

# SITUATIONAL ANALYSIS AND PROMOTING RESILIENT PREPAREDNESS (PRP) ROAD MAP

ASSESSING COUNTRY'S PREPAREDNESS AND RESPONSE

# FOREWORD

As Chairman of the Board of Directors for Promoting Resilient Preparedness (PRP) Pakistan, supported by the Asian Disaster Preparedness Center (ADPC), I am honoured to present this comprehensive report on the situational analysis and roadmap development for enhancing resilience and preparedness across our nation. This report reflects our deep commitment to fostering a resilient Pakistan that can effectively confront the growing challenges posed by climate change and natural disasters.

Pakistan is uniquely vulnerable to a wide range of disasters, including floods, droughts, heatwaves, cyclones, glacial melt, and locust attacks. In recent years, these events have caused significant losses to livelihoods, infrastructure, and agriculture, severely impacting our communities and economy. This report provides a detailed analysis of these challenges, highlighting the gaps in our current preparedness and response systems. It also underscores Pakistan's international commitments, such as adherence to the Paris Agreement and Sustainable Development Goals, which reflect our dedication to global efforts in combating climate change and enhancing resilience.

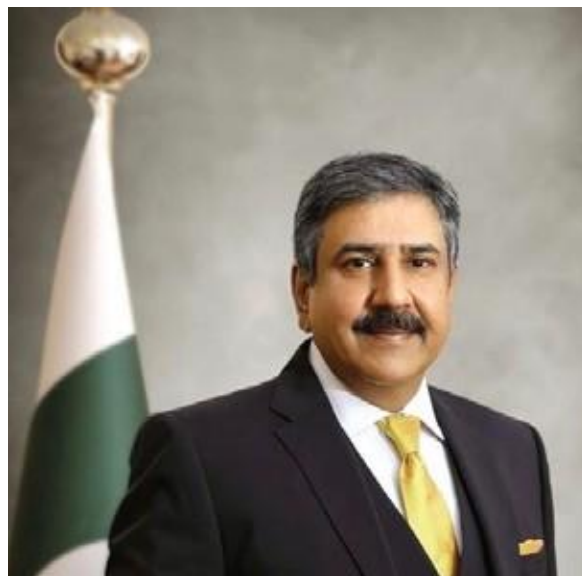
Central to this report is the emphasis on multi-stakeholder collaboration and partnerships. By leveraging the strengths of various sectors—including universities, research institutions, government agencies like the National Disaster Management Authority (NDMA), Provincial Disaster Management Authorities (PDMAs), the Ministry of Climate Change, and civil society networks—this roadmap outlines a path forward for strengthening disaster preparedness and response. It advocates for capacity building, operational enhancements, and the implementation of innovative anticipatory approaches to disaster risk management (DRM) at all levels.

Additionally, the report identifies strategic opportunities to mobilize resources, both domestically and internationally, through mechanisms such as the Green Climate Fund and public-private partnerships. It stresses the importance of financial sustainability and the need for diversified funding sources to support long-term resilience initiatives. The proposed Financial Sustainability Management Plan provides a blueprint for securing and efficiently utilizing funds to ensure the continued effectiveness of PRP initiatives.

The roadmap also calls for enhancing communication strategies, building knowledge-sharing platforms, and promoting climate-resilient infrastructure and agricultural practices. These measures aim to foster a culture of preparedness and resilience, ensuring that our communities are not only informed and ready but also capable of adapting to the evolving climate landscape.

This report serves as a call to action, urging all stakeholders to come together to address the pressing challenges of disaster preparedness and resilience. The collaboration between government bodies, academia, civil society, and international partners is crucial for transforming our disaster management landscape and achieving our vision of a safer, more sustainable future.

I extend my heartfelt gratitude to all the stakeholders who contributed to this report and to those who continue to support our mission of building a resilient Pakistan. Together, let us commit to advancing these strategies and building a resilient Pakistan for generations to come.



**Lieutenant General Retired Omer Mahmood Hayat**

*Chairman, Board of Directors*

*Promoting Resilient Preparedness (PRP) – Pakistan.*

*Supported and guided by Asian Disaster Preparedness Center (ADPC)*



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# LIST OF ACRONYMS

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**ADPC - Asian Disaster Preparedness Center**

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**APP - Asian Preparedness Partnership**

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**CBDRM - Community-Based Disaster Risk Management**

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**CSOs - Civil Society Organizations**

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**CWSA- Community World Service Asia**

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**DRM - Disaster Risk Management**

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**DRR - Disaster Risk Reduction**

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**EOCs - Emergency Operations Centers**

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**GCF - Green Climate Fund**

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**GEF - Global Environment Facility**

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**GLOF - Glacial Lake Outburst Flood**

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**HKH - Hindu Kush-Himalayan**

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**IPCC - Intergovernmental Panel on Climate Change**

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**KIIs - Key Informant Interviews**

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**MoCC - Ministry of Climate Change**

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**NCCP - National Climate Change Policy**

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**NDMA - National Disaster Management Authority**

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**NDMF - National Disaster Management Fund**

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**NHN - National Humanitarian Network**

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**NIDM - National Institute of Disaster Management**

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**NUST- National University of Science and Technology**

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**NGOs - Non-Governmental Organizations**

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**PDMA - Provincial Disaster Management Authorities**

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**PRP - Promoting Resilient Preparedness**

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**SOPs - Standard Operating Procedures**

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**SWOT - Strengths, Weaknesses, Opportunities, Threats**

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**UNFCCC - United Nations Framework Convention on Climate Change**

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**VNR - Voluntary National Review**

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# INTRODUCTION

In today's rapidly evolving world, the impacts of climate change are becoming increasingly severe, presenting countries with multifaceted challenges that transcend environmental concerns. These challenges are not limited to environmental degradation; they extend into the realm of humanitarian crises, characterized by an increase in natural disasters, resource scarcity, and significant disruptions to human livelihoods. The urgency of these issues necessitates the development of robust preparedness and response mechanisms that can effectively mitigate the adverse impacts of climate change and related humanitarian crises. To address these challenges comprehensively, it is crucial for nations to undertake a thorough analysis of their current preparedness and response capacities and to develop strategic roadmaps that enhance their resilience.

Asian Disaster Preparedness Center (ADPC) is an autonomous international organization for cooperation in and implementation of disaster risk reduction and building climate resilience in Asia and the Pacific. ADPC is executing Promoting Resilient Preparedness (PRP) initiative as part of Asian Preparedness Partnership (APP) since 2017.

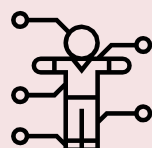
As part of the PRP program, a baseline assessment focused on determining the humanitarian ecosystem in Pakistan was conducted. This assessment identified the needs of partners and the requirements for strengthening disaster response and recovery capacity. However, in light of escalating climate challenges, there was a need for a more comprehensive analysis that considered the country's evolving risk landscape. The strategic roadmap was developed with a focus on short-term (1-2 years), mid-term (3-5 years), and long-term (6-10 years) preparedness and response needs. The roadmap served as a strategic guideline for PRP, enabling partners to jointly respond to climate and humanitarian challenges with sustainable approaches. The roadmap also outlined strategies for mobilizing resources from within Pakistan and the international community.

Key outcomes of the initiative include: an enhanced understanding of the country's preparedness and response measures, a comprehensive analysis of the country's readiness to respond to emergencies, and the development of a strategic roadmap that provided actionable steps for enhancing response capacity. Additionally, the initiative will help in strengthening institutional capacity and coordination mechanisms, as well as enhancing the resilience of communities and ecosystems to climate-related risks. Moreover, this concept note outlines the importance of evaluating Pakistan's current status in terms of preparedness and response to climate-related challenges and proposes the development of a strategy to enhance mitigation, preparedness, and response mechanisms in Pakistan.

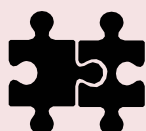




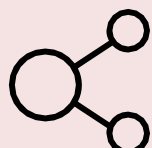
## PHASE I



**Capacity Building**



**Humanitarian Coordination**



**Communication, Knowledge Sharing and Dissemination**

## PHASE II

□ Increased locally led actions to prepare for, respond to and recover from disasters in selected high risk countries of Asia

□ Institutionalized efficient and cost-effective innovative approaches for locally led DRM actions

□ Strengthened enabling environment for humanitarian system transformation through regional cooperation and global outreach

As part of PRP, ADPC has commissioned and assignment to conduct a situational analysis and road map development of third Phase of PRP.

This situation analysis will provide a structured approach to understanding the current state of preparedness and response mechanisms, identifying gaps, and proposing targeted interventions. Secondly, it will facilitate evidence-based decision-making, ensuring that resources are allocated efficiently and effectively. Thirdly, it will empower stakeholders by providing them with the insights, tools, and frameworks needed to navigate the complexities of contemporary climate risks. Ultimately, the roadmap aims to foster a culture of resilience and preparedness at both the national and community levels, ensuring that Pakistan is better equipped to respond to and recover from climate-related challenges.

The primary objectives of this initiative were to assess the existing preparedness and response measures, identify strengths, weaknesses, gaps, and opportunities, and develop a comprehensive strategy that outlined actionable steps to enhance the country's capacity to respond effectively and timely to climate-related disasters and humanitarian crises. These objectives collectively aimed to evaluate the country's readiness to respond to various emergencies and disasters, ultimately leading to the development of a strategic PRP roadmap.

This situational analysis represented a foundational step toward developing a holistic and informed strategic roadmap for PRP. By illuminating the contours of Pakistan's preparedness and response mechanisms, the assessment laid the groundwork for evidence-based decision-making, strategic planning, and resource allocation. It will also empower stakeholders with the insights, tools, and frameworks necessary to navigate the complexities of the contemporary risk environment, fostering a culture of resilience and preparedness at both the national and community levels.



# SECTION 1: COUNTRY'S CONTEXT

## PAKISTAN'S CURRENT SITUATION

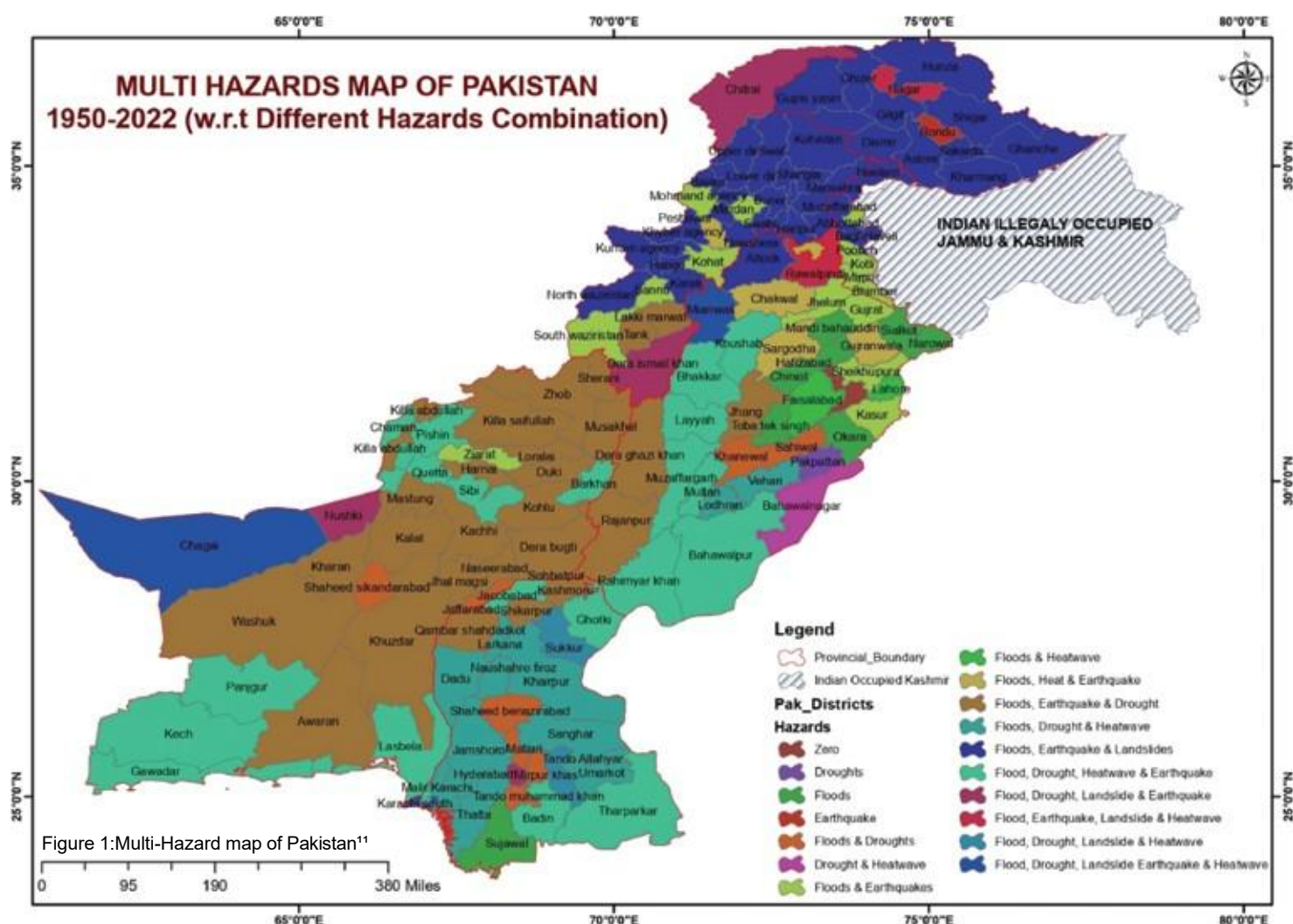
Pakistan, a nation situated at the crossroads of South Asia, faces profound challenges stemming from climate change. With its diverse topography and complex climate systems, the country is highly susceptible to a range of climate-induced disasters, including floods, droughts, heatwaves, and glacial melt. The Global Climate Risk Index has consistently ranked Pakistan among the top ten countries most affected by extreme weather events over the past two decades, highlighting its acute vulnerability, with the country ranked as the 8th most affected nation by climate change globally in 2022<sup>1</sup>. These recurring disasters not only threaten human lives and livelihoods but also strain the country's economic and social fabric, necessitating robust preparedness and response mechanisms.

Over the past decade, Pakistan has experienced an average of 10 extreme weather events annually, resulting in economic losses amounting to \$3.8 billion each year<sup>2</sup>. The devastating floods of 2022, driven by unprecedented monsoon rains, affected over 33 million people, causing \$30 billion in damages and economic losses<sup>3</sup>. Projections indicate that by 2050, climate change could lead to a 2-4% reduction in agricultural productivity, threatening food security for millions<sup>4</sup>. The cumulative effect of these climatic impacts underscores the urgent need for comprehensive adaptation and mitigation strategies to safeguard the country's socio-economic stability.

The Intergovernmental Panel on Climate Change (IPCC) in its Sixth Assessment Report emphasizes the increasing severity and frequency of climate-related events in South Asia, predicting intensified monsoon patterns, accelerated glacial melt in the Himalayas, and rising sea levels that could exacerbate existing vulnerabilities in Pakistan<sup>5</sup>. These projections underscore the urgent need for comprehensive and integrated strategies to enhance Pakistan's resilience to climate change and associated humanitarian challenges.

