Research Problem

Developing countries are being asked to “leapfrog” to renewable energy (RE). It is unfair to push poor countries to reach zero carbon emissions too early. Developed countries are trying to dilute the principle of equity by pushing developing countries like India to announce a target of net zero emissions.

Introduction to Research Problem

Fossil fuels are still the cheapest, most reliable energy resources available. When a developing country wants to build a functional economic system and end rampant poverty, it turns to fossil fuels. Many developed countries made out there way through these energy resources only if we look in the history, and now they cannot force other poor countries for the zero emission. For the poorest of the poor, the real need is electricity access, regardless of fuel. According to the International Energy Agency, 770 million people, mostly in Africa and Asia, don't have access to electricity at all, even for things like water purification and lighting. In the past decade, the increasing popularity of SUVs was one of the largest drivers of the rise in greenhouse gas emissions, driven mainly by tastes in wealthy countries. So fossil fuels go furthest in improving the standard of living and quality of life in countries that have the least energy to begin with fossil fuels can therefore help developing countries increase their energy access and lift millions out of poverty.

A lot of us have heard wind and solar are very cheap. People are putting up rooftop solar on their roof. But the reality is, it may look inexpensive for a little bit of energy. But if you look at the entire economy, it's not just electricity, but there's transport, there are industrial processes. decarbonizing those is very, very expensive — especially to get rid of all of it. So that's the practical problem. In terms of fairness, look at the differences between countries in terms of their emissions. We're not talking that countries differ by a couple of percent or tens of percent, but a dozens of times difference in the per-capita energy use, and therefore carbon emissions that countries put out. And there is a fair amount of evidence that a lot of the economic growth that countries have had has been because they've had access to secure and reliable energy. And a lot of that historically has been fossil fuels.

Research Objectives

1) Examine why poor countries need carbon emissions for development.

2) Evaluate if the net zero target is fair for poor countries and developing countries.

3) Provide the reasons for improving overall climate change without hurting developing countries.

Research Hypothesis

Why poor and developing countries need carbon emission for development ?

Developing countries have the potential to grow at a faster rate than developed countries because diminishing returns (in particular, to capital) are not as strong as in capital-rich countries. Furthermore, poorer countries can replicate the production methods, technologies, and institutions of developed countries.

With or without climate change, there is also no doubt that growth in income and energy consumption is necessary in the poorest countries, where many people do not have access to the basic needs for a decent life. Today, 2.8 billion people cook with traditional fuels—which kills millions, especially women and children, through indoor pollution. Access to health, education, or mobility is far below what would be considered acceptable in rich countries. Delivering these services must be a priority.

Greenhouse gas emissions have provided a wealth of benefits to developed countries at the expense of developing ones. In light of this "unjust enrichment," developed countries now have to recognize their duty of climate restitution towards developing countries. It is often argued that countries that have emitted more greenhouse gases should also bear more significant mitigation and adaptation duties, as there is a strong correlation between the level of historical emissions and present-day benefits. For instance, Western Europe and the United States, which enjoy some of the highest levels of well-being, are responsible for more than 45% of global historical emissions from the industrial revolution to 2015. Today, most developing countries that decrease their poverty rates also have increased rates of carbon emissions. In East Asia and the Pacific, the number of people living in extreme poverty declined from 1.1 billion to 161 million between 1981 and 2011—an 85% decrease. Likewise, in Sub-Saharan Africa, the number of people living in poverty increased by 98% in this thirty-year span, while carbon dioxide per capita decreased by 17%. Given the current energy situation, if sub-Saharan Africans are to escape extreme poverty, they will have to increase their carbon use.

Is net zero target fair for poor and developing countries?

In the coalition of 24 developing nations that work together on international negotiations issued a statement criticizing rich countries for proselytizing a universal goal of net-zero by 2050. "This new 'goal' which is being advanced runs counter to the Paris Agreement and is anti-equity and against climate justice," the statement from the ministers of the Like-Minded Developing Countries. The LMDC argued that its member countries should not be forced onto the same timeline to cut emissions as the industrialized world when they have done little to contribute to historic emissions and may want to use fossil fuels in their own economic development, as wealthier nations have.

This argument is not new. The recognition that different countries have different responsibilities for and capabilities to address climate change is at the heart of the U.N. negotiation process. It was also embedded in the 2015 Paris Agreement, which says that emissions should peak sooner in developed countries than elsewhere. And yet rich countries have delayed taking action to cut their own emissions for more than a decade, and now are demanding that the whole world commit to net-zero. The LMDC put forward a different framework. The bloc proposed that rich countries get on the fast track, fully decarbonize by the end of this decade, and "leave the remaining atmospheric space" for carbon emissions to the developing world.

How to improve overall climate change without hurting developing nations?

The rich already have saturated development: the cars, refrigerators, roads, and homes they need to build are mostly replacement stock, although they will also need infrastructure to support the clean energy transition. However, poorer countries' growth needs are far more than just replacement of fossil fuels with zero-carbon infrastructure. Given such high growth can't be met easily by zero-carbon solutions, their emissions will need to rise in the short run.

