

# Theory of Climate Justice and the Burden of Responsibilities

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## ABSTRACT

Much of the literature on climate justice focuses on ideal conceptions and normative arguments of justice theory resulting into high levels of non-compliance and violation of duties. With the issues of climate change being a threat to human life and subsistence, it is imperative that we not just prevent but even adapt to the dangers of climate change. This paper examines the relationship of climate change with justice, its relevance, and consequences, and thereby presents a non-ideal theory of climate change. By analyzing the most used principles of Polluter Pays Principle (PPP) and the Ability to Pay Principle (APP), the paper shows their limited nature. A modified version of the PPP is then offered as a supplement towards the non-ideal theory of climate justice to overcome the lack of completeness in the widely used principle. The supplementary approach, though non-ideal, suits the urgency for vulnerable places in adapting to and grappling with the issues of changing climate.

*Key words* : Climate change, Climate justice, Ability to Pay principle, Polluter Pays principle

## Introduction

The world's climate is undergoing profound and longstanding changes in a dramatic and rapid pace. Melting ice-caps and glaciers along with rising sea-levels are just few of the many illustrations of the problem of global climate change. We can see the difference in the Earth's temperature becoming markedly warmer with unpredictable changes in the weather all across the globe. Such changes have not only impacted the past but continue to have significant consequences and threat for present and future human life and interest. With these consequences, we are faced with the questions of, who should bear the burdens created by global climate change and why, what is a fair and just manner of distributing these burdens, or in other words, can we come up with a theory of justice for environment, in particular a theory of justice for global climate change?

Environmental justice is a major movement in framing the discourse in environmental ethics and this movement has had a large influence on the way that climate justice has been conceptualized (Schlosberg and Collins, 2014). It has been widely observed that hard empirical evidence is the sole reason for the connection between environment and climate and why we can extend the justice of one onto the other. While there is no doubt that events like Hurricane Katrina of 2005 are understood to be influential in the development of intersection between environmental and climate justice, however, it should be noted that there was an emergence of relationship before Katrina as well Organizations. Such as Environmental Justice and Climate Change Initiative of 2001 defined the key principles of climate justice focusing on lowering emissions and consumption of fossil fuels, protecting vulnerable communities and smooth transition to renewable

energy considering uncertainties and assurance of intergenerational justice.

Since there is a threat to human life and subsistence, it is our moral imperative to not just prevent but even adapt to dangerous climate changes. This, in turn requires us to place and distribute the responsibility to adapt and mitigate with the rapidly occurring climate changes. Significant measures to mitigate and adapt to climate change need to be taken if the most severe of its harmful effects are to be prevented. But where should the costs of climate change mitigation and adaptation fall? Before we move on to assign the responsibilities for the same, it is crucial to understand the distinction between the two. The burdens involved in managing climate change problems are of different types and the literature provided by the Intergovernmental Panel on Climate Change (IPCC) also predominantly distinguishes between mitigation and adaptation.

Mitigation are the steps to be taken to decrease or reduce ongoing global warming by measures like reducing greenhouse gas emissions or carbon capture and storage. It seems to be the necessary and urgent measures to cope with the problems of climate change. And since they aim at reducing or in a sense limiting individuals capacity to use certain gases, it can also be looked at a negative responsibility to be borne in response to our problem. Adaptation, on the other hand is typically understood as 'measures which enable [person or states] to cope with the ill-effects of climate change' (Caney, 2005: 752). It includes measures like designing natural and social arrangements so that people are able to cope with climate-related threats and exercise their legitimate entitlements without loss and is a positive responsibility aimed at the benefit (safeguarding of interests) of vulnerable places and enhancement of capabilities of those who bear the adaptive responsibilities. It 'involves measures that prevent the effects of climate change to be harmful' (Paavlova and Adger, 2006). Where an agent is threatened by climate change, adaptation is the action that prevents it from restricting that agent's ability to do what they are entitled to do.

Though there are various responsibilities of climate change that are needed in a comprehensive response to climate change, namely, mitigation, adaptation, and compensation, each represents quite a different type of action. Most climate scientists agree that mitigation alone is insufficient. It is an ethical imperative for us as a humanity to ensure that cli-

mate change does not undermine what people are entitled to do as a matter of justice. Our objective here, will be focusing on the adaptation responsibilities towards presenting a non-ideal theory of climate change. While most of the literature on climate justice has its focus on ideal conceptions and normative arguments of justice theory, the ethics of tackling climate change consists of high levels of non-compliance and violation of duties, what is needed as such, is an appropriate set of principles of a non-ideal character. The non-ideal theory thus presented is comparatively better equipped to deal with the principles of intergenerational justice at a global scale especially when it comes to the impact borne by vulnerable places.