Pakistan's vulnerability to climate change is multifaceted. The country is prone to extreme weather events such as floods, droughts, heat waves, and cyclones. These events have far-reaching consequences, including agricultural losses, displacement of populations, and infrastructure damage<sup>6</sup>. Additionally, rising temperatures are exacerbating glacial melt in the northern regions, where the Karakoram Range has witnessed a 23% reduction in glacier mass since the 1970s, approximately 36% of the glaciers in the HKH region will disappear by 2100. The Hindu Kush-Himalayan region, a major source of water for Pakistan, is also under threat from glacial melting and climate-induced changes in precipitation patterns. The number of glacial lakes in the HKH region has increased by 33% since 1990, heightening the risk of GLOFs, which pose a significant threat to downstream communities in Pakistan<sup>7</sup>. Climate change exacerbates existing humanitarian challenges in Pakistan. Poverty, inequality, and limited access to basic services contribute to the country's vulnerability to disasters<sup>8</sup>.

Moreover, Pakistan hosts a significant number of refugees and internally displaced persons, who are particularly vulnerable to the impacts of climate change<sup>9</sup>. The socio-economic landscape of Pakistan further complicates its ability to respond effectively to climate change and related humanitarian crises. According to the World Bank's "Pakistan Climate Risk Country Profile," the poorest and most marginalized communities are disproportionately affected by climate change, particularly those in rural areas who rely heavily on climate-sensitive sectors like agriculture<sup>10</sup>. By addressing these challenges and implementing effective strategies, Pakistan can improve its preparedness and response to climate change and humanitarian crises, ensuring a more sustainable and resilient future for its people.



# INTERNATIONAL COMMITMENTS OF PAKISTAN RELATED TO CLIMATE CHANGE AND HUMANITARIAN CHALLENGES

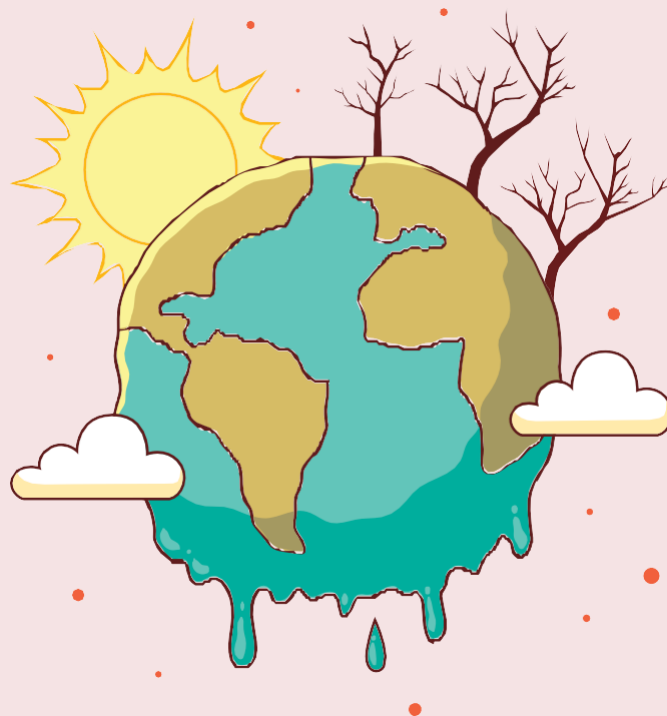
Pakistan, a country highly vulnerable to the impacts of climate change, has made numerous international commitments to address both climate change and its associated humanitarian challenges. As a developing nation, Pakistan faces severe environmental threats, including rising temperatures, changing precipitation patterns, and an increasing frequency of extreme weather events such as floods, droughts, and heat waves. These climate-induced challenges exacerbate existing socio-economic vulnerabilities, leading to significant humanitarian crises. In response, Pakistan has committed to various international agreements and frameworks to mitigate the impacts of climate change and enhance its resilience to these challenges. This essay provides an overview of Pakistan's key international commitments, highlighting their significance and the progress made in fulfilling them.

One of Pakistan's most significant international commitments is its adherence to the Paris Agreement, adopted in 2015. The Paris Agreement aims to limit global warming to well below 2°C above pre-industrial levels, with efforts to keep it to 1.5°C. Under this agreement, each country must submit Nationally Determined Contributions (NDCs), outlining their efforts to reduce greenhouse gas emissions and adapt to the impacts of climate change.



Pakistan's Updated NDC 2021 commits to reducing its greenhouse gas emissions by 50% by 2030, conditional on receiving international support in the form of finance, technology transfer, and capacity building<sup>12</sup>. This ambitious target includes a 15% unconditional reduction and a further 35% conditional on international assistance. Pakistan also emphasizes the importance of adaptation measures, particularly in the agriculture, water, and energy sectors, which are crucial for building resilience against climate change impacts. However, achieving these targets requires substantial financial resources and technical expertise, which Pakistan seeks through international cooperation.

In the context of the Paris Agreement, Pakistan has also committed to improving its climate governance structures, including the establishment of the Pakistan Climate Change Authority and the Pakistan Climate Change Council under the Pakistan Climate Change Act 2017. These institutions are responsible for coordinating climate action and ensuring that Pakistan meets its international obligations.



Pakistan is a signatory to the United Nations Framework Convention on Climate Change (UNFCCC), which serves as the foundation for global efforts to combat climate change. The UNFCCC provides a platform for Pakistan to participate in international climate negotiations and access financial and technical support for its climate initiatives. Through its participation in the UNFCCC, Pakistan has been involved in various mechanisms, including the Green Climate Fund (GCF) and the Global Environment Facility (GEF), which provide financial resources to support climate action in developing countries.

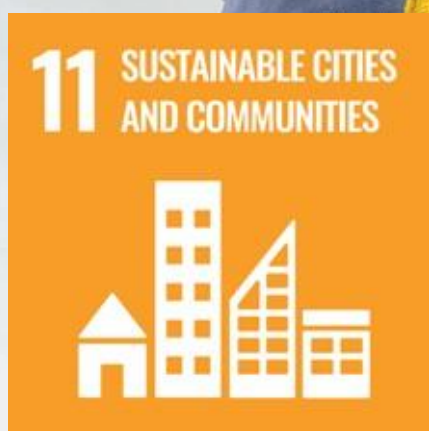
The GCF, for example, has funded several projects in Pakistan aimed at enhancing climate resilience, such as the Glacial Lake Outburst Flood (GLOF) II project, which seeks to reduce the risks associated with glacial melt in the northern regions of Pakistan. The Global Environment Facility (GEF) has also supported initiatives focused on biodiversity conservation and sustainable land management, which are critical for mitigating the impacts of climate change<sup>13</sup> (United Nations Development Programme, 2022).

# 13 CLIMATE ACTION



Pakistan is committed to achieving the Sustainable Development Goals (SDGs), particularly SDG 13: Climate Action. This goal focuses on taking urgent action to combat climate change and its impacts. Pakistan's commitment to SDG 13 is reflected in its national policies and strategies, such as the National Climate Change Policy (NCCP) 2012 and the Framework for Implementation of Climate Change Policy (2014-2030), which align with the objectives of the SDGs.





Pakistan has also integrated climate considerations into its National Disaster Risk Reduction (DRR) Policy 2013, which aligns with SDG 11: Sustainable Cities and Communities and SDG 15: Life on Land. The DRR policy emphasizes the need for disaster preparedness and risk reduction, particularly in vulnerable communities, to mitigate the humanitarian impacts of climate-related disasters. In its voluntary national review (VNR) submitted to the United Nations in 2021, Pakistan highlighted its progress in implementing the SDGs, including efforts to enhance climate resilience through the Billion Tree Tsunami project and the Clean Green Pakistan Movement. These initiatives demonstrate Pakistan's commitment to integrating climate action into its broader development agenda.

Pakistan's climate change commitments extend to regional cooperation through the South Asian Association for Regional Cooperation (SAARC). As a member of SAARC, Pakistan has engaged in regional initiatives aimed at addressing climate change and disaster risk reduction. The SAARC Action Plan on Climate Change, adopted in 2008, provides a framework for member states to collaborate on climate adaptation, mitigation, and capacity building.

Pakistan's international commitments related to climate change and humanitarian challenges reflect its recognition of the severe risks posed by climate change to its socio-economic stability. Through its participation in global agreements like the Paris Agreement and the UNFCCC, as well as regional initiatives such as SAARC, Pakistan has demonstrated a strong commitment to addressing climate change and enhancing its resilience to related humanitarian challenges. However, achieving these commitments requires sustained international support, effective policy implementation, and enhanced coordination among various stakeholders. By strengthening its climate governance structures and mobilizing the necessary resources, Pakistan can make significant progress in mitigating the impacts of climate change and protecting vulnerable communities from its adverse effects.

# NATIONAL COMMITMENTS RELATED TO CLIMATE CHANGE AND HUMANITARIAN CHALLENGES

Pakistan, a country highly vulnerable to the impacts of climate change, has developed several policies and frameworks aimed at mitigating these impacts and addressing related humanitarian challenges. Given its diverse geography and socio-economic landscape, Pakistan faces a wide range of climate-induced threats, including floods, droughts, glacial melt, and extreme weather events. These threats not only pose risks to human lives and livelihoods but also strain the country's economic and social structures. This essay examines the existing policies in Pakistan that address climate change and associated humanitarian challenges, highlighting their strengths, limitations, and the need for more effective implementation.

The National Climate Change Policy (NCCP)<sup>14</sup>, introduced in 2012, serves as the cornerstone of Pakistan's climate-related initiatives. The NCCP provides a strategic framework for both mitigation and adaptation efforts, targeting key sectors such as water, agriculture, forestry, and energy (Government of Pakistan, 2012). The policy emphasizes the need for integrating climate resilience into national planning processes and encourages the adoption of sustainable practices to reduce greenhouse gas emissions. Furthermore, the NCCP outlines the importance of enhancing public awareness and capacity building to ensure a coordinated response to climate challenges.



To operationalize the NCCP, the Government of Pakistan developed the Framework for Implementation of Climate Change Policy (2014-2030)<sup>15</sup>. This framework provides a detailed action plan for achieving the goals outlined in the NCCP, with specific targets and timelines for various sectors (Government of Pakistan, 2014). The framework addresses key issues such as water security, food security, disaster risk reduction, and energy efficiency, proposing both short-term and long-term measures. The framework also highlights the importance of international cooperation and the need to secure funding from global climate finance mechanisms such as the Green Climate Fund (GCF). Pakistan has been actively engaged with the GCF to finance climate adaptation projects, but the process has been slow, with limited success in securing large-scale funding. Additionally, the framework recognizes the role of the private sector in driving innovation and investment in climate resilience, but more efforts are needed to engage private enterprises effectively. According to the Asian Development Bank, while the framework provides a clear roadmap, progress has been uneven across different sectors and regions, largely due to inadequate funding and coordination between federal and provincial governments<sup>16</sup>.

Given the increasing frequency and intensity of climate-induced disasters, disaster risk management has become a critical component of Pakistan's climate policies. The National Disaster Risk Reduction Policy (2013)<sup>17</sup> was introduced to strengthen the country's disaster preparedness and response capacities. The policy focuses on reducing the vulnerability of communities to natural disasters through improved early warning systems, capacity building, and infrastructure development.

The DRR policy has been crucial in guiding Pakistan's response to natural disasters. For example, during the catastrophic floods of 2022, which affected over 33 million people and caused economic losses estimated at \$30 billion, the NDMA's efforts in disaster management, though strained, were pivotal in coordinating rescue and relief operations. However, the effectiveness of the DRR policy is often hindered by limited resources and the slow pace of capacity-building initiatives. The World Bank (2021) notes that while the policy framework is robust, there is a need for greater investment in disaster risk reduction and more effective coordination among the various agencies involved in disaster management<sup>18</sup>.

Water security is a critical issue for Pakistan, given its reliance on the Indus River system, which is highly vulnerable to the impacts of climate change, including glacial melt and changing precipitation patterns. The National Water Policy (2018) was developed to address these challenges, focusing on the sustainable management of water resources, efficient water use, and the protection of water quality<sup>19</sup>. The policy aims to enhance the resilience of water infrastructure and promote the equitable distribution of water resources across regions. The National Water Policy also calls for the strengthening of trans-boundary water management, particularly concerning the Indus River Basin, which is shared with neighboring countries. The policy's implementation has seen some progress, such as the construction of small and medium-sized dams to improve water storage capacity. However, the International Water Management Institute highlights that the success of the policy is constrained by inter-provincial water disputes and the slow pace of reforms needed to improve water governance<sup>20</sup>.

Pakistan's commitment to global climate goals is reflected in its Nationally Determined Contribution (NDC) 2021<sup>21</sup>, submitted under the Paris Agreement. The NDC outlines Pakistan's commitment to reducing its greenhouse gas emissions by 50% by 2030, conditional on receiving international support in the form of climate finance, technology transfer, and capacity building (Government of Pakistan, 2021). The NDC also emphasizes the importance of adaptation measures, particularly in the agriculture, water, and energy sectors, to build resilience against climate change impacts.

Achieving the targets set out in the NDC requires substantial international support, which has been slow to materialize. The World Bank (2021) notes that while Pakistan's NDC is ambitious and aligned with global climate goals, the country faces significant challenges in mobilizing the necessary resources and implementing the required actions at the national and local levels. The NDC also highlights the need for more robust monitoring and evaluation mechanisms to track progress toward achieving the targets.

The Pakistan Climate Change Act 2017 established the Pakistan Climate Change Council and the Pakistan Climate Change Authority to oversee and coordinate the implementation of climate change policies and strategies across the country. The Council, chaired by the Prime Minister, is responsible for setting climate-related priorities, reviewing progress, and advising on necessary policy adjustments. The Climate Change Authority is tasked with developing and implementing projects related to climate change mitigation and adaptation, as well as mobilizing resources from international climate finance mechanisms. The creation of these institutions marks a significant step forward in Pakistan's climate governance. However, their effectiveness is still evolving. According to the United Nations Development Programme's GCF while the establishment of these bodies has improved coordination among different stakeholders, there is a need for more technical expertise and financial resources to enable them to fulfill their mandates effectively.

