Climate Change and Security in Urban Pakistan: A Gender Perspective.

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Section 1: Introduction

Pakistan is one of the world's most climate vulnerable countries. It has experienced various disasters in recent decades, including floods, droughts and heatwaves. This is due to its location in one of the hottest climactic zones, its diverse geographical and ecosystem features and its political economic challenges. The 2010 'mega floods' across Sindh and Punjab provinces led to 20 million people displaced, 90 million food insecure and 20% of the country's land area under water. Disasters, both rapid and slow onset have had severe, lasting, impacts on infrastructure and livelihoods, especially of some of the poorest and most marginalised groups.

Pakistan has recently secured successive civilian governments for the first time. They have articulated the need for a coherent governmental response to climate change. It is one of the first countries to adopt a climate change policy, to set up disaster management agencies and to have a Ministry of Climate Change. However, such steps have not transformed into adaptation and resilience, and the state has yet to follow through with some of its commitments in recent years. So, despite progressive steps in policymaking, Pakistan continues to be consistently ranked one of the most vulnerable and least adapted countries to climate change.

Vulnerability and lack of adaptation is set against a backdrop of governance challenges, decaying public infrastructure, debt burden, the legacy of political violence, one of the most gender inequitable societies in the world and a modus operandi of securitisation. Issues of governance and security are commanded by male, state, actors with insufficient concern for the views and experiences of women, non-hegemonic males and the transgender community. These groups often experience greater vulnerability and marginalisation in the face of state responses to climate change (or lack, thereof). Shocks and stresses are increasingly difficult to overcome and create challenges to gender traditional norms. The frustrations around this can have knock-on, violent, effects.

This chapter explores the nexus of climate change and security in Pakistan from a gender perspective. Gender inequality and gender norms continue to be major drivers of attitudes and

behaviours. The way in which gender norms and performances interact with the nexus of climate change and security are pervasive and varied. It is critical to understand how these interactions occur, in order to forecast and mitigate risks. The chapter is written with a multi-disciplinary lens from geography, gender studies, urban planning and psychology. The authors draw on over 10 years of research across three provinces of Pakistan, which have centred the voices of those most affected by climate change and security. It focusses on urban Pakistan, where the nexus is most evidenced to date. Violence is conceptualised in the broadest sense, encompassing physical and non-physical forms – including structural (Galtung, 1969), infrastructural (Rodgers and O'Neill, 2012), everyday/interpersonal (WHO, 2019; Scheper-Hughes, 1993), communal (UNODC, 2013) and spectacular (Goldstein, 2004). We use a comprehensive notion of security, which considers how state security, environmental security and human security overlap to foster violent outcomes, at multiple scales.

Section 2: How Climate Change is Playing out in Pakistan

Pakistan's climate is generally understood in four seasons (i) a cool, dry winter (December to February); (ii) a hot, dry spring (March to May); (iii) a rainy monsoon summer (June to August); and (iv) an autumn (September to November) (Khan et al, 2019). However, as climate change progresses, seasonal onset and duration is increasingly varied. Several studies have used historical analysis paired with predictive modelling to analyse climate trends in Pakistan (see: Khan et al; 2019; Nasim et al, 2018). Nasim et al (2018), using a model called SimCLIM, investigated provincial level climate trends and found that Punjab and Sindh are highly prone to heat waves. Annual heat accumulation is projected to increase by up to 32% by 2030 and after that, continue to rise dramatically. Analysis also predicts more weather extremes, such as droughts in in arid areas and more precipitation (and flooding) in monsoon prone regions (Ahmed et. Al, 2019). But, while central and north-western parts of Pakistan receive monsoon rains from July to September, which moderates temperatures, there are areas where the monsoons seldom reach - 'shadow zones'– especially in Sindh. This makes the probability of intense heatwaves particularly high in Sindh's urban spaces. Intensified extremes of flooding in monsoon prone regions, and heat in drought prone regions, will be devastating for human health and livelihoods.

Heat waves have become increasingly severe over time and insufficient steps have been taken to mitigate the risks. These risks are spatially and temporally contextualised, but one example is the urban heat island effect. Intense heatwaves in 2015 and 2017 led to thousands of fatalities (Khan et al., 2018c). In 2015 at least 1200 people died in Karachi when temperatures soared to

45 degrees Celsius, leading to a state of emergency. While the temperature was higher in some of Sindh's less densely populated urban areas, like Larkana, it was in the mega-city of Karachi that fatalities piled up. According to World Bank analysis, Pakistan is expected to experience a decline in living standards across its territory by 2050. This decline accelerates under the current climate change trajectory, where access to basic services, household income, decent work and maintenance of health become even more difficult (World Bank, 2018).

