What We Owe

"Look and listen for the welfare of the whole people and have always in view not only the present but also the coming generations, even those whose faces are yet beneath the surface of the ground – the unborn of the future Nation."

- The Great Binding Law

Indigenous cultures in the arctic and perhaps across the world used to steward their resources keeping in mind that even their seventh generation would be able to survive in abundance. The above excerpt from the *Great Binding Law* or the Constitution of the Iroquois Nations, the first ever constitution of North America, is the testament to that *seven generation principle*.¹

Where did we go wrong? Well, perhaps the simplest answer to that would be capitalism, colonisation, and imperialism. The very human greed that only knows how to consume and indulge in unfettered luxuries and treats this world as a storehouse of endless resources. While it is essential to unravel what led to the current state of climate change, it is more urgent to find efficient ways of dealing with it, for ourselves and very importantly, our future generations.

Statistics serve us well in giving a quantitative idea about the sheer scale of impact anthropological forces have had on the environment. But are they always enough to transform our collective empathy into fruitful actions? Perhaps not. For decades now, climate scientists have been using statistics to convince us about the urgency of the situation. It is evident that such haunting statistics have barely worked given the lukewarm efforts of politicians, corporations and many other forces who are either mostly responsible for the occurrence or have substantial power to do something about it. So, while statistics might assist us to tell the story, we also need to focus on the qualitative aspect of climate change.

Let's do a thought experiment: imagine the year 2050. What comes to our minds? The answer depends on whom we ask. Perhaps a utopia (or dystopia, depending on how one perceives technology) where technology has taken civilisation to a realm of futuristic inventions that we cannot imagine in our wildest dreams? Or perhaps technology-driven economic growth that has surpassed population growth mitigating certain economic inequalities? If you ask a climate scientist, they may paint you a morbid picture of a chaotic world full of natural disasters,

massive income inequalities, new diseases, starvation, rising temperatures and sea levels. Truth be told, we do not know how the year 2050 would exactly look like. We have predicted different figures for different variables, and those figures have changed, often ominously, over the years. In the year 2013, IPCC published a report stating that the world's carbon budget will be exhausted by 2045.² Given that the report was quite conservative in not considering other greenhouse gases (GHGs) as a major contributing factor to global warming and given the sheer lack of urgency amongst political leaders, policy makers and alliances built to tackle climate change, it is hardly surprising that we have reached a temperature rise of 1.09 degrees already with our new deadline of exhausting the carbon budget being 2030.³

However, figuring out such thresholds and quantifying uncertain future variables seems like a way to deny the fact that to provide our future generations, we would need to make radical shifts in our production and consumption behaviours: our very way of life. In 2014, IPCC predicted intense wildfires, heavy rainfall and consequent floods, storms like tornadoes, cyclones and several more natural disasters which are already occurring in full swing in every continent.⁴

While these predictions came true, making those predictions themselves hardly helped in reaching the climate goals we had set. And even though we might have a vague idea about what each degree temperature rise might entail, the exact tipping points and the myriad uncertain aspects of climate change cannot be truly predicted; in other words, they are unknowable. Climate scientists have often relied on a vitalist imagery of the world for the laymen to understand the extent and unpredictability of climate change. Wallace S. Broecker and Robert Kunzig talks of the "climate beast", who has responded "violently and a little unpredictably" when nature has herself decided to "give it a good swift kick".⁵ This sense of vitalism has also found expression in the works of one of the most celebrated artists, Hayeo Miyazaki. In Princess Mononoke, the destruction of forests at the hands of industrialists looking for "progress" has led to the creation of Nago, the demon boar god, and later on the nightwalker, a mystical representation of the death and destruction that the "climate beast" can bring about. And even though the movie does not use statistics, is based in the late Muromachi period of Japan, and draws on mythical elements to address ecological concerns, it surely made a significant impact on its audience. As Chakrabarty (2014) states, this idea of a "climate beast" is what is truly absent from climate literature.⁶