Pakistan's existing policies related to climate change and humanitarian challenges reflect a comprehensive approach to addressing the multifaceted impacts of climate change. However, the effectiveness of these policies is often hampered by implementation challenges, including limited financial resources, weak institutional capacities, and insufficient coordination between different levels of government. To enhance the country's resilience to climate change, there is a need for greater investment in infrastructure, capacity building, and the integration of climate considerations into all aspects of national planning. Additionally, stronger international cooperation and support are essential to ensure that Pakistan can meet its climate commitments and protect its most vulnerable populations from the adverse effects of climate change.



| <b>POLICY<br/>FRAMEWORK/STRATEGY<br/>NAME</b>                     | <b>FOCUS</b>                                                                                             | <b>KEY AREAS</b>                                                                         |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| National Climate Change Policy (2012)                             | Framework for addressing climate change through adaptation and mitigation strategies                     | Water resources, agriculture, forestry, biodiversity, disaster risk management           |
| Framework for Implementation of Climate Change Policy (2014-2030) | Specific actions, timeframes, and responsibilities for implementing the National Climate Change Policy   | Institutional arrangements, sectoral adaptation measures, capacity building, awareness   |
| National Disaster Risk Reduction Policy (2013)                    | Strengthening disaster preparedness, response, and recovery, integrating climate change impacts          | Disaster risk reduction, early warning systems, community resilience                     |
| National Adaptation Plan (2023)                                   | Comprehensive strategy for adaptation to climate change impacts across multiple sectors                  | Agriculture, water, health, infrastructure, urban planning                               |
| Pakistan Environmental Protection Act (1997)                      | Legal framework for environmental protection, including climate change considerations                    | Pollution control, environmental impact assessments (EIA), conservation                  |
| National Disaster Management Framework (2007)                     | Institutionalizing disaster management and risk reduction across the country                             | National, provincial, and district disaster management authorities (NDMA, PDMAs, DDMAAs) |
| National Flood Protection Plan (NFPP) IV (2015-2025)              | Comprehensive flood management and mitigation strategy                                                   | Infrastructure development, early warning systems, community-based flood management      |
| Pakistan Climate Change Act (2017)                                | Establishing Pakistan Climate Change Council and Climate Change Authority for coordinated climate action | National and provincial climate change adaptation and mitigation plans                   |
| National Energy Efficiency and Conservation Plan (2023-2030)      | Reducing energy consumption and carbon emissions through efficiency measures                             | Policy reforms, institutional capacity building, public awareness                        |
| National Water Resources Conservation Strategy (2023-2027)        | Ensuring sustainable water management in the context of climate variability                              | Water allocation, conservation, integrated water resources management                    |

## CHALLENGES AND GAPS

Pakistan faces significant challenges and gaps in its existing policies, frameworks, resources, and capacities to address climate change and related humanitarian challenges. These gaps create vulnerabilities that hinder effective disaster management, adaptation, and mitigation efforts. The following discussion highlights the key challenges and areas where improvements are critically needed.



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## **POLICY AND FRAMEWORK GAPS**

One of the major gaps in Pakistan's approach to climate change is the lack of integration across various sectors. Existing policies often operate in silos, focusing on specific areas such as agriculture, water resources, or energy, without considering the interconnectedness of these sectors. For example, the National Climate Change Policy (NCCP) 2012 outlines strategies for different sectors but fails to ensure coherence between them. This lack of integration can lead to conflicting policies and inefficient use of resources, weakening the overall resilience to climate-induced disasters.

While Pakistan has developed several policies and action plans, including the National Disaster Risk Reduction Policy (2013) and the Framework for Implementation of Climate Change Policy (2014-2030), the insufficient implementation of these policies and monitoring mechanism is a major issue. There is a significant gap between policy formulation and execution, primarily due to weak institutional frameworks and lack of accountability. Monitoring and evaluation mechanisms are either absent or underdeveloped, making it difficult to track progress or identify areas that require adjustment.

Pakistan's climate policies largely focus on national-level strategies, with limited emphasis on local adaptation planning. Given the country's diverse geographical and climatic conditions, localized adaptation strategies are essential to address region-specific vulnerabilities. However, the lack of a decentralized approach in policy-making leaves local communities ill-prepared to deal with climate-related challenges, particularly in rural and remote areas.

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## **RESOURCE CONSTRAINTS**

A significant challenge in addressing climate change in Pakistan is the lack of financial resources. Although the government has established funds like the Green Climate Fund and the National Disaster Management Fund (NDMF), the allocation of resources remains insufficient compared to the scale of the challenges. The financial gap is further exacerbated by the country's economic constraints, which limit its ability to invest in large-scale mitigation and adaptation projects. For instance, Pakistan's annual climate finance requirements are estimated to be around \$6-14 billion, far exceeding the current levels of funding.

There is a considerable shortage of trained professionals and technical experts in Pakistan who are capable of designing and implementing climate change and disaster management initiatives. Human Resource Deficiencies and lack of expertise hampers the development of innovative solutions and the effective execution of existing policies. Additionally, the training and capacity-building efforts for government officials, local authorities, and community leaders are sporadic and insufficient, leading to a gap in the preparedness and response capabilities at various levels.

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## **CAPACITY GAPS**

Pakistan's weak institutional capacities to manage and respond to climate change are the result of limited by fragmented and under-resourced agencies. The National Disaster Management Authority (NDMA) and the Provincial Disaster Management Authorities (PDMAs) often face challenges in coordinating efforts, leading to delays and inefficiencies in disaster response. The lack of inter-agency collaboration, coupled with bureaucratic hurdles, further weakens the country's ability to implement comprehensive climate resilience programs.

A major gap in Pakistan's climate change response is the lack of reliable data and research. The country lacks a robust system for collecting and analyzing climate-related data, which is crucial for informed decision-making and policy development. Without accurate and timely data, it is challenging to assess the extent of climate risks or to design effective adaptation strategies. Additionally, there is a paucity of localized research on climate impacts, which limits the ability to develop context-specific interventions.

Community engagement is crucial for building resilience to climate change, yet it remains a weak link in Pakistan's climate strategy. Limited public awareness about climate risks and the importance of preparedness is generally low, particularly in vulnerable communities. The lack of community participation in decision-making processes further exacerbates this issue, as policies and programs are often developed without considering the local context and needs. This top-down approach undermines the effectiveness of climate adaptation efforts at the grassroots level.

The challenges and gaps in Pakistan's climate change policies, frameworks, resources, and capacities are significant and multifaceted. Addressing these issues requires a coordinated and integrated approach that enhances policy coherence, strengthens institutional capacities, and increases financial and human resources. Moreover, localized adaptation strategies, improved data collection, and greater community engagement are essential for building resilience against the growing threats of climate change and related humanitarian crises.

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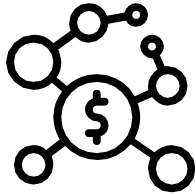
## CATEGORY

## RESOURCES AND CAPACITIES



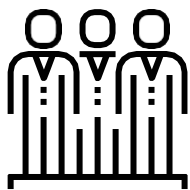
### Institutional Framework

- National Disaster Management Authority (NDMA)
- Provincial Disaster Management Authorities (PDMAs)
- Pakistan Climate Change Authority (PCCA)
- Ministry of Climate Change (MoCC)
- National Institute of Disaster Management (NIDM)



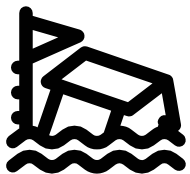
### Financial Resources

- Public Sector Development Program (PSDP)
- Green Climate Fund (GCF)
- Global Environment Facility (GEF)
- National Disaster Management Fund (NDMF)
- International Donor Assistance (World Bank, ADB, UNDP, etc.)



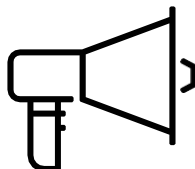
### Technical and Human Resources

- Meteorological and Hydrological Services (Pakistan Meteorological Department - PMD)
- Research Institutions (Pakistan Council of Research in Water Resources - PCRWR, Global Change Impact Studies Centre GCISC)
- NGOs and Civil Society (WWF Pakistan, LEAD Pakistan, SDPI)
- Capacity Building Programs (NIDM, provincial training centers, international workshops)



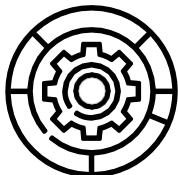
### Disaster Response and Recovery Mechanisms

- Emergency Operations Centers (EOCs)
- Community-Based Disaster Risk Management (CBDRM) Programs
- Early Warning Systems (EWS)
- Search and Rescue Teams (SAR)



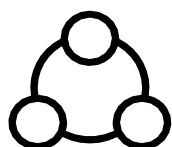
### Public Awareness and Education

- Climate Change Awareness Campaigns (Clean Green Pakistan, Billion Tree Tsunami)
- Education Curricula Integration (Environmental Science, Disaster Management courses)
- Media Outreach and Community Engagement (Radio, TV, social media)



### Infrastructure and Technological Resources

- Climate-Resilient Infrastructure Projects (dams, irrigation systems, flood protection embankments)
- Renewable Energy Projects (solar parks, wind farms)
- Technological Innovations (GIS-based planning, remote sensing, climate modeling)



### International Collaboration

- UNFCCC, GCF, GEF, World Bank, ADB, UNDP
- Bilateral and Multilateral Partnerships (Germany, UK, Japan, EU)
- Participation in Global and Regional Climate Networks (SAARC, IUCN, ICIMOD)



## SECTION 2: SWOT ANALYSIS

In order to better understand the existing preparedness and response capacities at national, provincial and local levels in Pakistan and devising a road map for PRP, a detailed SWOT analysis was conducted to assess country's preparedness for climate-induced disasters.

### METHODOLOGY

A comprehensive review of available online data including government reports, I/NGOs publications, and international organization documents related to Pakistan's climate change vulnerabilities, disaster response mechanisms, and preparedness strategies was conducted. Similarly, examination of national and provincial policies, plans, and strategies related to climate change, disaster management, and humanitarian response was also included in the review. In addition to secondary data, Key Informant Interviews (KIIs) were also conducted to get the insights from relevant stakeholders. For KIIs, a detailed interview guide was developed that covered information related to existing disaster response capacities and limitations, challenges in coordination and collaboration among stakeholders, effectiveness of early warning systems and preparedness measures, gaps in knowledge and information sharing, financial resources and funding mechanisms for disaster response and community-based disaster risk reduction capacities.

Conducting in-depth interviews with key informants to gather qualitative data on their perspectives, experiences, and insights into Pakistan's disaster preparedness and response capacities.

# SWOT MATRIX

The findings from both secondary research and key informant interviews were then synthesized to develop a comprehensive understanding of strengths, weaknesses, opportunities, and threats in relation to the country’s existing capacities to prepare and respond to climate-induced disasters. After the synthesis a detailed SWOT matrix to visually represent the identified strengths, weaknesses, opportunities, and threats was developed.

Following SWOT matrix was developed that provides valuable insights into Pakistan’s current state of preparedness for climate-induced disasters.



Strengths of the preparedness capabilities include; Pakistan's established institutional frameworks, such as the National Disaster Management Authority (NDMA) and provincial disaster management authorities (PDMAs), provide a robust foundation for resilience building<sup>22</sup>. The government's commitment to climate change adaptation and disaster risk reduction is evident through national policies like the National Climate Change Policy and the Pakistan Climate Change Act. Additionally, the country's vibrant civil society actively engages in disaster response and climate adaptation initiatives, promoting community-based approaches. International partnerships, such as those within the UNFCCC and the Sendai Framework<sup>23</sup>, offer Pakistan access to global expertise, resources, and technical support, while increasing private sector involvement bolsters disaster preparedness efforts.

Despite its strengths, Pakistan faces significant challenges in disaster management. Limited financial resources, coupled with a reliance on external funding, restrict the scope and sustainability of disaster preparedness and response efforts. Fragmented coordination among government departments, NGOs, and the private sector often leads to inefficiencies. While strong policies exist, their implementation is weakened by bureaucratic obstacles, limited capacity, and inadequate monitoring<sup>24</sup>. The country's underdeveloped early warning systems result in delayed responses, heightening vulnerability to climate-related disasters. Additionally, low levels of awareness and education on climate change and disaster preparedness among communities hinder proactive engagement and resilience building<sup>25</sup>.

Pakistan has substantial opportunities to enhance its disaster management capabilities. Capacity-building initiatives can strengthen stakeholders' abilities through targeted training, knowledge sharing, and local expertise development in disaster risk management (DRM)<sup>26</sup>. Regional cooperation within frameworks like the South Asian Association for Regional Cooperation (SAARC) can facilitate the exchange of best practices and resources. Innovation in DRM, including the adoption of climate-smart technologies, can improve preparedness and response. The private sector's growing interest in corporate social responsibility (CSR) and sustainable business practices offers potential for expanded public-private partnerships. Additionally, access to global climate finance mechanisms, such as the Green Climate Fund (GCF), can support large-scale, sustainable projects<sup>27</sup>.

Pakistan faces numerous threats that could undermine its disaster management efforts. The increasing frequency and intensity of climate-related disasters pose a continual risk to socio-economic stability. Political instability and frequent changes in government disrupt the continuity and implementation of long-term strategies. Socioeconomic vulnerabilities, such as poverty, inequality, and inadequate infrastructure, exacerbate the impact of disasters and complicate recovery efforts. Global economic fluctuations may impact Pakistan's ability to secure necessary funding for climate adaptation and disaster preparedness. Additionally, growing resource scarcity, driven by climate change, could lead to increased competition and conflicts, further complicating humanitarian response efforts<sup>28</sup>.

Pakistan's disaster management landscape is shaped by a mix of strengths, weaknesses, opportunities, and threats. While the country has a solid foundation and significant potential to enhance its disaster preparedness and response, challenges such as limited resources, coordination issues, and political instability persist. However, with strategic investments in capacity building, regional cooperation, and innovation, Pakistan can better leverage its strengths and opportunities to mitigate the risks posed by its vulnerabilities. Addressing these challenges will be crucial to building a resilient future capable of withstanding the increasing impacts of climate change.





## STRATEGIC ORIENTATION REVIEW MATRIX

Once the SWOT matrix was developed, an analysis was done to develop the strategic orientation review matrix (SOR Matrix). The SOR matrix helped determine the relationships between the identified strengths with identified opportunities, and threats and identified weaknesses with opportunities, and threats. This analysis helped in developing an understanding as how these factors can be combined to develop effective strategies and PRP road map to improve country's preparedness and response mechanisms in short, mid and long term at policy and operational level. Based on the analysis, specific recommendations can be proposed to address the identified weaknesses, leverage opportunities, and mitigate threats.

The above findings and recommendations will be shared with key stakeholders of ADPC and PRP to effectively and efficiently execute the strategic road map developed to improve Pakistan's existing capacities to prepare and respond to climate-induced disasters.