There are rural-urban migratory patterns due to economic and social losses incurred under erratic weather, longer summers and shrinking winters (Iqbal, 2019). Recent research on the degradation of the Indus Delta shows that nearly 1.2 million people from the delta have migrated to urban centres like Karachi (Shah, 2019). However, migrants pay a big price in terms of the disruption of their social ties and challenges to social integration in the cities. Anjum and Anwar (2019) find these experiences to be highly gendered. Overall, females tend to experience higher psychological and social instabilities including higher levels of distress and depression.

Lived vulnerabilities to climate change are exacerbated by the expanding footprint of urbanisation, related ecological degradations and anti-poor urban planning. Anwar et al (2016; 2017) finds that most of Pakistan's urban citizens are constantly negotiating a terrain of 'harm', especially in cities where the harms tend to be more frequent or potentially more intensified. These harms come from grounded factors such as 'environment' (e.g. living in informal housing with close proximity to an open water source; land degradation; pollution; water insecurity, etc.); 'development' (incompetent engineering; corporate land-grabs; displacement of poorer communities; encroachment; large scale corporate developments); 'socio-economics' (social norms; economic insecurity) and 'politics' (violence; resource struggles; socio-spatial segregation). These harms intersect with each other in different ways, contributing to or causing violence and insecurity. Climate impacts exacerbate the risk of violent outcomes, because they contribute to environmental insecurities; influence how social norms can be performed; exacerbate economic insecurities; and, interact with political issues. These will be elaborated in section 3.

Section 3: Climate Change, Gendered Frustrations and In(security)

3.1 Climate change in a patriarchal security state: international and globalised perceptions of the climate change and security

Pakistan is one of the lowest contributors to global climate change but one of the biggest victims. It is regularly ranked in the top ten most vulnerable countries and in the top 5 least adapted (GermanWatch, 2020). Between 65-70% of the population is directly or indirectly dependent on natural resource-based livelihoods and the state has always prioritised ground-water intensive agriculture as the mode of economic growth (UNDP Pakistan, 2018; ADB, 2017). Pakistan is also one of the fifteen most water stressed countries in the world. Despite the evident, urgent, threat of climate change to Pakistan's environmental, economic, infrastructural, food and human security, the state has failed to make it a priority. This can be understood through a historical and feminist analysis of how the state understands security.

'Security' is a premise upon which the state of Pakistan was established and has continued to function over six decades. Established as a 'secure' home for Muslims facing persecution and conflict in India, its partition from India (and subsequently Bangladesh) was accompanied by mass violence which created legacies of trauma in the public consciousness (Jalal, 1994). Since partition, national security has been the dominating political discourse – especially in the context of territorial sovereignty (Khattak, 1996; Malik, 2010). This has been bolstered by – and contributed to – tensions and conflicts between India and Pakistan. Jalal (1994) pointed out that one of the impacts of the partition of India, Pakistan, and more recently Bangladesh, has been the states' focus on internal security too.

Emphasis on external and internal 'national security' has created conditions for 'security states' in South Asia, where the state's security takes precedence over citizen's rights. As Young (2003), Enloe (2014) and other feminist scholars have emphasised, states are inherently patriarchal and this cascades into society through discourses, policies and actions, "*a logic of gendered meanings and images helps organize the way people interpret events and circumstances, along with the positions and possibilities for action within them, and sometimes provides some rationale for action*" (Young, 2003, p.2). The Pakistani state's conceptions of 'risk', 'threat' and 'security' are driven by men and masculinist logics, experiences and ideals (Anwar et al, 2019; Mustafa et al, 2019; Rashid, 2009). Siddiqa (2005) shows how this has impacted development and democracy, since Pakistan's economic, defence and foreign policies are shaped by male decision-makers' notions of threat, particularly from India and more

recently from 'western' states and non-state groups. The, mainly male, military has always received sizable budget, at the expense of investments such as health, education and infrastructure. With significant financial and symbolic power, it has an immutable influence on government policy and practise.

