# MAINSTREAMING CLIMATE CHANGE IN POLICY PROCESSES OF PAKISTAN

Samrana Afzal & Shaheen Akhtar\*

### Abstract

Pakistan is highly exposed to increasing threats of climate crisis. Despite growing climatic pressures nationwide, the climate coping mechanisms of the country are extremely weak. This study analyses the process of climate change mainstreaming into Pakistan's national policy processes by deploying the Action on Climate Today (ACT) Framework consisting three pillars: the entry points, enabling environment and political economy drivers. This is blended with the theoretical assumptions of New-Institutionalism that helps in examining key institutional and policy responses to climate change at all governmental levels of Pakistan. It argues that the mainstreaming of climate change into Pakistan's national, provincial, and sectoral socio-economic development policies, planning and implementation processes will enhance the country's resilience against growing climatic challenges. There is meager literature on mainstreaming climate change on Pakistan and this study attempts to fill this gap. The study maps vulnerabilities, challenges and options of mainstreaming climate in planning and policy making of the country. It concludes that despite setting national and international goals regarding climate resilience, there remains an extensive gap between legislative aims and implementation of national policies in Pakistan that needs to be addressed.

**Keywords**: Climate Change, Mainstreaming, Pakistan, Planning Processes, Climate resilience, Entry points

# Introduction

The climate change is an emerging development issue which impedes not only a country's socio-economic development but also increases its vulnerability. Pakistan's exposure to climate calamities is enormous, despite its minimal contribution to the world's Green House Gas (GHGs) emissions, i.e., below 1 percent. The country's climate profile together with its socio-development needs, make it doubly vulnerable to the risks emerging from growing climatic threats. This has caused serious repercussions for multiple sectors particularly water, energy and food leading to resource insecurity. Literature shows that the mainstreaming process in Pakistan is slow. Despite

<sup>\*</sup>Dr Samrana Afzal is an Assistant Professor at Department of Defense and Diplomatic Studies at Fatima Jinnah Women University, Rawalpindi. Email: samranaafzal@fjwu.edu.pk. Dr Shaheen Akhtar is an Professor at Department of International Relations at National Defense University, Islamabad. Email: shaheenakhtar@ndu.edu.pk

several entry points available, Pakistan lacks an enabling environment for the success of this process. Several sectoral policies and plans have still not taken climate change into consideration. Institutional weaknesses, capacity deficiencies and lack of knowledge are the real challenges faced by the country. Policymakers have inadequate knowhow and exposure on climate change. Hence issues in relation are not effectively addressed in most of the policy processes.<sup>1</sup>

The study maps vulnerabilities, challenges and options of mainstreaming climate in planning and policy making of the country. It examines how Pakistan is coping with climate change threat in terms of policy making and implementation. It analyses, how enabling the environment is for incorporating climate change concerns into development policies at multiple levels of governance for improving policy coherence. It argues that the mainstreaming of climate crisis into Pakistan's national, provincial, and sectoral socio-economic development policies, planning and implementation processes will effectively enhance the country's resilience against growing climatic threats. The study utilizes the Action for Climate Today (ACT) framework<sup>2</sup> which is based on three pillars- a) locating the entry points, the possible lead-ins for integrating climate change adaptation in different plans, policies and processes of development; b) the enabling environment for mainstreaming with emphasis on the context and the system and c) the political economy drivers including all the socio-political influences and challenges. The progress of the mainstreaming process has been examined by reviewing all national, provincial and sectoral policies and through document analysis of the data based on secondary sources such as articles published in journals on environment, web resources, policy evaluations, and the reports from different non-governmental organizations. This study holds value for all stakeholders particularly policy makers, project developers and development professionals of Pakistan who relate to the field of environment. It thus provides a clear understanding of the policy making and associated challenges in the way of climate change mainstreaming within policy planning and implementation at all governance levels.

#### **Defining Mainstreaming Climate Change**

Mainstreaming climate change is an emerging area of interest in the scientific research and policy arena. Yet it is not a new concept. History shows several instances of its usage, particularly in the fields of development, gender and disaster reduction. In the academic literature, 'the term' has no universal agreed upon definition. To some, it seems a process whereby a particular issue is constantly taken into consideration and reflected in all national decision making processes, essentially with the result that it becomes broadly viewed as a normal aspect impacting activities.<sup>3</sup> Richard Klein has given a much wider definition of the process by saying "the integration of policies and measures to

address climate change into ongoing sectoral planning and management, so as to ensure the long-term viability and sustainability of sectoral and development investments and at decreasing the susceptibility of development actions to anticipated climatic disarrays."<sup>4</sup> It is often used interchangeably with 'climate integration' and involves integration of climate change into policy processes that deal with development and decision-making. However, mainstreaming is one step ahead of 'policy integration' as like integration, it does involve reviewing of preexisting policies and inclusion of the phenomenon into those policies<sup>5</sup> but unlike it, it aims at rethinking and reframing of policies with the goal of acting differently leading to new policies with a climate change lens.<sup>6</sup> Successful mainstreaming depends on the specificities of policies, available knowledge, stakeholder involvement and coordination, evaluation of climate mainstreaming and commitment at all levels.7 However, numerous challenges may obstruct this goal which include complex administrative system of the public sector, multiple channels of decision-making and network type operations influenced by the individual actors.<sup>8</sup>

#### Theoretical Foundations of Mainstreaming Climate Change

The theory of New-institutionalism offers the best possible theoretical lens to understand the climate change policy processes. The theory emerged in 1980s for correcting some discrepancies of its older version 'the old institutionalism,' which was primarily focused on the structure, organization and functioning of the 'formal' institutions of public administration. Based on six main variants,<sup>9</sup> the new-institutionalists instead, incorporated 'informal' institutions in their analysis and tried to observe the behavior of the institutional actors, participants in the policy processes and political realities.<sup>10</sup> An institutional analysis of climate change policy is directly related to a thorough analysis of climate change itself. The causes, risks, vulnerabilities, impacts, perceptions, solutions and response mechanisms to climate change are all institutions dependent." Institutions provide a framework as well as perspective in which climate change is defined and explained as they provide how to use scientific knowledge and its culturally defined interpretation. They influence different actors' capacity, beliefs, views, decisions and interactions thereby impacting any climate action response. They can provide opportunities as well as create hurdles whenever climate policies and responses to changing environment are developed.<sup>12</sup> A changing climate often requires alterations in the institutional system in order to handle new situations.<sup>13</sup>

The new institutionalism is applicable in Pakistan's context to identify the institutional challenges and assess the real capacity of its climate related institutions at national and subnational levels of governance. Despite having a full-fledged ministry in the form of Ministry of Climate Change (MCC), climate response measures could not deliver because of several functional and

infrastructural incongruities. It not only requires a complete revamping of all the key climate related institutions at every level but also needs reforms in the key sectors like, health, water, transport and energy. Moreover, both 'formal' and 'informal' institutions in the country influence climate decision-making processes that prevent any attempt of prioritizing 'climate' on the policy agenda.

