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Abstract

Purpose: The key objective of this study is to conceptualize *climate justice*.

Methodology: The study employs a qualitative systematic analysis of published articles focused on climate justice, and analyzes the various attributes within existing definitions of climate justice. The study analysis is based on secondary resources assessed through openly accessible documents, journals, and libraries.

Findings: The study finds that *climate justice* is used in various contexts — academia and social movement world — by scholars and organizations to achieve mainly three outcomes: outcome of procedural justice, physical or material outcome, and policy outcome. The lack of consensus on what exactly this concept means, leads to inconsistencies in its application and further confusion. Findings here point to the weakness of global climate governance in defining such an important concept while pursuing climate change actions.

Unique Contribution to Theory, Practice, and Policy: While *climate justice* is often discussed at a global level, it is equally important to conceptualize it at the local level. In this regard, this study proposes a minimal definition of climate justice, which could be used to avoid a high extension of the concept, in general, both in academia and the social movement world.

Keywords: *Climate Justice, Contested Concept, Minimal Definition, Semantic Fields.*

1. Introduction:

Scholars and activists are increasingly using the concept of *climate justice* in the discourse of climate change. However, many who use the term[1] fail to define it. When they do, they use different definitions and examples to refer to climate justice, which often leads to conceptual confusion while applying the term inconsistently. Therefore, this term has become, what I perceive, as a contested concept. Contested because scholars fail to differentiate between 'meanings' while applying it, fail to perceive others' definitions, and use the term inconsistently.[2] It occurs while inferring various explanations of the same concept based on its application process and context (Collier et al. 2006: 212).

Similarly, in the contemporary world of social movements, it has become an issue of contentious politics between the Global North and Global South for addressing climate change effects. Many argue that climate change, coupled with the global development system, leads to an unjust system where people who emit the least greenhouse gases (GHG) pay the most (Conservation, 2016), which perpetuates injustice for millions of the Global South. Here, "those who pay the ultimate price for climate inaction are not the people driving the crisis" (Friedman, 2017), and where the poor struggle with desperate and imminent risks of climate change, the rich are 'so sealed off from the poor' (Roberts and Parks 2006; 2). Climate change is creating triple injustice: a) climate change is hitting the poorest first and worst, b) those most affected did not cause it and are powerless to stop it, and c) the polluters aren't paying (UNESCO 2010).

In response to climate injustice, the climate justice proposition focuses on holding the wealthy and GHG emitters accountable. The aim is to compensate the sufferers, mainly the poor nations. However, the use of the term both by scholars and organizations to indicate differing meanings and purposes is contributing to further confusion in this regard. The diverse application of a concept by scholars, individual groups, and organizations both in academia and in social contexts could lead to ambiguity. Thus, it is crucial for scholarly works to provide clarity on how the concept is defined and used, aiming to minimize conceptual ambiguity and improve descriptive and causal inference (Nichter 2014; 315). Simultaneously, the term needs to be conceptualized from the contestation perspective. Based on this argument, I seek to address this issue in three steps: by examining prior uses of the term to interpret the key attributes; by exploring associated semantic fields such as environmental justice, ecological debt, justice globalism, and climate insecurity to identify similarities and differences; and by proposing a minimal definition of climate justice based on distinct shared attributes among scholars.

A clear understanding of the concept would be helpful to initiate the successful application of this concept and a key to successful negotiation for achieving justice for the sufferers of climate change effects. Moving on, section two of the paper focuses on how the concept has been used in

[1] In this study *concept* and *term* are used interchangeably.
[2] For details see Collier et al. 2006.

various scholarly works and examines its contestedness. Section three details on methodology used in this paper. Section four discusses associated semantic fields. Section five explores the key attributes in different definitions of climate justice and proposes a minimal definition, and section six concludes the study.

2. Climate Justice in Literature: Conceptualization and Contestation

Climate justice is a relatively new concept in the development and policy world. Yet, due to its application both at the academic and social movement level, its appeal has been widely accepted among scholars, policymakers, and climate activists, serving a new framing for climate activism (Thomson, 2014). The global movement for a scientifically sound and just response to global warming and climate change (Widick, 2018) with transnational networks of individuals and groups leads to further expansion of its application. With the faster acceleration of discussion on climate change effects, climate justice has become more of a political agenda (Goodman, 2009). However, it gains more attention in the social movement world compared to the academic level.