Many define the vulnerable ones as the developing nations in contrast to the developed nations, or some as the places with the geographical features most likely to be affected, for example, Bangladesh and places with large coastal areas and where farming and agriculture is the main and primary means of occupations. In this paper, the term, vulnerable is used to denote a combination of the low economic stability and security along with the physical and geographical location that is more susceptible to the ill-effects of climate change. Places that may not have the required means and resources to aptly deal with rising sea-levels or increasing temperatures and face an imminent threat aimed at their livelihoods. The Intergovernmental Panel on Climate Change (IPCC) also agrees that developing regions with low economic security are more vulnerable to climate change (IPCC, 2007). Vulnerability to climate change does not simply map onto the distribution of wealth or income — it also brings in issues such as access to resources, institutional dynamics, and power. The members of such vulnerable places then have a right to be protected and safeguarded from the harmful effects of climate change, firstly, because they are not the sole principal causing agents and secondly, because it is a severe threat to their fundamental rights and subsistence, like the right to life and ways of earning an income. Such justice then based on vulnerability could be one based on the Rawlsian maximin principle: maximizing the benefits for those who are most vulnerable to climate change, for example.

In this paper I wish to examine first, the relevance of climate change with theory of justice and its consequences. What is the fairest way of dealing with the burdens created by global climate change. In the

second section, we will focus on one of the most commonly applied principle for bearing such responsibilities, viz. the 'polluter pays principle' according to which those who are causally responsible for the climate change should be the ones to pay for it too, in addition with the 'ability to pay principle'. A critique of both these principles will reveal their limitations when applied in a purist form and the lack of completeness of both as an answer to the problem of climate justice. Finally, a supplement and a modified version to the previously mentioned polluter pays principle will be given as an approach towards the non-ideal theory of climate justice. Such a supplementary approach however limited in nature, suits the urgency of vulnerable and weaker places in adapting to the changing climate and does not ask of unnecessary and heavy duties and responsibilities as well. Keeping in mind, the fundamental interests of people in vulnerable areas, a non-ideal theory seems to be the answer to grapple with the issues of climate justice.

### Climate Change and theories of distributive justice

The IPCC jointly established by the United Nations Environmental Programme (UNEP) and World Meteorological Organization (WMO) is one of the most authoritative sources of information on global climate change. According to the second assessment report by the IPCC, Global sea level has risen by between 10 and 25 cm over the past 120 years and much of the rise may be owed to the increase in global mean temperatures. Based on the climate models to develop projections of future climate change, the average sea level is also expected to rise as a result of thermal expansion of oceans and melting glaciers.

The three comprehensive reports by the IPCC analyzing the causes, impact, and further measures to adapt to these climatic changes poses various ethical considerations. Can we adapt and assign responsibilities without a theory or framework of rights and justice, and further, in what way does climate change matter to a theory of justice that primarily focuses on redistribution of income and wealth among contemporary members of a state? This brings us to the three points of interest in extending climate change to a theory of justice, namely, the burden-benefits, international scope, and the intergenerational principles.

Theories of distributive justice result in different distributions of burdens and benefits across mem-

bers of a society based on a principle of equity. Climate change also engenders distributive questions which though related are yet quite distinct. Global environmental problems, such as global climate change, raise questions concerning the distribution of environmental burdens and benefits or, in other words, the issue of distributing the different types of costs and benefits due to climate change. They raise questions of distributive justice. As such, we have reason to explore distributive justice and its relevance and applicability to global climate change. The three points of interest or issues in extending climate change to a theory of justice (Caney, 2006) are:

1. The issue of *burdens and benefits*- which environmental goods and bads are to be incorporated and why. We need to revise the standard notions of burdens and benefits. Are we to include only the negative harmful effects of environment that is climate change? What about its benefits, if it has any? The fact that people are free and able to use the natural resources available makes us, the users, beneficiaries. Many consider the currency of distributive justice to be either, primary goods (Rawls), welfare (Welfarist), resources or capabilities (Sen and Nussbaum), if the responsibility to adapt to climate change is to be extended to distributive justice, we need to first determine how does the environment matter for a theory of justice. Does environment have an intrinsic value to itself or is it only instrumental towards the well-being of humans?

2. *International scope*- Theories of justice are applicable to the members of a particular state and in that sense, it is local, since it is applicable only to the members belonging to that state. While the implications of climate change are global concerns and hence a matter of global justice. Can the principles applied within a state be extended to the global context? This then has to further deal with the issue that even if the principles can be extended from local to global context, why should the members of another state, for example the members of a foreign nation, be responsible for the ill-effects of climate change in another state?