#### Mainstreaming Climate Change in the Pakistani Context

Pakistan's ranking on the Climate Change Risk Index (CCRI) 2020 is not as encouraging. Despite its small contribution to global warming, the country stands at number 5<sup>th</sup> in the most vulnerable countries of the world.<sup>14</sup> It is largely dependent on climate sensitive economies that make it very weak in terms of adaptive capability and resilience against the harmful effects of the changing climate conditions.<sup>15</sup> In addition, when gender based environmental risks are measured, Pakistan is a lower outlier (27.8 score) in the South Asia Women's Resilience Index (SAWRI).<sup>16</sup>

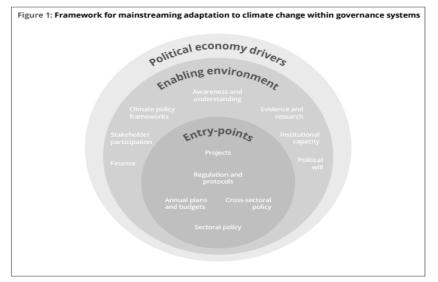
Pakistan is highly vulnerable to climate change. The annual mean temperature in Pakistan during the last fifty years has increased by roughly  $0.5^{\circ}$ C and it is likely that it will rise further by two degrees (3°C to 5°C) till 2100, with the highest surge in warming observed in the Balochistan province followed by Punjab.<sup>17</sup> The mean annual precipitation has increased overall, however, Balochistan experienced a decrease of 5 percent relative humidity.<sup>18</sup> Projected precipitation levels are also highly indeterminate. They can either decrease by 25 percent or increase by 26 percent near about 2080s.<sup>19</sup> Pakistan is also facing retreat in the glaciers of Hindukush-Karakoram-Himalaya (HKH) region. The rate of glacial melt is however uncertain. This can lead to dangerous influx of water into the Indus River (IR) basin,<sup>20</sup> that can cause overwhelming floods. The country has also witnessed the occurrence of catastrophic floods since 2010 with almost same intensity and frequency every single or alternate year. Further, the years 1999, 2000 and 2002 experienced nation-wide droughts due to massive decline in river water flows almost about 34 percent below the monthly average.<sup>21</sup> Moreover, studies have also estimated a rise in sea level by approximately 10 centimeters in the last century which is very alarming as the projected increase will affect many coastal parts of Keti Bandar and IR delta.<sup>22</sup> The health of Indus delta is consistently under the threat from salt water intrusion up to 80 km inland that has badly affected the coastal agriculture, deteriorated coastal mangroves and the breeding grounds of fish.<sup>23</sup>

Pakistan's water sector vulnerability is manifested in increased variability of river flows, decreased water supply for irrigation purposes due to higher evaporation, increasing Glacial Lake Outburst Floods (GLOFs) due to glacier melts and flood induced water degradation.<sup>24</sup> This has led to a situation of extreme water shortage and a resultant low availability of water per capita for

drinking purposes. This agro-based country, has also been heavily pressurized by changing climate in arid and semi-arid areas causing massive food insecurity, with almost 63.1 percent population at stake .<sup>25</sup> Also, climate change has caused low agricultural yield of major crops such as wheat, rice and cotton <sup>26</sup> as well as resource cum capacity constraints.<sup>27</sup> By around 2040, the experts have predicted that there are maximum chances of decline in agricultural productivity by 8 to 10 percent with rise of temperatures.<sup>28</sup> Rising uncertainties of climate are also lying at the base of forests' deterioration, expanding energy crisis, deterioration of the urban infrastructure and water supply systems,<sup>29</sup> and increase in frequency and spatial dimension of vector-borne diseases such as cholera, pneumonia, heat strokes, heart attacks, and malnutrition problems.<sup>30</sup> Drawing upon all above indicators of vulnerability, the Notre Dame Global Adaptation Index (ND gain matrix) 2017 has placed Pakistan at 139<sup>th</sup> position that depicts it as 50<sup>th</sup> most vulnerable and 41<sup>st</sup> least ready country.<sup>31</sup>

#### **Evaluating Mainstreaming along the ACT Framework**

The ACT's framework document provides the guidelines on the mainstreaming process within South Asian context.<sup>32</sup> As depicted in Figure 1, it is founded on three pillars applicable at several levels of governance. The first pillar, locating the entry points may include a top-down overarching national cross-sectoral policy, development plan, grand development strategy, provincial or sectoral policies, projects, or the specific regulations or protocols, if any, that require the climate deliberation in policy and administrative processes. The enabling environment takes account of evidence and research, knowledge and understanding about the phenomenon, issue related narratives and discourses, stakeholder's participation, sectoral and departmental coordination, political will and commitment, available financial resources, and institutional capacity.<sup>33</sup> The political economy drivers talk about the socio-political influences and challenges such as the international context, the nature and structure of regime type, low carbon lobbies, formal and informal institutional interactions, the institutional veto players, the impact of values and ideas, the role of the media, and the public's broader political and economic preferences.<sup>34</sup>



#### Fig- 1: Mainstreaming Climate Change into Policy Processes, the Framework

**Source**: Elizabeth Gogoi et al., *Mainstreaming Adaptation to Climate Change within Governance Systems in South Asia: An analytical Framework and Examples from Practice*, ACT Learning paper, October 2017.

Entry Points for Mainstreaming at National and Subnational Policy level. Pakistan's climate policy and management framework has its background in earlier key environmental efforts such as the National Conservation Strategy (NCS), A Plan of Action, 1992, National Environmental Quality Standards (NEQS), 1993, Pakistan Environment Protection Act, 1997 (PEPA), Pakistan Environmental Protection Council (PEPC), the Pakistan Environmental Protection Agency (EPA), National Environmental Action Plan (NEAP) 2001 and the National Environment Policy (NEP), 2005. Though the NCS and the NEP provided a wider context for environmental concerns in the country by recognizing the need of use of an environmental lens in policy formulation,<sup>35</sup> yet a substantive move towards progressive mainstreaming effort failed to have been generated till the approval of Vision 2030 in 2007.<sup>36</sup> This perspective development plan highlights the strategic directions of the nation.<sup>37</sup> It has identified climate change as a destabilizing factor and its impact is nationwide causing vulnerability to all persons alike.<sup>38</sup> This guideline was inherently flawed as, despite its authorship by professionals, its approach was less development oriented with a complete mismatch between growth and development. Also, it was not the result of a fully consultative process. Another major policy influencing action, the 18<sup>th</sup> constitutional amendment of 2010 has devolved 'environment' as a subject to the provincial level that was previously under

collective authority of federal and provincial government. It initiated a rehauling of environmental institutional setup, and triggered a series of administrative cum legislative challenges for effective climate response actions.<sup>39</sup>

Pakistan in 2012, came up with National Climate Change Policy (NCCP) whose primary goal is to mainstream climate change responses in all socioeconomic development plans with the aim of promoting climate resilient development.<sup>40</sup> The key focus of the policy document is adaptation with elaboration of a large number of possible adaptation strategies yet mitigation has also been provided an effective space.<sup>41</sup> It was prepared and approved as a result of an extensive consultation process involving a host of governmental, non-governmental, and civil society members.<sup>42</sup> In general, the policy is comprehensive, exclusive and is in line with the IPCC 4th and 5th Assessment Reports (ARs). The policy enlisted significant measures for institutional and human capacity enhancement.<sup>43</sup> However, despite its effective coverage of the contextual climate scenario of Pakistan, NCCP, 2012 has many policy flaws. It is more a framework document, not a concrete action plan. Unfortunately, there is a vast gap of integration of local experience and true knowledge of risks and vulnerability associated with changing climate that proceeds. Additionally, some recommendations such as those related to incorporation of high-level technology as provided by the policy are very general and without any statistical backing and practicality. These may demand much exhaustive data collection. The policy has loops in it as most of the emerging issues related to climate impacts deal with the resource conflicts, an important occurrence throughout coastal areas and it has not dealt with it properly.<sup>44</sup> The NCCP has also not discussed the non-traditional nature of climate change and not even highlighted it as a grave national security threat. Climate financial mechanisms as proposed by the policy document yet are far from reality.