Climate justice was first and formally introduced at the United Nations World Summit on Sustainable Development in 2002 (Bali Principles of Climate Justice, 2002). As a social justice movement, climate justice achieved global attention when various development, religious, youth, and environmental groups from the Western World and developing country negotiators started using it during the COP-13 conference in Bali, Indonesia, in 2007 (Roberts and Parks, 2009). According to Ott et al. (2008), Bali was the platform for the social justice movement on climate change, from where climate change issues have been received seriously by various prominent organizations from the Global North and South. This, at times, has infused much confidence in developing countries in climate justice negotiations with developed nations (Ott et al., 2008).

Evolving from climate change activism – 'the grassroots environmental justice movement combined with concern for global climate change' (Jenkins 2018:121) - climate justice received global recognition. Simultaneously, the converging work of the environmental justice activists, global justice movement from different individual groups and organizations as well as and United Nations Conferences on Climate Change led to its further expansion (Roberts and Parks 2009; 934).

As ‘an underlying issue of climate negotiations’ (Paterson, 2001 and Wiegandt, 2001 in Audet 2013: 371), climate justice has been used as a tool for climate negotiation by individual groups, organizations, and even countries, particularly from the Global South. Forsyth (2014: 231) emphasizes rethinking 'the fixed basis of climate change impacts and the categories used to evaluate inclusiveness in climate change policy to achieve the fairer form of climate justice.'

Scandrett (2016) argues that climate justice constitutes a contested discourse that reflects the material interests of social groups. Schlosberg and Collins (2014: 364) emphasize understanding climate justice from three broad conceptualizations: 'ideal theories from the academic community, a fairly elite NGO perspective on policy, and grassroots movement

perspectives.' It becomes further contested while pursuing the cost of mitigating climate change effects since it is unanimously believed that global warming is responsible for climate change due to the uncontrolled emission of CO2 by industrialized countries (Cherubini et al., 2011), and the people in Global South- the "zone of sacrifices" are victims of such impact (Harlan et al. 2015). In this regard, Sultana (2022) argues that as a “praxis of solidarity and collective action” climate justice framework could facilitate our understanding of the inequities incurred by climate change as well as addressing them.

As a contested concept due to its meaning, comprehensiveness, and applicability regarding issues related to human rights, women's rights, and rights of underprivileged groups of people based on sex, color, and economic status, climate justice needs to be conceptualized as well. It requires understanding the origin, meaning — general and contextual — and use of this term since it has been labeled as one of the most talked about and weighted tools for obtaining justice regarding unequal impacts of climate change, especially in the Global South.

Although the 'use and definition' of climate justice 'primarily is mobilized to contest the unequal impacts of climate change, both geographically and socially' (Chatterton et al. 2013: 2), its different usage and definitions are leading to a risk of conceptual stretching and high intension (Sartori, 1970). Conceptual stretching occurs since climate justice does not mean the same thing in different contexts. When contexts travel, the concept of climate justice becomes stretched and vague and lacks meaning and specificity. Again, due to its extended comprehensiveness, climate justice comprises many attributes, identifying it as a less well-defined concept as the defining process is more relaxed. As a result, this leads to high intention in the 'ladder of abstraction' (Sartori, 1970).

For example, scholars employ the concept to describe various issues, such as the principles of accountability and participation in climate change solutions (Chatterton et al. 2013:5), the broad conceptualizations for different audiences, theory for academia, NGO perspective, grassroots movements (Schlosberg and Collins 2014:), compensation and redistribution (Audet 2013:371), and fair treatment and freedom from discrimination (Bartholomew, 2015).

As a polysemous concept (Audet 2013: 383), climate justice can deliver various meanings while being used in academia or the social world. It is used in multiple ways to denote multiple meanings simultaneously. At the same time, a noticeable difference exists between the meanings while the meaning is being applied. Many individual groups and organizations have termed climate justice as a social justice issue (Peaceful Uprising, 2018) and argue that climate justice necessitates 'the understanding that climate change is a physical manifestation of an unjust political-economic system' (Bronx Climate Justice North, 2018). Grassroots International (2018) argues that "climate justice operates at the intersection of racial and social rights, environmental and economic justice. It focuses on the root causes of climate change and calls for a transformation to a sustainable, community-led economy."

