

Justice through Polycentricity? A Critical Examination of Climate Justice Framings in Pakistani Climate Policymaking

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The purpose of this study is to investigate the extent to which the existence of a polycentric climate governance regime in Pakistan has enabled diverse framings of climate justice to emerge and be operationalised within policymaking. A two-part analysis is conducted through systematic coding and textual analysis of interview transcripts and policy documents. Firstly, an analysis based on climate justice framings reveals that, whilst national governmental actors predominantly adopt an international framing of climate justice, non-state actors have increasingly adopted vulnerability, human rights and transformational framings of justice, thereby supporting the theory that polycentricity is widening the space for voicing diverse framings. Secondly, a polycentric governance-based analysis reveals that several institutional barriers limit the ability of non-state actors to operationalise these framings, particularly capacity and resource constraints, limits of scale and scope, changing legislation and the unequivocal power held by the state. Hence, Pakistan's overarching climate change strategy prioritises justice between countries, while obscuring domestic inequalities, poverty and vulnerability, which are only addressed by non-state actors through isolated activities rather than in a coordinated manner within national policy. This finding suggests that polycentric governance can diversify climate discourse, but also that the intergovernmental climate regime may reinforce the nation state's international framings of justice at the expense of domestic justice concerns.

Key policy insights:

- Non-state actors within the polycentric climate governance regime in Pakistan are increasingly adopting framings of climate justice beyond those of the nation state, thereby bringing attention to issues of domestic poverty, inequality and vulnerability.
- Differences in power between state and non-state actors limit the extent to which different justice issues can be addressed through nationally and internationally-led climate policy.

- There are limitations to the ability of national-level polycentric climate governance regimes, when embedded in intergovernmental negotiations, to engage in redistributing power and advocating for different framings and dimensions of justice being raised by local actors.

Keywords: climate justice; polycentric governance; international governance; framings; Pakistan

Word count: 7800 (including tables and figure captions)

Introduction

Pakistan has been ranked the seventh most vulnerable country to climate change (Germanwatch, 2017), and faces significant threats from increased extreme weather events, recession of Himalayan glaciers, increased heat and water stress, and sea level rise (GCISC, 2012). These impacts undoubtedly exacerbate existing vulnerability and development challenges relating to food and water security, displacement of communities, health risks and loss of livelihood (Khan et al, 2016). Poor and marginalised communities will be most affected by these impacts due to their high vulnerability and low resilience (Salik et al, 2015).

Pakistan is ranked 155th in the world in terms of its CO₂ emissions per capita (World Bank, 2019). However, emissions have risen by 123% since 1994 and are expected to continue rising as the country pursues visions of rapid economic growth (PAK-INDC, 2016). Due to prevailing challenges of energy shortage and poor energy access, it is expected that Pakistan will need to exploit all available energy sources, including coal-based power generation (PAK-INDC, 2016). Pakistan's Nationally Determined Contribution (NDC), submitted as part of the Paris Agreement, also emphasised continued fossil fuel-based economic growth, and the pledged emission reductions are conditional upon funding of \$40 billion from developed nations.

Overall, it is evident that notions of equity and justice are embedded within Pakistan's position in the international geo-political order, as well as in its domestic vulnerabilities, particularly in terms of: (i) the disproportionate negative impact of climate change on vulnerable communities; (ii) the discrepancy between Pakistan's low per capita emissions and its high vulnerability, as typical of most developing countries; and (iii) the 'right' to develop and continue emitting GHG in order to pursue development pathways

akin to that of industrialised nations.

Governance of climate change in Pakistan, including its response to intergovernmental commitments under the UN Framework Convention on Climate Change (UNFCCC), has primarily been state-led, through the establishment of the National Climate Change Policy in 2012 (GCISC, 2012) and the Ministry of Climate Change (MOCC) in 2015, which works in close coordination with other departments and institutions to address climate change. Furthermore, the Pakistan Climate Change Act was introduced in 2017, establishing further mechanisms such as the Climate Change Council, Climate Change Authority and Climate Change Fund to assist with the implementation of mitigation and adaptation activities. Following the 18th Amendment to the Constitution of Pakistan, substantial autonomy is also given to subnational governments, which are expected to use the National Climate Change Policy as a guideline to develop their own climate change plans and adaptation strategies (Mumtaz and Ali, 2019).

However, there is increasing evidence that national climate governance is now taking the form of a ‘meta-organisation’, with non-state actors emerging and establishing their own initiatives to influence national policymaking (Chaudhury et al, 2016). For example, Iftikhar et al (2017) give the example of a grassroots initiative on clean drinking water in Bhalwal, Pakistan as a community-based adaptation strategy to climate change, initiated through local NGOs and the city government due to a lack of action from the nation state. Furthermore, Mumtaz and Ali (2019) highlight that bottom-up governance and local actors and stakeholders are playing a key role when it comes to adaptive governance in Pakistan, particularly within the agriculture sector. Overall, it could therefore be argued that the governance regime in Pakistan is becoming increasingly ‘polycentric’.

A ‘polycentric’ climate governance regime can be defined as one in which multiple governing authorities exist beyond the nation state, including non-governmental organisations (NGOs), private sector actors and other organisations, all of which play a role in governing climate change in a coordinated manner (Ostrom, 2010). Our particular interest here is in ‘polycentricity’ in state-based policymaking. Studies have demonstrated that non-state actors play a significant role in shaping the ways in which states govern climate change (Okereke et al, 2009). In fact, it has been argued that activities by non-state actors can fill the ‘gaps’ in existing climate governance regimes (Jordan et al, 2015). However, limited data exists evaluating the degree to which this has been effective in influencing state policy, or the extent to which ‘gaps’ in social justice considerations are also being filled (Chaudhury et al, 2016).

In addition, limited studies exist explicitly investigating the role of climate justice within polycentric governance (Routledge et al, 2018), such as implications for power dynamics between governance actors. In particular, the debate on climate justice and polycentric governance has taken place primarily at the international level (Milanez and Fonseca, 2012), with very limited scholarship investigating its subnational justice implications (Barrett, 2013).

In order to address these research needs and build on the relevant academic literature, we employ a case study approach to investigate the extent to which the influence of multiple non-state actors on Pakistani national policy-making, which in turn is embedded in the UNFCCC’s international climate regime, enables diverse framings of climate justice to be operationalised. This study consists of a two-part analysis, with a textual assessment of interview transcripts and policy documents conducted to investigate: (i) the *extent* to which different framings of climate justice exist within Pakistan’s climate policy regime; and (ii) the *ability* of non-state actors to operationalise

the aforementioned framings within state-based policy-making.

Theoretical frameworks

The foundations of this research are based on ideologies of social justice, which refer to fair and just relations between individuals and society. Historically, philosophers such as Nussbaum (2006), Fraser and Honneth (2003) and Young (1990) have criticised narrow framings of justice based variously on issues of distribution or due process, and argue that other dimensions of justice such as recognition and representation also need to be considered (Kortetmaki, 2016). Ultimately, these seminal works argue that there is no single notion of what ‘justice’ constitutes, and different ‘framings’ of justice can exist.

Goffman (1974) defines ‘frames’ as a set of concepts and theoretical perspectives that organise experiences and guide actions of individuals or societies. By focusing attention on certain aspects and diverting attention from others, frames are theorised as ordering and simplifying the world to give meaning to events and experiences (Allan and Hadden, 2017).

With this underpinning, this study employs two theoretical frameworks: the first based on framings of climate justice, and the second addressing the governance of climate justice. The purpose of the first framework is to draw on the climate justice literature to identify the most prevalent framings of climate justice, in order to investigate the presence and prominence of these framings amongst the range of actors within the polycentric climate governance regime in Pakistan. The second framework then draws on the polycentric climate governance literature to investigate the ability of non-state actors to institutionalise and operationalise the aforementioned framings and influence national policymaking, within the context of an international climate regime.

Framework 1: climate justice framings

Within the state-driven, intergovernmental political domain, the framing of justice in relation to the environment focuses on international issues, with inequities highlighted predominantly between countries (Milanez and Fonseca, 2012). A review article by Okereke (2010) claims that climate justice concerns in the context of international negotiations and governance processes are primarily rooted in: (i) differences in countries' GHG emissions and contribution to climate change; (ii) differences in countries' vulnerability to climate change; and (iii) differences in countries' ability to bear the costs of mitigating or adapting to climate change. More recently, discussions around the UN Sustainable Development Goals (SDGs) are also being tied into climate justice conversations at the international level.