The associated, 'Framework for Implementation of Climate Change Policy' (FICCP) (2014-2030) is a way to expedite the process of mainstreaming climate change into national planning as it may prove a catalyst for creating an enabling environment for development that is climate compatible.<sup>45</sup> Despite having such a document for proper execution of the climate change policy, the actual processes have remained slow and full of challenges. The implementation and effectiveness of the climate policy relies on the response by the provincial governments in each particular vulnerable sector.

Pakistan 2025: One Nation, One Vision, framed in 2014 is a well-defined and comprehensive grand development plan comprising a seven pillared growth strategy to transform Pakistan into a vibrant and developed nation.<sup>46</sup> It has prioritized climate change to be an important policy area as it poses serious threats to food, water and other needs for the growing population and set a

number of goals for responding effectively to such challenges.<sup>47</sup> It has very objectively appreciated the nexus among water, energy and food sectors while at the same time emphasized more on their individual security. However, interdependencies of these elements and synergies among sectors has been sidelined and ignored. In Pakistan, there are about 14 laws that spread across many sectors that deal with climate change directly or indirectly <sup>48</sup> that include the Pakistan Council of Renewable Energy Technologies Act (PCRETA) 2010,<sup>49</sup> National Disaster Management Act (NDM Act), 2010 and the Pakistan Energy Efficiency and Conservation Act (PEECA) 2011.<sup>50</sup> Also, Pakistan being a very first among South Asian countries to have enacted an approved Pakistan Climate Change Act in 2017. Three significant and relevant institutions were set up under the Act: Climate Change Council (CCC), Climate Change Authority (CCA) and Climate Change Fund (CCF).<sup>51</sup> Yet, there is a dire need of more legislation and regulation in this area.

Moreover, Pakistan has also formulated a work strategy 'Climate Change Adaptation and Mitigation in Pakistan' that has objectives directed towards development of framework on the National Adaptation and Mitigation Actions (NAMA). It has submitted its initial Intended Nationally Determined Contributions (INDCs) to United Nations Framework Convention on Climate Change (UNFCCC) in 2016.<sup>52</sup> Pakistan is in the process of drafting and launching its National Adaptation Plan (NAP) which is aimed at guiding the instigating entities towards a more harmonized approach in climate mainstreaming efforts into policies and programs.<sup>53</sup>

Despite a strong emphasis by the NCCP on development of provincial climate policies, provinces have so far not come up with their approved climate change policies. In Punjab, despite emphasis on the recognition of climate change risks and challenges in the draft climate policy, still there are several loopholes in the climate change response action.<sup>54</sup> Most importantly, Punjab Climate Change Policy (PCCP) should use Sustainable Development Goals (SDGs) as guiding principles in order to devise and develop development initiatives. Also, it has to take into consideration the effects of extreme climate disasters.<sup>55</sup> The draft Sindh Climate Change Policy (SCCP) elaborates a comprehensive sector wise policy plan to combat climate change and promote green economic growth with a focus on mainstreaming climate-poverty nexus in all provincial planning and development policies, putting more emphasis on the most vulnerable South Sindh, and studying climate change impacts on coastal communities.<sup>56</sup> Yet there is no strategy for a proper implementation of the policy.<sup>57</sup> The draft Climate Change Policy of Khyber Pakhtunkhwa (CCPKP), developed in 2016, is a major step towards the goal of mainstreaming climate change in the development priorities<sup>58</sup> with a major emphasis on ensuring sustainable development and disaster management, capacity building, and training of institutions.<sup>59</sup> Moreover, for Balochistan in the absence of an approved climate change policy, the NCCP, 2012 mostly operate as the principle guideline framework for the local climate change response actions.<sup>60</sup>

Pakistan has also introduced several sectoral policies such as National Energy Conservation Policy (NECP) 2006, National Power Policy (NPP) 2013, National Food Security Policy (NFSP) 2015, National Forest Policy (NFP) 2015, National Water Policy (NWP) 2018, Alternative and Renewable Energy Policy. 2019 and The National Transport Policy of Pakistan (NTPP) 2018.<sup>61</sup> Out of this list, only limited policies have acknowledged specific climate response actions for avoiding climate change threats. For instance, the NFSP has not only identified climate change risks to food stability, food productivity and sustainable development as serious emerging challenge but also has effectively incorporated climate change concerns in the policy planning and implementation.<sup>62</sup> The NWP also has a separate section on climate change vulnerabilities.<sup>63</sup> The AREP's one of the important objectives revolves around protecting environment by shifting energy mix towards green and renewable sources.<sup>64</sup> Unfortunately, many others have not set targets for coping with the phenomenon. Examples include, the NPP, which neither has incorporated any climate change concern nor has it identified targets for specific climate actions.<sup>65</sup> Likewise, the NTPP<sup>66</sup> and the NECP<sup>67</sup> have identified the climate change concerns and risks but not in a detailed and elaborate manner.

Policies	Climate Change cited as probable risk	Arrangements for decreasing the impacts	Targets identified for specific climate response actions
National Sustainable Development Strategy	Yes	Yes	No
National Disaster Risk Reduction Policy	Yes	Yes	No
National Power Policy 2013	No	No	No

Table-1: Progress related to Climate Change Mainstreaming into National Sectoral policies and plans

National Food Security Policy 2015	Yes	Yes	Yes
National Forest Policy 2015	Yes	No	No
National Water Policy 2018	Yes	Yes	Yes
National Transport Policy 2018	Yes	No	No
Alternative and Renewable Energy Policy 2019	Yes	Yes	Yes

**Source**: Adapted from working paper by Jo Ellen Parry, 2016, Review of Current and Planned Adaptation Action in Pakistan

Besides, Pakistan has also been running projects related to disaster management and climate change adaptation with the support and the funding available from the Global Facility for Disaster Reduction and Recovery (GFDRR) under the supervision of the World Bank (WB).<sup>68</sup> Apart from these, some of the regional projects in which Pakistan is contributing are being executed by the International Centre for Integrated Mountain Development (ICIMOD), CARIAA programme and United Nations Development Programme (UNDP).<sup>69</sup> Most of the projects are either oriented towards assessing the vulnerability to the climate change effects or capacity building. A lesser number is directly targeting priority adaptation measures and their implementation.<sup>70</sup>

Table-2:	Possible	Entry	Points	for	Mainstreaming	Climate	in	Pakistani
Context								

ENTRY POINTS				
National Policy	National Climate Change Policy 2012, Framework for Implementation of Climate Change Policy (2014-2030), National Sustainable Development Strategy 2012, National Disaster Risk Reduction Policy 2012			
Sectoral Policy	National Power Policy 2013, National Forest Policy 2015, National Drinking Water Policy 2009, National Sanitation Policy 2006, National Energy Conservation			