According to Anwar et al (2019), the state operates with shifting security logics (depending on the issue) which are premised on male-led 'security pre-mediations' about potential threats and futures. Such pre-mediations and the resultant logics are rarely, if ever, grounded in the views and experiences of women, the transgender community or men who do not perform hegemonic masculinity. Excluding women from the processes of pre-mediation, "*creates and compounds risks and insecurities for the everyday woman and man. Such gendered risks and insecurities are embodied and visceral manifestations of (urban) life.*" (p. 2-3.) Even if climate change were effectively understood as a security issue in Pakistan, women are excluded from important conversations about it, at all levels. For example, Pakistan has taken steps towards implementing the Climate Change Gender Action Plans set out by the UNFCCC process. On the other hand, though, Pakistan has been one of the only countries in the world to still bring all-male national delegations to the UNFCCC international climate negotiations (McSweeny, 2019).

Until recently, the representation of climate change as a threat in popular media and national discourses tended to be 'global', focussing on situations that were psychically far away for the Pakistani citizen and policymaker, like humanitarian emergencies in Africa. Or far away from the average Pakistani – such as droughts in the most south eastern region of Pakistan, the Thar desert, an area predominantly inhabited by Hindu agro-pastoralists. Since climate-related crises were relegated to faraway places, this prevented anxieties to spur action. From a psychological perspective: when direct impacts are not represented or felt, the psychologically efficient response is to deny or distance the issue (Lyons, Hasell, & Stroud, 2018).

Denial and distancing have been supported by the patriarchal security state. For example, a common narrative driven by political actors around the 2010 mega-floods was that these were engineered by India and the USA, through sophisticated NASA technology (Siddiqi, 2019). Another interlocking factor is the pressure on Pakistan, from outside, to combat security issues like terrorism. The so-called 'Global War on Terror' (GWOT) and subsequent pressure on Pakistan to counter terrorism, has hugely impacted the state's focus, making it the focal issue for almost two decades (Mustafa et al, 2019).

Anjum (2019) asked people from Karachi about what urgent issues need government attention. The biggest perceived threat reported by participants was terrorism and security concerns. However, when participants were primed with questions about climate change, it certainly emerges as a key threat to interpersonal and social wellbeing of people. This is captured in a recent conversation with a 22-year-old male from Tharparkar, a severely drought-affected district in Sindh:

> *"It works for the interest of our government to focus on issues related to security and terrorism because they can divert attention from the lives and worries of local populations. Everyone knows we are an insecure state, but how many people know about the weather change, droughts, loss of water and land, corporate intrusion, coal mining and dam related issues in Tharparker? Probably not many."*

The GWOT has exacerbated the security state's anxieties around territorial sovereignty because Pakistan has little power within its own geopolitics. Western states have pressured it to address its own 'fragility' or face consequences in terms of foreign direct investment, aid and political allyship. The denial, distancing and emphasis on GWOT issues, means Pakistan has given insufficient attention to climate change (Khan, 2019).

Security is also enforced by an overall patriarchal social, economic and political culture which is held in place by gendered social norms. New risks and threats, when overlaid on this context, create security challenges which are also responded to and experienced in gendered ways. Marginalised women tend to feel the biggest impacts. Mustafa et al (2018) described how the Pakistani state's involvement in the GWOT intersects with the societal changes wrought by consumerist neo-liberalism to spawn deeply gendered, violent geographies at the local level. These will be elaborated in the next sections, using the lens of climate change as the new threat.

3.2 Macro-level linkages: social and cultural forces moderating climate security

Pakistan's national security agenda has broadened out, somewhat, in response to major disasters. The federal state has *articulated* a need to deal with the climate threat. The Ministry of Climate Change (MoCC) and National Disaster Management Agency (NDMA) are responsible for Pakistan's climate action externally (at international negotiations) and internally. These entities have operated with limited resources and, as a result, can be understood as having little power since governance is devolved to provinces under the constitution's 18th amendment. There is a National Climate Change Policy (2013) and a

National Climate Change Act (2017) which mandates a Pakistan Climate Council, that is yet to even meet. Prime Minister, Imran Khan, has referred to climate change as a critical issue, and has instituted some adaptation initiatives such as a ban on plastic bags, the 'billion trees' initiative and a forthcoming 'clean and green Pakistan Index'.