Within both academic literature and work conducted by non-state actors, debates on justice remain broader to also consider alternative framings of justice relating to more domestic and local scales. This study therefore considers three additional framings of justice present within the literature to develop our theoretical framework.

Firstly, evidence exists for a *local vulnerability* framing of justice. For instance, Joshi (2014) examines climate justice principles within an Indian context and draws attention to the disproportionate impacts of climate change on vulnerable and marginalised communities locally. In addition, Milanez and Fonseca (2012) examine justice within a Brazilian context and look specifically at social vulnerability and resilience, which disproportionately affect the ability of local communities to survive extreme weather events. Popke et al (2016) also build on this to explore the presence of adaptation, resilience and vulnerability framings of climate justice in the Caribbean.

Secondly, a substantially developed literature exists on the *human rights*

dimension of climate justice (eg. Mboya, 2018; Robinson and Shine, 2018; Schapper, 2018). According to the Mary Robinson Foundation (MRF, 2018), ‘climate justice links human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts equitably and fairly’ (Alves and Mariano, 2018). Building on this, Derman (2014) draws attention to the legal dimensions of climate justice, in particular the rights to a certain livelihood and to compensation if that livelihood is threatened.

Finally, studies also demonstrate the existence of a *transformational* framing of justice. Wahlstrom et al (2013) highlight more radical notions of climate justice, such as justice representing an opposition to growth-driven, market-based capitalist economies. Kortetmaki (2016) echoes this sentiment, framing justice as being an inherent issue of unequal power relations affecting and dictating dominant agendas. In addition, Grasso and Sacchi (2015) emphasise the role of power dynamics in shaping decision-making processes.

Overall, it is evident that, while the debate on climate justice within intergovernmental political spheres may be dominated by inequalities between countries, the academic literature remains broader, highlighting alternative framings going beyond the ‘north vs south’ dilemma. Table 1 therefore presents our theoretical framework, based on these four climate justice framings.

Table 1. Climate justice framings

Climate justice framing	Characteristics defining framing
International framing: justice as addressing global inequalities	<ul style="list-style-type: none"> • Addressing inequalities in carbon emissions and contribution to climate change of different countries (Okereke, 2010) • Distributive justice and calling attention to the differential impacts of climate change, including differences in national vulnerability (Okereke, 2010) • Procedural justice and addressing differences in power and capabilities that affect ability of countries to contribute to climate negotiations (Grasso and Sacchi, 2015) • Upholding principles of common but differentiated responsibilities and addressing differences in adaptive capacity of countries (Okereke and Coventry, 2016)
Vulnerability framing: justice as protecting vulnerable and marginalised peoples	<ul style="list-style-type: none"> • Calling attention to social and economic inequities that hinder climate adaptation and reduce resilience (Popke <i>et al</i>, 2016) • Protecting most vulnerable communities from worst consequences of climate change whilst ensuring that development pursuits stay within ecological limits (Joshi, 2014) • Addressing inequalities in distribution of resources (Audet, 2013) • Poverty alleviation and development as solutions to climate change (Joshi, 2014)
Human rights framing: justice as protecting human rights and capabilities	<ul style="list-style-type: none"> • Fulfilling economic, social and political capabilities needed to pursue decent livelihood and realise human rights (Okereke and Coventry, 2016) • Inclusion of views of those negatively affected in decision making procedures (Milanez and Fonseca, 2012) • Access to natural resources and environmental services as a universal human right (Joshi, 2014), thereby linking climate governance with legal principles (Derman, 2014) • Calling attention to loss and damage, climate finance and the need for compensation (Allan and Hadden, 2017)
Transformational framing: justice as demanding a paradigm shift away from current economy	<ul style="list-style-type: none"> • Addressing power structures in place that are dictating vulnerability to begin with (Popke <i>et al</i>, 2016) • Accounting for differential abilities to participate in decision-making (Kortetmaki, 2016) • Calling for radical systematic transformation opposing ecological modernisation and a market-based economy (Wahlstrom <i>et al</i>, 2013) • Addressing cultural domination and the presence of western-centric institutions dictated by those holding power (Kortetmaki, 2016)

Framework 2: climate justice and polycentric governance

The term ‘polycentric governance’ is often attributed to Elinor Ostrom’s seminal work in the late 2000s. Ostrom’s particular interest was in the interaction of local, ‘bottom-up’ systems for governing common pool resources with larger-scale governance processes, and the resulting multi-levelled and ‘dispersed’ patterns of governing (Ostrom, 2010: 552). It has been argued that the emergence of non-state action at multiple scales within a polycentric governance regime can ‘fill the gap’ in existing governance structures and bring forth actions not being taken by the state (Jordan et al, 2015). This raises the question of whether ‘gaps’ in justice considerations within governance are also being filled.

In order to test this notion, Kuyper et al’s (2018) framework, presented in Table 2 below, is adopted to examine the role that non-state actors are playing in operationalising diverse framings of climate justice within national policymaking through evaluating their activities and actions in relation to three elements.

Firstly, the ‘agency’ element aims to investigate the ability of non-state actors to operationalise their climate justice framings through participating within existing governance processes. This could be used to test a number of theories present within the polycentric governance literature. For instance, Abbott (2017) details the theory of ‘orchestration’, which suggests that non-state action is often initiated by state actors to begin with, through indirect forms of governance. Similarly, Routledge et al (2018) highlight the limitations of state dominance, and demonstrate how most climate justice movements emerge through processes external to the state. A recent study by Tormos-Aponte et al (2018) also argues that theories of polycentric governance conventionally do not account for power relations and inequalities shaping the nature of the governance

system, thereby ‘obscuring the incompatible interests of different actors as well as the systemic political-economic causes of environmental degradation and social injustice’.

Secondly, the ‘access’ element aims to investigate the ability of non-state actors to operationalise their climate justice framings through promoting access to rights and benefits. For instance, Kuyper et al (2018) highlight how non-state actors can act as ‘watchdogs’ that hold states accountable to their commitments, thereby enhancing legitimacy and transparency and promoting justice. However, Derman (2014) argues that, whilst civil society actors can hold states accountable to justice principles, there is still no substitute for official structures.

Finally, the ‘allocation’ element aims to investigate the ability of non-state actors to operationalise their climate justice framings through the allocation of responsibility. The polycentric governance literature suggests that, at the local level, non-state actors can be critical in shaping climate policy when the state lacks capacity, and can also offer resources and expertise missing in official structures (Chaudhury et al, 2016). Arriagada et al (2018) evaluate the emergence of a polycentric climate governance regime in Chile and find that the inclusion of local level actors is helping overcome governance weaknesses.

Ultimately, the literature appears to be inconclusive regarding whether, and under what conditions, polycentric climate governance has played a role in distributing power away from the nation state or in shifting dominant discourses on climate justice. In particular, it has failed to consider how the situation of national state climate policy within an intergovernmental climate regime may influence the relative power of state and non-state actors in articulating state policy. Therefore, this study’s investigation of the extent to which diverse framings held by non-state actors are operationalised in Pakistan’s state

climate policy, can provide a methodology for calling attention to the multiple ways in which the aforementioned 'gaps' in justice considerations within polycentric governance are being 'filled', particularly at the national level.

Methods

This study adopted a mixed methods approach, using a combination of semi-structured interviews and policy document analysis for triangulation of results.

Firstly, a mapping exercise was conducted to identify a list of key climate governance actors and stakeholders working on climate change in Pakistan. The key criteria considered was that the stakeholder participates in national climate policy discussions and has a role in influencing the climate governance discourse in the country, such as by interacting directly with state-level policymakers through activities including capacity building. A total of 25 stakeholders were identified as fitting this criteria, including both state and non-state actors; representatives from each stakeholder agency were contacted, requesting their participation. Once in Pakistan, a snowball sampling strategy was employed to identify and interview further actors.

