



Forum:	Special Conference
Issue:	Ending Energy Overconsumption
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I. Introduction

Our standards of living are not sustainable. There has already been a rise in the earth's average surface temperature of approximately 0.9 degrees celsius (NASA) and the consequences are drastic. Humans are the reason for this extreme change and a main contributor to global emissions is energy consumption. Overconsumption means that people use use in excess of what resources could be replenished or otherwise accounted for, often in consequence of production. This means that energy overconsumption only exists because of the way people produce energy. If all energy came from sustainable means, there would be no energy overconsumption. Widespread industrialization and economic growth in the 20th century came at a price for our planet.

Ultimately, consequences will affect the whole world and countries whose carbon emissions are low will suffer similar consequences to the main contributors such as the US, China and Canada. In considering the magnitude of these consequences, it is in fact cheaper to invest in sustainable sources now than risk climate catastrophes that can cost a government billions of dollars later. Already, floods in the UK and Pakistan have cost local government upwards of 10 billion dollars in responding to immediate concerns alone. 226 billion dollars in commercial and infrastructure in Sydney are threatened and US wildfires, droughts and storms have cost the government billions as



well (United Nations Climate Change). These disasters are bound to become more common and severe as climate change and global warming increases.

Despite this, we must remind ourselves of the importance of energy in economic development and allow LEDCs to do so whilst also securing a safe future. Unsustainable production is a means of growth and is the reason we have almost all of the products we use today. The industrial revolution was fueled by unsustainable production and it seems unfair for nations to be denied the opportunity to develop and boost their economies. A crucial step for MEDCs to take is to work together with LEDCs to implement technologies that make development possible without causing long lasting, irreversible damage to the environment.

II. Definitions of Key Terms

a) Carbon tax

A “carbon tax” is a fee imposed on the burning of fossil-based fuels. This would have the purpose of carbon fuel users paying for the climate damage they cause and make it economically rewarding to be environmentally friendly. It could provide a monetary incentive for consumers and producers to concern themselves with the effect of a given product on the environment. Carbon taxes have been described as “the core policy for reducing and eventually eliminating the use of fossil fuels whose combustion is destabilizing and destroying our climate” (Carbon Tax Center). The danger of this tax is that it may deter businesses from settling in countries with these regulations. Countries that give tax breaks or loose regulations to businesses that are harmful to the environment are likely to reap the benefits of having major businesses settle in their countries. However, a global carbon tax could also have a negative impact on global hunger by raising the costs of food production especially carbon-intensive industries



such as meat, it could raise costs that are associated with agricultural expansion and the production of biofuels would likely compete with agricultural crops for space (Dunne, Carbon Brief).

b) Carbon footprint

The total carbon dioxide released by an event, organization, individual or product. “Earth overshoot” is also a way to measure and quantify overconsumption and our carbon footprint in the form of measuring CO₂ output. When people produce too much CO₂ for the earth to be able to accommodate it in that year. Earth overshoot day was August 1st in 2018, it was March 15 for USA, February 9 Qatar and June 15 China (overshootday.org).

c) Climate change

Climate change is the change in regional, national and international weather patterns, often associated with the earth warming due to CO₂ emissions, described by Wired as “the catch-all term for the shift in worldwide weather phenomena associated with an increase in global average temperatures” (Wired).

d) Energy Overconsumption

Overconsumption generally means that the Resource use has outpaced the capacity of the ecosystem. Energy overconsumption means we consume too much energy for the environment to handle it.

e) Global Warming

Global Warming, as opposed to broader understandings of climate change, is the gradual increase in the temperature of the earth’s atmosphere. Global warming can and does occur naturally but not to the extent it is happening currently. The



drastic increase in global temperatures can be attributed to humans. Warming occurs because CO₂ and greenhouse gases trap the heat in the atmosphere. The five warmest years have taken place since 2010 a sure indicator that humans are responsible for the unnatural rate of the earth's warming.

III. General Overview

a) Previous attempts to solve the issue

The Kyoto Protocol is an agreement linked to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that bound parties to internationally binding emission reduction targets in order to combat climate change. The agreement renders developed countries primarily responsible, noting that countries that simply move their footprint outside of their own borders (importing items that have a carbon footprint from developing countries) are no greener than those now technically responsible. Developed countries are also held more responsible since they can switch to green energy more easily, and have been polluting the air for the longest time.