	Policy 2006, National Renewable Energy Policy 2006, National Water Policy 2018, The National Transport Policy of Pakistan 2018,The Pakistan National Road Safety Strategy 2018-2030		
Annual Plans/Projects	Plan <b>Pakistan 2025: One Nation One Vision</b> <u>Projects</u>		
	• Climate Change Adaptation project responding to Glacial Outburst in Northern Pakistan.		
	• Enhancing the Value of Hydrological Resources for Livelihood, Youth Employability and Climate Resilience in Gilgit-Baltistan, Pakistan		
	• Rural Livelihoods and Climate Change Adaptation in the Himalayas (HIMALICA		
	• Global Change Impact Studies Center (Islamabad, Pakistan) International/Regional Research and Capacity Building Projects		
	• Enhancement of National Capacities in the Application of Simulation Models for Assessment of Climate Change and its Impacts on Water Resources and Food and Agricultural Production (2003-2007).		
	• Development and Application of Climate Extreme Indices and Indicators for Monitoring Trends in Climate Extremes and Their Socio-economic Impacts in South Asian Countries (2005-2009).		
	• Runoff scenario and water based adaptation strategies in South Asia (2013-2015).		
	• Assessing Spatiotemporal Variability of NPP, NEP and Carbon Sinks of Global Grassland Ecosystem in Response to Climate Change in 1911-2011 (2013-2015).		
	• Technical Assistance Loan for the Implementation of the National Environment Policy.		
	• Information Sharing System to Enhance Coping Capacities of Farming Communities in Dealing Effectively with Climate Variability and Climate Change		

	Building Climate Resiliency for Irrigation Infrastructure and Agro-Business.
Climate Change share in Annual Budgets	<ul> <li>Climate Change Financing Framework (CCFF)2017, Medium Term Budgeting Framework (MTBF) as a strategic entry point, Year of Climate budget Tagging 2015-2016, Climate Finance Unit (CFU) within the MoCC, Budget coding and expenditure tracking,</li> <li>Spends around 8 percent of its total expenditures on activities related to climate.</li> </ul>
Regulation /Protocols	Pakistan Environmental Protection Act of 1997 (PEPA), Pakistan Energy Efficiency and Conservation Act 2011, Alternative Energy Development Board Act (AEDBA) 2010, Pakistan Council of Renewable Energy Technologies Act (PCRETA) 2010, National Climate Change Bill 2017

86

**Source**: Compiled by the authors, based on the indicators provided by the applied ACT Framework.

**Enabling Environment for the Mainstreaming Process.** In relation to second pillar of the framework, that is enabling environment, the situation is not that encouraging. There is a general concern for climate change but minimum awareness and understanding about challenges. Lack of interest to fulfill development commitments may be the result of a limited understanding of policymakers on both the seriousness of the threat as well as knowhow about the environment-climate differential issues.71 Research is more often a neglected area, nevertheless a greater realization is emerging with time about the important linkage between climate and development that has stimulated the restructuring of existing institutions, reprioritizing of emphasis of research and institutional buildup.<sup>72</sup> Presently, Global Change Impacts Study Centre (GCISC), Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), Pakistan Agricultural Research Council (PARC), The Leadership on Environment and Development (LEAD), Sustainable Development Policy Institute (SDPI), the Climate Action Network (CANSA), Centre for Climate Research and Development (CCRD) at COMSATS, and the Pakistan Institute of Development Economics (PIDE) are important institutions for climate change research.73

Information to drive evidence-based decisions is minimal and absent.<sup>74</sup> There is negligible mapping of vulnerabilities and impacts that necessitated a need of conducting a comprehensive sectoral and region-specific vulnerability

analysis. There is a lack of dependable data on climate induced financial losses and the resultant impact on Gross Domestic Product (GDP).<sup>75</sup> Each ministry at the federal level, has its own system for accumulating and processing of data and information with the support provided by associated research wings.<sup>76</sup> However, this dissemination system is quite fragmented, incoherent and unauthenticated at the provincial or subnational levels.<sup>77</sup>

Due to the political instability and constitutional alterations there has been a continuous shuffling and reshuffling of institutional responsibilities and associated structure.<sup>78</sup> MCC is the principal body responsible for taking actions and planning policies related to climate adaptation and mitigation.<sup>79</sup> It coordinates with all provincial climate set ups, local administrations, research institutes, donor agencies, international authorities and other climate related departments and ministries of the federal government such as Pakistan Met Department (PMD), National Disaster Management Authority (NDMA), National Energy Conservation Centre (ENERCON), Water and Power Development Authority (WAPDA) and Pakistan Council of Research in Water Resources and Climate Change (PCRWRCC).<sup>80</sup> Under the supervision of the MCC, NDMA exists at all levels; federal, provincial and district. It has shown credibility in prioritizing mainstreaming through effective policies, legislations, strategies and institutional buildup in relation to dealing with extreme disasters.<sup>81</sup> Its functions are limited by financial barriers and some institutional incapacity as it only works in the wake of extreme disasters.<sup>82</sup> The Prime Minister's Committee on Climate Change (PMCCC), is a predominant entity that monitors all the climate related actions at global and local levels.<sup>83</sup> All the related general policy guidelines is to be provided by PMCCC. Additionally, a key area of mitigation and adaptation comes under the supervision of the Ministry of Water Resources (MWR).<sup>84</sup> Furthermore, Ministry of Planning, Development and Special Initiatives (MPDS) and Ministry of Finance (MoF) are the two top level bodies that are responsible for coordination for allocation and implementation of fiscal resources.<sup>85</sup> The MCC also controls and coordinates international climate flows and MoF receives and distributes all finances.<sup>86</sup> At subnational level, separate provincial environmental legislations, institutions, climate change cells, and Environment Protection Authorities (EPAs) exist. Provinces have further coordination with district level agencies which are involved in climate change policy implementations.<sup>87</sup> Pakistan is a rather diffident beneficiary of international climate change finance opportunities from multiple sources. For instance, Asian Development Bank (ADB), CDM, Reducing Emissions from Deforestation and Forest Degradation (REDD+), the Adaptation Fund, European Commission (EC), Global Environmental Facility (GEF) and Japan's Fast Start Finance initiative etc.<sup>88</sup> Much of the focus of international donors is on mitigation-targeted initiatives. Climate change is not regularly considered in the choice of development outlays and allocations in Pakistan. Also, share of climate change is nominal in the national and provincial budgets of last few years.<sup>89</sup> For instance, the budget allocation in Sindh is only Rs.157 million in fiscal year 2019<sup>90</sup> and that of Balochistan is 7.3 percent to 11.3 percent of the total development expenditure.<sup>91</sup> Various institutions dealing with climate and environment lack coordination among themselves in relation to research, diffusion of information and policy. Most of the time sectoral policies drive the climate change responses. The lack of properly trained staff hampers the proper functioning of most institutions.<sup>92</sup> Institutional capacities and development priorities also differ across provinces.<sup>93</sup> Due to the lack of comprehensive legal framework, various interest groups neither unite on a focal point nor develop coherent policies.<sup>94</sup> Unfortunately, the priority focus for many governments in Pakistan was not climate change but other serious politico-economic issues and security concerns which used to grab large chunks of resources.<sup>95</sup>

