

When Climate Change Brings Inequality and Vulnerability

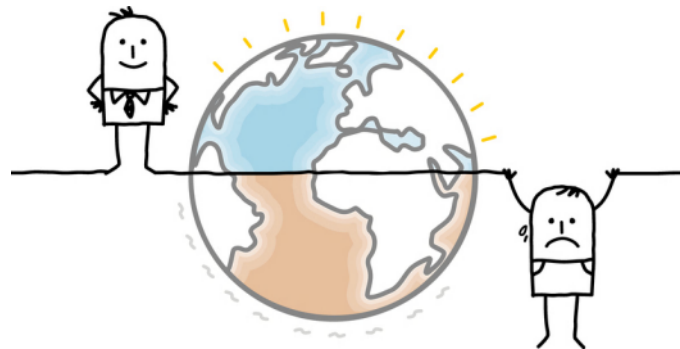
By Shui Hu

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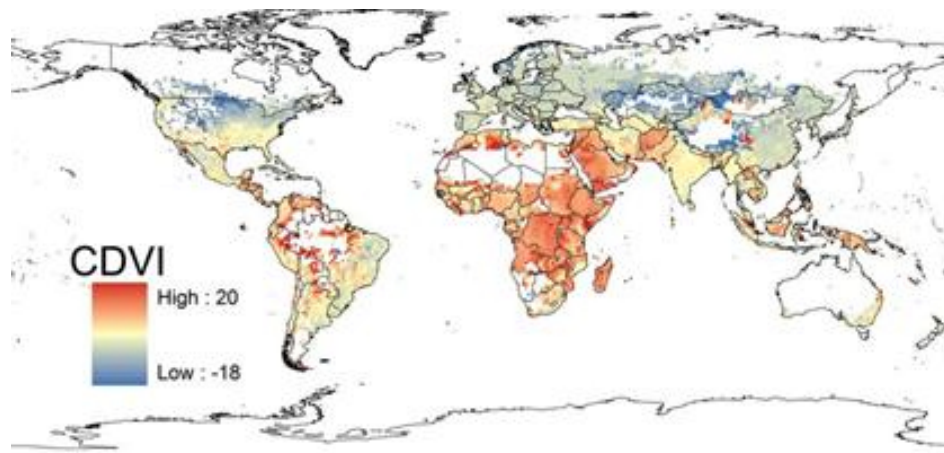
Climate change, as an ongoing environmental issue that the whole world is facing and combating, is bringing inequality and vulnerability to people. Over time, it poses a threat to the survival and livelihood of people from poor countries, such as Haiti.

Therefore, climate change's impact on inequality and vulnerability has been a core issue that climate justice tries to address. Much research, such as reports by USA Today, Oxfam, and CNBC, have proved that climate change puts poor countries into a vulnerable state while having significantly less impact on richer countries.

While industrialized nations such as the U.S. and China continue to rely heavily on burning the fossil fuels that cause global climate change, it is poor countries such as Haiti that bear the environmental cost.

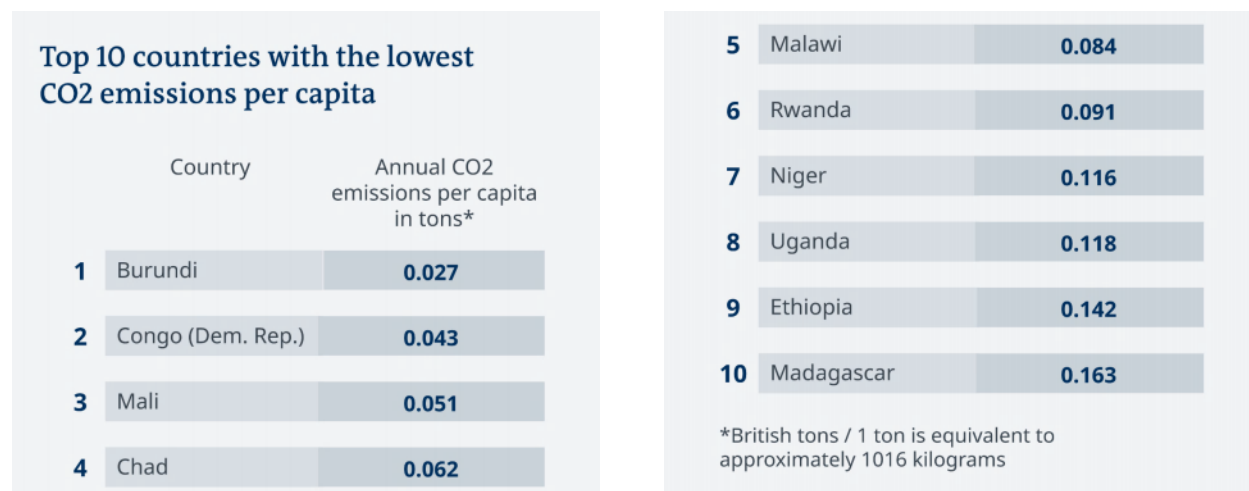


In 2011, McGill University visually illustrated this issue. This map projects the impact of climate change on countries in the world in 2050 and uses different colors to distinguish level of severity.