The SOR matrix takes the SWOT analysis of Pakistan's PRP (Promoting Resilient Preparedness) Roadmap and translates it into actionable strategies. Here's how the matrix is structured and detailed strategies can be derived:

## SOR MATRIX FOR PRP ROADMAP

| TOWS Matrix       | Strengths (S)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Weaknesses (W)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Opportunities (O) | SO Strategies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WO Strategies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                   | <ol style="list-style-type: none"> <li><b>Enhance Capacity Building Using Institutional Frameworks:</b> Utilize established frameworks like NDMA and PDMA's to implement capacity-building initiatives (O1) and foster regional cooperation through SAARC (O2).</li> <li><b>Leverage International Partnerships for Innovation:</b> Use international frameworks (S4) to introduce innovative DRM technologies and practices (O3).</li> <li><b>Mobilize Private Sector for Climate Finance:</b> Engage the private sector (S5) in accessing global climate finance (O5) to fund scalable DRM projects.</li> </ol>                                                                                          | <ol style="list-style-type: none"> <li><b>Strengthen Financial Resources Through Global Climate Finance:</b> Address limited financial resources (W1) by tapping into international climate finance opportunities (O5).</li> <li><b>Improve Coordination via Regional Cooperation:</b> Leverage regional cooperation (O2) to improve fragmented coordination among government and NGOs (W2).</li> <li><b>Enhance Early Warning Systems Using Innovative Technologies:</b> Utilize innovation in DRM (O3) to upgrade inadequate early warning systems (W4).</li> </ol>                                           |
| Threats (T)       | ST Strategies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WT Strategies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                   | <ul style="list-style-type: none"> <li><b>Strengthen Government Commitment Against Political Instability:</b> Reinforce the commitment of established institutional frameworks (S1) and government policies (S2) to ensure continuity amidst political instability (T2).</li> <li><b>Enhance Private Sector's Role in Socioeconomic Vulnerability:</b> Leverage private sector involvement (S5) to address socioeconomic vulnerabilities (T3) through PPPs aimed at community-based resilience programs.</li> <li><b>Utilize Civil Society to Tackle Resource Scarcity:</b> Engage civil society (S3) to foster community-based natural resource management to mitigate resource scarcity (T5).</li> </ul> | <ol style="list-style-type: none"> <li><b>Mitigate Financial Impact of Global Economic Fluctuations:</b> Strengthen financial management and policy implementation (W3) to prepare for the impact of global economic fluctuations (T4).</li> <li><b>Address Socioeconomic Vulnerability through Awareness Programs:</b> Enhance awareness and education (W5) to reduce the impact of socioeconomic vulnerabilities (T3).</li> <li><b>Improve Policy Implementation to Combat Resource Scarcity:</b> Improve the execution of existing policies (W3) to better manage growing resource scarcity (T5).</li> </ol> |

# DETAILED EXPLANATION OF SOR MATRIX STRATEGIES:

## 1. SO STRATEGIES (STRENGTHS + OPPORTUNITIES):

- **Enhance Capacity Building Using Institutional Frameworks:** Pakistan's robust institutional frameworks (S1) such as the NDMA and PDMA's can be utilized to drive capacity-building initiatives (O1). These institutions can partner with regional bodies like SAARC to share knowledge and resources (O2), improving national resilience.
- **Leverage International Partnerships for Innovation:** Pakistan's involvement in international agreements (S4) offers access to global innovations in disaster risk management (DRM). This can facilitate the adoption of cutting-edge technologies (O3) to enhance disaster preparedness.
- **Mobilize Private Sector for Climate Finance:** By leveraging the private sector's growing interest in CSR and sustainable practices (S5), Pakistan can mobilize resources to access global climate finance (O5), supporting large-scale DRM projects.

## 2. WO STRATEGIES (WEAKNESSES + OPPORTUNITIES):

- **Strengthen Financial Resources Through Global Climate Finance:** Pakistan can counter its limited financial resources (W1) by actively pursuing international climate finance mechanisms (O5), which will help fund DRM initiatives.
- **Improve Coordination via Regional Cooperation:** Fragmented coordination (W2) can be addressed by fostering regional cooperation (O2), enabling better integration of efforts between government entities, NGOs, and the private sector.
- **Enhance Early Warning Systems Using Innovative Technologies:** By adopting innovative DRM technologies (O3), Pakistan can improve its underdeveloped early warning systems (W4), reducing vulnerability to climate-related disasters.

## 3. ST STRATEGIES (STRENGTHS + THREATS):

- **Strengthen Government Commitment Against Political Instability:** The government's commitment (S2) and strong institutional frameworks (S1) must be bolstered to ensure the continuity of disaster management strategies despite political instability (T2).
- **Enhance Private Sector's Role in Socioeconomic Vulnerability:** The private sector's involvement (S5) can be crucial in mitigating socioeconomic vulnerabilities (T3) through initiatives that promote community resilience.
- **Utilize Civil Society to Tackle Resource Scarcity:** Engaging Pakistan's active civil society (S3) in natural resource management can be a key strategy in addressing the threat of resource scarcity (T5).

## 4. WT STRATEGIES (WEAKNESSES + THREATS):

- **Mitigate Financial Impact of Global Economic Fluctuations:** Strengthening policy implementation (W3) and improving financial management can help mitigate the adverse effects of global economic fluctuations (T4) on disaster preparedness funding.
- **Address Socioeconomic Vulnerability through Awareness Programs:** By increasing awareness and education on climate change and disaster preparedness (W5), Pakistan can reduce the impact of socioeconomic vulnerabilities (T3).
- **Improve Policy Implementation to Combat Resource Scarcity:** Effective implementation of policies (W3) is crucial in managing the growing scarcity of resources (T5), ensuring sustainable management practices are adopted.

The SOR matrix provides a strategic framework to address Pakistan's climate change and humanitarian challenges through the PRP roadmap. By leveraging strengths, addressing weaknesses, exploiting opportunities, and mitigating threats, stakeholders can enhance Pakistan's resilience and preparedness for future disasters.

# SECTION 3: RISK ASSESSMENT

## OVERVIEW

The Risk Assessment Matrix is designed to identify, evaluate, and prioritize potential risks that could impact the successful implementation of the PRP Roadmap. It outlines strategies to mitigate these risks, ensuring that preparedness and response measures are robust and effective.

## RISK CATEGORIES

The Risk Assessment Matrix is designed to identify, evaluate, and prioritize potential risks that could impact the successful implementation of the PRP Roadmap. It outlines strategies to mitigate these risks, ensuring that preparedness and response measures are robust and effective.

- **Operational Risks:** Risks related to the implementation of PRP initiatives, including delays, inadequate resources, and lack of coordination among stakeholders.
- **Financial Risks:** Risks associated with funding shortages, financial mismanagement, or unexpected costs.
- **Environmental Risks:** Risks posed by natural disasters or environmental changes that could affect project sites or disrupt activities.
- **Political and Legal Risks:** Risks arising from political instability, changes in government policy, or legal challenges that could affect project implementation.
- **Social Risks:** Risks related to community engagement, public perception, or resistance to proposed interventions.



# RISK ASSESSMENT MATRIX:

| RISK                                       | LIKELIHOOD | IMPACT | RISK LEVEL | MITIGATION MEASURES                                                                                                                                                                                                   |
|--------------------------------------------|------------|--------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operational Risks</b>                   |            |        |            |                                                                                                                                                                                                                       |
| Delays in project implementation           | Medium     | High   | High       | <ul style="list-style-type: none"> <li>- Establish clear timelines and milestones.</li> <li>- Regular monitoring and progress reviews.</li> <li>- Enhance coordination among stakeholders.</li> </ul>                 |
| Inadequate resources (human/technical)     | High       | Medium | High       | <ul style="list-style-type: none"> <li>- Develop a comprehensive resource plan.</li> <li>- Provide capacity-building training for staff.</li> <li>- Secure additional resources through partnerships.</li> </ul>      |
| Lack of coordination among stakeholders    | Medium     | High   | High       | <ul style="list-style-type: none"> <li>- Establish a national coordination mechanism.</li> <li>- Conduct regular stakeholder meetings.</li> <li>- Develop clear roles and responsibilities.</li> </ul>                |
| <b>Financial Risks</b>                     |            |        |            |                                                                                                                                                                                                                       |
| Funding shortages or delays                | High       | High   | High       | <ul style="list-style-type: none"> <li>- Diversify funding sources.</li> <li>- Develop contingency funding plans.</li> <li>- Engage in continuous fundraising efforts.</li> </ul>                                     |
| Financial mismanagement                    | Low        | High   | Medium     | <ul style="list-style-type: none"> <li>- Conduct regular financial audits.</li> <li>- Implement robust financial controls.</li> <li>- Provide financial management training.</li> </ul>                               |
| <b>Environmental Risks</b>                 |            |        |            |                                                                                                                                                                                                                       |
| Natural disasters (floods, earthquakes)    | Medium     | High   | High       | <ul style="list-style-type: none"> <li>- Develop disaster contingency plans.</li> <li>- Enhance early warning systems.</li> <li>- Implement climate-resilient infrastructure.</li> </ul>                              |
| Environmental degradation at project sites | Low        | Medium | Low        | <ul style="list-style-type: none"> <li>- Conduct environmental impact assessments.</li> <li>- Implement sustainable practices.</li> <li>- Monitor environmental changes regularly.</li> </ul>                         |
| <b>Political and Legal Risks</b>           |            |        |            |                                                                                                                                                                                                                       |
| Political instability                      | Medium     | High   | High       | <ul style="list-style-type: none"> <li>- Develop contingency plans for political changes.</li> <li>- Engage with government stakeholders regularly.</li> <li>- Advocate for policy continuity and support.</li> </ul> |
| Changes in government policy               | Low        | Medium | Low        | <ul style="list-style-type: none"> <li>- Maintain flexibility in project planning.</li> <li>- Monitor policy changes and adapt accordingly.</li> <li>- Engage in policy advocacy and dialogue.</li> </ul>             |
| <b>Social Risks</b>                        |            |        |            |                                                                                                                                                                                                                       |
| Community resistance to interventions      | Medium     | Medium | Medium     | <ul style="list-style-type: none"> <li>- Conduct community consultations.</li> <li>- Engage in awareness campaigns.</li> <li>- Incorporate community feedback into planning.</li> </ul>                               |
| Negative public perception                 | Low        | Medium | Low        | <ul style="list-style-type: none"> <li>- Develop a proactive communication strategy.</li> <li>- Highlight positive project impacts.</li> <li>- Engage with media and public regularly.</li> </ul>                     |



## RISK MITIGATION STRATEGIES:



**Proactive Planning:** Develop detailed project plans with built-in contingencies to address potential risks.



**Stakeholder Engagement:** Regularly engage with stakeholders to ensure alignment and support for PRP initiatives.



**Continuous Monitoring:** Establish a system for continuous monitoring and risk assessment to identify emerging risks and respond promptly.



**Adaptability:** Maintain flexibility in project implementation to adapt to changing circumstances or unexpected challenges.



# SECTION 4: STRATEGIC ROADMAP AND FINANCIAL STABILITY

A detailed strategic road map is developed to implement the recommended strategies and initiatives. The progress of implementation should be monitored, and the effectiveness of the strategies should be assessed. Continuously evaluating the outcomes and making necessary adjustments is crucial to ensure ongoing improvement in Pakistan's disaster response capabilities.

## STRATEGIC ROADMAP

Pakistan is facing profound challenges in addressing the impacts of climate change and related humanitarian crises. These challenges are deeply rooted in gaps within the country's existing policies, frameworks, resources, and institutional capacities. The strategic roadmap for enhancing Pakistan's preparedness and response measures must address the significant gaps in policies, frameworks, resources, and capacities that currently undermine the country's ability to manage climate change and related humanitarian challenges. By strengthening policy integration, overcoming resource constraints, bolstering institutional capacities, and promoting community engagement, Pakistan can build a more resilient and adaptive society capable of withstanding the growing threats posed by climate change. This comprehensive approach will not only improve the effectiveness of disaster management efforts but also contribute to sustainable development and the long-term well-being of the nation. The strategic roadmap for enhancing Pakistan's preparedness and response measures must address these critical gaps to build a more resilient and adaptive society. This roadmap will focus on strengthening policy integration, overcoming resource constraints, and bolstering institutional capacities to effectively manage climate-related risks.

# RESOURCE MOBILIZATION AND INSTITUTIONAL FUNDING

Due to its vulnerability to climate change, Pakistan faces significant challenges in managing disasters. To address these challenges, Pakistan needs robust funding for disaster risk reduction and management (DRRM) especially for climate induced disasters.

To ensure financial sustainability of its interventions, ADPC through PRP can advocate with the government of Pakistan to allocate funds to disaster management agencies and departments through the annual budget process. However, the adequacy of these allocations often depends on the severity of recent disasters and the overall economic situation. Similarly, ADPC can collaborate and partner with international organizations and trust like the United Nations, the World Bank, and the Asian Development Bank offer loans, grants, and technical assistance to support DRRM initiatives in Pakistan.

Pakistan is eligible for climate finance through various mechanisms, including the Green Climate Fund (GCF), the Adaptation Fund, and the Climate Investment Funds (CIFs). ADPC must work towards developing long term partnerships with these climate financing mechanisms. Another focus area of ADPC must be Public-Private Partnerships (PPPs) which can be leveraged to finance and implement infrastructure projects, such as flood control systems, early warning systems, and disaster-resistant housing. Risk Transfer through private sector insurers can provide risk transfer mechanisms, such as catastrophe bonds, to mitigate the financial impact of disasters.

## ADVOCACY

Advocacy is vital for ensuring that climate resilience and disaster preparedness become integral parts of national and local development strategies in Pakistan. By launching a national campaign and organizing roundtable discussions, stakeholders can build a unified voice to influence policy changes. Advocacy materials like policy briefs and fact sheets are essential tools for convincing government officials to allocate more resources to climate resilience initiatives. Grassroots advocacy training empowers community leaders to actively participate in the decision-making process, ensuring that local needs are met. Media partnerships can further amplify these efforts, bringing widespread public attention to the importance of resilience investments.

Advocacy activities must be continuous and adaptive, responding to the evolving needs of Pakistan's socio-political landscape. Engaging a broad spectrum of stakeholders, from policymakers to grassroots organizations, ensures that the push for climate resilience is comprehensive and inclusive. This multi-layered approach will help create an enabling environment where disaster preparedness and climate adaptation are prioritized, adequately funded, and effectively implemented across all sectors. Through persistent advocacy, the strategic PRP roadmap can lay the groundwork for a resilient Pakistan that is better equipped to face the challenges posed by climate change



Akhtar Soomro/Reuters



## CAPACITY BUILDING

Capacity building is essential for equipping all stakeholders with the necessary skills and knowledge to effectively respond to climate challenges. Training government officials on climate change adaptation ensures that policies are not only developed but also implemented effectively. Workshops for SMEs focus on integrating resilience into business models, which is crucial for sustaining economic stability in the face of disasters. Community-based training programs empower local populations, fostering a culture of preparedness and self-reliance. The mentorship program facilitates knowledge transfer between seasoned professionals and new entrants, ensuring continuity and the growth of expertise in disaster management.

Technical training for civil society organizations enhances their ability to manage and scale climate resilience projects, improving their overall impact. By strengthening the capacities of all stakeholders, Pakistan can build a robust system where disaster preparedness is ingrained at every level, from government policies to community actions. These capacity-building activities contribute to the long-term sustainability of climate resilience efforts, ensuring that all sectors of society are equipped to handle the challenges posed by climate change. Through continuous learning and skill development, the strategic PRP roadmap aims to create a well-prepared and resilient Pakistan.

## STRENGTHENING OPERATIONAL CAPACITY

Strengthening operational capacity is critical for improving the efficiency and effectiveness of disaster preparedness and response in Pakistan. Upgrading early warning systems ensures timely dissemination of information, allowing communities to take protective actions. Developing standardized operating procedures promotes coordination among diverse stakeholders, minimizing gaps and overlaps in disaster response efforts. Securing the necessary equipment and resources is vital for enabling a swift and effective response to emergencies, reducing the potential for loss of life and property. Regular simulation exercises help test the readiness of all stakeholders, providing valuable insights for refining strategies and improving operational efficiency.

Technical assistance to local governments in developing disaster contingency plans ensures that response measures are tailored to the specific needs and risks of each region. By strengthening operational capacities, the PRP roadmap aims to create a more resilient Pakistan where disasters are met with well-coordinated and efficient responses. These activities lay the foundation for a disaster management system that is proactive, rather than reactive, capable of anticipating and mitigating risks before they escalate into crises. Strengthening operational capacity not only enhances immediate response efforts but also contributes to the overall resilience and sustainability of communities across the country.

# COMMUNICATION

Effective communication is the cornerstone of successful disaster preparedness and response. A comprehensive national communication strategy ensures that information on climate risks and disaster preparedness reaches all segments of society. Multi-channel communication platforms, including mobile alerts and social media, allow for real-time dissemination of critical information, enabling communities to respond swiftly to emerging threats. A mobile application tailored to local needs further enhances this effort, providing users with timely alerts and practical safety tips. Public awareness campaigns and educational materials in local languages help bridge the knowledge gap, making climate resilience concepts more accessible to all.