Table- 3: Factors affecting Enabling Environment for Climate ChangeMainstreaming in Pakistan

Evidence Base	<ul> <li>Evidence base on climate change is limited.</li> <li>There is no proof of the fact when the government gets influenced by a new piece of evidence.</li> </ul>
Awareness and Understanding	<ul> <li>Now ranging between moderate to higher level in the wake of disastrous and focusing events of floods and rising impacts of climate change.</li> <li>No understanding about possible interlinkages of climate change adaptation, disaster risk reduction and sustainable development.</li> <li>Government's dearth of knowledge vis a vis weighing cost benefits of options available for climate adaptation.</li> </ul>
Political commitment	<ul> <li>Political elites only recognize climate change threats in their political speeches or some important policy documents.</li> <li>A policy framework for climate change is in place.</li> <li>Low to moderate commitment to tackling the specific climate impacts.</li> </ul>
Participation and Influence	<ul> <li>Through technical assistance, most of the international donors are influential in prioritizing an issue area.</li> <li>MCC and other nodal agencies are ineffective and</li> </ul>

	weak.
Policy framework	<ul> <li>The significance of the cross-sectoral policy document is unclear.</li> <li>Policy framework has many weaknesses.</li> </ul>
Institutional Coordination	• The coordination Committee despite its operationalization is inconsistent in decision making processes.
Sectoral mainstreaming	• The cross-sectoral policy framework is in place yet is ineffective in facilitating mainstreaming process.
Budgeting	• Low level of budget allocation to climate change mitigation and adaptation actions, that is roughly about 1% of GDP

**Source**: Adapted from working paper by Elizabeth Gogoi, *The Institutional Context for Tackling Climate Change in South Asia*, 2017. www.opml.co.uk

**Socio-political Drivers and Challenges.** Pakistan is an active member of international climate change mechanisms. It is not only a Non-Annex 1 adherent to the UNFCCC, 1992<sup>96</sup> but also a signatory of the Kyoto Protocol 1997, Cartagena Protocol on Genetically Modified Organisms (GMO) 2009 and Paris Climate agreement 2015. The MCC has also submitted an eight-point NAMAs to the UNFCCC.<sup>97</sup> Pakistan has also committed to reduce its projected GHG emissions (about 400 percent till 2030) by 20 percent under its initial INDC's report subject to receiving the international funding.<sup>98</sup>

However, Pakistan presents a poor case of true democratic rule and institutional development. Tackling climate change has remained a low priority issue for successive Pakistani governments. Whereas, the formal political institutions have institutional and capacity weaknesses, the informal institutions such as bureaucracy enjoy a dominant position within the government dispensation.<sup>99</sup> Policy process in most cases is a top down, hidden and non-participatory affair without involving professionals. Closed policy networks are labelled as 'iron triangles' in Pakistan, which determine the direction of decision-making. Bureaucrats are considered the key veto players and agenda setters in general policymaking as well as other policy subsystems. These tend to develop secretive alliances based on authority, self-interests and resources.<sup>100</sup> Political linkages and personal relationships lead to political patronage. Policies many times cannot follow the linear steps of 'the Stages'

model. Some of the policies can reach directly to the agenda table. There are multiple factors behind this tendency, for instance corruption, political interference, nepotism, patrimonialism, donors' agenda, institutional flaws, lack of accountability, lack of evidence-based policies, lack of resources and lack of inter-provincial coordination.<sup>101</sup>

In Pakistan, in comparison to national and provincial levels, local institutions manifest greater conflict among themselves. Most of the successful policies at higher levels of governance may not have the same impact at the grassroots levels. Influential lobbyists and political conflicts especially in the energy sector have created problems for renewable energy utilization. Oil lobbying in history was very much strong in Pakistani case with little effort was undertaken to look at cheaper sources of energy.<sup>102</sup> Big businessmen, entrepreneurs, textile and agriculture-based companies, have now been actively engaged in environmental stewardship through conservation measures. Most of the leading networks and non-governmental organizations are also working on establishing professional networks to devise effective and natural climate change solutions.<sup>103</sup> Media's role is also very discouraging. Our media do not focus a lot on educating the masses about this imperative issue, rather concentrate entirely on how to expand their viewership base and ratings.<sup>104</sup> Climate change is not regarded a priority political issue hence remains invisible on the agenda.

Table- 4: Socio-Political Drivers that influence the MainstreamingClimate Change Process in Pakistan

Socio-political Drivers	Extent of Influence	Influences
Political or Economic Interests of Various Groups	Yes Great	Bureaucratic Elites, Feudals, Industrialists, Oil Tycoons, Private organizations in Transport sector
Interface between socio-political formal and informal Institutions	Yes, Great in Water Sector	Political Linkages, Political patronage

International Context	Yes	Signatory of all International Agreements and Conventions, UNFCCC ,Paris Climate agreement, Bali Conference on NAMAs, INDC submitted
Institutional Veto Players	Yes	Bureaucracy in Water Sector, Energy Sector, Agriculture Sector
The Impact of Values and Ideas	Yes	Specific political ideas and cultural values influence particularly in the water sector, political biases prevail towards some sectors while ignoring other ministries
Structure of Government and political commitment	Yes	Highly ethnic polarization, vested interests, corruption in administrative departments, lack of commitment
Strength of Carbon Intensive and low carbon industry Lobbies	Yes	Oil lobbies, Power sector companies, Road infrastructure providers and developing companies have a great influence
Role of Media	No	Only plays a role of focused event reporter
Public's broader political and economic preferences	Yes	Political goals and Bureaucratic linkages often merge together

**Source**: Compiled by the authors.

The climate change is increasingly emerging as an important part of the development discourse in Pakistan that has facilitated many policy debates. As a result, policymakers have started responding to both mitigation and reduction of GHGs as well as adaptation mechanisms to effectively deal with climate change threats and impacts. However, to most, this response has been reactionary and short term in nature. Progress in integrating climate change into development processes and policies has been initiated, however its pace is very slow.

Indicators	Progress at National Level	Progress at Provincial Level
Climate Change acknowledged in the country's guiding development plan/vision	Climate change is documented in Pakistan Vision 2025 as a threat to the WEF security National Disaster Management Plan 2019	Annual Development Plans (ADPs)
Established National-level organizing entity for climate change	Established in the form of MCC but face many challenges due to the devolution of Environment as a subject from Federal to the Provincial level National Disaster Management Authority	EPAs and EPDs Provincial Disaster Management authority (PDMA)
Climate Change policy and/or law in place	<ul> <li>(NDMA)</li> <li>Approved National Climate Change Policy 2012</li> <li>Approved National Climate Change Act 2017</li> <li>National Disaster Risk and Reduction Policy (NDRRP) in 2013.</li> <li>National Disaster Management Act 2010</li> <li>National Power policy 2013</li> <li>National Energy policy</li> </ul>	Drafts Provincial climate change Policies of Punjab, KP and Sindh. Baluchistan has no policy.
	<ul><li>2013-2018</li><li>Pakistan's Electric</li></ul>	