Consequently, some nations have decided to withdraw their commitment to what is perceived to be an inherently biased mechanism. Canada withdrew from the agreement in 2012 because it does not believe developed countries should shoulder a larger obligation that could hurt their economy. They believed some of the other 192 signatories like China and India could escape responsibility through the treaty. This is the same reason for the US not being one of the parties to have signed.

Unlike the Kyoto Protocol the regional Environmental Centre for Central and Eastern Europe, established 1990, aims to raise awareness on environmental issues, increase transparency in environmental matters, to



implement projects that build resilience to climate change and promote clean energy solutions. It is supposed to provide opportunity for a relationship and dialogue between the government and civil society.

b) Current attempts to solve the issue

In terms of local policy, there are several solutions being developed, researched and implemented in order to expand carbon neutral energy use and lower its cost for the broader market. Examples in public infrastructure include sustainable alternatives for transportation, such as modern rail networks, and more conventional policy, such as incentivising and facilitating the use of cars with hybrid or full electric powertrains. In order to make sustainable energy more attractive to consumers, additional measures include lower-cost rooftop solar systems and financial incentives such the ability for home owners to feed small amounts of power into a more accessible power grid at a profit.

There are also attempts to make the way energy is used more efficient. For Example modern lighting controls that reduce the energy put into lights which work well to save energy, especially when combined with more efficient LED light bulbs instead of traditional CFL bulbs. Apart from light bulbs, there are many other household products that are more energy efficient ranging from refrigerators to washing machines. In the EU, all such products already have to meet a minimum energy efficiency standard, saving the equivalent of 175 million tons of oil by 2020.

Other existing efforts to increase energy efficiency are energy audits and energy simulations that assess how energy is being used in households or businesses and how the amount of energy required can be reduced are a easy and fast way of reducing energy consumption.



In terms of multilateral efforts, the Paris Climate Agreement notably is an agreement within the UNFCCC dealing with greenhouse-gas-emissions mitigation, adaptation, and finance. The long term goal is to keep the increase in global average temperature to well below 2 °C above pre-industrial levels. This would reduce the potential risks and consequences of climate change. The agreement does not require nations to reduce emissions at a specific rate, but to set their own goals and report these regularly. At the moment, 195 out of 197 UNFCCC members have signed the Paris Climate Accords, with 184 having become a party (meaning these countries are legally bound by the provisions within the document and accept all the document's obligations). However, one of these parties, the USA, announced its withdrawal in 2017, which will be possible by 2020 at the earliest. To achieve the goal of limiting global warming to a 2°C maximum, many European countries have set out to ban petrol and diesel powered cars within the next 21 years, such as many European Countries. Some nations have already put policies in place with goals that exceed the Paris agreement goals, like the Netherlands where a reduction of greenhouse-gas emissions by 95% to 1990's rate is planned. Despite the well set out goals of the Paris agreement, it is clear that many of the worst effects of climate change will be too severe or come too quickly to be avoided by adaptation measures, so that loss and damage of this kind also needs to be addressed. In general, the topic of whether or not the goal of limiting the global temperature increase to 2 °C is possible is controversial.

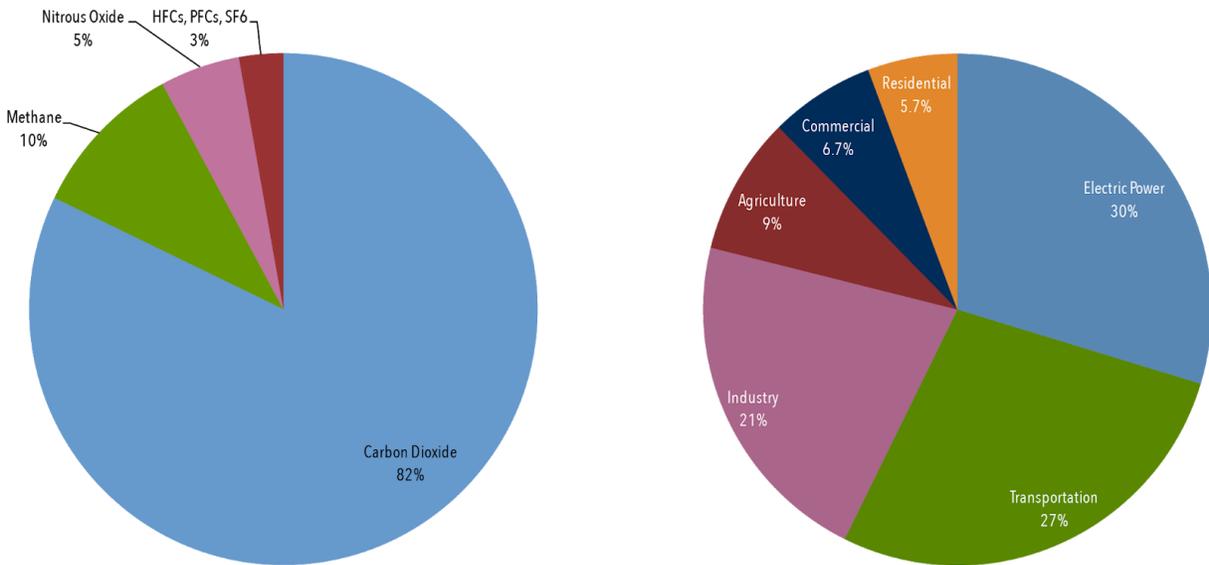
c) Major parties involved and their views