Climate change is "a global problem with cumulative and uncertain consequences" (Comim, 2008). Thus, it requires understanding the various forms of climate injustice and developing policy tools to adapt to the challenges posed by climate change (Comim, 2008). Through a series of summits and conferences starting in Stockholm in 1972, and onwards COP every year international community reached to a consensus regarding global warming and climate change.[3] Yet, some issues, e.g., the CO_2 exchange fund and GCF.

As a platform, climate justice offers an interpretative frame that elucidates the causes and effects of the climate crisis (Di Chiro, 2008). It helps to understand the underlying inequality caused by the effects of climate change and also leads to mitigation and climate resilience programs. Roberts and Parks (2006: 7) argue that climate justice focuses on the "triple inequality of mitigation, responsibility and vulnerability." But it all depends on how the term climate justice has been perceived and used to achieve the expected goal of climate justice. Chatterton, Featherstone, and Routledge (2013) argue that climate justice, being involved with an antagonistic frame of climate politics, voids the attempts to construct climate change as a 'post-political' issue. They suggest that climate justice triggers the formation of pre-figurative political activity utilizing commonness, and it also prompts solidarities between differently located struggles. These solidarities may influence the climate change debate due to their potentiality.

From an ecological debt perspective, climate justice becomes a legal issue since nations in the Global South demand their fair share from nations in the Global North while fighting against climate change effects. In this context, Caney (2014: 126-7) argues about two kinds of justice related to climate change: *Burden-Sharing Justice*, which focuses on ethical climate change issues, and *Harm Avoidance Justice*, which focuses on preventing climate change and protecting potential victims. Due to the existing ambiguity in understanding and inconsistency in applying the concept of 'climate justice' by different individual groups and organizations, even government agencies, it poses a major problem when it becomes such an issue. Audet points out, "Because it is a source of normative judgment, climate justice is also a jurist's nightmare; its meaning varies depending on the social actor that manipulates it, even if some of its semantic bases are institutionalized in legal texts" (2013: 371).

Forsyth emphasizes reconsidering the basis of climate change impacts and policies to achieve a fairer form of climate justice' (2014:231). Other scholars traced climate justice's origin, however, used the term interchangeably with other semantic fields, including environmental justice, ecological debt, justice globalism, and environmental racism (Goodman 2009: 508).

3. Study Methods:

To conceptualize this concept — climate justice — this study relies on publicly available data and information. Using the keyword *"climate justice,"* the study searches various published works in

[3] Nairobi in 1982, Rio in 1992, COP in Berlin in 1995, Rio+5 in New York and Johannesburg in 2002, and most notably in Paris in 2015

scholarly platforms, i.e., Google Scholar. From the search, the study systematically analyzes twenty-three articles and other published works such as reports and commentaries, directly focused on climate justice across disciplines. Analyzing information on the existing *definition of climate justice, application of climate justice framework* as well as the *use of associated semantic fields*, the study presents the findings based on the attributes in existing definitions and typologies of definitional traits leading to a minimal definition of climate justice.

4. Climate Justice and Associated Semantic Fields:

In academics and the world of social movements, climate justice has been used and combined with other concepts simultaneously. For example, different individuals and social groups use the concepts of *climate insecurity* and *climate injustice*, pointing out almost the same arguments and logic to achieve climate justice. Again, terms like *environmental justice* and *ecological debt* are used to focus on justice for inequality and damage caused by the effects of climate change. This section discusses the semantic fields associated with climate justice — environmental injustice, ecological debt, justice globalism, and climate insecurity — following a critical analysis of the contentedness of the concept.

Environmental Justice:

As one of the core semantic fields, environmental justice focuses on the existing injustices affecting the lives of the most vulnerable (Agyeman et al. 2016:336) regarding environmental pollution, overusing, unplanned change, and some other man-made casualties plus climate change effects that are having irrecoverable impacts. As a social movement, environmental justice is traced to its origin in the 1970s and was led by the protest of self-identified *'housewives*' against the contamination of dumped toxic chemicals by a company called Hooker Chemicals in upstate New York, USA (Scott, 2014). The protest against waste dumping in the African-American neighborhood in Warren County in North Carolina served as the momentum of the environmental justice movement in the USA in the 1980s (Scott, 2014).