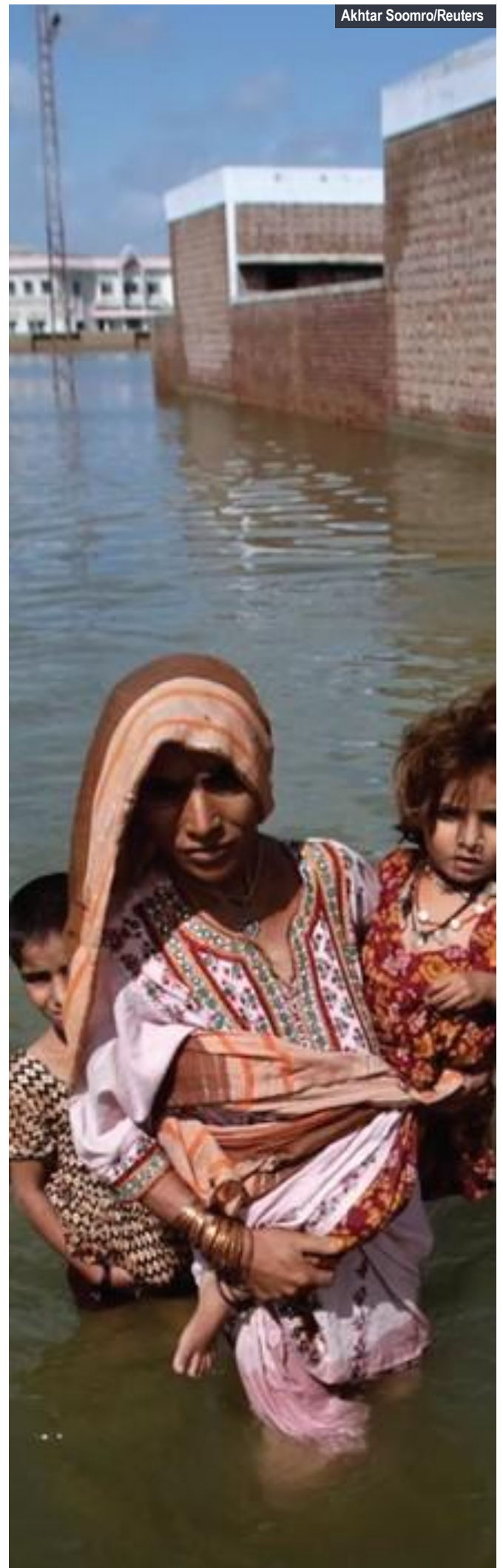
By fostering a culture of preparedness through consistent and clear communication, the PRP roadmap aims to empower communities across Pakistan. These activities not only enhance the immediate response capabilities of individuals and communities but also contribute to long-term resilience by ingraining disaster preparedness into daily life. Effective communication ensures that everyone, from government officials to local communities, is informed and ready to act when disaster strikes. This approach promotes a more resilient society where the flow of information is seamless, timely, and actionable, ultimately saving lives and reducing the impact of disasters.

## KNOWLEDGE MANAGEMENT

Knowledge management is essential for ensuring that valuable insights and experiences are systematically captured and shared among stakeholders. A centralized online repository provides easy access to research, reports, and case studies, fostering informed decision-making and policy development. A knowledge-sharing platform facilitates the exchange of best practices and lessons learned, enabling stakeholders to build on each other's successes and avoid common pitfalls. Regular webinars and workshops keep stakeholders updated on the latest trends and innovations in climate adaptation and disaster risk reduction, promoting continuous learning and skill enhancement.

Publishing an annual report on the state of climate resilience and disaster preparedness provides a comprehensive overview of progress, challenges, and areas for improvement. Creating a network of climate resilience professionals fosters collaboration, ensuring that knowledge is not only preserved but also actively used to enhance preparedness and response efforts. Through these activities, the PRP roadmap aims to build a knowledge-driven approach to climate resilience, where stakeholders are equipped with the information and expertise needed to effectively tackle the challenges posed by climate change. This systematic approach to knowledge management ensures that the lessons of today inform the actions of tomorrow.

Akhtar Soomro/Reuters



## COOPERATION AND COORDINATION

Effective cooperation and coordination are critical for ensuring a unified and robust disaster preparedness and response framework in Pakistan. Establishing a national coordination mechanism aligns the efforts of government agencies, civil society, and the private sector, ensuring that all stakeholders work together towards common goals. Regular stakeholder meetings facilitate the development and refinement of coordinated disaster response strategies, promoting a cohesive approach to managing climate risks. Regional cooperation frameworks within SAARC allow for joint disaster risk reduction initiatives, leveraging shared resources, expertise, and best practices across South Asia.

Public-private partnerships (PPPs) are crucial for mobilizing resources and developing the infrastructure needed to support disaster management efforts. Additionally, developing cross-border coordination protocols with neighboring countries is essential for managing shared climate risks and ensuring a coordinated response to trans-boundary disasters. Through these activities, the PRP roadmap aims to create a collaborative environment where all stakeholders are aligned and working together towards enhancing Pakistan's resilience to climate change. This cooperative approach not only improves disaster response but also fosters long-term partnerships that can adapt to evolving challenges.

## CLIMATE RESILIENT INFRASTRUCTURE

Investing in climate-resilient infrastructure is essential for safeguarding Pakistan's communities against the increasing frequency and severity of climate-related disasters. Prioritizing the construction of flood-resistant housing and community shelters in high-risk areas provides immediate protection for vulnerable populations. Upgrading existing public infrastructure, such as roads and bridges, ensures that essential services remain operational during extreme weather events. Implementing green infrastructure projects, like urban green spaces and water management systems, further mitigates the impacts of climate change by enhancing natural defenses. These efforts not only protect lives and property but also contribute to the long-term sustainability of urban and rural areas.

Encouraging the adoption of climate-resilient building codes and standards in urban planning and construction is crucial for embedding resilience into the fabric of Pakistan's development. Developing climate-resilient public facilities, including schools and healthcare centers, in vulnerable regions ensures that critical services can continue to operate during and after disasters. By incorporating climate resilience into infrastructure planning and development, Pakistan can reduce its vulnerability to climate change and create safer, more sustainable communities. This approach not only addresses immediate risks but also lays the foundation for a resilient future, where infrastructure supports adaptive capacity and long-term growth.



Muhammed Muheisen/AP

## CLIMATE RESILIENT AGRICULTURE

Promoting climate-resilient agriculture is key to securing Pakistan's food supply and livelihoods in the face of climate change. Encouraging the adoption of climate-smart agricultural practices, such as drought-resistant crop varieties and efficient water management, helps farmers adapt to changing weather patterns. Providing training on sustainable land management techniques enhances soil health, reduces climate vulnerability, and boosts agricultural productivity. Establishing a weather forecasting and advisory service empowers farmers with the information needed to make informed decisions about planting and harvesting, minimizing losses and optimizing yields.

Supporting smallholder farmers through access to climate-resilient seeds, fertilizers, and other inputs ensures that even the most vulnerable can build resilience against climate shocks. Encouraging agroforestry and sustainable livestock management practices diversifies income sources and strengthens the ability of farming communities to withstand climate-related challenges. By integrating these practices into the agricultural sector, Pakistan can enhance food security, protect rural livelihoods, and contribute to the overall resilience of its economy. These initiatives foster a sustainable agricultural system that is better equipped to cope with the impacts of climate change while promoting environmental stewardship and economic stability.





## DETAILED IMPLEMENTATION PLAN

A comprehensive approach to enhancing climate resilience and disaster preparedness in Pakistan encompasses advocacy, capacity building, operational capacity strengthening, effective communication, knowledge management, cooperation and coordination, climate-resilient infrastructure, and agriculture. By launching nationwide campaigns, fostering dialogue among stakeholders, and implementing targeted training and technical assistance, the framework aims to build a robust and adaptive system. Upgrading early warning systems, developing climate-resilient infrastructure, and supporting sustainable agricultural practices further solidify these efforts. Together, these activities will ensure a unified and effective response to climate challenges, promoting long-term resilience and sustainability for communities across the nation.

| Activities                                                                                                                                                                      | Year 1 |     |     |     | Year 2 |     |     |     | Year 3 | Year 4 | Year 5 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----|-----|-----|--------|-----|-----|-----|--------|--------|--------|
|                                                                                                                                                                                 | Q 1    | Q 2 | Q 3 | Q 4 | Q 1    | Q 2 | Q 3 | Q 4 |        |        |        |
| <b>Advocacy</b>                                                                                                                                                                 |        |     |     |     |        |     |     |     |        |        |        |
| National advocacy campaign to raise awareness among policy makers and public                                                                                                    |        |     |     |     |        |     |     |     |        |        |        |
| Organize multi-stakeholder forums to promote dialogue                                                                                                                           |        |     |     |     |        |     |     |     |        |        |        |
| Engage with media outlets to highlight successful case studies                                                                                                                  |        |     |     |     |        |     |     |     |        |        |        |
| Collaborate with civil society organizations                                                                                                                                    |        |     |     |     |        |     |     |     |        |        |        |
| Facilitate policy dialogues between government departments, private sector, and civil society                                                                                   |        |     |     |     |        |     |     |     |        |        |        |
| <b>Capacity Building</b>                                                                                                                                                        |        |     |     |     |        |     |     |     |        |        |        |
| Training workshops for government officials and University Students, in partnership with NIDM, NHN, CWSA and NUST                                                               |        |     |     |     |        |     |     |     |        |        |        |
| Specialized training programs for SMEs                                                                                                                                          |        |     |     |     |        |     |     |     |        |        |        |
| E-learning modules for Government officials, university students, faculty, CBOs, and community leaders and civil society organizations (Kaya, Disaster Ready, Agora, MDI, etc.) |        |     |     |     |        |     |     |     |        |        |        |
| Capacity-building sessions for local NGOs/ CBOs                                                                                                                                 |        |     |     |     |        |     |     |     |        |        |        |
| Establish a mentorship program                                                                                                                                                  |        |     |     |     |        |     |     |     |        |        |        |
| <b>Operational Capacity Strengthening</b>                                                                                                                                       |        |     |     |     |        |     |     |     |        |        |        |
| Enhance the early warning systems                                                                                                                                               |        |     |     |     |        |     |     |     |        |        |        |
| Develop standard operating procedures (SOPs)                                                                                                                                    |        |     |     |     |        |     |     |     |        |        |        |
| Provide technical assistance to local governments                                                                                                                               |        |     |     |     |        |     |     |     |        |        |        |
| Upgrade the logistical capabilities                                                                                                                                             |        |     |     |     |        |     |     |     |        |        |        |
| Strengthen the capacity of emergency response teams                                                                                                                             |        |     |     |     |        |     |     |     |        |        |        |
| <b>Communication</b>                                                                                                                                                            |        |     |     |     |        |     |     |     |        |        |        |
| Develop a national communication strategy                                                                                                                                       |        |     |     |     |        |     |     |     |        |        |        |
| Establish a multi-channel communication platform                                                                                                                                |        |     |     |     |        |     |     |     |        |        |        |
| Launch a mobile app                                                                                                                                                             |        |     |     |     |        |     |     |     |        |        |        |
| Organize community-based awareness campaigns                                                                                                                                    |        |     |     |     |        |     |     |     |        |        |        |

|                                                                                       |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Produce and distribute educational materials                                          |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Knowledge Management</b>                                                           |  |  |  |  |  |  |  |  |  |  |  |  |
| Create a centralized online repository of research, reports, and case studies         |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a knowledge-sharing platform                                                  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conduct regular webinars and knowledge exchange sessions                              |  |  |  |  |  |  |  |  |  |  |  |  |
| Publish an annual report                                                              |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish a network of climate resilience professionals                               |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Cooperation and Coordination</b>                                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Set up a national coordination mechanism                                              |  |  |  |  |  |  |  |  |  |  |  |  |
| Facilitate regular meetings between government, NGOs, and private sector stakeholders |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop regional cooperation frameworks                                               |  |  |  |  |  |  |  |  |  |  |  |  |
| Promote public-private partnerships (PPPs)                                            |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish cross-border coordination protocols                                         |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Climate Resilient Infrastructure</b>                                               |  |  |  |  |  |  |  |  |  |  |  |  |
| Invest in the construction of flood-resistant housing and community shelters          |  |  |  |  |  |  |  |  |  |  |  |  |
| Upgrade existing public infrastructure                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement green infrastructure projects                                               |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop climate-resilient public facilities                                           |  |  |  |  |  |  |  |  |  |  |  |  |
| Encourage the adoption of climate-resilient building codes and standards              |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Climate Resilient Agriculture</b>                                                  |  |  |  |  |  |  |  |  |  |  |  |  |
| Promote the adoption of climate-smart agricultural practices                          |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide training for farmers on sustainable land management techniques                |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish a weather forecasting and advisory service                                  |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a support program for smallholder farmers                                     |  |  |  |  |  |  |  |  |  |  |  |  |
| Encourage agroforestry and sustainable livestock management practices                 |  |  |  |  |  |  |  |  |  |  |  |  |



# FINANCIAL SUSTAINABILITY MANAGEMENT PLAN

## OVERVIEW:

The Financial Sustainability Management Plan aims to ensure the long-term viability and effectiveness of the Promoting Resilient Partnership (PRP) initiatives by identifying and securing diverse funding sources. This plan outlines strategies for financial planning, resource allocation, fundraising, and cost management to support the continuous implementation of disaster preparedness and response measures.

## OBJECTIVES:

- To identify and secure stable and diversified funding sources for PRP initiatives.
- To ensure efficient allocation and utilization of financial resources.
- To develop mechanisms for financial monitoring and reporting to maintain transparency and accountability.
- To engage in strategic partnerships for co-funding and resource mobilization.

# FUNDING SOURCES:

## a. Domestic Funding:

- Government Budget Allocations: Advocate for increased funding from national and provincial budgets for disaster risk reduction (DRR) and climate resilience projects.
- Public-Private Partnerships (PPPs): Collaborate with private sector partners to fund infrastructure projects, community-based adaptation initiatives, and technology upgrades for disaster response.

## b. International Funding:

- Multilateral Agencies: Engage with international donors such as the World Bank, Asian Development Bank, and United Nations Development Programme to secure grants and loans for DRR initiatives.
- Climate Funds: Access international climate finance mechanisms such as the Green Climate Fund (GCF), Adaptation Fund, and Climate Investment Funds (CIFs) for large-scale resilience projects.

## c. Philanthropy and Donations:

- Non-Governmental Organizations (NGOs) and Foundations: Partner with global and local NGOs, philanthropic organizations, and foundations to support community-based programs and capacity-building efforts.
- Crowdfunding and Donations: Utilize online platforms and community fundraising campaigns to raise funds for specific projects or emergency response efforts.



## FINANCIAL PLANNING AND BUDGETING:

- **Annual Budgeting:** Develop annual budgets aligned with the strategic priorities of the PRP Roadmap, ensuring funds are allocated efficiently across various programs and initiatives.
- **Contingency Funds:** Establish contingency funds to provide financial flexibility in responding to unexpected disasters or changes in project scope.