Although there are other regional and international bodies addressing the issue of climate change these parties all have very different approaches to climate change

and their carbon footprint looks very different. These are simply examples of how different organizations tackle the issue.

a) USA

The United States is one of the primary contributors to carbon emissions.



When compared to global averages (of 5 metric tons per capita), the average American’s carbon footprint of about 16.5 tons illustrates the gravity of what issues we face in tackling overconsumption. Regardless, concern for climate action across the country is at an all time low and the USA has been reeling back climate efforts agreed upon in Paris. Federal reports suggest that, if no definitive action is taken, climate change could knock 10% off the US economy before the end of the century (*New York Times*). Under Trump, 78 rollbacks have been planned for policies protecting the environment, 47 of which have already been completed. These rollbacks include policies on air pollution and emissions, drilling and extraction, infrastructure and planning, animals, toxic substances and safety and water pollution (*New York Times*). The wildfires in California, droughts



and storms are testimony to the billions of dollars being lost due to climate change.

b) China

China is a rigorous supporter and proponent of the Paris Climate accord, one week after ratifying the agreement the government issued the *National Strategy on Energy Production and Consumption Revolution (2016-2030)* and strengthened domestic policy targets (Brookings). There has been a decrease in coal consumption (due to government cap to reduce greenhouse gases) which was parallel to slower but higher quality economic growth, the peak of coal consumption was in 2013. According to Brookings “the energy intensity of the economy has decreased by more than 45 percent since 2005” (Brookings). The peak year of carbon emissions likely between 2020 and 2030, the emissions may have already peaked with CO₂ emissions being plateaued with small fluctuations since 2014. This was managed in part to the shift to sectors that are less energy intensive, focusing on not the sheer quantity of economic output but also the quality. Evolving energy technologies as a result which also opens new markets despite the slight economic slowdown. China Leader in Paris climate accord and serves, in this instance as an example for other nations to follow suit. It has almost reached its Nationally Determined Contribution (NDC) and is likely to exceed it. China is far from green however, if the whole world produced as much CO₂ as china taking into consideration the cuts they have made the world would warm by more than 5 degrees (The Guardian).

c) Sweden

As what one might call a “successfully green nation”, more than half of Sweden’s energy comes from renewables (Sweden.se). It was the first country to establish an environmental protection agency in 1967 and hosted the first



conference on the environment by the UN which led to the creation of United Nations Environment Program (UNEP), 1972. Sweden's focus is on long term energy supply and investment in renewable sources. It aims to reduce greenhouse gas emissions by 40 percent by 2020, since 1990 a decrease in about 26%, another (20 million tons in reduction needed to achieve goal). Despite these drastic measures Sweden also still has a growing economy. Sweden's goals looking forward are to make energy use and distribution more efficient. Part of the way Sweden has achieved this environmentally friendly lifestyle is by introducing tax cuts for environmentally friendly companies, information on how to save energy in daily life is widely available and massive investment and research into sustainable development is given a high priority.

d) MENA (Middle East and North Africa)

MENA is highly affected by climate change as the extreme heat is exacerbated and it is surrounded by water. The standards of living are relatively low making civilians living there likely to suffer the impacts of climate change more acutely. The governments are aware of this growing threat and have developed a MENA Climate Action Plan. The plan aims to foster water and food security, make sure cities are able to cope with the impacts of climate change, and lowering the emissions that cause global warming by improving energy efficiency and investing in renewable energy sources such as solar and wind, reducing pollution from industry, transport and waste, sequestering carbon from agriculture, and investing in agro-forestry and the preservation of forests. Special attention is to be given to the poor and coastal communities who may suffer the most from climate change. There has also been an agreement to allocate more funds to climate action efforts and to support renewables and their development although there are very few renewable energy sources in the region at the moment.