At the same time, scholars frequently use the concept of 'environmental justice' to reframe new issues, concerns, and practices. This can help highlight the crucial relationship between a functioning environment and the attainment of social justice for all, including access to natural resources, protection from burdens, involvement in decision-making, and access to benefits (Agyeman et al. 2016: 336; Jenkins 2018: 118). Scott (2014) argues that environmental justice serves as a theoretical lens to understand the fairness of environmental benefits and burdens.

Similarly, these issues are echoed in the definitions of environmental justice used by the government and non-governmental organizations. For example, the United States Environmental

Protection Agency (USEPA) terms it as a platform for fair treatment[4] and meaningful involvement[5] of all people irrespective of their characteristics (USEPA, 2018). Bliss (2017) elucidates environmental justice from an injustice perspective where wealth and waste are not distributed equally. This indicates that the Global North nations are reaping the harvest by emitting more GHG while unloading the burden of climate change effects on the Global South.

Mohai et al. (2009) argue that people in the US are exposed to environmental pollution and risks based on their race and class. Soon after the Warren County protest emerged, as they argue, environmental justice studies have become more of the interdisciplinary body of literature, where researchers explored the uneven environmental impact on different races and classes and focused more on other justice issues, including environmental racism, environmental inequality, or environmental justice, which in turn, receives attention from the policymakers.

The environmental justice movement offered the basic platform for climate justice (Schlosberg and Collins 2014, p362). Hurricane Katrina in 2005 offered an example of the intersection between environmental justice and climate justice when scholars started to understand climate change as a fact that generates broader social injustices among poor and minority communities (Schlosberg and Collins 2014: 362).

Ecological Debt:

'Ecological Debt' as a demand of countries in the Global South to countries in the Global North, helps to understand the precarious global system of ecologically unequal exchange of resources, where the rich nations are being fed at the expense of the poor nations (Roberts and Parks, 2009). It outlines the historical suppression of the previous ones by the latter through colonialism. However, the Global South nations (G-77 plus China)[6] are urging for a reverse flow of capital and resources from the Global North to the Global South (Roberts and Parks, 2009). This points to the following argument for centuries, the Global North has been extracting the resources and materials from the Global South through colonialism, business, and development prescription. This continuous and disproportionate process, the ecologically unequal exchange of resources, as "one of the most damaging stages of the chain of commodity production" raised a contentious issue of 'burden sharing' caused by climate change (Roberts and Parks, 2009).

[4] "Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies." Details available at https://www.epa.gov/environmentaljustice/learn-about-environmental-justice

[5] Meaningful involvement means i) People have an opportunity to participate in decisions about activities that may affect their environment and/or health; ii) The public's contribution can influence the regulatory agency's decision; iii) Community concerns will be considered in the decision-making process; and iv) Decision makers will seek out and facilitate the involvement of those potentially affected." Details available at https://www.epa.gov/environmentaljustice/learn-about-environmental-justice

[6] G-77 plus China alliance is a group of countries formed in 1964 by the United Nations to cooperate within and between developing countries. Although the alliance is called G-77 plus China, there are currently 130 member states included here. In the Bali Climate Action Plan in 2002, these countries represented themselves as a particular group.

Also, the demand for resource reversal flow is linked with the argument of two-fold inequality caused by climate change (Roser and Seidel, 2016: 9). Two-fold inequality because climate change induced by developed countries due to their high GHG emissions while it affects poor nations disproportionately. Roser and Seidel (2016) show an increasing trend of this inequality from past to present and towards the future generation. In the past, it was less, while in the present, it is increasing, and this inequality will be wider in the future.

'Ecological debt' offers the logic that the developed nations must pay the debts to the poor nations from where they harness the materials for their development (Martinez-Alier, 2003) to share the burden of their suffering. At the same time, it offers a base for producing a climate justice model, especially for the G-77 plus China. Roberts and Parks (2009) argue that this group has capitalized on these ideas, and a movement for climate justice is now gaining strength and exerting influence in international negotiations.

