of the earth’s oxygen. However, the intense and long-lasting fires have caused incredible damage which has contributed to climate change both in terms of greenhouse gas emissions and deforestation, not mentioning the danger it poses to the biodiversity at large. However, the researchers of INPE have stated that these fires have not occurred merely because of natural causes but rather deliberate actions taken in order to clear land for the sake of the agricultural industry.

These fires caused concern from both the public, climate activists, environmental NGOs and the international leaders. Upon pressure to take action, the Brazilian president Jair Bolsonaro sent troops to put out the fires as well as creating funds and set a 60-day ban on setting fires in order to clear out land.

TIMELINE OF MAJOR EVENTS

Later 18th Century	The Industrial Revolution started in England only to spread to the rest of the world.
1972	UN holds the first-ever conference related to the environment. UNEP is established.
1987	Montreal Protocol was adopted. Its aim was to prevent the thinning of the ozone layer through certain restrictions of products which cause it.
1989	IPCC was established in order to gather and analyze data on climate change.
1992	UNFCCC was adopted. Stabilization of greenhouse emissions was aimed.
1997	Kyoto Protocol was adopted. It served as an extension of the UNFCCC and aimed to reduce emissions.
2005	Kyoto Protocol became law for member states who had signed it, with the exception of the USA which had quit the protocol in 2001.
2018	Greta Thunberg sat in front of the Swedish parliament with the “ School Strike for Climate “ sign which could be dubbed as the beginning of the new age global climate activism. Soon global climate strikes would follow.
2019	Paris Agreement was adopted in order to replace the Kyoto Protocol.

POSSIBLE SOLUTIONS

Perhaps the most substantial, yet the hardest to tackle with because of its abstract nature is the issue of consumerism. To understand the senseless and needless consumption, examining the tools used to prompt this behaviour such as planned obsolescence and advertising can be examined.

There still are countries which have not signed the Paris Agreement and ones who do not take adequate action to fight against climate change. These member states can be encouraged to sign the agreement if they did not and take action as stated in it.

Industrial activities can be regulated by the government in regards to how the manufacturing affects the environment, as well as the waste they create, the pollutants they release, etc.

Furthermore, transparency regarding manufacturing can be achieved by registers like The European Pollutant Release and Transfer Register (E-PRTR) which provides environmental data from industrial facilities from all around Europe.

[7] One of the solutions the IPCC suggests is mitigation which they explain as a public good. They also point to the importance of collective action for reversing the effects of industrialization, reforestation being an example.

USEFUL LINKS AND SOURCES

1. <https://www.ipcc.ch/reports/>
2. <https://www.unenvironment.org/resources/emissions-gap-report-2018>
3. <https://public.wmo.int/en/our-mandate/climate>
4. <https://unfccc.int/>
5. <https://www.un.org/en/climatechange/>
6. <https://unep.ch/>

REFERENCES

1. Sullivan, A. and Steven M. Sheffrin (2003). Economics: Principles in action. Upper Saddle River, New Jersey 07458: Pearson Prentice Hall. p. 472. ISBN 0-13-063085-3.
2. Land use, land-use change, and forestry (LULUCF), Glossary of climate change acronyms, UNFCCC website. Retrieved 2009-01-11
3. Special Report on Global Warming of 1.5°C (Report). Incheon, Republic of Korea: Intergovernmental Panel on Climate Change (IPCC). 8 October 2018. Retrieved 7 October 2018
4. SR15 Headline statements
5. SR15 Headline statements
6. <https://news.stanford.edu/2015/01/16/oceans-extinction-cycle-011615/>
7. Climate Change 2014: Mitigation of Climate Change, in IPCC AR5 WG3 2014, p. 211