Policy makers and economists often primarily focus on what Chakrabarty calls the "physics of climate change"; i.e., if we reduce emissions by this much, the temperature rise at that rate. In economic terms, they treat uncertainties as risks. However, a classic benefit-cost analysis that economics often deploys is not particularly suited for devising policies for a climate catastrophe (Chakrabarty, 2014; Gardiner, 2006; Park, 2015). The basic assumptions under which capitalism functions, i.e., natural resources are limitless, and the market can produce an alternative when commercially viable sources are exhausted, makes it highly inept to tackle climate change. Market economics also assumes that consumers are perfectly rational and consume optimally. This assumption creates a way of putting the responsibility of climate change on individual consumers. Are you not using these sustainable (and often expensive) products produced by these huge corporations (who are also producing *unsustainable* products and huge amounts of emissions)? Well, you are responsible environmental degradation in that case. In reality, however, a capitalist market is a plutocracy where individual consumers have very little influence; the market hardly functions the neat way economics books often show us.⁷ While a huge section of policy makers has resorted to "green capitalism" or "green growth" where they can use government intervention to "incentivise" key players to build a sustainable political economy, there are several reasons why such an approach would not provide desired results.

Benefit cost analysis is specifically ineffective in addressing the concerns of the future generations. In *A Perfect Moral Storm*, Stephen Gardiner (2006) points to the "incentive problem" to be a key issue in dealing with intergenerational climate justice. While climate change will disproportionately affect third world nations, also the nations that contribute the least to the issue, it will also impact the future generations far more than the present one. And while the global aspect of the issue, which Gardiner treats as a tragedy of commons, is plagued by skewed vulnerabilities for different countries, fragmentation of agency and a lack of proper governance, the players can still interact with each other leading to "mutual coercion" strategy used in context of tragedy of commons. Therefore, the present generation is not *incentivised* to act, since they can reap the benefits of the emissions while the future generations will suffer the consequences of the same.

This game theory framework has been employed by different scholars to explain why several climate alliances end up being ineffectual. A notable example is the Kyoto protocol. A study conducted by Christopher Napoli (2012) shows how even though most of the countries in the protocol had reduced their emissions, that reduction can be attributed to exogenous factors such

as the financial crisis of 2008 or shifts in prices of energy resources. He explains the reason to be the "problem of collective action", where individuals (in this case, countries) act against their collective interests in favour of short-term individual interests.

In other words, individual players find it difficult to care about the issue. Why? Among several other reasons, we can point to a serious ethical factor: we are perhaps trying to deny the severity of the social ramifications such a catastrophe might cause. That is because, climate change is a deeply socio-political issue. In the book, *The Ecological Rift*, the authors state that climate change is "at bottom, the product of a social rift: the domination of human being by human being. The driving force is a society based on class, inequality and acquisition without end". And we, as a collective civilisation, seem to be in ignoring the situation, even if we do not deny climate change itself. Perhaps that is because it demands answers for difficult questions such as: Whom do we blame for climate change? And even if we can find out the culprits, how do we hold them accountable? If industrialisation and chasing economic growth has created a climate catastrophe which will cause mass death and displacement, then aren't the promises of capitalism misleading? And more importantly, if most of our future generations are going to suffer because of said catastrophe, then who is this economic growth for? Can intragenerational and intergenerational climate justice co-exist, or do we have to sacrifice some lives for the *greater good*?

These questions require us to acknowledge the need for a radical and immediate climate action. And Gardiner (2006) points out that the uncertainty about our situation exacerbates "social inertia"; those in power seem indeterminate and evasive. He further theorises the different ways moral corruption has manifested itself in distraction, unreasonable doubt, complacency, and selective attention, to state a few. The last one can be witnessed through the example of Severin Borenstein from University of California, Berkeley.⁷ He has called the climate change study a "cop out" and recommends government intervention through policies such as carbon tax as a solution to climate change. Borenstein's explanation is that companies that produce the most emissions, mostly oil, gas, and coal companies, are simply catering to the market demand of said goods. This is, of course, a subtle way of denying responsibility. In a less subtle case, Norman Bowie argues that businesses have no obligation or responsibility in protecting the environment any more than what is recommended by the law. ⁸ However, regulatory policies, be it market policies or corporate strategies, have failed in the past because they have not confronted the power and control corporations have on natural resources, specifically non-renewable energy.⁹ In fact, Sweeney (2015) states that even global organisations such as UNEP

and ILO are too committed to the "green growth" model, while it has been found that decarbonisation and dematerialisation are inherently non-compatible with our current definition of economic growth.¹⁰

We have established that climate change has several layers and political actors are complacent (or to put it in Gardiner's words, morally corrupt). How *do* we address such a multifaceted issue then? We might have to resort to philosophy, specifically the work of Rawls. In *A Theory of Justice*, Rawls asks us to decide on the principles of justice from an unbiased point of view (or the "veil of ignorance") such that those principles can be just for the most disadvantaged section of the society and everyone else. In context of climate change, who is this most disadvantaged group? Well, an intuitive answer would point to the poor of the poor countries (from a global perspective) and the future generations (from an intergenerational perspective). An intersection of both these factors point to the future generations of poor countries, the majority of which belongs to the global south.