3. *Intergenerational Justice*- Traditional justice theories focus on distribution among contemporary members; however, climate change raises intergenerational issues in a dual manner. First, the actions by current members will be borne by future generations. And second, policies by the past generations is, part of the problem being faced today.

What and why do we owe to the future generations? Some believe that we are naturally associated and obligated to them just like parents are to their kids, a fraternity model explaining why people should feel part of a community that extends into the future as 'chain of love' (De-Shalit, 1995). So, we should leave a decent and habitable planet for them. There is a complexity to be faced if the future people are satisfied with what they have and suffice the needs of nature with advancement in technology. And there are suspicions that we are not doing enough for future generations, but how do we determine what is enough?

While these highlight the methodological concerns over the utility and relevance of orthodox theories of justice to climate change, we need a revision into the principles of theory of justice. A theory of justice addressing global climate change though rooted in orthodox literature must be revised and extended to deal with the above-mentioned distinctive aspects of climate change. It resonates as global environmental justice where there is the global distribution of environmental burdens and benefits. In defining of burdens and benefits in the context of environment, we take it to be having an instrumental value for the well-being of humans, we get to enjoy the benefits of converting its spaces for our own utility, or we can even consider the optimal weather and climate to be enhancing our capabilities and functioning's in going about our ordinary lives. These can be collated to be the benefits, and the burdens are the negative impact in terms of changing climate, carbon emissions, global warming which may not just affect the current generations, but future generations to come as well.

The reality of climate change is that it is global, i.e. it will affect all the states or nations, however, that may be in varying degrees with the vulnerable places being affected in the most significant manner rapidly. Whether or not we should duplicate the domestic principles in a global context depends upon the viability and suitability of the domestic principles to the geographic locations of other places globally. For instance, places with successful implementation of policies to grapple with climate change like Bhutan, with no carbon footprint can definitely be a model to be applied globally. And even if climate change currently affects only certain vulnerable places, all the others have a positive duty towards the one in need just in the manner how if somebody right next to us would be dying, and we

would go forward and help. We cannot just turn a blind eye towards the harsh realities being faced by some. And soon enough, that harsh reality will spread its domain over our own too, if we do not make the necessary changes to deal with it.

But the dual nature of intergenerational justice leaves us in a complex situation with the current members. Following on Joseph Raz's (Raz, 1986) ideal of personal autonomy and its connection with option sets, it seems logical for those present now to be bearing the burdens of climate change to leave the future generations with at least a minimum basic presentable environment as one of the options, no matter how advanced technology becomes in the future to even replace it. And surely, part of the problem is the implementation of policies by previous generations and their actions, but they are not here today to pay or repair the damages we are facing now, hence we are the ones who need to do something about it as we are only bearing its consequences now and, in the years, to come. The urgency of the situation is called for by the rapidity of the ripple effects of the negative implications of climate change.

We have thus analyzed the various normative and ethical constraints when applying the traditional theory of justice to issues like climate change and conclude that with some revisions, we can have a theory of climate justice that is sensitive to the particularities of climate change which protects the fundamental rights and interests of individuals too. As such, the role of responsibilities and its distribution can be grounded in a theory of justice. Now that we can have a theory of climate justice, we need to further develop its contents, nature and devise the means for the best possible way of assigning the responsibilities under this non-ideal theory.

#### **Polluter Pays Principle (PPP) and the Ability to Pay Principle (APP)**

Let us now turn towards the normative analysis of responsibility distribution and who should bear the burden of climate change. Two principles have particularly been in focus in the discussion on climate change, viz. the Polluter Pays Principle (PPP) and the Ability to Pay Principle (APP). What follows next is that neither of them is sufficient to deal with all the particularities of climate justice. I will elaborate on the limitations of both and further argue that a modified and a supplement to the PPP is what can be the crucial alternative to the problem of climate

change responsibilities.

One well known account of where the costs of climate change abatement should fall is the Polluter Pays Principle (PPP) according to which, those who are responsible and have caused the problem are the ones who should pay for it as well. It holds that agents who have created harmful climate change are responsible for the full cost of its abatement (Shue, 1999; Neumayer, 2000). This common way of thinking has also been adopted by several international legal agreements, embraced by the Organization for Economic Co-operation and Development (OECD) countries as a measure to adapt to climate change and is especially favored by developing countries such as Brazil. For instance, those who contribute by either emitting excessive amounts of greenhouse gases or releasing potentially dangerous fumes should make amends for the same. The most plausible account of this principle has an intuitive appeal as we use it extensively in our common everyday lives where in familial contexts, the young ones are taught to clean up their mess. Its rooted in the 'potter's barn' principle which states, 'you broke it, you fix it.' Following this, many argue that it is the right way of thinking about bearing the burdens of global climate change.