## COST MANAGEMENT STRATEGIES:

- **Cost-Benefit Analysis:** Regularly conduct cost-benefit analyses to prioritize high-impact, cost-effective interventions.
- **Efficiency Measures:** Implement measures to reduce operational costs, such as leveraging technology for remote training or using local resources for project implementation.

## MONITORING AND REPORTING:

- **Financial Audits:** Conduct regular internal and external financial audits to ensure accountability and transparency in the use of funds.
- **Financial Reporting:** Establish a robust financial reporting system that provides regular updates on budget performance, expenditures, and funding gaps to stakeholders.

## CAPACITY BUILDING FOR FINANCIAL MANAGEMENT:

- **Training Programs:** Develop training programs for staff and partners on financial management, budgeting, and reporting to enhance financial literacy and accountability.
- **Technical Assistance:** Provide technical assistance to local governments and NGOs to strengthen their financial management capacities and ensure compliance with donor requirements.

## STRATEGIC PARTNERSHIPS:

- **Co-Funding Agreements:** Develop co-funding agreements with international donors, private sector partners, and NGOs to pool resources and achieve common objectives.
- **Advocacy for Climate Finance:** Engage in advocacy efforts to promote increased climate finance from international donors and financial institutions for Pakistan's resilience-building efforts.





## SECTION 5: CAPACITY BUILDING PLAN

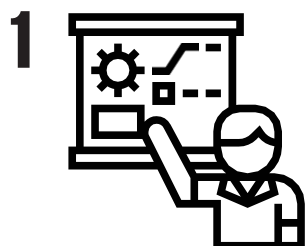
In addressing the challenges posed by climate change and natural disasters, capacity building is crucial for enhancing preparedness and response measures. The Promoting Resilient Preparedness (PRP) Roadmap aims to fortify the resilience of Pakistan's key stakeholders—government departments, civil society organizations (CSOs), the general public, and private businesses including SMEs. This narrative provides a detailed capacity-building plan to empower these stakeholders, ensuring a cohesive approach to climate resilience and disaster management.

The Promoting Resilient Partnership (PRP) Roadmap aims to enhance Pakistan's preparedness and response measures concerning climate change and humanitarian crises. Effective capacity building is crucial for ensuring that key stakeholders—government departments, civil society organizations (CSOs), the general public, and private businesses including SMEs—are equipped to tackle these challenges. This capacity-building plan outlines strategic activities tailored to each stakeholder group, focusing on developing the skills, knowledge, and resources needed to improve resilience and response mechanisms.



# GOVERNMENT DEPARTMENTS

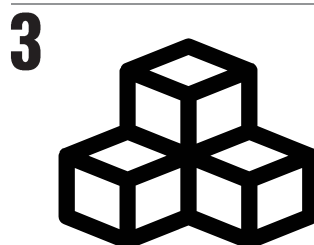
Government departments are central to implementing and enforcing climate resilience and disaster preparedness strategies. Therefore, their capacity must be bolstered through targeted activities:



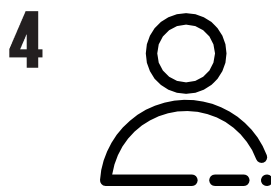
**Training Workshops on Climate Adaptation and Disaster Management:** Government officials will participate in comprehensive training workshops designed to enhance their understanding of climate adaptation strategies and disaster risk management. These workshops will cover areas such as climate modeling, impact assessment, and emergency response planning. Emphasis will be placed on interactive learning and practical application, ensuring that officials can effectively incorporate these strategies into policy development and emergency response.



**Specialized Training Programs for Policy Implementation:** Tailored training programs will focus on the integration of climate resilience into national and local development plans. These programs will include case studies, policy formulation techniques, and best practices for effective policy implementation.



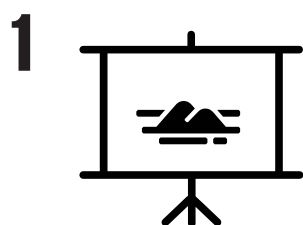
**E-Learning Modules for Continuous Learning:** To provide ongoing education, e-learning modules will be developed for government officials. These will offer flexible, on-demand learning opportunities on topics such as disaster preparedness, climate finance, and strategic planning. Modules will include interactive content, quizzes, and certification. The platforms used for these training will include Kaya, Agora, MDI and similar platforms.



**Mentorship Program for Emerging Leaders:** A mentorship program will connect experienced climate experts with emerging leaders in government. This initiative will provide guidance, career development, and knowledge transfer, fostering a new generation of climate resilience leaders.

# CIVIL SOCIETY ORGANIZATIONS (CSOS)

CSOs play a vital role in community mobilization and advocacy. Capacity building for these organizations will focus on:



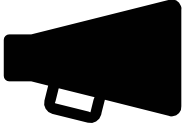
**Disaster Risk Reduction and Community Mobilization Workshops:** CSOs will engage in workshops aimed at enhancing their capabilities in disaster risk reduction, community mobilization, and resilience building. These workshops will provide practical tools for engaging local communities, conducting risk assessments, and developing community-based response plans.



**Advocacy and Policy Engagement Training:** Training sessions will be conducted to strengthen CSOs' ability to advocate for climate resilience policies and secure funding. Sessions will cover strategic advocacy, grant writing, and policy engagement techniques.

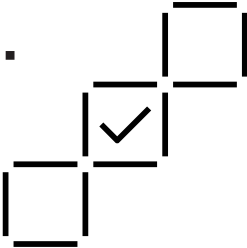
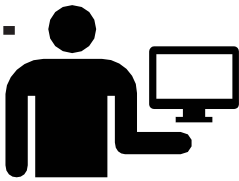
# GENERAL PUBLIC

The general public's awareness and preparedness are essential for community resilience. Capacity-building activities for the public will include:

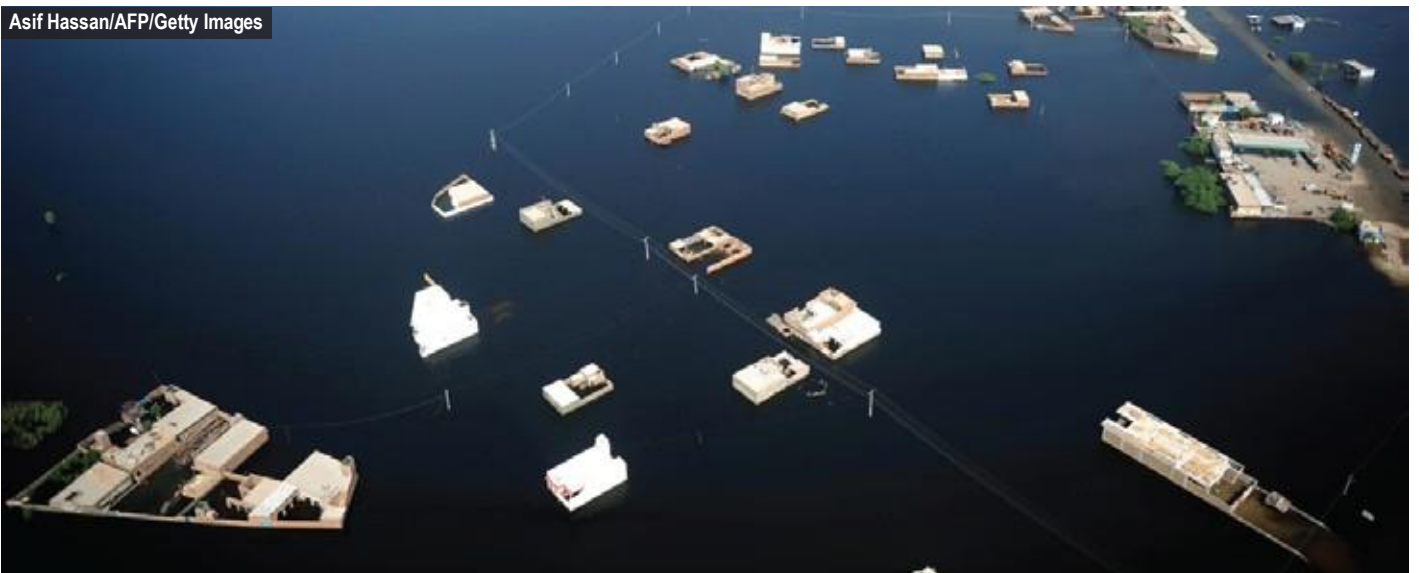
- **Community-Based Awareness Campaigns:** Comprehensive campaigns will be organized to raise awareness about disaster preparedness, climate risks, and resilience measures. These campaigns will use public service announcements, workshops, and community events to disseminate critical information.
- **Educational Materials in Local Languages:** To ensure accessibility, educational materials will be produced in local languages. These will include brochures, flyers, and infographics that cover climate risks, disaster preparedness, and emergency response.

## PRIVATE BUSINESSES AND SMES

Private businesses and SMEs are critical in implementing climate-smart practices and enhancing economic resilience. Capacity-building efforts will focus on:

- **Specialized Training Programs on Climate-Smart Practices:** SMEs will participate in training programs that emphasize the integration of climate-smart practices into their operations. These programs will cover resource efficiency, waste management, and sustainable supply chains, helping businesses reduce their environmental impact and build resilience.
- **Mentorship and Technical Support:** A mentorship program will be established to connect SMEs with experts who can provide advice and support on implementing climate-resilient practices. Additionally, a support network will be created to offer technical assistance and best practice sharing.

Asif Hassan/AFP/Getty Images

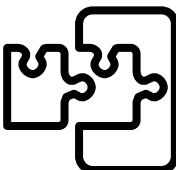


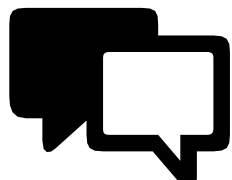


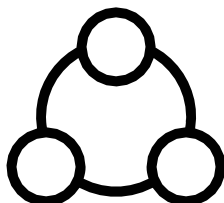
## OVERALL CAPACITY BUILDING STRATEGY

To ensure the effectiveness of the capacity-building plan, the following strategic approaches will be adopted:

- 1** 

**Needs Assessment:** A thorough needs assessment will be conducted to identify specific gaps and training requirements for each stakeholder group. This will inform the development of targeted capacity-building activities.
- 2** 

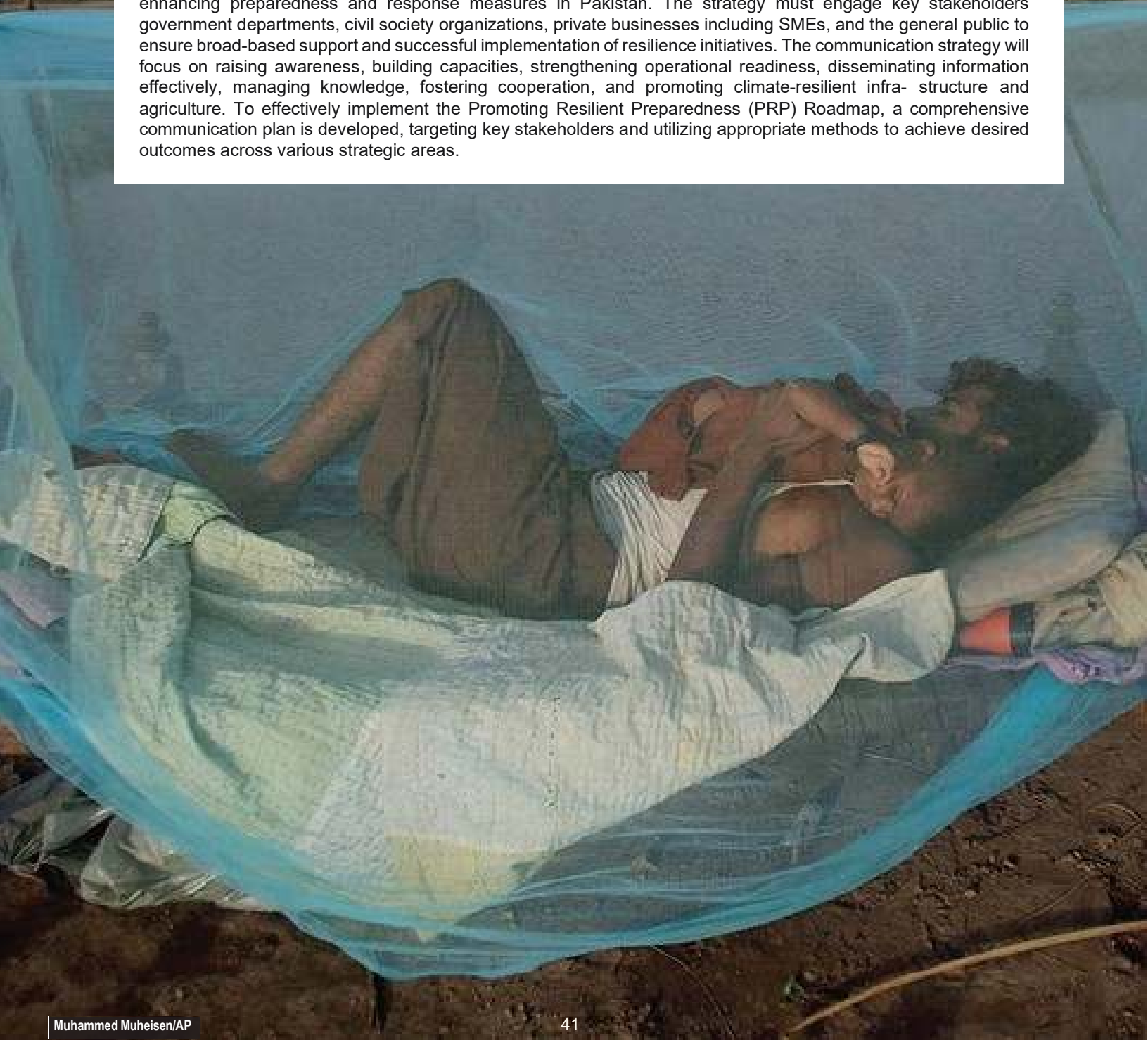
**Customized Training Modules:** Training modules will be customized to address the unique needs of government departments, CSOs, the general public, and SMEs. These modules will include interactive content, case studies, and real-world scenarios.
- 3.** 

**Evaluation and Feedback Mechanisms:** A robust evaluation framework will be implemented to assess the impact of training activities and gather feedback for continuous improvement. This will include pre- and post-training assessments, participant feedback, and impact evaluations.
- 4.** 

**Partnerships and Collaborations:** Partnerships will be fostered with academic institutions, professional organizations, and international experts to enhance the quality and relevance of capacity-building activities. Collaborative efforts will ensure access to cutting-edge knowledge and best practices.

# SECTION 6: COMMUNICATIONS STRATEGY

Developing a communication strategy for the Promoting Resilient Preparedness (PRP) Roadmap is critical to enhancing preparedness and response measures in Pakistan. The strategy must engage key stakeholders government departments, civil society organizations, private businesses including SMEs, and the general public to ensure broad-based support and successful implementation of resilience initiatives. The communication strategy will focus on raising awareness, building capacities, strengthening operational readiness, disseminating information effectively, managing knowledge, fostering cooperation, and promoting climate-resilient infrastructure and agriculture. To effectively implement the Promoting Resilient Preparedness (PRP) Roadmap, a comprehensive communication plan is developed, targeting key stakeholders and utilizing appropriate methods to achieve desired outcomes across various strategic areas.