Given the state of global warming, it can be predicted that there will be significant amount of climate-induced migration from countries whose coastlines will be affected by rising sea levels, or of those whose weather patterns might render the regions uninhabitable. However, the current immigration policies that most of the first world countries have implemented make the hopes of successful migration or even the chance at a dignified life in any of these countries seem bleak.¹¹ Sending, Øverland and Hornbug acknowledge the indifference of mainstream International Relations literature towards climate change¹² and asks several crucial questions on the lines of:

Will the poorer countries who are being disproportionately affected by climate change despite contributing lesser be able to successfully demand reparations from the richer industrialised countries? Will the said rich countries prioritise socio-economic interests and national security over the humanitarian need caused by adverse climate?

However, apart from displacement, the young and future generations will have to deal with a very persistent cause and aspect of the disaster: pollution. The last decade saw some discourse on what we call *Ecocide*, as coined by former Swedish Prime Minister, Olof Palme. In 2010, the term was popularised by Polly Higgins¹³ who proposed to the UN that ecocide should be recognised as an international crime by the Roman Statute of ICC. However, even though the definition tries to do justice to the destruction of natural ecosystems, it does not fully encompass the gradual and subtle forms of pollution that has disastrous long-term effects

especially on young generations. The institutional infrastructure built to address crimes against nature thus tend to focus on disasters rather than chronic pollution.

We have certainly witnessed corporations and polluting parties being held accountable for major disasters such as the case of the Bhopal Gas Tragedy and RESPA Oil Spill. However, even then the perpetrators barely suffer any consequences and the victims do not receive justice. In case of the Bhopal Gas Tragedy, generations after generations have been suffering from the long-term effects of the poisonous gas leak. Even though government subsidies were distributed to tackle the impacts, the survivors, often young children born with health issues like Down's syndrome and cerebral palsy, activists are still demanding justice 37 years after the incident occurred.¹⁴

Taking an intergenerational angle, Koutouki (2017) speaks of how younger generations are more vulnerable to the effects of chronic pollution and thus indigenous populations, being dominated by younger age groups, are more susceptible to long-term health issues caused by organic pollutants. By extension, we can also establish that countries with a higher proportion of young generations i.e., Asian, African, and South American countries are more at risk of suffering from effects of pollution.¹⁵

Hope has been scarce and sporadic so far. But certain constitutions such as Papua New Guinea and Philippines consider intergenerational equity as a form of justice. And the story of *Minors Oposa* presents a faint ray of hope in the face of the severe intergenerational injustice.¹⁶ How does the story go? In 2008, a group of children, with the help of the Philippine Ecological Network Inc, a non-profit organisation, filed a lawsuit with the aim of curbing the destruction of their ecosystems, specifically the degrading rainforests of the country. Antonio Oposa, a renowned environmental activist, whose children were also amongst the plaintiffs, raised the question of intergenerational equity before the court. In this landmark judgement, the Supreme Court of Philippines ruled in favour of the minors and stated that each generation has the obligation to preserve the present environment for the future generations, establishing grounds for institutional intergenerational justice.

There is still an inherent tragedy to this rather hopeful story. The tragedy that Greta Thunberg has expressed in many of her speeches: that children, who should be attaining education at this age and who have the right to grow up in a world ready to embrace them with abundance and prosperity, must speak sense to adults, be responsible for the world they will inherit and be exposed to the risks that any form of activism entails.

The solutions to climate change are beyond the scope of this essay. However, going back to Princess Mononoke, we can learn something from the two young people, San and Ashitaka, who did not give up on trying to save their world till the last moment, even if it did not yield the desired result. It is already too late to undo the climate catastrophe, but as the oracle from the movie puts it, "We cannot change our fate. But we can rise to meet it."

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