The principle considers the historical contribution into the problem and then distributes the various responsibilities. And due to this historical sensitivity, it is a backward-looking principle.

Since it is already expected that climate change will affect the developing or vulnerable places more in comparison, such a principle of historical accountability helps ensure that the developed nations do not get a license to further disadvantage the developing ones and are held liable for their historical reasons. An incentive of using such a liability model is that it serves as a deterrence factor for those responsible. Agents cannot easily wash their hands off from the mess created by them, but this liability model becomes ineffective in many cases.

### **Excusable ignorance**

The PPP being historical sensitive primarily holds agents responsible on the account of the fact that their actions are the ones that led up to climate change. While that may be the case, it is also quite true that agents who are responsible were unaware of the consequences of their activities and so asking them to pay for being responsible would be unfair. Ignorance of information about the disastrous ef-

fects on others makes them excusable. It is only until a few decades back that people have begun to be aware and informed of the harmful effects on climate of certain actions, but climate change is not a concern that is doing of just a few decades and goes way back further. If in ordinary life, I happen to grow pollen in my garden for aesthetic and natural value completely unaware of the knowledge that my neighbor is allergic to pollen. And as a result of increased daily exposure, my neighbor now develops a critical respiratory problem, does that then make me responsible towards her situation and pay for it? Is sufficient knowledge about someone's allergies, in this context my neighbors a necessary duty? It could even be further argued that perhaps the neighbor herself was unaware of her allergy and hence would still end up taking the route crossing by my garden. Both the parties involved are ignorant and thereby excused. It may lead to heavy costs on the neighbor, but it would also be unfair to ask me to pay for the costs too. For moral agents are typically assumed to be responsible for harm only when they could have been reasonably expected to anticipate causing that harm. As such, historical activities of time when the knowledge of climate change was insufficient ought to be removed from the equation of climate justice thereby limiting the applicability of the PPP. Excusing of historical ignorance is key in holding that historical actors are not necessarily guilty of wrongdoing and it would be wrong to hold successors responsible for rectifying the costs of the lasting effects of what they did (Bell, 2011).

### **Nature and extent of harm and casual agents**

The very nature of PPP requires it to ascertain who caused how much harm to what extent so as to flesh out who the duty bearers are and what will be the size of their duty. And Climate Change is a complex process that is part of a structure of interconnected relations. As such, the PPP gets entangled in the complex historical problems of climate change. Being unable to attribute specific events to climate change, we cannot hope for much exactitude in the application of PPP. The IPCC bases their findings on modelled programs and simulations which may not always be precise and are estimations leading to the uncertain nature of these estimated ill-effects. It then becomes extremely difficult to specify how much harm will result for which activity and thus making people pay in proportion to their causal impact be-

comes even more difficult to calculate.

This can be understood better with the help of an illustration of the 'anti-sweatshop' movement. In this context, the workers usually belonging to very low-economic backgrounds in developing countries are exploited by working for low wages, long working hours, and deplorable working conditions. All of these factors lead up to the availability of trendy and branded apparel items at very reasonable prices in the affluent countries. Who is to be blamed responsible for the employee's detrimental conditions in this respect? Can it be solely on the managers or supervisors directly overlooking the workers? Many may respond yes, but the managers too are under the influence and pressure of the market to be producing cheap products. So then, are the far-off individuals purchasing these products to be blamed? Probably not, because they either may be completely ignorant of the reality or even if aware, will the conscious effort by one individual to stop buying such products make any difference to the workers condition? In such structured and inter-related connected systems, injustice seeps in structurally without any specification and so is the case with climate justice as well. If I drive my car around in a place A, can I be responsible for the pollution in B? Well maybe yes, as air is common for everyone, everywhere. But if I add in another agent X in this equation who is also driving his car in place C. There isn't any clear measure of whether I, in place A am more responsible than X in place C for the pollution in B. Or can we blame the automobile industry for making such cars?