Such initiatives seem to be flimsy bandages on a deep wound inflicted by emissions intensive development through corporate investment in major infrastructure and economic partnerships like the China Pakistan Economic Corridor which invests heavily in coal production (Alam, 2019). Despite intense critique and even public interest litigations, such development continues unabated. The Pakistan Aurat March, a women-led movement against structural patriarchy, released a manifesto in 2019. One chapter is on 'environmental justice', and demands climate justice, water security and the recognition of women's contributions and needs in environment-based livelihoods. Despite being grounded in the discourses of climate action and human rights, to which the Pakistani state supposedly ascribes, there was an intense backlash from men because it challenged deeply ingrained gendered social norms. Women involved in the march faced an onslaught of violence from men including rape threats and stalking, domestic violence and coercion.

Politicians, religious scholars and actors also attacked the Aurat March, calling it against Pakistani cultural values. National Assembly Minister Aamir Liaquat asked the Prime Minister to investigate the *'actual actors'* behind the march and their *'agenda'* (as if it were to de-stabilise the state). Sindh Assembly lawmaker Abdul Rashid registered a police complaint against the organizers and protested in the assembly against placards at the march, demanding the provincial government take action. A well-known Islamic cleric was filmed furious over a placard which read, "Mera jism meri marzi" (my body, my choice). He threatened women with rape, saying that if they claim the right to their bodies, men can also claim that right to rape women.

These reactions are in response to more than women's environmental justice demands but demonstrate the security risks that women undergo by asking for their basic rights in the Pakistani patriarchal security state. This is where a psychological analysis becomes useful. According to Hofstede's Index (2001), Pakistan ranks high on collectivism, patriarchal orientations and collectivistic values. Most actions and attitudes in society are dependent on the approval or disapproval of norms and male heads of the family. Individual beliefs and action tendencies tend to be heavily dependent on what is normative and prescriptive. This explains why the threat posed by women transgressing social norms was prioritised over the existential

threat of climate change. Therefore, individuals' level of hope, despair and action tendencies for relating to climate action are heavily dependent on what is seen and appropriate, approved or fitting with their ideas of masculinity or femininity.

3.3 Meso-level: collective infrastructures, vulnerabilities and insecurities

Mustafa et al (2019) point out that everyday violence and violent geographies have gained increasing attention from those concerned with the intersections of environment and development. They emphasise that such violence has an inescapable gender dimension, so to understand how violence manifests in certain places and ways, there is a need to engage gender analysis. Drawing on several research studies with men and women who are particularly impacted by the climate and security nexus, we illustrate some key modes that the nexus plays out. At the meso level, three trends are emerging: i) domestic and/or communal violence as a spill over impact of frustrated masculinities in areas affected by slow and rapid onset disasters; ii) structural violence towards women by the restriction of their mobilities and quality of life; iii) mobilisation of men into non-state armed groups, usually in order to plug resource gaps around water or energy.

Climate change is clearly exacerbating infrastructural failures in terms of public services, as well as making highly precarious livelihoods more insecure. Consequently, men and women are increasingly unable to live up to their prescribed roles. We have found several empirical examples of frustrated masculinities resulting in domestic or communal violence. For example, we worked in working class and informal settlements in Rawalpindi between 2013 and 2016. Communities reside along the banks of the Lai tributary, which not only presents a flood hazard but also makes them the main recipient of solid and liquid waste from upstream Islamabad. Annual monsoon flooding presents a major threat to health and safety, with houses being submerged in unsanitary water. In September 2014, when the monsoon floods were particularly severe, we found an increase in interpersonal violence. Respondents explained their intense anxieties around securing the home from damage and looting, keeping men – who are typically daily wage or contract workers- at home. This results in the loss of their job and income, exacerbating household insecurity. This is an assault to a man's masculinity, as by being protector of the physical infrastructure, he loses his ability to protect in other ways. Both women and men explained that this could lead to domestic violence.

In Karachi, Rawalpindi and Islamabad, women and men explained that one of the biggest forms of violence was how the flood hazard would seriously exacerbate poor sanitation in their streets. Since women and children face restricted mobilities compared to men, they defined this

as a form of psychological violence. Several families narrated stories where their children died due to sanitation issues. Males explained how their anxieties and frustrations over poor sanitation, during or after floods, would lead to fights between men. Sometimes these fights would be accompanied by weapons.