## Table- 5: Progress of Mainstreaming Climate Change in Pakistan

	Vehicle Policy 202	019
	<ul> <li>Alternative Renewable Policy 2019</li> <li>National Water</li> </ul>	and Energy er Policy
	Policy 2018	ransport
	• National Forest 2015	Policy
Climate Change Strategy Published	<ul> <li>Framework Implementation NCCP released in</li> </ul>	
	<ul> <li>Clean, Green P Strategy'</li> </ul>	Pakistan Government of Khyber
	<ul> <li>National Open Strategy for Development Mechanism (NO 2006</li> </ul>	erational Pakhtunkhwa (KP) Clean
	Plan (NDP) is in of formulation by mentioned in document 'Pa	opment process y GCISC 2018 akistan's Climate on
		tainable Strategy DS) 2010
	• Framework Economic Growtl	for th (FEG)

Climate change action plan published /Adaptation Plan published	2011 • National road safety Strategy 2018-2030 Not yet prepared Not yet Prepared	Not yet developed
Climate Change Fund or adaptation fund operational	Till 2017 no separate and dedicated Climate Fund was available Pakistan Climate Change Fund (CCF) established in PCCAct 2017. Other Funded Sources: Green Climate fund (GCF) and UNDP Adaptation Fund	No. Only KP has established in 2018 Climate Change Financing Framework (CCFF)
Active Climate Change Units	Very few	
Climate Change concerns incorporated into national sectoral policies	Very few policies integrated Climate Change	No

**Source**: Adapted from Jo-Ellen Parry, *Review of Current and Planned Adaptation Action in Pakistan*, CARRIA Working Paper no. 15, 2016.

# Conclusion

A range of entry points for the possible start of mainstreaming process exists in the country in the form of NCCP, PCCPs, Vision 2025, cross sectoral policies, NAMAs and INDCs. Yet huge policy and institutional gaps are present at all levels of governance. The progress of mainstreaming climate change though is very limited but it has been started in the form of assigned goals and targeted objectives. Though, Pakistan has recognized climate concerns in few policies but there are serious lags in their implementation. Additionally, the response in most policies is reactionary, short term and event specific. Moreover, the environmental policies and legislations have not offered the real context and background conditions of the communities who are vulnerable to climate risks. For this realization, local people such as farmers, local NGOs, local public bodies must be engaged in close linkage with policymakers. Policy framework is also ineffective as it lacks coordination and full participation of all stakeholders.

In Pakistan, an efficient enabling environment for mainstreaming process is missing. Many climate related institutions proved to be dysfunctional owing to financial and management issues. Federal-provincial dichotomy of goals, institutional overlaps, non-clarity of designated responsibilities in regulation, enforcement and information sharing among departments and ministries are some of the serious issues that hinder any progress in the smooth implementation of any climate change plan or policy. Furthermore, climate change in budget allocations receive a low priority as line ministries usually care about their key sectoral development policies without reliance on climate sensitivities. Climate change policymaking in the country has experienced shifts both in authority and structure several times, hence, climate change was not a major political subject till now. There is a need to make every policy and plan using the climate lens as only mainstreaming climate change into policy processes will pave the way to a smoother transition to booming economy. In order for climate change risks to be mainstreamed in policymaking, success stories and lessons learnt from the mainstreaming process by other international and regional communities must be shared and exchanged to get knowledge about the process and its application.

## Endnotes

- <sup>1</sup> LEAD, Pakistan, *Pakistan's Options for Climate Change Mitigation & Adaptation*, no. 22 (Islamabad: LEAD, 2008).
- <sup>2</sup> Elizabeth Gogoi et al., Mainstreaming Adaptation to Climate Change within Governance Systems in South Asia: An Analytical Framework and Examples from Practice (UK: ACT, 2017).
- <sup>3</sup> *Glossary-Climate Policy Info Hub*, https://climatepolicyinfohub.eu/glossary/4.
- <sup>4</sup> Richard J.T. Klein, "Mainstreaming Climate Adaptation into Development Policies and Programme: A European Perspective" in *Financing Climate Change Policies in Developing Countries: Compilation of Briefing Papers* (Brussels: Directorate-General Internal Policies, European Parliament, 2008), 38-51, http://www.pedz.uni-mannheim.de/daten/edzma/ep/08/EST21631.pdf.
- <sup>5</sup> Joyeeta Gupta and Nicolien Van Der Grijp, *Mainstreaming Climate Change in Development Cooperation. Theory, Practice and Implications for the European Union* (Cambridge: Cambridge University Press, 2010), 347.
- <sup>6</sup> Sandra Guzman, What is Mainstreaming Climate Change in Theory? 5 (2016), https://refubium.fuberlin.de/bitstream/handle/fub188/19025/WHATxISxMAINSTREAMI NGxCLIMATExCHANGExINxTHEORYxSGL.pdf?sequence=1.
- <sup>7</sup> Joerg Weber, "Policy Coherence", *Transnational Dispute Management* 1, no. 5 (2008), http:// www.transnational-dispute-management.com/article.asp? key=1197
- <sup>8</sup> Ibid.
- <sup>9</sup> Andre Lecours, ed., New Institutionalism: Theory and Analysis, Studies in Comparative Political Economy and Public Policy (University of Toronto Press, 2005), 380, https://www.jstore.org/stable/10.3138/9781442677630.
- <sup>10</sup> Jean-Baptiste Harguindeguy, "New Institutionalism and French Public Policy Analysis: Maintaining the Exception Culturelle?" HAL Archive 28, 2007, https://halshs.archivesouvertes.fr/halshs-00124535/document.
- <sup>11</sup> Andrew Jordan, and Timothy O. Riorden, "Social Institutions & Climate Change: Applying Cultural Theory to Practice," CSERGE Working Paper GEC 97-15(1997):15-97, https://www.researchgate.net/publication/237520143\_SOCIAL\_INSTITUTIONS\_AND\_CLI MATE\_CHANGE\_APPLYING\_CULTURAL\_THEORY\_TO\_PRACTICE.
- <sup>12</sup> Andrew John Hoffman & P. Devereaux Jennings, "Institutional Theory and the Natural Environment: Research in ( and on ) the Anthropocene," *Organisation and Environment* 28 (1) (2015):8-31, https://www.researchgate.net/publication/274250384\_Institutional\_Theory\_and\_the\_Nat ural\_Environment.
- <sup>13</sup> Christophe Oberlack & Bernhard Neumärker, Economics, Institutions and Adaptation to Climate Change (Albert-Ludwigs-University, Freiburg:201), https://www.researchgate.net/publication/254459317\_Economics\_institutions\_and\_adapt ation\_to\_climate\_change
- <sup>14</sup> David Eckstein et.al., "Global Climate Risk Index 2020, Who suffers Most from Extreme Weather Events?," accessed December 25,2020, https://www.germanwatch.org.
- 15 Jo-Ellen Parry, *Review of Current and Planned Adaptation Action in Pakistan* (Ottawa: IDRC, 2016),

https://www.idrc.ca/cariaa.

- 16 The Economist Intelligence Unit, (2014) "The South Asia Women's Resilience Index: Examining the Role of Women in preparing for and Recovering from Disasters," https://www.gdnonline.org/resources/The%2oSouth%2oAsia%2oWomen%27s%2oResilie nce%2oIndex%2oDec8.pdf.
- 17 Qamar-uz-Zaman, *Climate Change Profile of Pakistan* (Manila, Philippines: ADB, August 2017),

https://www.adb.org/sites/default/files/publication/357876/climate-change-profile-pakistan.pdf.