Additionally, it is usually understood that the causal agent is a state or nation as a whole. With this presumption, for example if industrial revolution in USA led to climate change, then USA as a nation should bear the costs for adapting to it. Given that the Industrial Revolution took place in the 1700's, why should the current population of USA be responsible? There is also not enough clarity on who or what is the specific causing agent, is it the state as it was before, the state now or the specific act of industrial revolution itself. Some even argue from the perspective of identity that who we are now is the result of specific actions and timing of individuals (like our parents meeting) in the past and changing even one aspect of the setting historically would lead to different result, meaning we would not really be we as we are now but a different version of ourselves. Derek Parfit in his analysis of the 'non-iden-

tity problem' points out that the identity of future people is determined by what present people do, it thus follows that people alive today are the consequence of what people did in the past at that very specific moment (Parfit, 1986). Industrialization as an event may have affected which individuals get born: because of it different people are born than would have been without it.

To apply the PPP, we need to specify the harm done and draw a direct link to the causal actor which cannot be done given that estimating the extent of the harm caused by global climate change is immensely difficult.

### **Unable to Pay**

This inability to pay objection can be looked at from two perspectives:

- (3.1) Costs produced by past generations are no longer alive to pay now.
- (3.2) Costs of non-anthropogenic causes of climate change.

(3.1) On the first account, PPP is unable to cope with the effects generated by the previous generations since most of them are not alive today to bear their burden and be held accountable. It is severely limited in the context of intergenerational climate justice.

The backward-looking principle holds people of the past accountable focusing on the wrongful behavior of the past for the damages people face today. And the intuition underlying PPP is that people should only pay for the harm that 'they' and not 'others' create for then someone other than the polluter is paying.

This distinction of 'they' and 'others' stems from the root problem of unfairness in making individuals pay for the costs of previous generations (collective). Whether we take the individualist or the collectivist approach, they both are open to vulnerabilities. Shue and Neumayer argue on similar lines towards the individualistic approach for the costs of the past by bringing to forefront the close relation to the ancestors and how the current generations have benefitted from the actions of the past (Shue, 1999; Neumayer, 2000). In particular, says Shue, it isn't the case that they are completely unrelated since they enjoy the benefits of the policies adopted by previous generations (Shue, 1999). This seems to be plausible when there is an actual account of the future or current generations benefiting from previous policies. Surely the grave effects of climate change im-

pact the developing nations more in comparison to developed nations, nonetheless, it is still estimated to grow in its area of impact which will include the developed nations too. How is it then that the members of these developed nations benefited, if they too are subject to be the victims of climate change in the near future? The collectivist approach too fails to acquire its merit over the individualistic account with individuals having a right to complain if they were not rightly consulted or had a fair share of say in the decision-making policies of the past.

The proponents of PPP then are not entitled to conclude that members of a particular state, for example the developed ones presently alive should bear the costs and that the principle is unable to identify the cost bearers for the past generations.

(3.2) While it is commonly believed that climate change is primarily due to anthropogenic reasons, the key word being primarily, there are some non-anthropogenic causes for climate change, i.e. climate change that occurs due to non-human activities. Climate system varies naturally over a range of time scales. There can be various natural causes such as variations in solar energy and volcanic eruptions that could have an impact on the climate (IPCC, 2013). The polluters then here would-be agents like the sun or volcano, and how can we recover any costs from such natural agents? Surely, we cannot expect any other person to pay for the accident wherein the driver was blinded by the extremely bright shining rays of the sun. The PPP only covers climate change stemming from human activity while leaving the harm as a consequence of non-human activity completely unaddressed. We have reason to be concerned about non-anthropogenic causes of climate change as they too threaten the vital interests of human beings and the PPP cannot account for it.

From the above account we can see the limited applicability and incomplete nature of the PPP. We thus need to move beyond a purist approach of PPP which can account for (1) ignorance, (2) direct link of causal agent to the harm and its extent and (3) absent polluters or non-human agents.

We now look at another commonly held principle, viz. the Ability to Pay Principle (APP). Some go to the extent of associating the APP to the PPP based on the argument that since mostly developed nations are accountable (due to industrial revolution, etc.) they are also the ones with the most ability to pay (given that they are the developed and

economically much more advanced in comparison to other developing nations). But a perfect correlation between the affluent nations and the acts leading to climate change has not been identified yet. Nonetheless, let us discuss and see the limitations of APP and whether it is a sufficient principle towards our theory of climate justice. It should however be noted that a modified version of the APP will be used as a supplement to the previous PPP to best tackle adaptation to climate change which will be presented later in details and hence, only a brief account of the pure APP is dealt with in what follows.

Formally put, according to this principle, the costs, and burdens in the context of climate change should be borne by the wealthy, in proportion to their wealth. And, moreover, the duty should be proportional and thereby increase in line with an agent's wealth. It is indifferent to those who caused the harm and focus is solely on those who can rectify it on the one hand, but sensitive to concrete circumstances and final outcome on the other hand. It states that, among a number of parties, all of whom are bound to contribute to some common endeavor, the parties who have the most resources normally should contribute the most to the endeavor (Moellendorf, 2002).

