9.3: Major Culprits and Victims of Climate Change

We know greenhouse gas emissions cause climate change, and the major driver for carbon dioxide is the burning of fossil fuels. Other major activities that cause emissions include land use change, agriculture, construction, and the accumulation and production of waste, which also give off the lesser known greenhouse gases methane and nitrous oxide. Extraction and transport of liquefied natural gas causes significant methane emissions, which causes concern because methane is twenty times more powerful than CO₂ as a GHG. Emissions are not generated in equal parts from countries around the world. On a global scale, there is a correlation between wealth and higher emissions (Ritchie, 2018). This correlation, shown in Figure 9.2, is seen at the state and city level, as well as on a per capita basis.

Figure 9.2: \(\text{CO}_2\) emissions per capita vs. GDP per capita, 2016. Carbon dioxide emissions per capita measured in tonnes per person per year, and GDP is measured in international dollars in 2011 prices to adjust for price differences between countries. [Long Description]

In addition, wealthier and larger countries generate a disproportionate amount of emissions. The Decolonial Atlas (Engel &
Gross, 2019) published the names and locations of the Top 100 people “killing the planet” with the highest emissions of greenhouse gases in the world. To quote the source, “just 100 companies are responsible for more than 70% of the world’s greenhouse gas emissions since 1988. The guys who run those companies – and they are mostly men – have gotten rich on the backs of literally all life on earth.” A graphic representation is shown in Figure 9.3.

The Carbon Disclosure Project reports on this disproportionality in great detail. In their 2017 report *The Carbon Majors Database*, its authors show that “over half of global industrial emissions since human-induced climate change was officially recognized can be traced to just 25 corporate and state producing entities” (Griffin, 2017, p. 8). This global corporate hegemony is shown in Figure 9.4. Some of the highest emitting companies include ExxonMobil, Shell, BP, Chevron, and Peabody Energy. Together, these companies made a profit of more than 69 billion dollars in 2018 alone. On the other hand, the world’s poorest 50% of people are responsible for 10% of global emissions. (Oxfam, 2015).

In terms of felt impacts, the people and places that bear the greatest burden are those that are vulnerable, populations that are already at risk. It is well-documented that climate change affects all populations and communities across the world, but also that it affects some groups more than others. Poorer populations are not as well equipped to respond to the impacts, and often cannot access the benefits of mitigation and adaptation measures. Other vulnerable populations include the elderly, immigrants, persons with disabilities, children, and people of color. Besides being socioeconomically disenfranchised, these communities tend to live and work in areas and homes that are more exposed to climate hazards. This lack of resilience renders them more exposed to hazards. At-risk populations are also more sensitive to hazards, and have less capacity to adapt to or resist climate hazards. Studies show that these frontline communities are...
often at a disadvantage when facing climate change impacts because of a lack of resources, less access to benefits or information, as well as structural inequalities, such as racism that is written into legislation or laws. For example, when Hurricane Katrina hit New Orleans, communities of colour were at a disadvantage because the areas they lived in were more exposed to the storm and they had less resources to adapt and respond to the storm. One reason was because these areas had outdated infrastructure from a history of systematic public disinvestment, going all the way back to the practice of “redlining,” the refusal of mortgage loans to communities of color (Mendez et al., 2013). Over time, this contributed to racial segregation where wealthy communities of white Americans live in well-kept neighbourhoods separate from Black communities, who live in less affluent areas that are more rundown and have less access to social services.

The major takeaways from this section are: (a) Greenhouse gas emissions that cause climate change are mostly created by wealthy countries and individuals and (b) the unwanted impacts of climate change are mostly felt by the poor and vulnerable. There is an inherent injustice in climate change, and it has not gone unnoticed by climate action and social justice advocates alike. The result is a global movement of people demanding real action on climate change that uplifts communities that are most vulnerable to climate change. The next section delves deeper into what this means and how people are trying to change it.