Sunita Narain, an expert on climate negotiations who has been tracking the talks since 1992 and director general of Centre for Science and Environment, said developed countries are trying to dilute the principle of equity by pushing developing countries like India to announce a target of net zero emissions by 2050. Whereas the rich countries, with far greater historical responsibility, should deliver on a net zero target way earlier at least by 2030 allowing carbon space for poor countries to grow.

According to global scenarios, if low- and lower-middle-income countries choose business-as-usual development while the rest of the world transitions to a net zero path, global greenhouse gas (GHG) emissions would plateau around 20 GtCO2e in 2050, or 40 percent of current emissions. What does this mean? For one, it means a much harder transition for these countries – significantly greater climate impacts and higher costs to transition their economies and reduce emissions after 2050.

The main risk for low-income countries today is not to be denied access to outdated, costly, and polluting technologies, but rather them being denied access to the newer, cleaner and more productive technologies of the 21st century and left disconnected from global value chains and locked into technologies that have no future. By leapfrogging to the best available technologies, lower-income countries can benefit from early investments by rich countries and skip the expensive retrofitting/replacing process that higher income countries will be experiencing in the next few decades.

Research Questions

●Should poor and developing countries really be held responsible for carbon emissions ?

●What effect do zero carbon emissions will have on developing and poor countries?

●What is the role of developed nations in today's bad climatic conditions ?

●How can developed nations help developing and poor nations with development and also in the global problem of carbon emissions?

Literature survey

The work in this paper is focusing on carbon emissions, growth of developing nations and poor countries, net zero carbon emissions, poverty and climate change, pathways to net zero carbon emissions , economic development of developing and poor nations. The methods in this paper include data from Center for Climate and Energy Solutions, International Monetary Funds (IMF) , International Energy Agency. The method in this paper includes segments of Climate Inequality Report 2023 by World Inequality Lab. This paper includes discussions from the 2022 United Nations Climate Change Conference or Conference of the Parties of the UNFCCC, more commonly referred to as COP27, was the 27th United Nations Climate Change conference, held in Sharm El Sheikh, Egypt and the 2021 United Nations Climate Change Conference, more commonly referred to as COP26, was the 26th United Nations Climate Change conference, held at the SEC Centre in Glasgow, Scotland, United Kingdom.

The international community can help poor and vulnerable countries adapt by providing financial support and developing institutional capacity. These countries will suffer the most devastating impacts of climate change even though they’re not responsible for causing it. It’s also in the world’s interest to ensure climate change does not jeopardize development and stability in poorer countries.

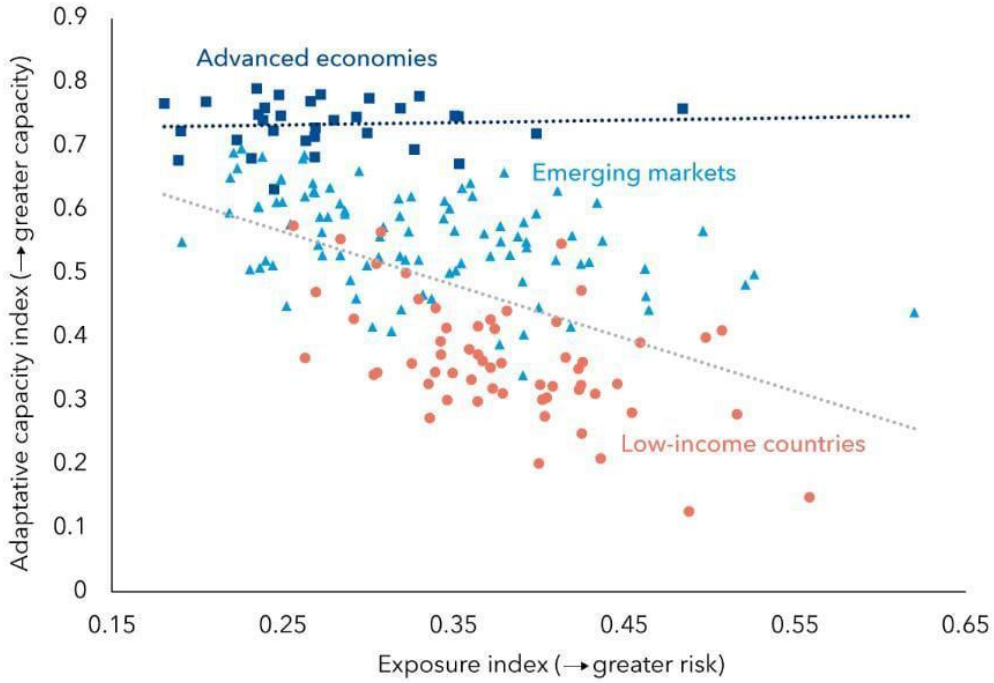
Research Methodology

The method of approach used in this paper to explain research problem is through qualitative data. The approach used in the people contributes new knowledge and understanding. As it includes the effect of the zero carbon emissions on developing and poor countries and how can developed nations help developing and poor nations with the economic growth and global fight for climate.

Unequal costs of climate change

Poorer countries face greater risks from climate change and are less able to adapt to them.

(adaptive capacity and exposure indexes, points out of 1)



The survey includes the IMF staff calculations based on 2015-2018 data from the European Commission, the United Nations University Institute for Environment and Human Security, the University of Notre Dame, and the April 2020, World Economic Outlet.