SECTION 6. COMMITTEES AND TOPICS

6.4 UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE(UNFCCC)

Introduction

On 22 April 2016, the UNFCCC legislation, Paris Agreement, was signed by 197 countries with the overarching aim to combat climate change by promoting alternative energy industries worldwide and finding other ways of dealing with the contributing factors of climate change. On June 1st, 2017, The United States of America announced it would pull out of the agreement. As the largest carbon polluter per capita, this raised questions about the deal. As of Nov. 4th, 2019, the Trump administration had officially notified the United Nations of their withdrawal plans with the official withdrawal expected by November 2020. With the United States withdrawal from the agreement seeming imminent the question arises, can the Paris Agreement succeed without the United States?

Topics

Reducing Greenhouse Gas Emissions From Industry
Using Meat Alternatives to Combat Climate Change

Reducing Greenhouse Gas Emissions From Industry

The main sources of climate change are carbon dioxide, nitrous oxide, water vapor, and methane, otherwise known as greenhouse gases.

Water vapor is a product of global warming and increases as the atmosphere warms. It is a necessary gas for ecosystems to function, but the warmer the atmosphere gets the more erratic precipitation patterns can become and the more cloud types vary. As the earth warms more water vapor will be in the atmosphere and this will cause weather patterns that will change drier habitats into dust bowl like habitats and wetter areas into swamps.

Carbon dioxide, the most minor greenhouse gas is also one that has increased by a third since the Industrial Revolution. This gas is the most important force in climate change as it is also the most frequent polluter. People emit carbon dioxide and as forests are demolished there is not enough vegetation to absorb the carbon we emit. This gas is one that requires a proper people to vegetation balance to solve.

Nitrous oxide enters the atmosphere by way of using various soil cultivation practices as well as in biomass burning and fossil fuel emissions. While this is a greenhouse gas that is not a major contributor to climate change, fertilizers and pesticides which use this still contribute to the crisis. The small things add up.

Methane, a gas produced both naturally and through human activities is the worst gas on a molecule-per-molecule basis as it contributes most actively to global warming. The natural gas industry is a primary polluter of methane and often their wells leak gas which is not used by humans and simply pollutes the atmosphere with no business or industrial benefit whatsoever.

Some common ideas to limit greenhouse gases that have been proposed are green energy, a circular economy and carbon taxes. Green energy is energy produced by natural resources like wind, solar and water. A circular economy is one in which no product is lost or goes unused. Everything that goes into the system is reused later on. Carbon taxes are a monetary discouragement on products and processes that contribute to carbon emissions in an effort to discourage greenhouse gas pollution. Some lesser known ideas that have been brought forth are ship speed limits, seaweed farms, and machines that take greenhouse gases out of the atmosphere.

It is unlikely that any one solution will work without other solutions being proposed, but there are economic factors to consider when proposing a switch to green energy or when advocating for further research into machines to remove gases. For instance, it is unlikely that making green energy readily available will incentivize people to switch when current energy systems are in place. Equally, what is the point of a carbon tax if that tax does not go toward building new ways to stop climate change? Lastly, what about all of the greenhouse gases that are in the air now? Future limitations do not prevent what goes into the atmosphere today or yesterday. The Paris Agreement sets standards that nations are strongly advised to adhere to, but ultimately policy is crafted on a nation-by-nation basis and cooperation as a global body is needed to nudge governments in the right direction.

Questions to Consider:
How do the guidelines in the Paris Agreement affect your country's national interests?
Who shares common policy interests on limiting gas emissions?
What are the climate problems caused by greenhouse gases in your nation right now?
Are there solutions that will help your climate problems right now as well as in the future?
What are some lesser-known and out-of-the-box solutions to limiting gas emissions?

Sources and further research:
https://www.npr.org/2019/11/04/773474657/u-s-formally-begins-to-leave-the-paris-climate-agreement
https://unfccc.int/sites/default/files/english_paris_agreement.pdf
https://www.economist.com/briefing/2019/09/21/the-past-present-and-future-of-climate-change
https://health2016.globalchange.gov/
https://climate.nasa.gov/causes/
https://www.theguardian.com/commentisfree/2019/mar/15/capitalism-destroying-earth-human-right-climate-strike-children?CMP=fb_gu&fbclid=IwAR153sAh98TUxbMJt4qTn1IC1zDAIFe57AyaDzOhWVT2xTiI5NQKRsFJ08A

Using Meat Alternatives to Combat Climate Change

The term ‘meat alternative’ is a misnomer because it assumes that there are no options to make meat a sustainable agriculture practice. However, lab-grown meat is the most direct solution that does not require new agricultural practices to be invented.

Lab-grown meat has been developed by companies like Beyond Meat and Impossible Foods as an option that simulates the taste of meat, but does not have the adverse environmental effects of cultivating livestock. Equally, an increase in seaweed farming, which cuts down on methane emissions from animals like cows by up to a third could result in less emissions more immediately. Lastly, regenerative agriculture is a vastly improved version of crop rotation that could cut down greenhouse gas emissions immensely by using less resources on smaller amounts of land without impacting food output. All of these solutions require further research to be achievable.

Lab-grown meat is expensive, and many developed nations find it impractical to purchase it on a large scale, let alone developing world nations. Countries like India and China also consume less meat per capita due to their cultural practices, and would not see much benefit with lab-grown meat. For these reasons, the idea of lab-grown meat may not immediately benefit the people in these regions and as a global body it is important to find solutions for the greater good. Still, it is important to note that meat consumption is on the rise in these regions as well. As more nations modernize their access to meat increases.

Regenerative agriculture has wider effects than either of the other aforementioned solutions because it can also help with water consumption which is integral to de-desertification. There are a variety of angles from which to approach meat alternatives, but nation’s varying interests support different paths. Yet, if researchers and funding are spread too thin, the likelihood of finding a reliable solution to the time-sensitive issue climate change lessens greatly.

Questions to consider:
What are the benefits and drawbacks of each meat alternative mentioned above?
What is the cultural diet of your country?
What nations have like-minded goals and interests to your country?
What is the most economically viable solution?
How far along in research is each solution?

Sources and further research:
https://newrepublic.com/article/153048/vegan-future-meat-end-animal-farming-book-review
https://www.theguardian.com/environment/2018/may/31/avoiding-meat-and-dairy-is-single-biggest-way-to-reduce-your-impact-on-earth
https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#agriculture
https://www.economist.com/science-and-technology/2019/10/31/the-answer-to-livestock-that-burp-methane-may-be-seaweed
https://www.forbes.com/sites/forbestechcouncil/2019/10/17/regenerative-agriculture-could-help-stop-climate-change-can-tech-help-us-get-there/#17804668594b