Secondly, our research with women illustrated that they were facing increased patriarchal, structural oppression, as a result of certain climate impacts. Anwar et al (2019) find that women are expected to manage the household without problems, despite droughts affecting household water security in some of Pakistan's biggest cities. The two aquifers that supply Karachi are impacted by, both, poor water governance and climate change, to the point that they only have enough water to supply half of the city's needs. Combined with a poorly managed, increasingly decrepit water infrastructure, household water supply has waned. Some households only receive a couple of hours supply a day; others endure dry taps for several days. The impact has been increasing pressure on women – restricted to the home in order to preserve their 'purdah' or the family's reputation – to manage with impossibly little water. While women and men narrated the 'psychological violence' of this water insecurity, it is women that tend to embody the violence, due to their restricted social safety nets and mobilities. Women narrated experiences of dealing with sick children with no resources, of disappointing their husbands, and even being assaulted by them for failing to manage the existing water, or for venturing out to secure new sources.

Thirdly, participants expressed intense frustrations from perceptions that the government is not doing enough, or that arms of it are complicit in creating scarcities. This is worsened more when vulnerable groups are blamed, for residing in informal settlements. Negative meso-level perceptions and attitudes, especially amongst groups of men, have festered. In collectivistic societies, social comparison intensifies a group's experience of poverty and vulnerability and exacerbates frustrations with governance and infrastructure. So, negative perceptions are worsened again by living near elite communities who can shield themselves from harm and live relatively extravagant lives.

Men have mobilised in response to these meso-level frustrations, and the outcomes are sometimes violent. Locally, political actors (largely male and very patriarchal) yield significant power over how neighbourhoods operate and the resources that flow through them. This power is sometimes exercised in violent ways, which has created an example for young men to follow when seeking power and influence. In Karachi, a network of informal water providers, branded a 'water mafia', has emerged, including political actors, and sometimes in collusion with local

government actors. They are using water scarcity to gain power by intensifying water shortages through illegal extraction and then selling the water to communities via private tanker. Everybody is aware that this is what is happening. The related frustrations have led to fights between men and the people distributing that water. It has also bolstered the informal network's power and authority.

Despite collusion at the local level, the federal and provincial state's response has been to tie these local networks to the narrative of 'terrorism' and respond by force. Since 2015, Supreme Court-backed paramilitary operations have shut down alleged 'illegal' hydrants in peripheral settlements like Orangi Town and attempted to 'break' the 'water mafia' (Dawn 2015). The media reports the water mafia are 'militants', a major threat because billions of rupees earned from illegal water are being channelled into terrorist activities in Karachi (Tribune, 2015). The remit of a city-wide paramilitary operation initiated in 2013, to bring down violence in Karachi, was extended to cover water provisioning. So, the state's discourse has blurred the boundary between 'water mafia' and 'militant'.
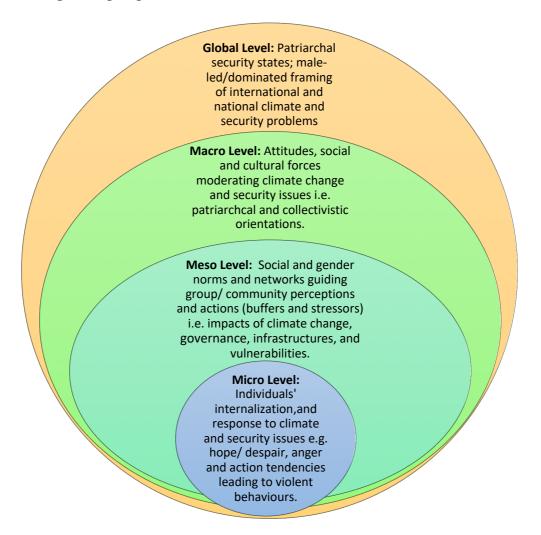
3.4 Micro-level: individual and interpersonal responses to climate-security issues - hope, despair and insecurity

As illustrated throughout the prior section, the micro-level impacts of the gender, climate and security nexus in Pakistan are inescapable. Our ethnographic and participatory research, combined with psychological analysis, have revealed some key trends. Anjum (2019) elucidated some of the negative impacts of climate change. Firstly, in terms of perceptions of the impacts: in a sample of 245 in Karachi, 73% reported that climate change was a reality and it was negatively impacting their individual and family lives. Further, more females (79%) believed in climate change and its negative impacts compared to males (67%). Furthermore, participants reported that physical and psychological diseases have increased in line with this shift in weather. Women were much more likely to report an increased prevalence of physical and psychological violence. Anjum et al also studied the impacts of heatwaves and floods on wellbeing in Karachi and found that people from lower socio-economic statuses are more prone to despair, stress, lack of hope and psychological illnesses.

