



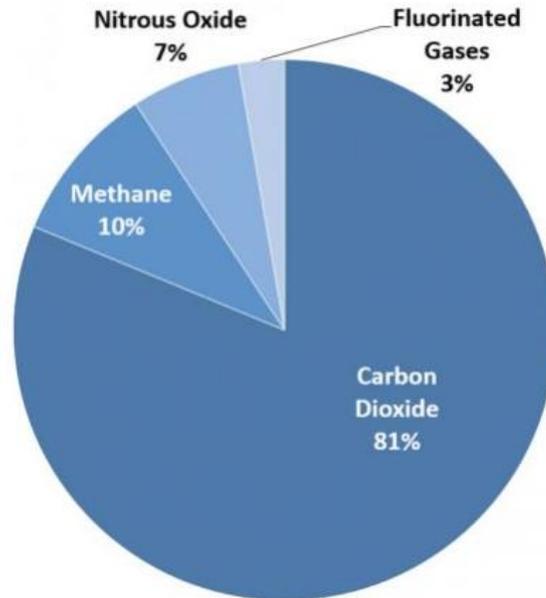
The Impacts of Supply Chain Economics On Our Environment

March 2021

Overview and Effects of Greenhouse Gases

The current *mainstream consensus* is that the last 150 years of human activity is the primary cause for the increase in greenhouse gases emitted into the atmosphere. Without refute, carbon dioxide and methane are two of the most common and impactful greenhouse gases that are emitted due to human activity. In the United States and many other countries, the largest source of greenhouse gas emissions come from the burning of fossil fuels for electricity, heat, and transportation.

According to the Environmental Protection Agency (EPA), as of 2018, the primary sources of greenhouse gas emissions in the U.S. are transportation (28%), electricity production (27%), and industry (22%). These three sectors alone account for over three-quarters of all greenhouse gas emissions. Regardless of the fuel source, we are speaking of high-volume production industries: interstate trucking, international shipping, food production, steel and metals manufacturing, vehicle production, defense implements, computers and communications technology. However, the same *mainstream consensus* labels consumers as the culprits of *increasing* atmospheric greenhouse gases. Generally speaking, that means YOU! This is wholly incorrect as heavy industry, and more specifically the global supply chain is to blame for any marked increase in emissions.



Approximate Emission percentage as of 2018

Globalization has led to products being shipped across seas and entire countries exacerbating the fuel and energy consumption issue as the global supply chains are inherently energy intensive. It is estimated that we must achieve a net-zero emission of greenhouse gases by 2050 to avoid the worst impacts of climate change. The Intergovernmental Panel on Climate Change stresses that we need to keep rising temperatures below 1.5 °C (2.7 °F) to avoid irreversible impacts. In order to accomplish this momentous and time-sensitive goal, we must work towards deep decarbonization from all sectors. This was the same line Al Gore pitched in his first film when the polar ice caps were to be melted into oblivion by the mid-2010s. Notice how the goalposts keep getting pushed back while the global bourgeois elite keep giving themselves awards for using private jets and running major mass pollutant companies?

Decarbonization and Getting to Net-Zero

Let's be real about *decarbonization* and getting to net-zero.

First of all- Good luck. With so many countries, nations, and their respective cultures at odds the goal is effectively unachievable, not to mention a large portion of the world's undeveloped citizenry appears to lack the requisite ambition to join the bourgeois *West* in developing. Relatively speaking, though, these people living in abject poverty are net-zero, and more likely net-negative carbon output. Good for them. At least they are not subjecting themselves to corporate fascism where tech companies and major corporations rule the world and blame the consumer for the condition of the environment while they continually *roll in the dough*.

With the technological developments we are seeing today, the world is becoming decentralized. Homes can have on-site energy production with wind, solar and geothermal sources. Space-based internet solutions are being deployed where hard wiring will no longer be needed. Small-scale farming is becoming ever more popular at the individual and communal level in urban areas. The end or retreat of heavy industry and its supply chain may be nigh, and with it comes a great opportunity.

If we truly want to set an example and lead the world to a cleaner existence we need to begin to produce and consume locally and regionally. As an example: economic competitive advantages and global trade has its place, but why would I as a U.S. meat producer or farmer subject myself and existence to a lack of quality restraints, lack of regulation and lower price environment? It is economically harmful to countries and effectively a practice of economic self-immolation. Shorten and abbreviate supply chains to the degree that we are not unnecessarily engaging in long-haul trucking and trans-ocean shipping. Shorten the supply chain and energy consumption savings will follow, while Mainstreet will then be able to better compete again with the global *behemoths* that were able to continue growing and producing amid the global pandemic.

The Advantages of a Short, Efficient, and Sustainable Supply Chain

Many of our supply chains are long and complicated which require more transportation thus generating more greenhouse gases. Not only are these long supply chains carbon inefficient, but the complexity (more links in the supply chain) makes it more difficult for the end producers to get a full picture of their carbon emissions. It is practically impossible to manage greenhouse gas emission of an imported product that cross multiple national borders. For example, to make a shirt, cotton is grown in one country, shipped to another country to make fabric, which is then shipped to another country to make clothes, which is then shipped to the end consumer in another country. A study in 2016 has estimated that such “carbon in transit” accounts for about 10% of global emissions.

Longer supply chains require many unnecessary intermediaries to get a product between the producer and consumer. This results in inefficiency and a greater chance of the product getting lost or damaged. Shorter supply chains offer reduced energy and transportation costs and therefore will result in less greenhouse gas emissions than longer, more complex supply chains. This means that it is easier to make them sustainable and that they have a less harmful environmental impact. Aside from transportation, some products also require additional energy to get it safely to the consumer. Transporting goods such as produce locally means that there is a reduced need for refrigeration and artificial preservatives. Short supply chains also result in less food waste and reduced disposal costs for farmers and producers. These are just a few examples demonstrating why a shorter supply chain is easier to manage and more friendly to our environment.

Accountability Can Lead the Way

The EPA has stated that more than three quarters of greenhouse gas emissions associated with many industry sectors come from their supply chains. For this reason, many leading companies are engaging their suppliers about managing their emissions and have incorporated systems for reducing emissions. Some companies require their suppliers to report emission data and manage their carbon footprint. Companies have even made public commitments about measuring and reducing their supply chain greenhouse gas emissions. This has led to a reduction in greenhouse gas emissions as the suppliers strive to meet these goals in order to maintain their business partnerships.

At times, the government has offered forms of financial government support for activities believed to be environmentally friendly which has had success. The subsidies work by rewarding companies for reducing their emissions rather than punishing them for their emissions. These subsidies can be in the form of grants, low-interest loans, or reduced taxes. This creates incentive for companies to monitor their

emissions and motivates them to find new and better ways to conduct business. It has proven to be yet another way to decrease greenhouse gas emissions and lead the way to a better future.

Through determination and accountability, we can find ways to manage our emissions and strive towards new solutions to make carbon neutrality a reality. This is by no means an easy task and will take time and persistence. There is not a single solution to this problem. It will take the implementation of a multitude of ideas to have the power to make a difference and improve our efficiency. The only way that we can achieve this goal is through cooperation, innovation, and determination.