And in contrast to the PPP, it is a forward-looking principle which assigns responsibility in proportion to an agent's capacity. Major advocates of this principle have been Henry Shue, who believes that there should not be too demanding costs on the poor and that the wealthy should bear the mitigation and adaptation costs (Shue, 1999). He is joined by Darrel Moellendorf according to whom APP is better than PPP since PPP cannot account for the harmful effects by people who are not there to pay for it (Moellendorf, 2002). However, the APP too is not secure from convincing objections levelled against it.

### **Non-faulty**

Critics of the APP argue that why should the wealthy or affluent ones who are not identified to be causing the problem to be required to pay for the adaptation costs to climate change, something that is of no fault of theirs. Application of such a principle may lead to unfair circumstances as not always the wealthy and affluent states are the causal agents. In such a situation, then asking them to pay for something they have not caused is not right. While most of the impact of climate change can be traced back to certain activities undertaken by the wealthy nations,

it still does not account and draw the link holding all the wealthy nations to be responsible. There is the possibility of nations reaching this far and be affluent without endangering the climate by using means of clean energy. It would be wrong then for such affluent and not faulty nations to be bearing the burden for this problem.

### Ignoring historical origination of problem

Adopting a purist APP approach holds that the criterion for responsibility bearing is based on who can best bear the burden and this is the only criterion under it. This as such, then ignores the historical genesis of the problem and becomes wholly forward-looking. It conflicts with the moral relevance of the fact that burdens of climate change cannot be completely devoid of historical considerations of the problem. A counter-intuitive move as of this principle even fails to serve as a deterrent where those who are guilty of the root problem may continue to add or further aggravate the problem since they will not be held liable for it. It is not always the case that only developed nations lead to climate injustice, developing nations have a share too. Now there can be two scenarios wherein the first one we have a developing nation having a greater contribution in producing harmful effects and sufficiently capable of meeting the cost of it, and in the second there is an immensely wealthy nation with a comparatively lower contribution towards the harmful effects. If we follow the APP, then we are subjected to a wrongful act of making the wealthy nation pay in proportion to its wealth despite the fact, that the developing nation could have met the cost of its greater faulty actions.

So far, we have considered the PPP in response to climate injustice and exposed its incompleteness toward solving the problem. Many thinkers then apply the APP to the remainder of circumstances that could not be met with under the PPP and we see that even the APP is unable to fully account for the complex process of climate change and is also open to objections. Further on from here, I argue for a revised version of the APP which can be supplemented to the PPP which can cover up the insufficiencies of both the principles when they were taken and applied in isolation.

### The alternative approach

Thus far we have shown how an internationally accepted principle such as the PPP faces a dilemma

and hence incomplete in accounting for all cases of climate change. The weaknesses of the PPP has been tried to be overcome by another widely accepted principle such as the APP, but we see that it too is vulnerable in light of justice concerns. In what follows is a modified version of the APP which is to be used as a supplement to the original PPP as an alternative to the issue of climate change. It should be clarified that the approach comes with a lexical priority where there is the PPP first and then the modified APP which is applied to the remainder, i.e. the remainder of the cases where the PPP is inapplicable. To make things simpler, let's represent the new ATP with ATP (ca) and so our proposed alternative looks like:

PPP (Purely a Polluter Pays Principle) < climate change (is unable to account for all circumstances of the problem)

APP (Purely an Ability to Pay Principle) < climate change (is unfair on account of justice concerns)

Therefore, PPP + ATP (ca)  $\geq$  climate change (a combination of the PPP and new ATP is better equipped to tackle all the cases of climate change)

We already have a clear idea about PPP and ATP individually, so what constitutes this new ATP (ca)? The ATP states that those who are able, and wealthy should bear the responsibilities while for the ATP (ca) we need to make a distinction of two classes within this broad category of 'able to pay'. The first class consists of those who are wealthy, but whose wealth is in no way related to the acts leading up to climate change. Wealth generated with no impact or harm to climate change and such places belong to the first class among the wealthy and able. They have reasons to justify their wealth, reasons that absolves them of bearing any responsibility towards adaptation to climate change. The second class represents those whose wealth is a consequence of the acts that have been harmful towards the climate, i.e. they are in a sense the causing agents of climate change. They have received their wealth with commission of climate injustices and therefore, we should be placing the burden of remaining responsibilities on the latter class of the wealthy. This idea of the ATP (ca) has been first put forth by Simon Caney in Climate Change and the duties of the advantaged, 2010 wherein he presents his hybrid account.