19 semi-structured interviews were conducted, with the sample including four public actors, two private sector actors, six NGOs and seven other think tanks or organisations. Whilst a small sample, this data can still be considered significant given the small number of key climate governance actors in Pakistan. Differences in the numbers of actors interviewed across stakeholder groups reflects differing levels of direct engagement by public, private and NGO actors in the country, with only two private actors interviewed. Official participation in climate policymaking from the private sector, in particular, is very limited in Pakistan. On the other hand, there has been considerably more open engagement by NGOs and think tanks, and this is reflected in their greater representation on our interviewee list.

Two key limitations of this work are the lack of interviewees from the private sector as well as public sector stakeholders from other governmental departments such as

the planning commission; this is primarily due to limitations of time and access when conducting this research, and future work should aim to expand the range and type of stakeholders interviewed. However, the objective of this work is to identify the prominence of different climate justice framings within different stakeholder types, rather than draw concrete conclusions based on representativeness for each stakeholder type. As such, this spread of interviews is still purposeful for conducting our work.

Table 3 displays the full list of stakeholder agencies and organisations from which representatives were interviewed. Two representatives were included from the Ministry of Climate Change, as this is the primary public actor governing climate change in the country.

Table 3. List of institutions represented in interviews¹

Stakeholder type	Stakeholder	Acronym
Public	Ministry of Climate Change (1)	MOCC
	Ministry of Climate Change (2)	MOCC
	National Disaster Management Authority	NDMA
	Pakistan Meteorological Department	PMD
Private sector	Star Hydropower Limited	STAR
	Sustainable Solutions Pvt Ltd	SSPL
Think tank / IGO	Leadership for Environment and Development	LEAD
	Sustainable Development Policy Institute	SDPI
	Global Climate Impact Studies Centre	GCISC
	United Nations Development Programme Pakistan	UNDP
	International Union for the Conservation of Nature	IUCN
	Civil Society Coalition on Climate Change	CSCCC
	Independent Consultant	N/A
NGO	World Wildlife Fund Pakistan	WWF
	Awaz Foundation Pakistan	AWAZ
	Intercooperation Pakistan	N/A
	National Rural Support Programme	NRSP
	Eco-Conservation Initiatives	ECI

¹ All institutions are referred to by their acronyms throughout the rest of the paper. Please refer back to this table for the full institution name.

	Pakistan Institute for Environment and Development Action Research	PIEDAR
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Questions primarily focused on stakeholders' opinions of Pakistan's climate governance from an equity and justice perspective, their understanding of climate justice and its importance for Pakistan, and their opinions on what reform is needed within existing governance structures. All interviews were audio recorded, transcribed and translated where necessary.

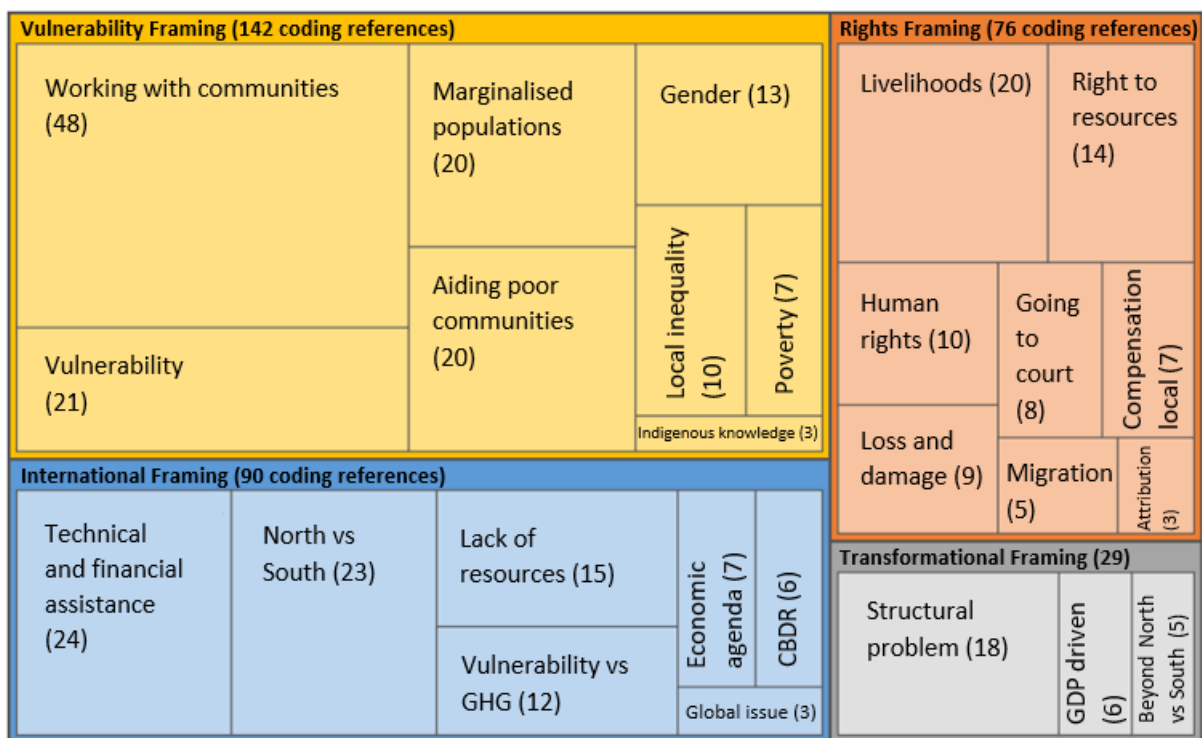
An online search was also conducted for policy documents relating to climate change published by each stakeholder. Similar selection criteria were applied, with publications from each stakeholder agency screened to select those that were oriented towards influencing state-level climate policymaking. Documents for 16 out of the 19 institutions were found and analysed.

Both the interview transcripts and policy documents were manually coded using NVivo, a qualitative analysis software. The codes were then grouped into the four different justice framings, and analysis was run based on institution type within NVivo to identify the prominence of the different framings for the different actors.

Analysis and results

Climate justice framings

Figure 1 demonstrates the presence of the four climate justice framings across the 19 interviews, with the size of the boxes representing the number of coding references for each framing. It is apparent that the vulnerability framing is dominant across all



stakeholder groups.

Figure 1. Prominence of framings (all interviews)

Trends emerge when conducting the analysis by stakeholder type, with the results presented in Figures 2.1 to 2.4 below. For public actors, the international framing is dominant by far, with the human rights framing being least dominant and the transformational framing not present at all. Quite surprisingly, for the two private sector actors interviewed, the transformational framing is most dominant, with the international framing the least. For think tanks and organisations, both the vulnerability and international framings are equally dominant, with the rights framing also significant.

Finally, for NGOs, the vulnerability framing is most prominent, followed by the human rights framing, with the international framing much less present.