Justice Globalism:

Justice globalism, as a new political ideology with global reach, offers new political agendas and campaigns to solve the most pressing problems of the 21st century, including climate change, global food crisis, and financial upheavals (Steger et al., 2012). The core concept and ideological claim of justice globalism lead to a strong base for climate justice since it focuses more on inequalities created by market globalism. Like all ideologies, it gives shared meaning to diverse concerns within an overarching interpretative frame by generating normative guides to action (Goodman, 2009: 505). It leads to understanding the global development divides rooted in the colonial system with structural inequalities (Held and Kaya eds in Goodman 2009: 500). However, it is frequently being used to refer to climate justice when it comes to addressing the inequality induced by climate change (Goodman 2009: 500).

It links with globalization, especially with market globalism, where all nations are connected. However, in the current form of the global market system, some countries benefit at the expense of others. It helps to sustain this unequal system since it commodifies social relations, affects ecological relations while breaking down the well-being structures (Biel, 2000), and stances the argument of society's embeddedness in the market (McMichael, 1996).

Justice globalism focuses on the disproportionate impact of climate change pooled with globalization across the nations. It offers "a vision for social transformation beyond North-South inequalities" and different access points of negotiation against the issue of ecological degradation in the name of the market (Goodman 2009: 504 - 8) based on egalitarian ideals of global solidarity and distributive justice (Steger, 2017). At the same time, it also challenges the market globalism (McMichael, 1996).

Although the developed countries promised to undercut their GHG emissions under the Kyoto Protocol, it has often been cited that the global community failed to address the imminent climatic crises on time. The market-based approach of the protocol to mitigate the climate crisis,

carbon emissions trading, the clean development mechanism (CDM), and joint implementation (project implemented by two or more industrial countries) was widely criticized since the international mitigation and adaptation efforts were not sufficient enough (Terry, 2009). A similar argument could be stated in the context of renewable energy use. The Kyoto Protocol had a positive effect on renewable energy consumption in industrialized countries (Haque, 2024) promoting the use of clean energy. Developing countries lack the financial and technological capacity to harness clean energy. At the same time, the global supply chain has rendered these countries the powerhouse for the production of commodities for the Global North countries (Nicita et al., 2013). Thus, this process has shifted the pollution burden from the Global North to the Global South.

Climate Insecurity:

Climate insecurity becomes a subject matter of climate justice when we consider the cause of climate change and the determinants of vulnerabilities (Barnett, 2006). The climate change effects are unevenly distributed (Running, 2015), which leads to asymmetrical vulnerability to the global population (Perry et al., 2007) due to their unequal socioeconomic status and adaptive capacity (Roberts and Parks, 2009). Populations in countries structurally disadvantaged due to their colonial past and economies highly dependent on resource extraction or single crops are incredibly vulnerable to climate change effects (Running, 2015).

Although various initiatives in international climate policy are intended to assist vulnerable groups of people, the reality does not reflect accordingly. For example, the high transaction cost of carbon trading excludes poor people, and the absence of a social dimension of climate change actions (i.e., gender relations) in the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, push (poor)women towards the more vulnerable situation (Terry, 2009). This scenario is even worse for women in the Global South as their lives and livelihoods are heavily affected by climate change effects due to their higher dependency on and interaction with the natural environment (Neumayer and Plümper, 2007).

Fresh water is much needed for food production to feed the global populations that are increasing exponentially. Fresh water is already a scarce resource in many countries, and the prolonged drought in many single-crop-dependent countries has been a major threat to food insecurity. According to the 2018 Global Report on Food Crises by the World Food Programme (WFP), about 124 million people in 51 countries face food insecurity. One in nine people on earth does not have enough food to live a healthy, active life (Global Report on Food Crises and Zero Hunger, WFP, 2018).

Climate change has extreme and adverse effects on people's lives everywhere, especially those highly dependent on the natural environment. Climate change threatens people's survival, primarily for poor people, because "three out of four people living in poverty rely on agriculture and natural resources to survive" (Mercy Corps, 2018). For example, climate change has created food insecurity among many groups of people including the !Kung Bushman people in Kalahari,

in the communities living in high altitudes of the Himalayas, among the Inuit people (UN 2007: Report of Climate Change and Indigenous people; Beaumier and Ford, 2010; Ford, 2009).