*The duties to bear the Remainder should be borne by the wealthy but we should distinguish between two groups – (i) those whose wealth came about in ways*

*which endangered the Earth's climate and (ii) those whose wealth came about in ways which did not endanger the Earth's climate – and we should apportion greater responsibility to (i) than to (ii)* (Caney, 2010: 215).

It must be noted that the modified APP, APP (ca) is applied only to the remainder of the concerns of climate change left over by the priority application of PPP. And my aim in this section is to further strengthen the plausibility of APP (ca) as overcoming the limitations of PPP and APP and defend it from the common objections.

The ATP (ca) only includes those who have sufficient wealth available and where that wealth has been generated by actions that have harmed the environment leading to climate changes all over the world. Since they cannot justify their accumulated wealth without endangering the climate, they have less reasons to complain about bearing the costs of their harmful effects. Being able to link their causal connection to the problem, they will be more compliant towards repayment costs. Non-compliance is usually accompanied by one of the two reasons of insufficient money or lack of evidence to be liable. And in the context of putting forth a non-ideal theory for climate injustices, we need models that hold agents liable and who will comply by their duties too.

To elaborate further, consider the first case where certain developing countries may be responsible for climate change too. Certainly, people in such developing and economically weaker nations will need electricity for purposes of food, warmth, etc. which will also impact the environment in whichever degree. They may be responsible for it, but can we really hold them accountable for adapting to climate change when, firstly they are the ones to be affected primarily and secondly, they do not have the funds or the resources to meet such adaptation costs. There can be no measure to recover any costs from them which leads to non-compliance. Take for example, you visit a palace and break an expensive piece of antique worth millions of dollars which is the center piece and the main attraction for the palace. The palace runs mainly on the income generated by this piece. You are directly responsible for the breakage owing to your clumsy walk, but you are merely a middle-class income earner who can surely not repay the actual cost of the piece, even if it takes years to come. Since you do not have the money to replace the piece and the palace is running out of its income, you can still be liable to pay not purely in monetary

terms, but in terms of services adding to the palaces upkeep and maintenance. In the context of climate change and developing nations who are also somewhat responsible may be then asked to place certain restrictions such as reduction in their carbon emissions, but they cannot be liable to pay for adaptation costs such as setting up institutions for cleaner energy resources as they simply do not have the funds for it. And placing such adaptive costs on them would lead to a dead-end wherein even if responsible, nobody ends up paying for the costs.

In the second scenario, expecting wealthy nations with no fault of theirs to pay for costs leads to unfair demands for the wealthy. And when there is not any strong connection to link them being a causing agent, we lose any grounds for holding them accountable to pay. Perhaps they may do so in the beginning on account of shared responsibility but until the wealthy nations themselves do not have strong justificatory reasons as to why they should be bearing heavy costs upon themselves for no fault of others, their response may not be genuine and long-term in support for the vulnerable places. Suppose there are two factories A and B in my neighborhood and because of the release of chemical wastes by factory A, it has negative impacts on my physical health. Both A and B have the same amount of wealth, but A is the one who is causally responsible. In such a situation, then B has sufficient grounds for refusal to take initiatives towards a cleaner environment which will negatively impact B's wealth when A is the one responsible and able to pay for their cost too.

Thus, as seen above, when we assign responsibility upon those who have a proportionate share in causing the problem, as well as sufficiently able to pay for it, then we have comparatively higher chances for meeting with compliance. The ATP (ca) is also sensitive to the historical genesis of the problem as most of the current impact of climate change is the doing of the past generations.

### **Objection 1: Poverty-sensitive**

A most common objection to this alternate approach has been raised by Carl Knight according to whom this view entitles the poor to a special advantage. According to him the alternate approach says the following,

*It says that the poor have no duty to bear the costs of climate change, even for that part of climate change they have caused, if it improves their condition at all. This is to*

*give the poor a license to pollute* (Knight, 2011:536).

In response to this, it can be said that with the distinction of mitigating and adaptation costs, the objective here has been to propose the alternate view for adaptation costs. It also is not the case that the poor or vulnerable ones get a free pass on their harmful activities. They bear duties too in terms of reducing their consumption of fuels, etc. Adaptation looks and builds towards the future to be equipped in response to climate change and the wealthy nations have a head-start with better technology and resources available at hand. If developing or vulnerable places begin to bear such adaptive costs while for them, they also urgently need to bear mitigating costs, it will be too demanding. Following Peter Singers call for duty, it can also be argued that even though the vulnerable places are the ones suffering now, it is our obligation to aid them just as we would have done all that we could if for instance a child was drowning in front of us (Singer, 1972). In the case of the child drowning, it is the matter of urgency as the child may lose his/her fundamental right to live by the inaction of others. People belonging to these vulnerable places too have a threat to their life, such as the case in coastal areas and rising sea levels.