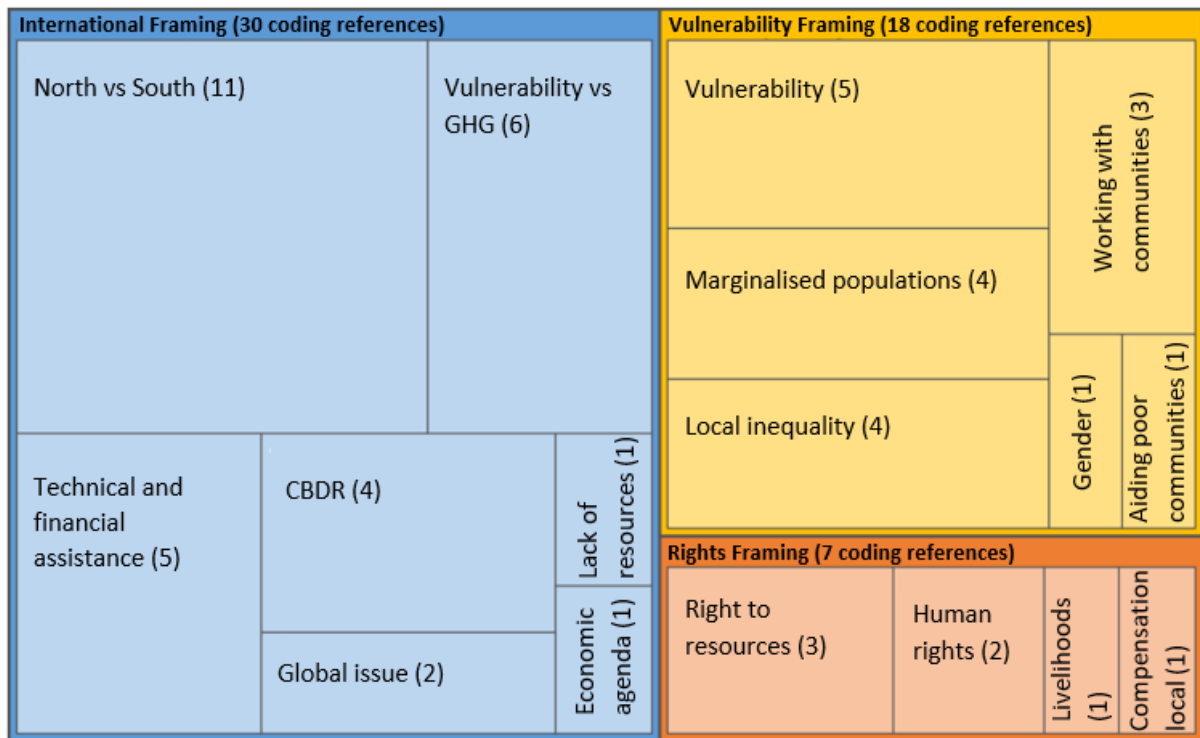


Figure 2.1. Framing by public actors

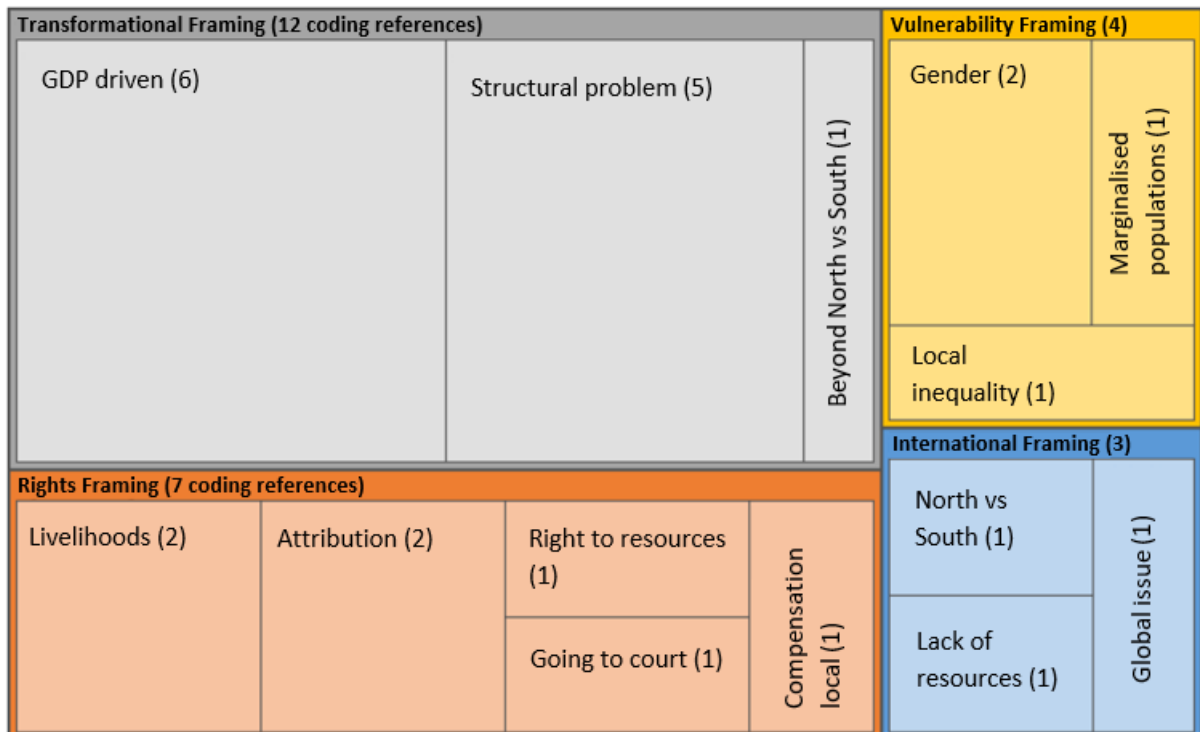


Figure 2.2. Framing by private sector actors

Vulnerability Framing (51 coding references)				Rights Framing (29 coding refs)	
Working with communities (16)	Aiding poor communities (8)	Gender (5)		Livelihoods (6)	Human rights (5)
Vulnerability (10)	Marginalised populations (6)	Poverty (3)	Local inequality (3)	Right to resources (4)	Loss and damage (4)
				Compensation local (4)	
International Framing (40 coding references)				Migration (3)	Going to court (3)
Technical and financial assistance (14)	Lack of resources (11)	North vs South (6)	Vulnerability vs GHG (3)		
		Economic agenda (4)	CBDR (2)		
				Transformational Framing (5)	
				Structural problem (3)	Beyond North vs South (2)

Figure 2.3. Framing by think tanks/organisations

Vulnerability Framing (69 coding references)			Rights Framing (33 coding references)			Int. Framing (17)	
Working with communities (29)	Aiding poor communities (11)		Livelihoods (11)	Right to resources (6)		Technical and financial assistance (5)	
Marginalised populations (9)	Gender (5)	Indigenous knowledge (3)	Loss and damage (5)	Human rights (3)	Migration (2)	North vs South (5)	
Vulnerability (6)	Poverty (4)	Local inequality (2)	Going to court (4)	Compensation local (1)	Attribution (1)	Vulnerability vs GHG (3)	Lack of resources (2)
						Economic agenda (2)	
			Transformational Framing (12 coding references)				
			Structural problem (10)				
			Beyond North vs South (2)				

Figure 2.4. Framing by NGOs

In the analysis of policy documents, consistent trends appear, with the vulnerability framing being most dominant and the transformational framing the least, and the other two framings about equally split. This provides a degree of confidence to

the interview data.

Overall, findings from both data sources demonstrate that a diverse array of climate justice framings are present among stakeholder groups influencing Pakistani climate policy, going beyond the international framing held by public actors. Not only vulnerability, but also human rights and transformational framings exist within the climate justice discourse in the country.

International framing

Consistent with the Pakistani national government's role as a negotiator and Party to the UNFCCC, the international framing of climate justice is most prominently adopted by public actors. Within this context, a central argument made by these actors is that climate change is a problem caused by the developed world, but developing countries are now facing the brunt of its consequences.

An MOCC representative, for example, stated that:

Pakistan is the 7th most vulnerable country, and 135th among the countries in the world in terms of per capita greenhouse gas emissions. So the very genesis of this issue is unjust.

Another MOCC representative echoed this sentiment, arguing that, from a justice perspective, Pakistan has a right to put development first and ensure energy security through a greater share of the carbon budget:

It was Pakistan's hottest April in whole recorded history. And then you say that Pakistan should not use coal – people should die here and it's fine? 50.2 degrees. So what is climate justice?

Other public actors also stressed that it was the responsibility of the developed world to provide technical and financial assistance to Pakistan to assist with adaptation and resilience to climate disasters. A PMD representative argued that:

There should be a flow of technology transfer, resource transfer from those rich nations to the poor nations who are suffering a lot. That can satisfy the grievances of small nations.

The international framing of justice is also present within the stances of non-state actors, such as those building the capacity of public actors to engage in international climate governance processes. For example, a CSCCC representative stated that:

I think the developed world will have to take a little bit more responsibility in terms of access to finance and providing the financial windows.

An SDPI document also clearly highlights the stance of justice as permitting continued economic growth in developing countries:

Developed countries progressed at the cost of the environment and hence, have left very little room and space for the development of poor countries. Economic development is crucial in eradicating poverty and raising the living standards of people.

However, in general, most non-state actors went beyond this international framing of justice to discuss other aspects of justice such as vulnerability and human rights, whilst these were largely much less prominent for public actors. Overall, the international framing of justice promotes the idea of Pakistan being a victim of climate change, and places the responsibility of climate abatement on developed nations in order to enable utilisation of fossil fuels to promote continued economic growth in the country.