Individual level climate impacts emerge at the intersection of socioeconomic status and gender. For example, in the 2015 Karachi heatwave fatalities were mostly poor men from who were daily wage workers and were outdoors in the heat. This case got a lot of attention in the media but shortly after the focus shifted to other political events around terrorism.

Females tend to report higher physical health and psychological health related tolls of climate stress. Anjum (2019) conducted a household survey to determine if wellbeing, aggression levels and despair were associated with hot temperatures in the cities of Karachi and Islamabad. On all parameters' females reported higher prevalence of aggression levels, despair, violence against women and lower levels of wellbeing during heat waves. Furthermore, the scores on these indices were lower when temperatures were perceived moderate.

The below diagram summarises the multi-scale model for analysing the climate-security nexus from a gender perspective.

Global Level: Patriarchal security states; male-led/dominated framing of international and national climate and security problems

Macro Level: Attitudes, social and cultural forces moderating climate change and security issues i.e. patriarchcal and collectivistic orientations.

Meso Level: Social and gender norms and networks guiding group/ community perceptions and actions (buffers and stressors) i.e. impacts of climate change, governance, infrastructures, and vulnerabilities.

Micro Level: Individuals' internalization,and response to climate and security issues e.g. hope/ despair, anger and action tendencies leading to violent behaviours.

Section 4: Facing the Urban Planning Problem

Transforming Pakistan's cities into resilient, sustainable and safe environments is the single biggest challenge that policymakers and planners face today. The ongoing political struggles over resources, infrastructures, amenities and ecologies are shaping how cities play a role in climate adaptation. In urban Pakistan, the poor not only live in close proximity to toxic waste streams but are often threatened by beautification projects that would displace and relocate

them rather than improve amenities. Harsh material conditions that constantly endanger the lives of the urban poor, are not an outcome of climate change; but climate change exacerbates their dangers. The effects of decades of unpredictable, and anti-poor urban planning, incompetent engineering and the actions of greedy developers, have compromised local urban ecologies that could, otherwise, withstand the shock of natural hazards. Monsoon rains routinely capsize cities like Karachi, as storm drains and sewers become choked and neighbourhood lanes are inundated with garbage and floodwater. Karachi's flooding dilemma is made worse by the illegal developments on the city's waterways and drains; developments that cater for the needs of rich and poor alike, but ultimately reduce people's resilience.

The impact of rapid urban expansion is already palpable in cities like Karachi – population nearly 20 million - where infrastructure provision and access to affordable housing remain inadequate for the urban majority. Infrastructures, both physical and social (Simone 2004) are often stressed to the breaking point and this is most visible in overcrowded informal settlements or 'katchi abadis' where 62 percent of the city's population resides. In these areas, there is little access to basic public services such as water, electricity, and sanitation; and these services are often neither reliable nor affordable. The link between depleted infrastructures and gender is particularly relevant as it contextualizes women's and men's experiences in diverse sites, such as the street and the home or the neighbourhood, the informal settlement or the 'slum'. In fact, 'slums' can become 'spatial poverty traps' (Chant & Datu 2015) that obstruct women's empowerment. They are more likely to suffer greater levels of extreme and relative poverty stemming from precarious jobs, inadequate shelter and chronic shortages of water. According to Rodgers and O'Neill (2012), these configurations of infrastructure can be 'passively' or 'actively' violent to residents, by preventing their chances to achieve their basic rights, or more, change the way they interact with each other leading to violent outcomes (a phenomena called 'infrastructural violence').