**Climate Justice**

Climate justice is a term coined by activists in the environmental and climate movement who purport that a true climate solution is one that also delivers social justice. Climate justice as a solution to the climate crisis acknowledges the need to deliver equitable measures that are fully accessible by frontline communities and at-risk populations, ensures these vulnerable populations are heard and have a seat at the negotiation table — in that their interests are equally represented, and that these communities can participate in the decision-making processes. Finally, a tenet of climate justice includes the restoration of social and natural systems to the benefit of all populations and future generations. (Parks & Roberts, 2010).

The difference between equity and equality is an important distinction to make when defining climate justice. Both are principles of fairness, but differ in that equity refers to equal access to opportunity and services, whereas equality is the process of treating every person the same. While equality aims to promote fairness, the end result is only ‘fair’ if each person starts from the same place of privilege. For example, a college entrance exam treats every exam taker the same, and allows any high school student to take the exam. However, while it treats every exam taker the same, it does not account for the fact that some students did not have access to a tutor, or a home environment that was conducive to studying, or the money to pay for top of the line high school education that predisposes certain students to a better score, and therefore better chances of doing well on the entrance exam. Further, the students that are primed to do well are then able to get into ‘top’ colleges, and go on to have high paying, desirable jobs. Some colleges are now beginning to understand this inequity in the education system, and are trying to address it through a number of strategies including setting aside a percentage of seats for people from marginalized communities (Bertrand et al., 2010) as well as providing services for these communities throughout their education programmes. In other words, they are trying to develop from the principle of equality towards equity. If the inequities within a system remain unaddressed, often the gap will continue to widen between those who are favoured and those who are not, entrenching those disparities.

Inequities in our education systems can build up over time through structural racism and prejudice. Similar to inequities
in the education system, how we respond to climate change can affect whether structural inequities that face marginalized and at-risk communities are further entrenched and whether those who have and those don’t are pushed further apart. In the case of climate change, the injustice is twofold: the wealthy live lives of privilege where increased consumption and frequent travel produce the bulk of greenhouse gases globally, and the poor bear the brunt of the climate change impacts. To further unpack this injustice, fossil fuel companies continue to make immense profits that benefit a small percentage of people in the world at the expense of the many, and at particular expense of vulnerable populations such as people of color and other marginalized communities. Moreover, in many countries fossil fuel production and consumption are still subsidised from public funds.

Climate justice theory posits that any transition to a post-carbon economy must be cognisant of the inherent inequities in climate change, aim to rectify these inequities and refrain from exacerbating them.

**Climate Justice in Practice**

While the concept of climate justice is relatively new, there are already concrete examples of policy and programmes designed with climate justice as a framework or objective. At the level of a municipality, the District of Columbia’s clean energy plan outlines an entire chapter on “An Equitable Energy Transformation,” and puts forth a framework that takes into account both an equitable process of policy development, as well as an analysis of each proposed policy against risks or barriers to equity in order to design an outcome that uplifts at-risk populations (DC Department of Energy & Environment, 2018). Other US cities such as Philadelphia and Seattle have also taken steps to integrate climate justice into their climate action plans. The United Nations Human Rights Office of the High Commissioner and the Mary Robinson Foundation co-hosted the Climate Justice Dialogue event in Geneva in 2015, which produced the Geneva Pledge for Human Rights in Climate Action, a voluntary initiative supported by 18 countries around the world to “facilitate the exchange of expertise and best practice between our human rights and climate experts to build our collective capacity to deliver responses to climate change that are good for people and the planet” (CIEL, 2015, p. 1). Currently, over 30 countries are signatories to this pledge.

In addition, the United Nations’ 13th Sustainable Development Goal (SDG #13 includes a target to direct $100 billion dollars in funds annually from developed countries to developing countries to support climate change mitigation efforts (UN, n.d.). This redirection of wealth is a step in the right direction for climate justice.