The erratic behavior of nature across the globe with prolonged droughts, much-impacted floods with unusual rain pooled with river-bank erosion, storm surges, and cyclones is causing people to be helpless while they are failing to grow their much-needed food supply depending on the natural environment. These unexpected natural disasters are rendering millions of people destitute, insecure, and climate refugees. The high number of inland and cross-border migrations results from the effects of climate change.

Barnett and Adger (2007) argue that climate change tends to be a security issue since it adversely affects livelihoods based on the natural environment and also leans on the state's capacity to provide food and services to its population. Frequent natural disasters due to extreme weather conditions pose higher risks of intrastate conflict since they displace people, undermine livelihoods, and create food insecurity (Nel and Righharts, 2008; Reuveny, 2007).

5. Climate Justice: Existing Definitions, Typological Traits and Minimal Definition

Two issues are distinctively related to the definition of climate justice. First, due to 'the wide range of possible approaches to justice itself, as well as ‘the complexity of climate change and the breadth of movements arrayed in response' (Schlosberg and Collins 2014: 364) scholars, individual groups, and organizations use *climate justice* without defining it. Second, due to diversified issues and subject matters (i.e., politics, development, environment) related to it, climate justice has been defined and used in various ways. This section analyzes the existing definitions of climate justice following their typological traits and concludes by proposing a minimal definition of *climate justice.*

Attributes in Existing Definitions of Climate Justice:

Existing definitions of climate justice cover a wide range of attributes. Since the application of the concept varies from context to context, so do the attributes from definition to definition. An analysis of the existing definitions indicates that a total of thirteen attributes are applied/used in these definitions.[7] These attributes are *Accountability, Participation/ Consultation, Distributive/ Redistribution, Environmental/ Ecological Sustainability, Solutions to Climate Change/ Policy Change, Equal Chance of Survival/ Social Justice, Freedom from Discrimination, Benefits and Damages/ Compensation, Fair Treatment, Right and Access to Resources Needed, Corporate based Economy/Globalization, Sustainable Societies,* and *Vulnerability*. For analyzing these attributes within definitions (of climate justice), I follow Gerring’s (2012: 69) two aspects of the meaning of a term — meaning in a general context and meaning in a particular context.

[7] Definitions analyzed here are provided in Appendix A.

Table 1: *Distributions of Attributes in Existing Definitions of Climate Justice*.[8]

	Accountability	**Participation/ Consultation**	**Distributive/ Redistribution**	**Environmental/ Ecological Sustainability**	**Solutions to Climate Change/ Policy Change**	**Equal Chance of Survival/**	**Freedom from Discrimination**	**Benefits and damages/ Fair Treatment**	**Right and access to Resources**	**Corporate-based economy/Globalization**	**Sustainable Societies**	**Vulnerability**	**Total Attributes**
Chatterton et al. (2013)	√	√		√		√							5
Audet (2013)			√					√				√	3
Bartholomew (2015)							√		√				2
Alternatives for Community and Environment (2018)						√	√		√	√			4
Bliss (2017)			√					√					2
Global Justice Ecology Project (2018)										√	√		2
Number of Authors/ orgs. covers attributes	1	1	2	1	1	2	2	2	2	1	1	1	

Table 1 shows the analysis of attributes covered by each definition of climate justice. Definitions by different scholars, groups, and organizations comprise different attributes. None of the definitions singularly covers all attributes. Each definition covers at least two to a maximum of five attributes. The definition by Chatterton et al. (2013) covers the highest number of attributes, five of them. Definitions by Bartholomew (2015), Bliss (2017), and Global Justice Ecology Project (2018) cover the least number of attributes, two of them. The definition by Alternatives for Community and Environment (2018) covers four attributes, whereas the definition by Audet (2013) includes three attributes. Out of the thirteen attributes, five are covered two times, and the rest eight are used individually.

Typologies of Definitional Traits:

[8] I employed the framework adapted from Nichter (2014: 317).

Following Gerring's (2012: 76) typology of definitional traits, I present the typology of the attributes covered by various definitions of climate justice. The typologies include subject, function, and motivation, which comprise actors, activities, and reasoning behind the attributes. These are presented as follows; *Subject:* a) Global South, b) Global North, c) Individual Groups and Organizations. *Function:* a) Explaining (educating) climate justice, b) Framing (justifying) social movement. *Motivation:* a) Interest-based, b) Power-based (Political and Economic).