Vulnerability framing

The vulnerability framing is most prominent across both interviews and policy documents, particularly for NGOs working with marginalised communities. The premise behind the framing appears to be that climate change will have disproportionate effects on the poorest segments of the population.

For instance, one WWF representative stated that:

Even within a developing country...there are vulnerable segments, marginalised communities, people who are more vulnerable or prone to the disasters.

In particular, it is also highlighted that marginalised populations are more dependent on livelihoods such as agriculture, which are disproportionately threatened by climate change. This point was made by a GCISC representative:

A big portion of our agriculture sector is these small landholders. And they are usually poor people. So they would be the most affected.

One somewhat surprising finding is a strong emphasis on gender and the vulnerability of women. 10 out of the 19 interviewees alluded to issues of gender inequality. For example, an IUCN representative stated that:

Climate change is heavily impacting women and the children. And all those policies that are there...they need to have this climate change and gender action plans.

Another key finding is the need to recognise the potential of poor communities within society. The importance of indigenous knowledge was alluded to in three of the interviews, and a PMD (public sector) representative argued for recognising the value of

these communities:

I am usually talking about the people of Gilgit-Baltistan. They are the custodians of our frozen water resource in the form of snow and glaciers. But those are poor communities...there should be a flow of wealth towards those people also.

These results are echoed by the analysis of policy documents, where the vulnerability framing was present in 15 out of the 16 documents. In fact, an MOCC publication states that:

Climate change is likely to affect poor and underprivileged regions, communities and people disproportionately as they are weak and more vulnerable and have the least resources to adapt.

Therefore, there is evidence that this framing of justice does appear within the public sector. However, the key difference is that public actors ‘place the blame’ for this vulnerability on developed nations, thereby adopting the international framing, whereas non-state actors campaign for local, governmental actions to combat this vulnerability.

Human rights framing

Though largely missing from discourses of public actors, the human rights framing is adopted to a certain degree by NGOs and think tanks, but is usually supplemented by other framings rather than being dominant.

As introduced by an ECI representative:

The lives and the resources of the people are being affected. So the people have a right to go to the courts to share their views and seek the justice, and force the government so that they would have some of the actions and steps to mitigate and

adapt to the climate change.

A LEAD representative also highlighted how climate change is a human rights issue through linkages such as preserving dignity of life:

You know about the climate change commission which is set up by the high court of Lahore. That I think is a very welcome step in terms of looking at a rights perspective.

Institutions such as NDMA also signified the importance of awareness raising in relation to people's rights:

Very often people just don't know what their rights are, and what they can demand from their district authorities.

A policy document published by PEIDAR also emphasises the right to access resources and protect livelihoods:

Access to and affordability of some environmental services are to be recognized as inviolable human rights...from a human development perspective...the twin goals of equity in access to services and respect of human rights are paramount.

Overall, a number of non-state actors have adopted this framing to stress the right to access environmental resources, demand compensation for climate damages from High Courts and preserve existing livelihoods. The human rights framing, however, is absent from both MOCC interview transcripts and policy documents.

Transformational framing

The transformational framing of climate justice is least present, and not adopted by public

actors in either the interview transcripts or the policy documents. When present, the framing goes beyond the characteristics described in our analytical framework to highlight other structural issues.

An unexpected finding is a high prominence of the framing for private sector interviewees, as it appears to dominate the transcripts. However, there is a question of the degree to which this is a significant finding as only two private actor representatives were interviewed, and both seemed to have been set up with environmental agendas at the forefront and so cannot be assumed as typical of the private sector. Despite this, it is interesting to find that a more transformational framing of justice does exist within the polycentric climate governance landscape in the country.

One key aspect of the framing highlighted was the root cause of climate change being GDP-driven economic growth agendas. As detailed by a representative of STAR, a hydropower company:

Justice is not the underlying policy instrument for any country. It's more to do with economic and political objectives. So we should not expect that purely on the concept of justice, there would be some development.

This sentiment was also echoed by the second private actor from SSPL:

The economic agenda dominates the climate or environment action. In Pakistan as well, to maximise the profit of economic gains, they compromise on climate and environment.

Another aspect highlighted within this framing is the political structures perpetuating existing inequalities. According to the STAR representative:

Pakistan is essentially an elitist economy, to borrow the words of Ishrat Hussain. The whole governance structures are structured in a manner that those who have access to resources are the ones who will have access to more resources. And those who are denied the resources remain deprived of the access. So the whole governance structure means that the vulnerable sectors of the society remain oppressed and remain deprived of any opportunity to grow.

Going beyond private actors, the key form in which NGOs and think tanks adopt this framing is by alluding to the necessity of going beyond ‘north vs south’ debates and still take actions on climate change to address other economic and development issues within the country, rather than just putting the responsibility on developed nations.

This is evidenced by a point made by an independent climate change consultant, who highlighted how tackling climate change can be done hand-in-hand with tackling issues of energy security:

You have an in grown problem which you could actually use international funding to leverage. Rather than getting into this whole argument around Pakistan releases 0.02% emissions. I believe in doing much more than we are doing right now – regardless of whether you want to give it the name of climate change.

Climate justice and polycentric governance

The purpose of this second framework is to evaluate the extent to which different stakeholder framings of climate justice are being operationalised and are influencing national policymaking processes.

Looking across the three identified elements – agency, access and allocation - it is evident that non-state actors engaged in Pakistan’s policymaking processes are playing

an overarching role in shaping climate policy, primarily through activities such as capacity building and accountability. However, evidence from both interviews and policy documents reveals that significant institutional barriers exist, limiting the degree of influence that non-state actors can have on national policymaking, thereby hampering their ability to operationalise the diverse framings of climate justice that they hold.

Agency

Agency here refers to participation of non-governmental actors in state-level decision-making processes about climate change.

Firstly, a key finding is the role of non-state actors in advocating for the inclusion of local district and provincial governments in national climate policymaking. Following the 18th amendment to the Constitution of Pakistan, climate policy at the federal level serves only as a guideline, with local governments now having the responsibility to develop their own action plans. According to a CSCCC (think tank) representative, this policy amendment has made it difficult to assign transparent roles and responsibilities, thereby acting as a barrier to engagement from non-state actors.

A UNDP representative also highlighted the difficulties of navigating this devolution:

We used to develop one national policy that every province has to follow. Now we have to work separately with all the provinces. So time taken has been doubled now.

However, in contrast to think tanks, NGOs argue that this amendment is key to getting greater participation of local governments who truly understand what their people's needs are, and can therefore develop fair governance structures. According to an Intercooperation representative:

If you are talking about individual actors then certainly local government. If you convince them they will actually take some actions rather than blindly throwing money that will not go to the right place.

A second key finding is in relation to consultation processes when it comes to state-level decision-making. According to an MOCC representative, all key stakeholders are involved in state consultations and decision-making when it comes to climate change policy:

You know this policy, it has a multi-stakeholder implementation committee. The committee has membership from all provinces, all ministries, federal ministries, all concerned academia, chambers of commerce, CSOs.

However, according to non-state actors, these processes do not truly account for civil society perspectives. A WWF representative gave the example of developing Pakistan's NDC:

The INDCs is an example where initially the consultations were held and it was a participatory process, but when the time came to submit them, the government changed that document altogether.

An independent consultant also gave the example of how a core group on climate change set up by the MOCC was key in bringing together non-state actors and other governmental departments to address climate change in a holistic and collaborative manner, but was discontinued, with other stakeholder engagement forums also not being active.

Overall, from an agency perspective, non-state actors are playing a significant role in identifying who needs to be involved and at what level. However, it is apparent that institutional barriers exist, limiting the ability of non-state actors to engage in

policymaking processes, particularly relating to changes in existing legislation. In fact, even when engagement does take place, recommendations made by non-state actors are not always taken up by government officials due to the power that the state still holds. This could be acting as a limitation against diverse framings of climate justice being operationalised within national policymaking procedures.

Access

‘Access’ within this context refers to the ability of local populations and communities to access rights and benefits. One key aspect highlighted by non-state actors is the lack of implementation of the 2012 National Climate Change Policy, thereby acting as a barrier for local communities to access rights and benefits. In fact, 16 out of the 19 interviewees highlighted how the policy is not being implemented.