In the advocacy domain, the plan focuses on raising awareness about climate resilience and disaster preparedness among policymakers and the public. This will be achieved through a national advocacy campaign that includes media campaigns and forums. By engaging with media outlets, the campaign will highlight successful case studies of climate adaptation and disaster risk reduction, thus fostering a broader understanding and support for these initiatives. Collaborative efforts with civil society organizations will emphasize the need for increased government budget allocations for climate resilience. Additionally, policy dialogues will be facilitated to bring together government departments, the private sector, and civil society to influence the development of robust climate resilience policies. The expected outcomes of these activities are an increase in public and policymaker awareness, the integration of climate resilience into development plans, and greater budgetary support for resilience initiatives.

Capacity building is another critical area where targeted communication plays a significant role. The plan includes conducting training workshops for government officials on climate change adaptation and disaster risk management. Specialized training programs will be implemented for SMEs to incorporate climate-smart practices into their operations. The development of e-learning modules will further support community leaders and civil society organizations in mastering disaster preparedness and response strategies. Capacity-building sessions for local NGOs will focus on securing international climate finance and project management. A mentorship program will also be established to connect experienced climate experts with emerging professionals. These activities will be communicated through workshops, e-learning platforms, and mentorship programs, with the goal of enhancing skills and knowledge in climate-smart practices, improving disaster preparedness, and strengthening local NGOs and SMEs.

In the realm of operational capacity strengthening, the plan will address the need for improved disaster preparedness and response through various initiatives. Enhancements to early warning systems will integrate advanced technology and ensure real-time data sharing. The development of standard operating procedures (SOPs) will facilitate coordinated disaster response among government agencies, civil society, and private sector partners. Technical assistance will be provided to local governments to create disaster contingency plans tailored to regional risks. Additionally, logistical capabilities will be upgraded, and regular drills and simulations will be conducted to improve emergency response teams' readiness. Communication for these activities will include technical assistance, SOPs development, and drills and simulations, aiming to achieve improved operational readiness, standardized disaster response procedures, and enhanced logistical capabilities.



The communication activities component of the plan involves developing a national communication strategy to disseminate information on climate risks and disaster preparedness. A multi-channel communication platform will be established for real-time updates on disaster risks and ongoing response efforts. A mobile app will be launched to provide localized disaster alerts and preparedness tips. Community-based awareness campaigns will focus on the importance of early warning systems and emergency response, while educational materials will be produced and distributed in local languages to enhance community understanding. These methods will ensure timely and accurate information dissemination, improved public awareness and preparedness, and enhanced community understanding of climate resilience.

Knowledge management activities are designed to facilitate continuous learning and collaboration among stakeholders. A centralized online repository will be created to house research, reports, and case studies on climate resilience and disaster management. A knowledge-sharing platform will be developed to allow stakeholders to exchange best practices and lessons learned. Regular webinars and knowledge exchange sessions featuring national and international experts will provide ongoing learning opportunities. An annual report will highlight key achievements and areas for improvement, and a network of climate resilience professionals will be established for continuous collaboration. These activities will be communicated through online repositories, knowledge-sharing platforms, and webinars, resulting in centralized access to knowledge resources, continuous learning, and enhanced dissemination of best practices.



The plan for cooperation and coordination activities focuses on aligning efforts across various sectors for effective disaster preparedness and response. A national coordination mechanism will be set up to streamline collaboration between government agencies, civil society, and the private sector. Regular stakeholder meetings will be facilitated to ensure coordinated response strategies. Regional cooperation frameworks within SAARC will be developed to enhance joint disaster risk reduction initiatives. Public-private partnerships (PPPs) will be promoted to boost infrastructure and resource mobilization for disaster management, and cross-border coordination protocols will be established for managing shared climate risks. These activities will be communicated through stakeholder meetings, regional cooperation frameworks, and PPPs, with the expected outcomes including aligned disaster preparedness efforts, strengthened regional cooperation, and effective cross-border disaster management.

In addressing climate-resilient infrastructure, the plan includes investing in flood-resistant housing and community shelters in high-risk areas. Existing public infrastructure will be upgraded to withstand extreme weather events, and green infrastructure projects will be implemented to mitigate climate impacts. The development of climate-resilient public facilities, such as schools and healthcare centers, will be prioritized, and resilient building codes will be encouraged. Communication for these activities will focus on infrastructure development, urban planning workshops, and policy advocacy, leading to reduced vulnerability to climate-related risks, enhanced community protection, and adoption of climate-resilient building practices.

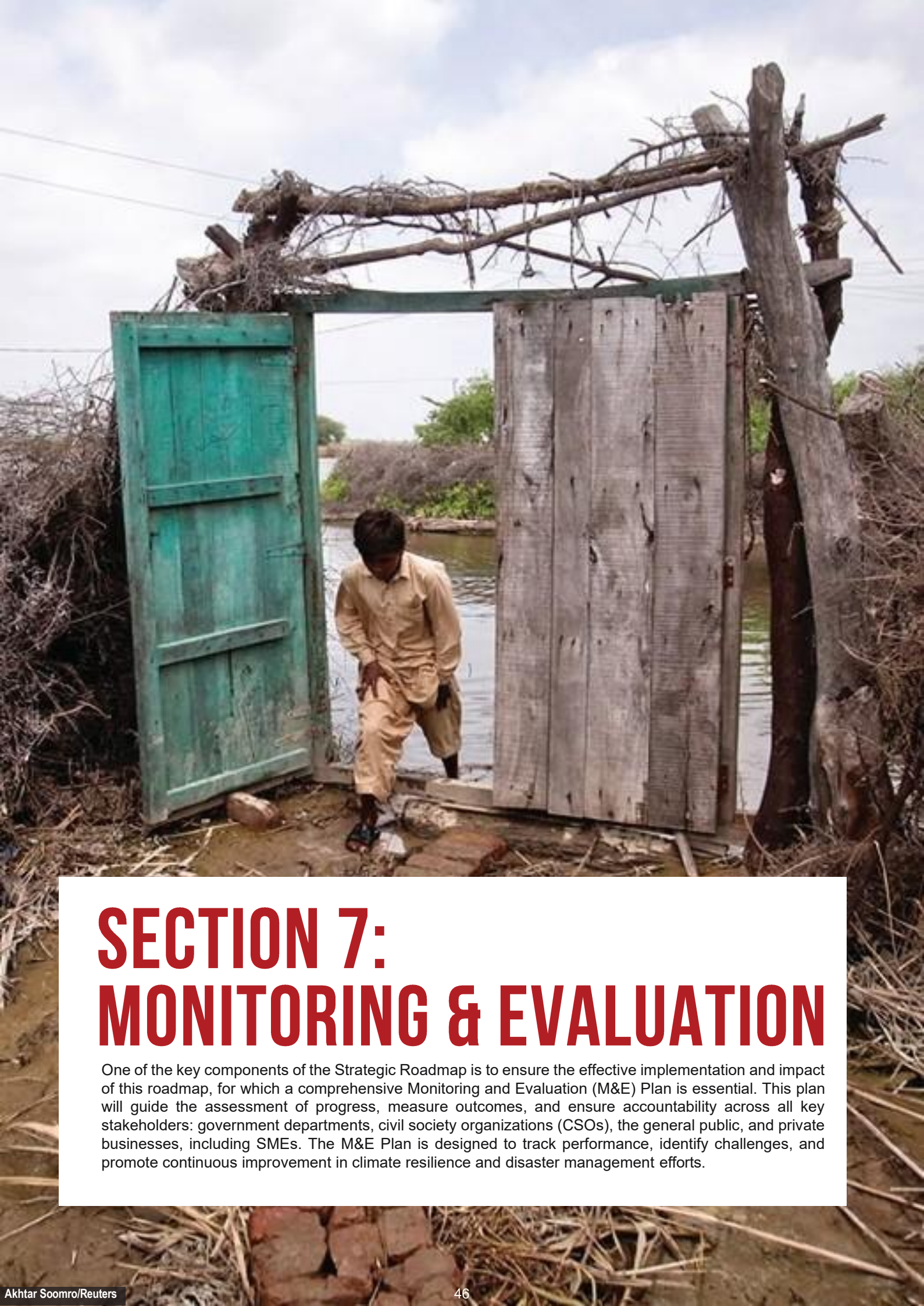
Finally, the plan for climate-resilient agriculture will promote the adoption of climate-smart practices among farmers. Training will be provided on sustainable land management techniques, and a weather forecasting and advisory service will help farmers make informed decisions. A support program for smallholder farmers will be developed, and agroforestry practices will be encouraged. Communication methods will include training sessions, advisory services, and support programs, with the goal of achieving improved agricultural resilience, enhanced food security, diversified income sources for farmers, and widespread adoption of climate-smart practices.

Through these detailed communication strategies, the PRP Roadmap aims to effectively engage stakeholders, ensuring a cohesive and impactful approach to enhancing climate resilience and disaster preparedness across Pakistan.

| STRATEGIC AREA                            | ACTIVITIES                                                                                                                                                                                                                                                                                                         | COMMUNICATION METHODS                                                                                                                                             | KEY STAKEHOLDERS                                      | EXPECTED OUTCOMES                                                                                                                                                                                                                                                   |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Advocacy Activities</b>                | <ul style="list-style-type: none"> <li>- Develop a national advocacy campaign.</li> <li>- Organize multi-stakeholder forums.</li> <li>- Engage with media outlets.</li> <li>- Collaborate with civil society organizations.</li> <li>- Facilitate policy dialogues.</li> </ul>                                     | <ul style="list-style-type: none"> <li>- Media campaigns</li> <li>- Forums</li> <li>- Policy dialogues</li> <li>- Media coverage</li> </ul>                       | Government, Civil Society, Private Sector             | <ul style="list-style-type: none"> <li>- Increased public and policymaker awareness.</li> <li>- Integration of climate resilience into national and local development plans.</li> <li>- Increased budget allocations for climate resilience initiatives.</li> </ul> |
| <b>Capacity Building Activities</b>       | <ul style="list-style-type: none"> <li>- Conduct training workshops.</li> <li>- Implement training programs for SMEs.</li> <li>- Develop e-learning modules.</li> <li>- Organize capacity-building sessions for NGOs.</li> <li>- Establish a mentorship program.</li> </ul>                                        | <ul style="list-style-type: none"> <li>- Workshops</li> <li>- E-learning platforms</li> <li>- Mentorship programs</li> </ul>                                      | Government Officials, SMEs, NGOs, Community Leaders   | <ul style="list-style-type: none"> <li>- Enhanced skills and knowledge for climate-smart practices.</li> <li>- Improved disaster preparedness and response strategies.</li> <li>- Strengthened capacity of local NGOs and SMEs.</li> </ul>                          |
| <b>Operational Capacity Strengthening</b> | <ul style="list-style-type: none"> <li>- Enhance early warning systems.</li> <li>- Develop SOPs for coordinated disaster response.</li> <li>- Provide technical assistance to local governments.</li> <li>- Upgrade logistical capabilities.</li> <li>- Conduct drills and simulations.</li> </ul>                 | <ul style="list-style-type: none"> <li>- Technical assistance</li> <li>- SOPs development</li> <li>- Drills and simulations</li> </ul>                            | Government Agencies, Local Governments, Civil Society | <ul style="list-style-type: none"> <li>- Improved operational readiness.</li> <li>- Standardized disaster response procedures.</li> <li>- Enhanced logistical capabilities.</li> <li>- Tailored disaster contingency plans for specific regions.</li> </ul>         |
| <b>Communication Activities</b>           | <ul style="list-style-type: none"> <li>- Develop a national communication strategy.</li> <li>- Establish a multi-channel communication platform.</li> <li>- Launch a mobile app.</li> <li>- Organize community-based awareness campaigns.</li> <li>- Produce and distribute educational materials.</li> </ul>      | <ul style="list-style-type: none"> <li>- Multi-channel platforms</li> <li>- Mobile app</li> <li>- Community campaigns</li> <li>- Educational materials</li> </ul> | General Public, Media, Local Communities              | <ul style="list-style-type: none"> <li>- Timely and accurate dissemination of information.</li> <li>- Improved public awareness and preparedness.</li> <li>- Enhanced community understanding of climate resilience.</li> </ul>                                     |
| <b>Knowledge Management Activities</b>    | <ul style="list-style-type: none"> <li>- Create a centralized online repository.</li> <li>- Develop a knowledge-sharing platform.</li> <li>- Conduct webinars and knowledge exchange sessions.</li> <li>- Publish an annual report.</li> <li>- Establish a network of climate resilience professionals.</li> </ul> | <ul style="list-style-type: none"> <li>- Online repositories</li> <li>- Knowledge-sharing platforms</li> <li>- Webinars</li> <li>- Annual reports</li> </ul>      | Researchers, Climate Experts, NGOs, Government        | <ul style="list-style-type: none"> <li>- Centralized access to knowledge resources.</li> <li>- Continuous learning and collaboration.</li> <li>- Enhanced dissemination of best practices.</li> <li>- Informed decision-making and policy development.</li> </ul>   |

|                                                |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                    |                                                     |                                                                                                                                                                                                                                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cooperation and Coordination Activities</b> | <ul style="list-style-type: none"> <li>- Set up a national coordination mechanism.</li> <li>- Facilitate regular stakeholder meetings.</li> <li>- Develop regional cooperation frameworks within SAARC.</li> <li>- Promote public-private partnerships (PPPs).</li> <li>- Establish cross-border protocols.</li> </ul>          | <ul style="list-style-type: none"> <li>- Stakeholder meetings</li> <li>- Regional cooperation frameworks</li> <li>- PPPs</li> <li>- Cross-border coordination protocols</li> </ul> | Government, NGOs, Private Sector, Regional Partners | <ul style="list-style-type: none"> <li>- Aligned efforts in disaster preparedness and response.</li> <li>- Strengthened regional cooperation.</li> <li>- Enhanced resource mobilization.</li> <li>- Effective cross-border disaster management.</li> </ul>                                |
| <b>Climate Resilient Infrastructure</b>        | <ul style="list-style-type: none"> <li>- Invest in flood-resistant housing and shelters.</li> <li>- Upgrade public infrastructure.</li> <li>- Implement green infrastructure projects.</li> <li>- Develop climate-resilient public facilities.</li> <li>- Encourage adoption of resilient building codes.</li> </ul>            | <ul style="list-style-type: none"> <li>- Infrastructure development</li> <li>- Urban planning workshops</li> <li>- Policy advocacy</li> </ul>                                      | Government, Urban Planners, Private Sector          | <ul style="list-style-type: none"> <li>- Reduced vulnerability to climate-related risks.</li> <li>- Enhanced community protection.</li> <li>- Adoption of climate-resilient building practices.</li> <li>- Improved public infrastructure resilience.</li> </ul>                          |
| <b>Climate Resilient Agriculture</b>           | <ul style="list-style-type: none"> <li>- Promote climate-smart agricultural practices.</li> <li>- Provide training on sustainable land management.</li> <li>- Establish a weather forecasting and advisory service.</li> <li>- Develop a support program for smallholder farmers.</li> <li>- Encourage agroforestry.</li> </ul> | <ul style="list-style-type: none"> <li>- Training sessions</li> <li>- Advisory services</li> <li>- Support programs</li> <li>- Policy advocacy</li> </ul>                          | Farmers, Agricultural Experts, Government           | <ul style="list-style-type: none"> <li>- Improved agricultural resilience.</li> <li>- Enhanced food security.</li> <li>- Diversified income sources for farmers.</li> <li>- Widespread adoption of climate-smart practices.</li> <li>- Better-informed agricultural decisions.</li> </ul> |

The communication plan for the PRP Roadmap is comprehensive and addresses all critical areas needed to enhance climate resilience and disaster preparedness in Pakistan. This communication plan is designed to ensure that all stakeholders are effectively engaged and informed and empowered to contribute effectively to throughout the implementation of the PRP Roadmap, ultimately contributing to a resilient and disaster-prepared Pakistan. The success of this plan hinges on the collective efforts of government agencies, civil society organizations, and private businesses, all working together to build a resilient and prepared Pakistan.