### **Objection 2: Disadvantaged ATP(ca)**

While with the introduction of ATP (ca) as a supplement to the PPP may be a just and fair means for placing responsibilities, it places them at a disadvantage, nonetheless. Since adaptation involves great investments by the causal and able agents, the cost of doing so for the vulnerable places becomes even more higher.

There can be two responses towards such an objection. First, that by trying to develop and build infrastructure for ways and means to adapt to the complexities of climate change is an advantage irrespective of the location. The output and consequences of such efforts will benefit not only the vulnerable places, but the home nation that has employed such efforts in the first place as they will have access and a right to be using those information and strategies for themselves too. Climate change is a reality that may now only be affecting the vulnerable places but will include the able nations too. And they need to be ready to adapt to it as well. Second, being sensitive towards responsibility. Let us not forget that ATP (ca) includes the ones responsible, and maybe the costs being borne by them become

higher, but in proportion to the damage being borne by the vulnerable places, it seems to be plausible. Surely, the higher costs will have a negative impact in terms of them not being as wealthy as before, but in light of the threat to live and subsistence of people living in vulnerable places, it is the cost that they can bear.

### **Objection 3: No ATP(ca)**

The alternate view is based on the presumption that there are some wealthy, affluent agents who can be identified as causing climate change. In other words, there have to be some wealthy agents whose wealth has been generated in an unjust way. It could be the case that there are no such cases and that all those wealthy nations have accumulated their wealth in a justified way.

I will be following Iris Marion Young's notion about process responsibility to respond to this objection. According to her, just because we cannot disentangle which particular act of whom affects others in harmful manner does not absolve us of the responsibility owed to the relations we have to the process (Young, 2004). Climate change is also a similar process, wherein we owe a responsibility to it despite the specifications.

Let us take the case of a child being born with a genetic disorder, neither the parents nor the child is worthy of being responsible for the situation. Nonetheless, it is not the case that the disorder is without a cause itself. Maybe not individuals, but the gene in question is responsible for the child's disorder. Similarly, in climate change, although we cannot identify specific individuals responsible, but the share and contribution of acts like the Industrial Revolution and countries participating in that has been certainly identified. We can thus, call upon them to be responsible towards their actions to climate injustices. It may be difficult to account for all the causes historically for climate change, but until a few decades back into the past we can identify the causal agents and their contribution to climate change.

### **Conclusion**

We have covered a considerable amount of ground on climate change, beginning from theory of distributive justice and whether or not can we have an appropriate theory of climate justice to the plausibility of the most well considered principles as a solution to distributing the burdens in the theory of cli-

mate change. First, we see, that with revisions onto the conventional theories of justice, we can indeed have a theory of justice dealing with climate change. After this, a distinction is made between the various responsibilities that come with climate change and how this paper focuses on the adaptive costs especially in light and from the perspective of places that are the most vulnerable to the devastating effects of climate change.

Later in the paper, contrary to many, I uncover the limitations of the widely applied Polluter Pays Principle. I argue that such a principle does not sufficiently cover all the circumstances of climate change such as those of non-human induced activities, excusable ignorance, and past generations no longer alive to bear their burdens. Second, to cover up the weakness of the previous principle, the Ability to Pay Principle is introduced, which I argue is also vulnerable to challenges of being counter-intuitive to the historical origin of problem and costs on those who are not faulty. These challenges not only undermine each principle, but any principle or approach that will treat the distribution of burdens in isolation from other issues of justice.

Moving on, I present the alternative approach consisting of the Polluter Pays Principle which is supplemented by a revised version of the Ability to Pay Principle. This new model is sufficiently able to overcome the difficulties of both the principles when used in isolation and are complementary to each other.

Finally, after having outlined the alternative way of distributing the adaptation costs, I defend the model against some commonly held objections that it is open to. This model is not a comprehensive solution itself to meet all the demands of climate change but a beginning into a way of thinking on how to distribute the various responsibilities arising from climate change. It is a non-ideal theory of trying to work a way out for solving the complex problem ahead of us as opposed to a theory with a moral ideal. When it comes to issues of climate change, the factors of urgency and scale make it even more pertinent for us to be opting for a non-ideal theory of climate change and then making best possible adjustments and revisions for it to be a just and fair theory.

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