As shown in the red areas of the map, countries that are closest to the equator, including central South America, the Arabian Peninsula, and most of Africa will likely be affected the most.

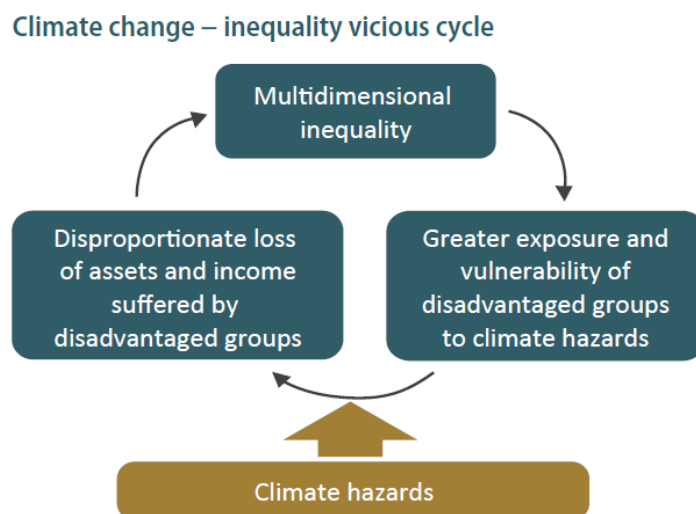
According to a list created by The Emissions Database for Global Atmospheric Research, those places are actually the least responsible for climate change: they have the least CO2 emissions per capita. On the list, the top 10 countries are all from Africa.



In contrast, areas in blue on the map, such as the United States and western Europe, are expected to have the least impact on climate change. However, they are the most responsible countries, according to a ranking of top cumulative emissions countries by Carbon Brief.

Rank	Country	Cumulative emissions per population in 2021, tCO2	Rank	Country	Cumulative per capita emissions, tCO2
1	Canada	1,751	1	New Zealand	5,764
2	United States	1,547	2	Canada	4,772
3	Estonia	1,394	3	Australia	4,013
4	Australia	1,388	4	United States	3,820
5	Trinidad and Tobago	1,187	5	Argentina	3,382
6	Russia	1,181	6	Qatar	3,340
7	Kazakhstan	1,121	7	Gabon	2,764
8	United Kingdom	1,100	8	Malaysia	2,342
9	Germany	1,059	9	Republic of Congo	2,276
10	Belgium	1,053	10	Nicaragua	2,187

Now, climate change continues to influence inequality in a vicious cycle. A graph by the United Nations suggests that as disadvantaged groups are exposed to more climate hazards, it leads to their suffering of disproportionate loss of assets and income that subsequently contributes to a multidimensional inequality.



Source: UN/DESA.

Among the poor countries that suffer from this “inequality vicious cycle,” Haiti, according to ClimateLinks, it’s “the most vulnerable country in Latin America and the Caribbean” to climate change.

“Climate change is a very big terror in Haiti. It’s very hard for us to deal with climate change, ... Haiti is not responsible for what’s going on with climate change but we are suffering from it,” Joseph Jouthe, Haiti’s Environment Minister, told the Inter Press Service (IPS) at the United Nations climate summit.

Haiti’s vulnerability to climate change comes from a variety of aspects.

First, Haiti’s geographic position is in the hurricane belt and is prone to the damaging storms. In 2008 alone, four hurricanes — Ike, Fay, Hanna and Gustav — struck the country that destroyed more than 60 percent of agricultural crops and killed more than 1,000 people, according to Columbia Climate School.

As hurricanes happen more often and intensely, the risk of flooding rises dramatically. As the Columbia Climate School points out, Haiti is historically vulnerable to floods: its urban centers located in the alluvial plains of large river systems. One of the centers named Gonaives was flooded for days following Hurricane Hanna in 2008, leaving hundreds of people stranded on rooftops.



Flood damage has been steadily increasing in Haiti due to deforestation and loss of rainfall-absorbing topsoil. One flood in January 2022 has affected 20 municipalities in the Nord, Nord-Est and Nippes departments.