IV. Timeline of Events

- 1970:** Millions of people came together in The United States to celebrate the first Earth Day. They protested the deterioration of the environment and demonstrated for a healthier and more sustainable development. United States Environmental Protection Agency was also established due to the first Earth Day.
- 1972:** With the participation of 114 countries, UN Conference on the Human Environment was held in Stockholm. Delegates focused on the pollution and acid rain problems of North Europe and solicited for the establishment of the United Nations Environment Programme (UNEP).
- 1982:** The UN World Charter for Nature adopted the principle, in which every type of life is considered unique and has to be respected.
- 1990:** Regional Environmental Centre for Central and Eastern Europe was established. It aims to create awareness on the environmental challenges across the region, as well as providing a relationship between the government and civil society.
- 1992:** UN Conference on Environment and Development (Earth Summit) was held in Rio de Janeiro with the participation of 117 heads of state. Participators adopted Agenda 21 and called for a better understanding of environmental issues, regarding the sustainable development.
- 2000:** The UN Biosafety Protocol implemented new regulations for a more cautious approach to the trade of genetically altered crops.



2005: Kyoto Protocol came into force and procured gas emission reductions and the establishment of the Clean Development Mechanism.

2012: Twenty years after the Earth Summit in Rio de Janeiro, the UN brought governments together to ensure environmental protection for the future. The conference emphasized the need of adopting clear measures to implement sustainable development.

2015: Paris Climate Agreement is negotiated and signed by 195 UNFCCC members, with the goal of limiting global warming to 2°C.

2017: The United States of America resolves to withdraw from the Paris Climate Agreement by 2020.

V. Questions to Consider

- How many CO₂ emissions per capita does your country produce?
- Does your country have laws on energy production and consumption in place?
- How much energy per capita is consumed in your country? What is the main thing that energy is used for?
- Does your country invest in alternative, sustainable forms of energy?
- Are finances the main reason your country doesn't invest in sustainable energy or are there other reasons, such as an inability to meet the energy demand with alternative energy, or the economic policy regarding the jobs involved?
- Which international treaties or attempts to tackle climate change has your country signed/supported?

VI. Possible Solutions



It is probably most efficient to use a combination of the possible solutions as they are all interconnected and they can be used to supplement each other. There will probably have to be a combination of the possible solutions for change. For example the carbon tax would lead businesses to invest more into research on renewable energy the move to renewables would most likely lead to certain lifestyle changes.

a) Carbon Tax

The goal of a carbon tax is to limit emissions by providing an incentive for environmentally friendly businesses. However this can come with economic and humanitarian downsides. For example, it may deter businesses from going to countries that have implemented a carbon tax, thus causing slower development and hunger. Due to this, if a carbon tax is implemented, one would need to come with supplementary policies to support the affected people. Possibly creating a program where the taxes collected from large businesses can support local people struggling due to the new policy.

b) Emissions Trading Scheme

The idea is for the UN to hand out an “allowance” for one ton of carbon, a power plant has to cut back on emissions accordingly. If Country A’s move to say renewables is so successful that they have extra allowances, but Country B is struggling to roll back its emissions, then Country A can sell these allowances to Country B. This means that the more a country limits their emissions the more they can trade with other countries and make a profit.

See <https://www.youtube.com/watch?v=ReOj12UAus4> for more information.

c) Research



As explained the issue of energy overconsumption only exists because of the way we produce energy making research and essential part of ending energy overconsumption. There is however the problem with many LEDCs being unable to invest into renewables. This makes a international multilateral solution more pressing. MEDCs and LEDCs must work together. Sharing of technology and making this an international effort will be mutually beneficial in the long run

VII. Conclusion

Although almost all countries agree that climate action must be taken swiftly and efficiently, it is clear that not enough is happening. National economic interests may be the biggest barrier for negotiations to succeed making a Carbon Emissions Trading Scheme a viable option. At the conference, resolutions should take economic interests into consideration and create a framework that makes it easier for nations to pursue their own agendas while significantly reducing the impact of energy consumption on carbon emissions. It is important that within this framework, not one simple solution is presented (say: a carbon tax), but that these ideas are expanded and supplemented with policies that can tackle the possible negative impacts or side effects. The issue the resolution should address numbers and evidence. We consume too much energy for the earth to survive the carbon emissions, and if no definitive action is taken, there will be extreme consequences. Why then has the international community still not taken definitive action? Climate action must be taken and climate efforts must be international.

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