Based on these typologies, the climate justice proposition argues that nations in the Global North for their historically higher GHG emissions are responsible for climate change, leading to suffering for nations in the Global South. In this context, individual groups, organizations, and various rights groups have become vocal while pursuing climate justice as a social movement. Although there is a difference in their motivation based on political, economic, and social interests, many groups and organizations perceive climate justice as a tool for framing the social justice movement to achieve procedural justice by holding industrial countries accountable for climate change.

Procedural justice because groups and alliances, particularly *G-77 plus China* under a unified framework, present substantive arguments on fair treatment, accountability, participation, and consultation (right to information) regarding pursuing climate justice. Other groups treat it as a tool for material compensation to haul the share from the industrialized nations to pay off the sufferers in the Global South for adaptation to the changing situations, climate change mitigation as well as environmental sustainability.

I frame the definitional attributes into three categories: i) attributes that focus on the outcome of procedural justice (process), ii) attributes that focus on the material outcome, and iii) attributes that focus on policy outcome. Table 2 shows the categorization of the attributes. Accountability, participation and consultation, equal chance of survival, and fair treatment fall into the procedural justice category. Material compensation, cost sharing, and environmental sustainability are included in the material outcome category, whereas policy outcome encompasses political change and audience.

Table 2: *Attributes within Categories of Various Outcomes*

Outcome of procedural justice	**Accountability (checks and balances)**
	Participation and consultation
	Equal chance of survival
	Fair Treatment
Material Outcome	**Material compensation**
	Cost sharing (Redistribution)
	Environmental sustainability
Policy Outcome	**Policy change**
	(Target) Audience

At the same time, I categorized different scholars' works based on their definitions and the use of different attributes to refer to 'climate justice.' Figure 1 shows the usage of different attributes by different scholars to refer to climate justice. I find that definitions by Chatterton et al. (2013), Alternatives for Community and Environment (2018), and Bartholomew (2015) argued about the procedural justice aspects, where Bartholomew (2015) mentions the material compensation, and Chatterton et al. (2013) and Alternatives for Community and Environment (2018) talk about the environmental sustainability. On the other hand, definitions by Audet (2013), Bliss (2017), and Global Justice Ecology Project (2018) do not argue about the procedural justice claims, whereas Audet (2013) and Bliss (2017) definitions focus on the material compensation issue, and Global Justice Ecology Project's (2018) definition emphasizes on environmental sustainability.

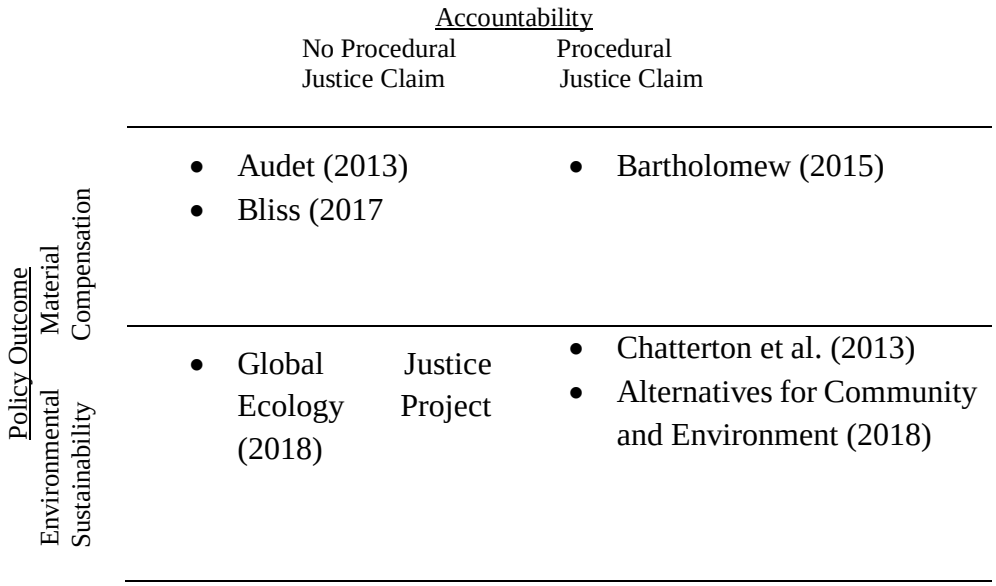

Figure 1: *Usage of Different Attributes by Different Scholars to Refer Climate Justice*