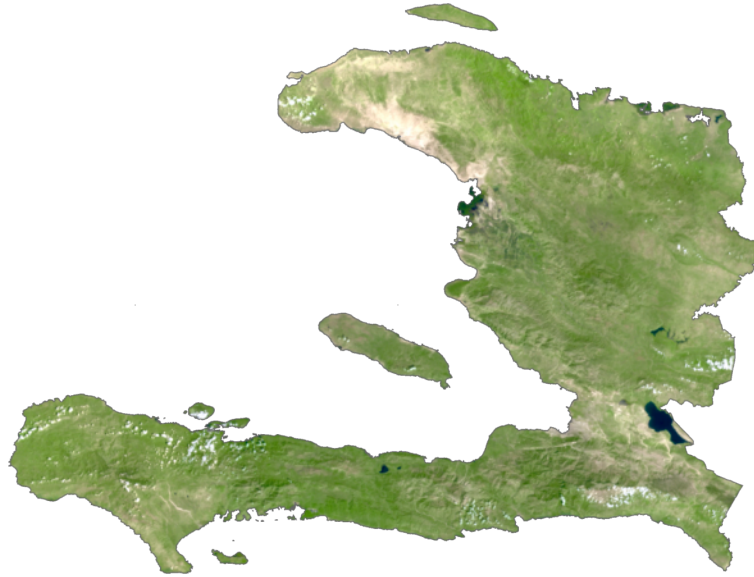
According to FloodList and Civil Protection, as many as 2,578 houses have been flooded and 3 destroyed, leaving nearly 2,500 families in need of temporary shelter. Also, there was damage to a power plant and a bridge, leaving some areas isolated.

Hurricanes and flooding have resulted in more internal displacement, a higher mortality rate and greater infrastructure damage in Haiti. Also, shoreline erosion affected most Haiti residents' livelihood.

Dr. Kénel Délusca, current head of mission of a technical assistance project, AP3C, of the Ministry of Environment and the European Union, says marine resources are indispensable for Haitians during the United Nations climate summit.

He said that in Haiti, 9 out of 10 of the departments are coastal, and its big cities are all located within the coastal zone. Moreover, more than 8 million people live in coastal communities, with about 50,000 families based their activities on marine resources. For example, fish stocks, which are now expected to decline, play a vital role in meeting Haiti's nutritional needs.

Second, due to climate change bringing higher temperatures that causes drought, it leads to deforestation in Haiti. This year, Haiti only has 4% of forest cover remaining nationally, according to GISGeography.



Deforestation has many negative consequences. For example, it weakens the natural systems by degrading soil. Without trees' protection, soils are less fertile that disables crops to thrive, letting erosion become rampant.

Given that Haiti over-relies on agriculture for livelihood, and that over 50% of the land is set aside for crops (GISGeography), erosion lets crop productivity become an issue and make food supply not guaranteed. As a consequence, problems such as malnutrition and increased dependence on imports to meet food security needs arise.

Third, Haiti's population density and unplanned urban growth exacerbate the stress on the distribution of food and water resources, which are already lacking due to climate change. In addition, more waste management services and health care infrastructure are needed. Population increase and extreme weather events together may generate more wastes and disease outbreaks. As a result, more of the population is at risk from the impact of climate change in multiple aspects.

Last but not least, although Haiti's financial and governmental capabilities are still weak and unable to combat various negative consequences of climate change, organizations around the world are trying to help Haiti to deal with climate change and its impacts.

One of such organizations is the Centre for International Studies and Cooperation (CECI) that is based in Montreal. It is an international cooperation organization that combats poverty, exclusion and inequality through sustainable development projects in Africa, Asia and the Americas.

From October 2017 to March 2021, the CECI set up the Klima project to combat climate change in Haiti's Nord department. In particular, volunteers helped by improving ecosystem resilience and providing Haitian guidance in developing a sustainable, green economy.

The results of this project are considerably positive. Through the project, 200 hectares of sustainable energy forests have been planted, 700 tons of eco-industrial compost produced from organic waste are sold annually by young entrepreneurs, and 55,288 kilotonnes of CO₂-equivalent GHG emissions are either reduced or prevented by 2020.

In conclusion, climate change intensifies inequality between poor countries who are the least responsible for climate change and richer countries who are the most responsible for climate change.

Haiti, as “the most vulnerable country” impacted by climate change, is depressively facing consequences including natural disasters and environmental issues that lead to food supply and health issues. As their population grows in an unexpected trend, more Haitians will be exposed to climate change consequences. Therefore, it is important for international organizations such as the CECI to help Haiti combat its vulnerability to climate change.

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