A CSCCC (think tank) representative argued for a greater role for civil society in demanding greater policy implementation by creating a system of accountability:

The only problem with these policies is the effective and timely implementation. And I think that is where the pressure of civil society needs to mount to demand their implementation...because there's been a general history of lack of accountability in our system of governance.

This finding is once again in stark contrast to the stance of the government itself. For instance, one MOCC publication seems to argue that the government's response to climate change is already significant:

In spite of the country's financial constraints, estimated federal climate-related expenditure was between 5.8 and 7.6% of the total expenditures in the federal budget last year. Needless to say, if there were no adverse climate change impacts,

this budget could have been spent on education, health and poverty alleviation of the people of Pakistan.

A second key barrier highlighted in relation to access is the lack of mainstreaming of climate change into existing development agendas, and evidence is found of non-state actors once again working to address this gap. As highlighted by a LEAD (think tank) representative:

We feel that unless climate change as an issue is devolved or is mainstreamed within the larger development concerns, it's not going to work.

Overall, non-state actors are playing a key role in terms of accountability, through both raising awareness of gaps and barriers within existing governance structures and working to fill these gaps to ensure that access to rights and benefits is protected. This may be one stream through which diverse framings of climate justice held by non-state actors can be operationalised.

However, the weak implementation of the National Climate Change Policy and mainstreaming of climate change into development agendas may themselves be acting as barriers against the activities of non-state actors being incorporated within overall climate governance in the country, thereby limiting the extent to which diverse framings of climate justice can be operationalised.

Allocation

‘Allocation’ here refers to assigning roles and responsibilities to different actors in relation to governmental actors. One key finding highlighted by non-state actors is that the government lacks the capacity to tackle climate change adequately. According to a UNDP representative, the high turnover of government officials is a key issue:

If we are working with a set of people who are currently working for any ministry, we work with them for a year or so and then we come to know that the person has been sourced out. And the government capacity remains weak.

Based on this, non-state actors highlighted the need to assign roles and responsibilities to civil society to overcome these capacity issues. As stated by a GCISC (think tank) representative:

There are NGOs that are working very well at the ground level on the climate impacts side, there are some organisations that are working on policy relevant research, and some NGOs and organisations are working on the very local level. So I think that nobody is the champion by itself. It's all collaborative kind of process.

However, contrary to this, public actors interviewed argued that authority and responsibility should remain largely with governmental actors. When asked about non-state actor governance, a MOCC representative answered:

The government of Pakistan is party to the UNFCCC convention, so it has to be led by the government. I'm not at all in favour of this – platforms like NAZCA and all that.

Similarly, an NDMA representative also highlighted problems:

Most of the NGOs and the donors – they have limited funds and their focus is usually on particular area. They might be touching 0.0001% of the total area.

NGOs working very closely with the government also seem to be great advocates of government-oriented action. This is evidenced by a quote from an NRSP representative,

a government-mandated NGO:

I believe this is only government and this can be government only. Particularly in this case, ministry of climate change is in a good position to bring about change in the country. If we talk about an organisation like NRSP...we only work in 70 districts around Pakistan. So the scale of work will be limited to those areas.

Building on this, another key finding is non-state actors arguing that current governance structures are not open to NGO-led action. As stated by an AWAZ representative:

Government in Pakistan is very rigid towards NGOs. They do not allow NGOs to operate. Particularly on project formulations, policy reforms, rights based agenda – they do not allow.

Overall, from an allocation perspective, non-state actors are highlighting how they could address justice issues through filling capacity gaps, which could lead to some form of operationalisation of diverse climate justice framings. However, public actors and NGOs working closely with the government have argued that NGOs do not have enough reach or scope to be placed in positions of greater authority, thereby limiting their ability to shape the dominant discourses on climate justice.

Discussion

This study provides evidence supporting the hypothesis that the existence of a polycentric governance regime has widened the space for diverse framings of climate justice to be voiced and to enter the national policymaking sphere.

Overall, different framings of climate justice lead to different social constructions and therefore the prioritisation of different actions to address climate justice (Simunovic et al, 2018). The international framing of justice is consistent with national demands for international assistance in adaptation and technology transfer. In contrast to this, it appears that non-state actors are going beyond this, to frame climate action as a vehicle for addressing other local inequalities engrained within Pakistani society, thereby tying climate change to issues of poverty, development and livelihoods protection, and demanding greater governmental action to address these issues in conjunction with climate change.

Therefore, it could be argued that the existence of a wider range of climate justice framings within the polycentric climate governance regime in Pakistan is also leading to different priority areas and different actions to address climate justice being identified. This is particularly the case for those relating to poverty and vulnerability, and addressing inherent inequalities within society.

At the same time, the subsequent analysis of the relationship between justice framings and governance reveals the limited ability of these diverse climate justice framings to be operationalised and mainstreamed, and to influence policymaking.

Firstly, the analysis highlights how non-state actors are undertaking activities enabling them to influence policymaking, such as through holding governments

accountable to international commitments, conducting research, building capacity and calling for transparency. This finding falls in line with the literature, with studies such as Derman (2014:24) highlighting how non-state actors ‘can provide needed capacity and accountability in response to problems of social and environmental justice that escape national control’. It could be argued that these activities can be one avenue through which the framings held by non-state actors can be operationalised within the climate justice discourse in the country and thereby ‘fill’ governance gaps.

However, as demonstrated, several institutional barriers exist limiting the ability of non-state actors to operationalise the climate justice framings they hold, such as the limited scale and scope of non-state actors, continued changes in legislation and difficulties in building capacity. Ultimately, these barriers relate to the disproportionate power of the state, which does not appear to be getting redistributed to non-state actors through polycentric policy-making structures.

This finding, once again, falls in line with the existing literature. Due to the overarching authority of the state, even if NGOs and private sector actors exist working in this space, their activities may be sidelined and their overall contribution limited (Okereke et al, 2009). Morrison et al (2017) hypothesise that the existence of a polycentric governance regime is generally unable to lead to a redistribution of power to non-state actors, as confirmed by this study. Studies have also pointed out the limitations of polycentric climate governance as an ideology in accounting for underlying differences in power between actors and stakeholders (Tormos-Aponte et al, 2018), which is again reflected in these findings.

In contrast to this, it has been theorised that the existence of diverse frames as adopted by multiple actors can itself lead to a redistribution of power, such as through

providing ‘discursive hooks’ that enable non-state actors to tie their mandates back to climate change and therefore enter the policymaking sphere (Allan, 2018). Bernstein and Cashore (2007), for instance, argue that non-state actors can gain political legitimacy through uniting under ‘shared rules’ and frames. Similarly, Allan and Hadden (2017) argue that the existence of novel frames can actually lead to a transfer of power to NGOs and non-state actors, since frames can increase their ability to influence and shift existing narratives. However, in the case of Pakistan, we would argue that, whilst these diverse framings may be entering the policymaking sphere, the unequivocal power as held by the state is still dictating the climate justice discourse as a whole, particularly as activities being conducted by non-state actors are limited in scale and scope. This leads to the conclusion that, whilst non-state actors may be undertaking activities on the ground that are operationalising the framings they hold, these framings are not yet influencing the overarching climate change strategy within the country.

All of this raises the question of how operating within the context of an international climate regime, fraught with a climate justice discourse around developed vs developing countries, may impose limitations on polycentric governance from a climate justice perspective, and how this can be overcome to address these inequities and better represent Ostrom’s notion of what a more ‘bottom up’ polycentric governance model is meant to constitute. In particular, this would involve overcoming barriers or obstacles to facilitation of this ‘true’ notion of polycentricity and better account for unequal power relations translating to unequal influence of governance actors within the regime. Further research is needed to identify these barriers and investigate what national and international policymakers can do to foster a version of polycentric governance that is more inclusive and equitable.

Conclusions

The purpose of this study was to investigate the extent to which a polycentric climate governance regime in Pakistan has enabled diverse framings of climate justice to be operationalised within national policymaking. Overall, three key findings emerge that can be considered of significance at scales beyond this case study.