Conceptualization and Minimal Definition of Climate Justice:

As an evolving concept (Social Movement Assembly, Dakar, 2011 in Moore and Russell 2011:18), climate justice requires to be conceptualized based on the attributes that would reflect the concept's understanding. Due to the conceptual stretching and high intension problems, the concept — *climate justice* — requires to be defined based on high extension with few attributes without conceptual stretching. At the same time, since concepts are 'data containers' (Sartori, 1970), the conceptual definition should infer a clear understanding of the concept while applying it to pursue the purpose irrespective of context.

After analyzing the different definitions of climate justice and the attributes used in the definitions, I offer a minimal definition of climate justice. A minimal definition would represent all attributes without leading to conceptual stretching and high intension. The minimal definition of climate justice can be formulated as follows: *accountability followed by procedural justice, including participation and fair treatment to achieve environmental sustainability and material compensation for the inequalities incurred by the effects of climate change.* These minimal features are reflected in most definitions and the term's usage. Although this definition has yet to be applied, at least it serves the primary function of what it means by climate justice.

6. Conclusion:

From analyzing the existing definitions and their attributes, the study finds that the definitions and usage of the concept, *climate justice*, are being applied for three outcomes: outcome of procedural justice, physical or material outcome, and policy outcome. The lack of consensus on what exactly this concept means leads to inconsistencies in its application and further confusion. The

conceptualization of climate justice is more world stage in general, but it requires to be conceptualized at the local level in particular. The proposed minimal definition of climate justice could be used to avoid high extension of the concept in general both in academia and the social movement world. To a further extent, it requires further research in academia and in social movements perspectives, to be more specific and policy and demand-oriented to achieve *climate justice* as a whole. In this regard, global climate governance, especially the UNFCCC should take the initiative to reach a consensus on the meaning and usage of this concept.

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Appendix A

List of definitions analyzed in the study:

According to Chatterton et al. (2013: 5), "(briefly defined), climate justice refers to principles of democratic accountability and participation, ecologically sustainability and social

justice and their combined ability to provide solutions to climate change. Such a notion focuses on the interrelationships between, and addresses the root causes of, the social injustice, ecological destruction, and economic domination perpetrated by the underlying logics of pro-growth capitalism."

Audet (2013: 371) states, "Climate justice is socially constructed through conflicts and negotiations. The climate justice discourse in climate negotiations is constructed along two levels: one that is more ideological, and one that is more semantic. The ideological level differentiates between the three dimensions of climate justice: the distributive, vulnerability, and abatement cost sharing. The semantic level relies on words or expressions—be they consecrated in official texts or not—such as the various declensions of "responsibility," "balance" and "fairness."

According to Shannon Bartholomew (2015), “As a form of environmental justice, climate justice is the fair treatment of all people and the freedom from discrimination in the creation of policies and projects that address climate change, as well as the systems that create climate change and perpetuate discrimination” (HuffPost: December 6, 2017).

According to Alternatives for Community and Environment (2018), "climate justice focuses on the root causes of climate change- making systematic changes required to address unequal burdens to our communities and realign our economy with our natural systems. As a form of environmental justice, climate justice means that all species have the right to access and obtain the resources needed to have an equal chance of survival and freedom from discrimination. As a movement, climate justice advocates are working from the grassroots to create solutions to our climate and energy problems that ensure the right of all people to live, learn, work, play, and pray in safe, healthy, and clean environments."

According to Bliss (2017), “climate injustice refers specifically to the unfair distribution of benefits and damages related to climate change. Again, a handful of humans profit at the direct expense of many.”

According to the Global Justice Ecology Project (2018), "climate justice is the understanding that we will not be able to stop climate change if we don't change the neo-liberal, corporate-based economy which stops us from achieving sustainable societies. It is the understanding that corporate globalization must be stopped."