Towards a Greener Earth Through Energy Efficiency

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Kavindi Tharuka Lokugalappaththi is a student in the Supply Chain Management - Global Logistics program. In this blog entry, she speaks about the pressing issue of climate change and how countries and corporations are trying to reach their targets through sustainable energy and energy efficiency.

On 12th December 2015 in Paris, France, 196 nations of the world agreed to a legally binding international treaty to prevent an impending climate crisis catastrophe. In doing so, global leaders and the general public have voiced their concern about moving ahead with a clear action plan. According to the prime objective of the accord, we must limit global warming to 1.5 Celsius until the end of the century compared to pre-industrial levels. In a globalized and divided world, it is going to be a monumental task. Apart from the war situations, the slowdown of the global economies is hampering the positive strides made toward controlling the climate crisis.

The agreement has put forward its plan centralizing 'reduction of greenhouse gas emissions'. Greenhouse gases such as carbon dioxide, methane, and nitrous oxide are major contributors to global warming. When we analyze greenhouse gas emissions, according to the World Resource Institute (an independent organization that researches climate, energy, food, forests, oceans, and economies) the most industrialized nations come atop with China, the United States, India, the European Union, and Russia leading. The size of their economies, corporations in these countries, large-scale production processes, and population growth are massive challenges posing threats to targets set by the Paris Accord (World Resources Institute. ("Greenhouse gas protocol")



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When we study the United States' greenhouse gas emission by each economic sector as per the United States Environmental Protection Agency, transportation (28%), electric power (25%), and industry (23%) contribute the most to this regard. With global warming and climate crisis getting more traction among the general population, the country has made efforts to bring down these emission rates which have dropped by 3% compared to 1990's (EPA. "Greenhouse gas emissions"). The scientific communities in the United States and around the world have come forward to educate people on the disastrous path we are heading towards and it has made us all realize that we cannot ignore this issue anymore.

Most of the cutbacks are due to adaptation towards renewable energy like solar, wind, hydroelectricity and nuclear. From multinational manufacturing corporations like Tesla, Amazon, Apple, Samsung, BYD, Toyota, Honda, and General Motors to Tim Hortons, companies are now in a race to shift to more sustainable industrial practices. They expect to reduce their carbon footprint by shifting to energy-efficient sources in the production process. In doing so they are heavily investing in research and development in finding ways to harvest more green energy. The technological innovations in leveraging Artificial Intelligence (AI), use of automation, and robotics in production processes do help in increasing the efficiency in resource use. Another area to concentrate on is optimizing supply chains. Here manufacturers put forward stringent plans to reduce cost, time, and emissions in transportation of raw materials and to ensure continuous supply.



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Also, in the physical build-up of these manufacturing facilities, the modern practice is to use sustainable architecture in the likes of maximizing the use of natural light, and ventilation (without air conditioning) and use of reusable materials to build the physical structure. With the emergence of the United Nation's Sustainable Development Goals, global corporations are more and more adhering to certifications regarding greener industrial practices. Still, the most important factor in protecting our earth for future generations will be educating each other on how to preserve our environment. With these practices, we as humans will be able to protect Mother Earth.

Kavindi Tharuka Lokugalappaththi

Supply Chain Management - Global Logistics



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