Firstly, a pattern exists for different actors framing climate justice differently, with an international framing being dominant for public actors, a split between the international and vulnerability framings for think tanks and organisations, a vulnerability and human rights framing adopted by NGOs and a transformational framing being dominant for private actors (although, because of the limited sample, this is unlikely to be representative of private sector actors in Pakistan more broadly).

Secondly, non-state actors appear to play a role in operationalising these diverse framings through activities such as capacity building and accountability. However, several institutional barriers exist limiting the operationalisation of these framings, in particular the disproportionate power held by the state that the existence of a polycentric climate governance regime has been unable to overcome.

Thirdly, these findings can be used to hypothesise that operating within an international climate governance regime that is still predominantly characterised by a ‘developed vs developing country’ notion of climate justice, seems to be imposing a limit on the polycentric governance regime in Pakistan. In particular, this is leading to international framings of justice taking precedence over national justice priorities as identified by non-state actors, due to the Pakistani state’s interpretation of UNFCCC justice principles.

From a normative perspective, this finding has implications for the degree to which different dimensions of climate justice are addressed. Overall, it could be argued that aspects of justice such as local vulnerabilities, human rights and inherent structural inequalities are being compromised, and are only being addressed through isolated activities undertaken by non-state actors on the ground, rather than in a formal and coordinated manner within Pakistan's overarching climate change strategy.

Several key recommendations from non-state actors also emerge for concrete actions the government and Ministry of Climate Change can take to better account for justice considerations. These include: (i) an opening up of spaces for civil society to participate in decision-making on climate policy; (ii) a greater integration of issues such as human rights into climate policy implementation frameworks; (iii) an establishment of clear targets and timelines within the climate policy, alongside much greater engagement with local and provincial governments; and (iv) a mainstreaming of climate justice within overarching national policies and existing development, disaster management and poverty alleviation strategies in the country. It is also important to note that a case study approach was undertaken here, meaning that the degree of representativeness of these findings for other polycentric climate governance regimes may be limited. However, these findings can still be regarded as a significant example of how operating within an international climate governance context can limit national discourses around issues such as climate justice and thereby act as barriers for achieving 'true' notions of polycentricity that allow for equitable and inclusive policy-making processes. As this study is one of the first to link together and test the theories of climate justice and polycentric governance at a national scale, it can be regarded as a first step towards building up the evidence for such findings.

Finally, this study has made several novel theoretical and international

contributions, through: (i) playing a role in filling the research gaps on climate justice at the national scale (Milanez and Fonseca, 2012); (ii) providing evidence for the theory that different definitions and framings of climate justice can exist at national levels (Popke *et al*, 2016); (iii) providing empirical evidence that, from a justice perspective, non-state actors within a polycentric climate governance regime are playing a role in widening the range of issues given attention (Jordan et al, 2015); (iv) calling attention to key climate justice issues in Pakistan which have so far only been studied to a limited degree; and (v) highlighting the limitations imposed on polycentric climate governance structures in addressing justice issues through synthesising key voices of non-state actors.

Overall, this study raises a number of additional research questions around how more transformational framings of climate justice can be fostered, operationalised and mainstreamed amongst national policymakers operating within an international climate regime. Questions are also raised around what institutions and arenas need to be put in place to harness the diversity and inclusivity of voices offered through polycentric climate governance in order to better reflect the needs and priorities of a world facing a climate crisis. Future work could gather evidence from additional case studies and national contexts where this has taken place to pull out further recommendations.

Acknowledgements

We would like to acknowledge the contributions of the 19 anonymous interviewees for their time and participation in this study.

This study was funded by Jesus College, University of Oxford through the Graduate Research Grant. Publication was funded by the Environmental Change Institute, University of Oxford through the ECM Dissertation Prize.

The authors have no conflicts of interest to declare as part of this study.

References

- Abbott, K. (2017). Orchestration: Strategic ordering in polycentric climate governance. *SSRN Electronic Journal*.
- Allan, J. (2018). Seeking entry: Discursive hooks and NGOs in global climate politics. *Global Policy*, 9(4), 560-569.
- Allan, J., & Hadden, J. (2017). Exploring the framing power of NGOs in global climate politics. *Environmental Politics*, 26(4), 600-620.
- Alves, M., & Mariano, E. (2018). Climate justice and human development: A systematic literature review. *Journal of Cleaner Production*, 202, 360-375.
- Arriagada, R., Aldunce, P., Blanco, G., Ibarra, C., Moraga, P., Nahuelhual, L., ... Gallardo, L. (2018). Climate change governance in the Anthropocene: Emergence of polycentrism in Chile. *Elem Sci Anth*, 6(1), 68.
- Audet, R. (2013). Climate justice and bargaining coalitions: A discourse analysis. *International Environmental Agreements: Politics, Law and Economics*, 13(3), 369-386.
- Awaz Foundation Pakistan (2018). *Where Pakistan Stands on Implementation of SDGs*. [online] Available at: <http://awazcds.org.pk/wp-content/uploads/2018/06/Where-Pakistan-Stands-on-SDGs-2018.pdf> [Accessed 15 Aug. 2018].
- Barrett, S. (2013). Local level climate justice? Adaptation finance and vulnerability reduction. *Global Environmental Change*, 23(6), 1819-1829.
- Bernstein, S., & Cashore, B. (2007). Can non-state global governance be legitimate? An analytical framework. *Regulation & Governance*, 1(4), 347-371.
- Chaudhury, A., Ventresca, M., Thornton, T., Helfgott, A., Sova, C., Baral, P., ... Ligthart, J. (2016). Emerging meta-organisations and adaptation to global climate change: Evidence from implementing adaptation in Nepal, Pakistan and Ghana. *Global Environmental Change*, 38, 243-257.
- Clayton, S. (2018). The role of perceived justice, political ideology, and individual or collective framing in support for environmental policies. *Social Justice Research*, 31(3), 219-237.

- CSCCC (2016). *Environment Service Sector*. [online] Available at: <http://www.csccc.org.pk/attachments/news-bulletin/Environment%20Service%20Sector.pdf> [Accessed 15 Aug. 2018].
- Derman, B. (2014). Climate governance, justice, and transnational civil society. *Climate Policy*, 14(1), 23-41.
- Fraser, N. (2009). *Scales of Justice*. Hoboken: Wiley.
- Fraser, N., & Honneth, A. (2003). *Redistribution or recognition?: A political-philosophical exchange*. London: Verso.
- GCISC (2010). *Climate Change and Assessment of its Impact on Agriculture*. [online] Available at: <http://www.gcisc.org.pk/TFCC%20Final%20Report.pdf> [Accessed 15 Aug. 2018].
- GCISC (2012). *National Climate Change Policy*. [online] Available at: http://www.gcisc.org.pk/National_Climate_Change_Policy_2012.pdf [Accessed 13 Aug. 2018].
- Germanwatch (2017). *Global Climate Risk Index*. Available at: <https://germanwatch.org/en/download/16411.pdf> [Accessed 8 Aug. 2018].
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Northeastern University Press.
- Grasso, M., & Sacchi, S. (2015). Impure procedural justice in climate governance systems. *Environmental Values*, 24(6), 777-798.
- Iftikhar, M.N., Ali, S., & Sarzynski, A. (2018). Community–Government Partnership for Metered Clean Drinking Water: A Case Study of Bhalwal, Pakistan, in: Hughes, S., Chu, E.K., Mason, S.G. (Eds.), *Climate Change in Cities: Innovations in Multi-Level Governance, The Urban Book Series*. Springer International Publishing, Cham, pp. 163–179. https://doi.org/10.1007/978-3-319-65003-6_9
- Intercooperation Pakistan (2010). *Natural Resource Management and Climate Change Mitigation, Adaptation and REDD+*. [online] Available at: http://www.intercooperation.org.pk/admin/uploads/publications/climate/1474343713NRM%20&%20Climate%20Change%20Mitigation,%20Adaptation%20&%20REDD_Part%20I.pdf [Accessed 15 Aug. 2018].