In Pakistan governance is top down and land use is primarily within federal and provincial jurisdictions, and a fragmented structure of local governance exacerbates planning and land-use decisions. Governance has barely considered how violence manifests in the cities, from the point of infrastructural violence, and the threat of climate change. In Pakistan, the new millennium is marked by a period of rapid urban expansion and a form of violence that is making spaces for a rising middle class through the evisceration of the homes and livelihoods of the poor. This new form of urbanization seeks to remake Pakistan's cities into 'world-class' cities and growth machines that are globally competitive, and where a new economic elite has

forged ties with electoral coalitions in a bid to launch new city development strategies. Supreme Court-backed evictions and displacements of street hawkers and informal settlements have become commonplace events. The poor are increasingly criminalized and brutally erased from areas that are being gentrified or where land is earmarked for megaprojects. In this context, displacement/eviction exacerbate the challenges of affordable and resilient housing and infrastructure and impact women and men in distinct ways. These anti-poor planning dynamics put people out of place and worsen their resilience in cities that are already highly vulnerable to the climate crisis. There are serious concerns about the climate mitigation and adaptation narrative being coopered to these ends, leading to violent outcomes for women and men in the pursuit of adaptation and mitigation. There are early signs of this, under the mitigation mega-projects funded by the China Pakistan Economic Corridor. There is a need for a climate justice approach to ensure that those most affected are not the ones that have to further suffer in order for Pakistan to reach its climate commitments.

Section 5: Recommendations for the Government, Investors and the Development Community of Pakistan

Analysing the climate-security nexus in Pakistan through a multi-scalar, and gender lens, leads to the following recommendations.

1. **Invest in climate resilient development that promotes livelihood security for the most marginalised women and men.**

   There needs to be a shift focus from investing in emissions intensive, and/or large-scale megaprojects that intensify the exclusion and marginalisation of the poorest and minorities. While the government, and investors, are using these as so-called engines of national development, these are not sustainable approaches because they increase the vulnerabilities of cities, and the majority of their residents. Instead, invest in developing long-term economic and investment strategies that take into account a changing climate, work to mitigate climate change, and ensure alternative options for men and women. Learn from successful examples in neighbouring countries, for example agroecology in Bhutan; urban heatwave management in India; or micro-grid renewable energy in Bangladesh.

   Development in Pakistan needs to shift towards a people-centred approach; and since poverty and inequality are pervasive this should be a pro-poor approach too, which has

the capacity to safeguard the rights and livelihoods of the most vulnerable people. This is not possible without incorporating meaningful ways for the poorest and most marginalised to participate in the envisioning and planning. Capitalize on the capacity and agency of those most affected, to account for the specific needs and potential of women and girls, as well as men, boys and the transgender community.

2. **Invest in public information campaigns about climate change and gender roles**

   Create awareness on the local impacts of climate change and the ways they affect women and men differently. Highlight the, overall, disproportionate impacts of climate change on women and girls, and how these impacts are worsened by gender norms. Collect local data and use that to develop contextualised narratives on gender inequality, and the differential burdens of climate impacts on women and men. Emphasise how these differential burdens lead to consequences for the whole community, including physical and non-physical forms of violence. Recent studies have suggested that policy campaigns focused on local socio-cultural context are more impactful in changing attitudes and behavioural intentions for gender roles (Anjum, et al., 2018).

   From the perspective of psychology, for women, a sense of being connected with other women in their community is vital and it has a positive relationship to disaster preparedness (Makwana, 2019). It is very important to signify their need to rely on their community to build social support system-based resilience that may overcome the effects of violence, stress and anxiety. There is a need to support women's organisations and groups to develop social support networks at the local level.

3. **Mobilise the country's climate infrastructure to fulfil its duties under the Climate Change Act**

   Restate the priority of the climate emergency, and the country's approach to addressing it. Ensure Committee on Climate Change meets and conduct its duties, under the Climate Change Act (2017). Ensure the capacity of the federal – and local – disaster management and climate governance infrastructure through fair budget allocation and prioritisation from the highest levels of politics. Catalyse key stakeholders in government to work cross-departmentally to develop climate resilient growth strategies, especially focussing on:

i)   Mitigating the urban heat island effect by effective urban planning and development;

ii)   Putting affordable housing/shelter agenda at the centre of plans. This is critical because it relates to land-use and transport policies that, in turn, have significant impacts on local emissions, as well as quality of life;

iii)   Providing alternative livelihood options that offer opportunities to the poorest and most marginalised to develop new skills and engage in the green economy. Ensuring targeted strategies for women and girls will mobilise their untapped potential to develop innovative solutions for a climate resilient economy. This should include financing to local women's organisations;

iv)   Reducing groundwater consumption by corporate development and agriculture.

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