- 18 Qamar-uz-Zaman et al., *Climate Change Indicators of Pakistan*, (Islamabad: Pakistan Meteorological
  - Department, August 2009), https://www.pmd.gov.pk/CC%20Indicators.pdf.
- 19 Jo-Ellen Parry, *Review of Current and Planned Adaptation Action in Pakistan*, CARRIA Working Paper no. 15, 2016.
- 20 Winston Yu et al., *The Indus Basin of Pakistan: The Impacts of Climate Risks on Water and Agriculture* (Washington DC: World Bank, 2013), https://documentsi.worldbank.org/curated/en/650851468288636753/pdf/Indus-basin-of-Pakistan-impacts-of-climate-risks-on-water-and-agriculture.pdf.
- 21 GFDRR, Vulnerability, Risk reduction and Adaptation to Climate Change; Pakistan, Climate Risk and Adaptation Country Profile (World Bank, April 2011), https://www.preventionweb.net/publication/vulnerability-risk-reduction-and-adaptationclimate-change-pakistan wb\_gfdrr\_climate\_change\_country\_profile\_for\_PAK.pdf.
- 22 Qamar-uz-Zaman, Climate Change Profile of Pakistan.
- 23 Muhammad Aslam Khan, "Climate Change Risk and Reduction Approaches in Pakistan," in *Disaster Risk Reduction Approaches in Pakistan* (Springer International Publishing,2015),394, https://books.google.ca/books?id=bfpNBgAAQBAJ.
- 24 Ghulam Rasul et al., "Effect of Temperature Rise on Crop Growth and Productivity," Pakistan Journal of Metereology 8, no.15 (2009):53-62.
- 25 Nutrition Wing, Ministry of National Health Services, Regulations and Coordination, Government of Pakistan, *Pakistan National Nutrition Survey 2018, Key Findings Report* (UNICEF, Pakistan: 2018), https://www.unicef.org/pakistan/reports/national-nutritionsurvey-2018-key-findings-report.
- 26 Government of Pakistan, Ministry of National Food Security and Research, Year Book 2017-2018 (Islamabad: GOP, 2018), https://www.mnfsr.gov.pk/userfiles1/file/YearBook2017-18.pdf.
- 27 Muhammad Mumtaz, "The National Climate Change Policy of Pakistan: An Evaluation of its Impact on Institutional Change," *Earth Systems and Environment* 2, no. 3 (December 1,2018):525-35, https://doi.org/10.1007/s41748-018-0062-x.
- 28 Ibid.
- 29 World Health Organisation, Climate and Health Country Profile 2015, Pakistan (WHO: 2016), https://www.WHO-FWC-PHE-EPE-15.28\_eng.pdf;jsessionid=2F0AFFCBF4E0F7130CB02267A2AB22EC.
- 30 "Notre Dame Gain Index Ranking 2017", 2017, https://gainnew.crc.nd.deu/country/pakistan.
- <sup>31</sup> Gogoi et al., Mainstreaming Adaptation to Climate Change within Governance Systems in South Asia.
- <sup>32</sup> Ibid.
- <sup>33</sup> Ibid.
- 34 IUCN Pakistan, National Conservation Strategy, Paving The Way for SEA in Pakistan, A Case study for the Convention on Biological Diversity (IUCN Pakistan, 1992), https://www.commissiemer.nl/docs/os/sea/casestudies/16\_pakistan\_national\_conservatio n\_strategy.pdf.
- 35 Parry, Review of Current and Planned Adaptation Action in Pakistan".
- 36 Ibid.
- 37 Government of Pakistan, Pakistan National Biodiversity Strategy and Action Plan for Achieving Biodiversity Targets and Sustainable Development Goals 2017-2030 (GOP, 2016), https://www.cbd.int/doc/world/pk/pk-nbsap-v2-en.pdf.
- <sup>38</sup> Marcelo Acerbi et al., Opportunities for a Clean and Green Pakistan, A country Environmental Analysis (World Bank, June 2019), https://documents.worldbank.org/curated/en/746031566833355389/pdf/Opportunitiesfor-a-Clean-and-Green-Pakistan-A-Country-Environmental-Analysi.pdf.

39 Ministry of Climate Change, GOP, National Climate Change Policy (Government of Pakistan, September 2012), http://www.gcisc.org.pk/National\_Climate\_Change\_Policy\_2012.pdf.

41 Aneel Salman, Navigating the Climate Change Landscape in Pakistan and India (Heinrich Boll Stiftung: 2015), http://climateinfo.pk/frontend/web/attachments/datatype/Aneel%20E-version.pdf.

- 44 Climate Change Division, Government of Pakistan, *Framework for Implementation of Climate Change Policy* (2014-2030) (Government of Pakistan, November 2013).
- 45 *Pakistan 2025: One Nation, One Vision* (Ministry of Planning, Development & Reform Government of Pakistan: 2014), https://www.pc.gov.pk/uploads/vision2025/Pakistan-Vision-2025.pdf.
- 46 World Bank. 2019. Opportunities for a Clean and Green Pakistan : A Country Environmental Analysis. (World Bank, Washington, DC. © World Bank). https://openknowledge.worldbank.org/handle/10986/32328 License: CC BY 3.0 IGO.
- 47 Michal Nachmany et al., *Climate Change Legislation in Pakistan, An Excerpt from the 2015 Global Climate Legislation Study, A review of Climate Change Legislation in 99 Countries* (London: 2015), https://www.lse.ac.uk/GranthamInstitute/wpcontent/uploads/2015/05/Global\_climate\_legislation\_study\_20151.pdf.
- 48 Government of Pakistan, Pakistan Climate Change Financing Framework, A Roadmap to Systemically Mainstream Climate Change into Public Economic and Financial Management, (Islamabad: October 2017), https://www.climatefinancedevelopmenteffectiveness.org/
- 49 UNDP, Pakistan-Climate Public Expenditure and Institutional Review (CPEIR) working towards a More Efficient and Effective Allocation and Use of Climate change Related Finance (Islamabad: 2015), https://www.climatefinancedevelopmenteffectiveness.org/sites/default/files/publication/attach/Pakistan%20CPEIR% 20report%202015.pdf.
- 50 Sarim Jamal, *Examining the Pakistan Climate Change Act 2017 in the context of the Contemporary International Legal Regime* (2017), https://sahsol.lums.edu.pk/sites/default/files/10.\_examining\_the\_pakistan\_climate\_chang e\_act\_2017\_in\_the\_context\_of\_the\_contemporary\_international\_legal\_regime\_o.pdf.
- 51 Qamar-uz Zaman, *Climate Change Profile of Pakistan*.
- <sup>52</sup> Opportunities for a Clean and Green Pakistan, A Country Environmental Analysis.
- 53 Government of Punjab, Punjab Climate Change Policy, Internal draft (Lahore:2017), https://epd.punjab.gov.pk/.
- 54 Tawanger Hussain Kazmi, Embedding Sustainable Development Goals in Punjab's Climate Change Policy (LEAD, Pakistan: August 2016), doi:10.13140/RG.2.2.27141.78565,https://www.researchgate.net/publication/342329762\_Em bedding\_Sustainable\_Development\_Goals\_in\_Punjab's\_Climate\_Change\_Policy/link/5eed b55aa6fdcc73be8d8cfd/download
- 55 LEAD, Pakistan and Government of Sindh, *Sindh Climate Change Policy, Internal Draft* (Sindh, Pakistan: 2018,), http://epasindh.gov.pk/.
- 56 Faiza Ilyas, "Stakeholders Discuss Sindh's Draft Climate change Policy," *The Dawn*, April 17, 2019.
- 57 Environment Protection Agency, Government of KPK, *Khyber Pakhtunkhwa Climate Change Policy* (Forestry Environment and Wildlife Department, Government of KPK, June 2016), http://kp.gov.pk/.
- 58 Ibid.