- IUCN (2016). *A Handbook on Pakistan's Coastal and Marine Resources*. [online]
Available at:
https://www.iucn.org/sites/dev/files/pk_coastal_resources_handbook.pdf
[Accessed 15 Aug. 2018].
- Jordan, A., Huitema, D., Hildén, M., van Asselt, H., Rayner, T., Schoenefeld, J., ...
Boasson, E. (2015). Emergence of polycentric climate governance and its future
prospects. *Nature Climate Change*, 5(11), 977-982.
- Joshi, S. (2014). Environmental justice discourses in Indian climate
politics. *GeoJournal*, 79(6), 677-691.
- Khan, M., Khan, J., Ali, Z., Ahmad, I., & Ahmad, M. (2016). The challenge of climate
change and policy response in Pakistan. *Environmental Earth Sciences*, 75(5).
- Kortetmäki, T. (2016). Reframing climate justice: a three-dimensional view on just
climate negotiations. *Ethics, Policy & Environment*, 19(3), 320-334.
- Kuyper, J., Linnér, B., & Schroeder, H. (2017). Non-state actors in hybrid global
climate governance: Justice, legitimacy, and effectiveness in a post-Paris
era. *Wiley Interdisciplinary Reviews: Climate Change*, 9(1), 497.
- LEAD Pakistan (2015). *Climate Leadership for Effective Adaptation and Resilience*.
[online] Available at:
[http://www.lead.org.pk/lead/Publications/Climate%20Leadership%20for%20Effective%20Adaptation%20and%20Resilience%20\(CLEAR\).pdf](http://www.lead.org.pk/lead/Publications/Climate%20Leadership%20for%20Effective%20Adaptation%20and%20Resilience%20(CLEAR).pdf) [Accessed 15
Aug. 2018].
- Mary Robinson Foundation - Climate Justice (MRF CJ) (2018). *Principles of Climate
Justice*. [online] Available at: <https://www.mrfcj.org/principles-of-climate-justice/>. (Accessed 30 May 2018).
- Mboya, A. (2018). Human rights and the global climate change regime. *Natural
Resources Journal*.
- Milanez, B., & Fonseca, I. (2012). Climate justice: framing a new discourse in
Brazil. *Local Environment*, 17(10), 1063-1073.
- Miller, D. (1999). *Principles of social justice*. Cambridge: Harvard University Press.

- Morrison, T., Adger, W., Brown, K., Lemos, M., Huitema, D., & Hughes, T. (2017). Mitigation and adaptation in polycentric systems: Sources of power in the pursuit of collective goals. *Wiley Interdisciplinary Reviews: Climate Change*, 8(5), 479.
- Mumtaz, M., Ali, & S.H. (2019). Adaptive Governance and sub-national Climate Change Policy: A comparative analysis of Khyber Pukhtunkhawa and Punjab Provinces in Pakistan. *Complexity, Governance & Networks*, 5, 81–100. <https://doi.org/10.20377/cgn-68>
- National Assembly of Pakistan (2017). *Pakistan Climate Change Act*. [online] Available at: http://www.na.gov.pk/uploads/documents/1485513841_966.pdf [Accessed 13 Aug. 2018].
- NDMA (2014). *Pakistan Floods 2014 – Recovery Needs Assessment and Action Framework*. [online] Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/Recovery_Needs_Assessment.pdf [Accessed 15 Aug. 2018].
- NRSP (2011). *Renewable Energy – Evaluation of Biogas Initiative in Punjab*. [online] Available at: <http://www.nrsp.org.pk/publications/Evaluation-Assessment-Studies/Renewable-Energy-Evaluation-of-Biogas-Initiative-in-Punjab.pdf> [Accessed 15 Aug. 2018].
- Nussbaum, M. (2006). *Frontiers of justice*. Cambridge: Harvard University Press.
- Okereke, C. (2010). Climate justice and the international regime. *Wiley Interdisciplinary Reviews: Climate Change*, 1(3), 462-474.
- Okereke, C., & Coventry, P. (2016). Climate justice and the international regime: Before, during, and after Paris. *Wiley Interdisciplinary Reviews: Climate Change*, 7(6), 834-851.
- Okereke, C., Bulkeley, H., & Schroeder, H. (2009). Conceptualizing climate governance beyond the international regime. *Global Environmental Politics*, 9(1), 58-78.
- Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change*, 20(4), 550-557.

- PAK-INDC (2016). *Pakistan's Intended Nationally Determined Contribution*. [online]
Available at:
<http://www4.unfccc.int/ndcregistry/PublishedDocuments/Pakistan%20First/Pak-INDC.pdf> [Accessed 13 Aug. 2018].
- PIEDAR (2004). *Trade in Environmental Services and Human Development*. [online]
Available at: <https://www.piedar.org/pdfs/trade.pdf> [Accessed 15 Aug. 2018].
- PMD (2014). *DRR in Pakistan*. [online] Available at:
<http://www.pk.undp.org/content/dam/pakistan/docs/CPRU/Disaster%20Risk%20Management/Report%20of%20PMD-%20sms-based%20EWS-UNDP%20project%20on%20DRR%20in%20Pakistan.pdf> [Accessed 15 Aug. 2018].
- Popke, J., Curtis, S., & Gamble, D. (2016). A social justice framing of climate change discourse and policy: Adaptation, resilience and vulnerability in a Jamaican agricultural landscape. *Geoforum*, 73, 70-80.
- Rawl, J. (1971). *A theory of justice*. Cambridge: Harvard University Press.
- Robinson, M., & Shine, T. (2018). Achieving a climate justice pathway to 1.5 °C. *Nature Climate Change*, 8(7), 564-569.
- Routledge, P., Cumbers, A., & Derickson, K. (2018). States of just transition: realising climate justice through and against the state. *Geoforum*, 88, 78-86.
- Salik, K., Jahangir, S., Zahdi, W., & Hasson, S. (2015). Climate change vulnerability and adaptation options for the coastal communities of Pakistan. *Ocean & Coastal Management*, 112, 61-73.
- Schapper, A. (2018). Climate justice and human rights. *International Relations*, 32(3), 275-295.
- Schlosberg, D., & Collins, L. (2014). From environmental to climate justice: Climate change and the discourse of environmental justice. *Wiley Interdisciplinary Reviews: Climate Change*, 5(3), 359-374.
- SDPI (2009). *Climate Change Negotiations – Civil Society Perspective*. [online]
Available at:
[http://www.sdpi.org/publications/files/ClimateChangeNegotiationsCivilSocietyPerspective-\(pp-15\).pdf](http://www.sdpi.org/publications/files/ClimateChangeNegotiationsCivilSocietyPerspective-(pp-15).pdf) [Accessed 15 Aug. 2018].

- Sen, A. (2009). *The idea of justice*. London: Penguin.
- Šimunović, N., Hesser, F., & Stern, T. (2018). Frame analysis of ENGO conceptualization of sustainable forest management: Environmental justice and neoliberalism at the core of sustainability. *Sustainability*, 10(9), 3165.
- Star Hydropower Limited (2016). *Clean Development Mechanism – Project Design Document Form*. [online] Available at: <http://www.mocc.gov.pk/moclc/userfiles1/file/CDM%20Projects/102%20MW%20Gulpur%20Hydropower%20Project.pdf> [Accessed 15 Aug. 2018].
- Tormos-Aponte, F., & García-López, G. (2018). Polycentric struggles: The experience of the global climate justice movement. *Environmental Policy and Governance*, 28(4), 284-294.
- UNDP Pakistan (2016). *Why Pakistan Needs a Climate Change Financing Framework*. [online] Available at: http://www.pk.undp.org/content/pakistan/en/home/library/environment_energy/Climate-Change-Financing-Framework.html [Accessed 15 Aug. 2018].
- Wahlström, M., Wennerhag, M., & Rootes, C. (2013). Framing ‘the climate issue’: Patterns of participation and prognostic frames among climate summit protesters. *Global Environmental Politics*, 13(4), 101-122.
- World Bank (2019). World Development Indicators: CO2 emissions (metric tonnes per capita).
- WWF Pakistan (2012). *Building Capacity on Climate Change Adaptation in the Coastal Areas of Pakistan*. [online] Available at: <http://www.wwfpak.org/ccap/pdf/Synthesis%20Report.pdf> [Accessed 15 Aug. 2018].
- Young, I. (1990). *Justice and the politics of difference*. Princeton: Princeton University Press.