<sup>&</sup>lt;sup>40</sup> Ibid.

<sup>&</sup>lt;sup>42</sup> Ibid.

<sup>43</sup> Ibid.

- 59 LEAD Pakistan, Sustainable Development Goalı3: A Legislative and Policy Gap Analysis for Balochistan (Islamabad: October 2017), https://www.sdgpakistan.pk/.
- 60 "Climate Change Legislation in Pakistan- A Road to Nowhere," accessed December 2,2019, http://courtingthelaw.com/2018/11/19/commentary/climate\_change\_legislation-inpakistan-a-road-to-nowhere/.
- 61 Ministry of National Food Security and Research, Government of Pakistan, *National Food Security Policy 2015* (Ministry of National Food Security and Research, GOP:2014), http://www.mnfsr.gov.pk/.
- 62 Ministry of Water Resources, Government of Pakistan, National Water Policy 2018 (Islamabad:2018), https://ffc.gov.pk/.
- 63 Government of Pakistan, *Alternative and Renewable Energy Policy 2019* (GOP, July 21, 2019), http://www.aedb.org/ .
- 64 Government of Pakistan, *National Power Policy* (Islamabad: 2013), https://policy.asiapacificenergy.org/sites/default/files/National%20Power%20Policy%202 013.pdf
- 65 Planning Commission, Ministry of Planning, Development and Reform, GOP, *National Transport Policy of Pakistan 2018* (Islamabad, GOP: 2018), https://www.pc.gov.pk/.
- 66 ENERCON, Ministry of Water and Power, *National Energy Conservation Policy* (National Energy Conservation Centre (ENERCON), GOP: 2007), https://www.climateinfo.pk/.
- 67 Gogoi, Mainstreaming Adaptation to Climate Change within Governance Systems in South Asia: An Analytical Framework and Examples from Practice.
- 68 United Nations Environment Programme, *The Environment and Climate Change Outlook* of *Pakistan* (2014), https://wedocs.unep.org/xmlui/handle/20.500.11822/9396.
- 69 Anjum Bari Farooqi et al., "Climate Change perspective in Pakistan," Pakistan Journal of Metereology, 2 (3) (2005):11-21, http://www.pmd.gov.pk/.
- 70 Acerbi, Opportunities for a Clean and Green Pakistan, A Country Environmental Analysis.
- 71 Gogoi, Mainstreaming Adaptation to Climate Change within Governance Systems in South Asia: An

Analytical Framework and Examples from Practice.

- 72 LEAD, Pakistan. Pakistan's Options for Climate Change Mitigation & Adaptation.
- 73 United Nations Environment Programme, *The Environment and Climate Change Outlook* of *Pakistan*.
- 74 UNDP, Pakistan-Climate Public Expenditure and Institutional Review (CPEIR).
- 75 Hassan Bin Zubair et al, Farzana Baloch, and Mashooq Ali Khawaja, "Shallow Environmentalism in Rapid Climate Change: An Analysis of Pakistan's National Environmental Discourse," *Grassroots* 52, no. I, (2018), 8.
- 76 Ali Shan Azhar, "Disastrous Policies" *The News*, March 24, 2019.
- 77 Qamar-uz Zaman, Climate Change Profile of Pakistan.
- 78 Parry, Review of Current and Planned Adaptation Action in Pakistan".
- 79 UNDP, Pakistan-Climate Public Expenditure and Institutional Review (CPEIR) working towards a More Efficient and Effective Allocation and Use of Climate change Related Finance.
- Qamar-uz Zaman, Climate Change Profile of Pakistan.
   <sup>81</sup> Ibid.
- 82 UNDP, Pakistan-Climate Public Expenditure and Institutional Review (CPEIR).
- 83 Qamar-uz Zaman, Climate Change Profile of Pakistan.
- 84 UNDP, Pakistan-Climate Public Expenditure and Institutional Review (CPEIR).
   <sup>85</sup> Ibid.
- 86 Acerbi, Opportunities for a Clean and Green Pakistan, A Country Environmental Analysis.
- 87 UNDP, Pakistan-Climate Public Expenditure and Institutional Review (CPEIR).
   <sup>88</sup> Ibid.

- 89 Hafeez Tunio, "As World Sounds Alarms, Sindh Hits Snooze on Climate Change," *The Express Tribune*, March 22, 2019.
- 90 LEAD Pakistan, "Sustainable development Goalı3: A Legislative and Policy Gap Analysis for Balochistan."
- 91 "Disastrous Policies".
- 92 Kashif Majeed Salik et al., Pakistan: Country Situation Assesment, n.d., 76.
- 93 Salik et al, Pakistan: Country Situation Assesment,77.
- 94 UNDP, Pakistan-Climate Public Expenditure and Institutional Review (CPEIR), 40.
- 95 Gogoi, Mainstreaming Adaptation to Climate Change within Governance Systems in South Asia: An Analytical Framework and Examples from Practice.
- 96 Qamar-uz Zaman, Climate Change Profile of Pakistan.
- 97 Ministry of Climate Change, GOP, Pakistan's Second National Communication on Climate Change to United Nations Framework Convention on Climate Change (UNFCCC) (Islamabad, GOP:2018).
- 98 Muhammad Ayub Jan and Syed Sami Raza, "New Institutionalism: Identifying Informal Institutions in the Political Process of Pakistan." *Journal of Political Studies* 22, Issue - 1, (2015), 181-195.
- 99 Fatima Bajwa & Sarfraz Hussain Ansari, "Understanding the Hidden Power Relations in Policy Implementation: The Case of Pakistan," *ISSRA Papers* 53, no.9 (2013): 89-99.
- 100 Muhammad Ayub Jan and Syed Sami Raza, "New Institutionalism: Identifying Informal Institutions in the Political Process of Pakistan."
- <sup>101</sup> Ibid.
- 102 Saqib Riaz, "Role of Media in Climate Sensitization," *Pakistan Journal of Social Sciences* (*PJSS*) 38, no.1(2018),162.
- 103 Asim Sharif &Fabien Medvecky, "Climate Change News Reporting in Pakistan: A Qualitative Analysis of Environmental Journalists and the Barriers they Face," *Journal of Science Communication* 17, no.1(March 13,2018): A03, doi.org/10.22323/2.17010203.
- <sup>104</sup> Tahir Hussain, "Climate Change, Governance and Energy Discourse in Pakistan," Environment News, Envirocivil.com (blog, January 21,2013, https://envirocivil.com/climate/climate-change-governance-and-energy-discourse-inpakistan/.