# SECTION 7: MONITORING & EVALUATION

One of the key components of the Strategic Roadmap is to ensure the effective implementation and impact of this roadmap, for which a comprehensive Monitoring and Evaluation (M&E) Plan is essential. This plan will guide the assessment of progress, measure outcomes, and ensure accountability across all key stakeholders: government departments, civil society organizations (CSOs), the general public, and private businesses, including SMEs. The M&E Plan is designed to track performance, identify challenges, and promote continuous improvement in climate resilience and disaster management efforts.

# 1. MONITORING FRAMEWORK

The monitoring framework will focus on tracking the implementation of activities across the strategic areas of the PRP Roadmap. The framework will include key performance indicators (KPIs), data collection methods, and reporting mechanisms.

## KEY PERFORMANCE INDICATORS (KPIs)

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### □ Advocacy Activities:

- **Number of advocacy campaigns** launched and their reach.
- **Frequency of multi-stakeholder forums** organized.
- **Engagement metrics** from media outlets and civil society organizations.
- **Policy changes** influenced or adopted.

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### □ Capacity Building Activities:

- **Number of training workshops** conducted and attendance rates.
- **Participant feedback** and knowledge gains measured through pre- and post-training assessments.
- **Number of e-learning modules** developed and user engagement statistics.
- **Mentorship program outcomes**, including the number of mentor-mentee pairs and their progress.

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### □ Operational Capacity Strengthening:

- **Enhancements in early warning systems**, including technology upgrades and real-time data sharing improvements.
- **Development and implementation of SOPs** for disaster response.
- **Technical assistance provided** and its impact on local governments.
- **Logistical capabilities** upgraded and evaluated through drills and simulations.

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### □ Communication Activities:

- **Reach and effectiveness** of national communication strategies.
- **Usage statistics** of multi-channel communication platforms and mobile apps.
- **Community engagement** levels from awareness campaigns and educational materials distribution.

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### □ Knowledge Management Activities:

- **Creation and usage statistics** of the centralized online repository.
- **Participation rates** in webinars and knowledge exchange sessions.
- **Annual report publications** and their dissemination.

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### □ Cooperation and Coordination Activities:

- **Functionality** of the national coordination mechanism.
- **Frequency and effectiveness** of stakeholder meetings.
- **Regional cooperation frameworks** developed and their implementation status.
- **Public-private partnerships (PPPs)** established and their impact on disaster management.

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### □ Climate Resilient Infrastructure:

- **Progress in constructing** flood-resistant housing and upgrading public infrastructure.
- **Implementation rates** of green infrastructure projects and resilient building codes.

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### □ Climate Resilient Agriculture:

- **Adoption rates** of climate-smart agricultural practices and training programs.
  - **Effectiveness** of weather forecasting services and support programs for smallholder farmers.
-

# DATA COLLECTION METHODS

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- **Surveys and Questionnaires:** Regular surveys will be conducted to gather data on stakeholder satisfaction, knowledge gains, and the impact of various activities. These tools will be used to collect quantitative and qualitative feedback from participants.
  - **Interviews and Focus Groups:** In-depth interviews and focus group discussions with key stakeholders will provide insights into the effectiveness of activities and identify areas for improvement.
  - **Progress Reports:** Regular progress reports will be generated by project teams and reviewed by the M&E unit. These reports will include updates on activity implementation, challenges faced, and corrective actions taken.
  - **Monitoring Tools:** Specialized software and tools will be used to track KPIs and manage data collection efficiently. These tools will facilitate real-time monitoring and reporting.
- 

## 2. EVALUATION FRAMEWORK

The evaluation framework will assess the effectiveness, efficiency, and impact of the PRP Roadmap. It will involve formative evaluations during implementation and summative evaluations at the end of the project cycle.

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### Formative Evaluations:

- **Mid-Term Review:** A mid-term review will be conducted to assess progress against objectives and KPIs. This review will identify any deviations from the plan and recommend adjustments to improve performance.
  - **Annual Evaluations:** Annual evaluations will focus on the performance of specific activities and their alignment with overall goals. These evaluations will provide feedback for ongoing adjustments and improvements.
- 

### Summative Evaluations

- **Final Evaluation:** At the end of the project cycle, a comprehensive final evaluation will assess the overall impact of the PRP Roadmap. This evaluation will measure the achievement of long-term goals and provide insights into the sustainability of outcomes.
  - **Impact Assessment:** An impact assessment will be conducted to determine the direct and indirect effects of the roadmap on climate resilience and disaster preparedness. This assessment will analyze changes in stakeholder capacities, community resilience, and policy effectiveness.
- 

### Reporting Mechanisms

- **Regular Updates:** Regular updates will be shared with stakeholders through newsletters, webinars, and briefings. These updates will highlight progress, achievements, and any challenges encountered.
  - **Annual Reports:** Detailed annual reports will document the progress of the PRP Roadmap, including KPI performance, evaluation findings, and recommendations for future actions.
  - **Final Report:** A comprehensive final report will be produced at the end of the project cycle. This report will summarize the overall impact of the roadmap, lessons learned, and recommendations for future initiatives.
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### Accountability and Learning Framework

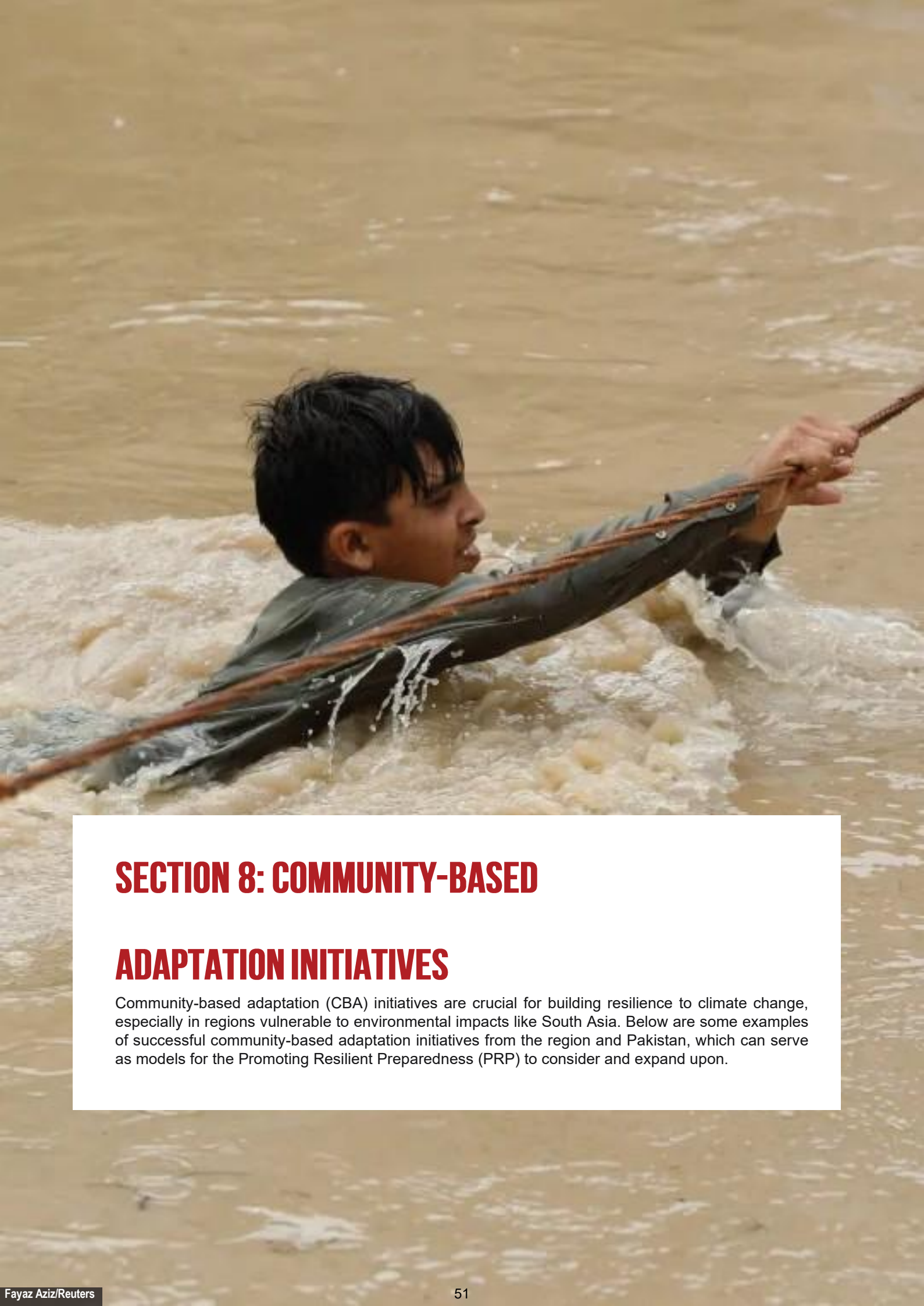
To ensure accountability and foster continuous learning, the M&E Plan will include mechanisms for:

- **Stakeholder Feedback:** Regular feedback from stakeholders will be sought to address concerns and improve the implementation process.
  - **Review Meetings:** Periodic review meetings will be held with key stakeholders to discuss progress, challenges, and opportunities for improvement.
  - **Learning Workshops:** Learning workshops will be organized to share best practices, lessons learned, and innovative approaches among stakeholders.
-

| COMPONENT                                | DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MONITORING FRAMEWORK</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Key Performance Indicators (KPIs)</b> | <ul style="list-style-type: none"> <li>□ <b>Advocacy Activities:</b> Number of campaigns, forums, media engagement, policy changes.</li> <li>□ <b>Capacity Building Activities:</b> Number of workshops, training programs, e-learning modules, mentorship outcomes.</li> <li>□ <b>Operational Capacity Strengthening:</b> Enhancements in early warning systems, SOPs development, technical assistance, logistical upgrades, drills and simulations.</li> <li>□ <b>Communication Activities:</b> Reach of strategies, platform usage, mobile app engagement, community campaigns, educational materials distribution.</li> <li>□ <b>Knowledge Management Activities:</b> Online repository creation, knowledge-sharing platform participation, webinars, annual report publications.</li> <li>□ <b>Cooperation and Coordination Activities:</b> National coordination mechanism functionality, stakeholder meetings, regional frameworks, PPPs, cross-border protocols.</li> <li>□ <b>Climate Resilient Infrastructure:</b> Progress in flood-resistant housing, infrastructure upgrades, green projects, resilient facilities, adoption of building codes.</li> <li>□ <b>Climate Resilient Agriculture:</b> Adoption of practices, training effectiveness, weather forecasting service impact, support programs, agroforestry promotion.</li> </ul> |
| <b>Data Collection Methods</b>           | <ul style="list-style-type: none"> <li>□ <b>Surveys and Questionnaires:</b> Quantitative and qualitative feedback.</li> <li>□ <b>Interviews and Focus Groups:</b> In-depth insights.</li> <li>□ <b>Progress Reports:</b> Updates on implementation, challenges, corrective actions.</li> <li>□ <b>Monitoring Tools:</b> Specialized software for tracking KPIs and data management.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>EVALUATION FRAMEWORK</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Formative Evaluations</b>             | <ul style="list-style-type: none"> <li>□ <b>Mid-Term Reviews:</b> Assess progress, identify deviations, recommend adjustments.</li> <li>□ <b>Annual Evaluations:</b> Evaluate specific activities, provide feedback for improvements.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Summative Evaluations</b>             | <ul style="list-style-type: none"> <li>□ <b>Final Evaluation:</b> Assess overall impact, measure achievement of goals, provide sustainability insights.</li> <li>□ <b>Impact Assessment:</b> Determine direct and indirect effects on resilience and preparedness.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Reporting Mechanisms</b>              | <ul style="list-style-type: none"> <li>□ <b>Regular Updates:</b> Newsletters, webinars, briefings.</li> <li>□ <b>Periodic Reports:</b> Document progress, KPI performance, evaluation findings.</li> <li>□ <b>Final Report:</b> Summarize overall impact, lessons learned, future recommendations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Accountability and Learning</b>       | <ul style="list-style-type: none"> <li>□ <b>Stakeholder Feedback:</b> Address concerns, improve implementation.</li> <li>□ <b>Review Meetings:</b> Discuss progress, challenges, and improvements.</li> <li>□ <b>Learning Workshops:</b> Share best practices, lessons learned, innovative approaches.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



The table outlines the detailed M&E plan for the PRP Roadmap, ensuring comprehensive monitoring, evaluation, and accountability throughout the project's lifecycle. The Monitoring and Evaluation Plan for the PRP Roadmap is designed to ensure that the roadmap's activities are effectively implemented, outcomes are achieved, and stakeholders are held accountable. By focusing on robust monitoring frameworks, comprehensive evaluations, and transparent reporting mechanisms, the plan aims to enhance climate resilience and disaster preparedness across Pakistan. This approach will provide valuable insights, support continuous improvement, and ultimately contribute to a more resilient and adaptive society.



## **SECTION 8: COMMUNITY-BASED**

### **ADAPTATION INITIATIVES**

Community-based adaptation (CBA) initiatives are crucial for building resilience to climate change, especially in regions vulnerable to environmental impacts like South Asia. Below are some examples of successful community-based adaptation initiatives from the region and Pakistan, which can serve as models for the Promoting Resilient Preparedness (PRP) to consider and expand upon.

# EXAMPLES OF COMMUNITY-BASED ADAPTATION INITIATIVES FROM OTHER COUNTRIES IN THE REGION

## 1. NEPAL: COMMUNITY-BASED FLOOD EARLY WARNING SYSTEM<sup>29</sup>

- **Overview:** In Nepal, communities living along the Koshi River Basin have implemented a community-based flood early warning system (CBFEWS). This system uses local knowledge combined with modern technology to provide timely flood alerts to downstream communities.
- **Key Features:**
  - **Local Engagement:** Villagers are trained to monitor river levels and rainfall using simple gauges and to disseminate warnings using mobile phones and community networks.
  - **Technology Integration:** The system integrates local observations with data from meteorological stations and hydrological models to enhance accuracy.
  - **Results:** This initiative has significantly reduced loss of life and property by allowing communities to evacuate or take precautionary measures well in advance of flood events.
- **Adaptation for Pakistan:** PRP could implement similar early warning systems in flood-prone areas like Punjab and Sindh, leveraging local knowledge and low-cost technology for rapid dissemination of warnings.

## 2. BANGLADESH: FLOATING GARDENS (BAIRA)<sup>30</sup>

- **Overview:** In flood-prone areas of Bangladesh, communities have developed floating gardens, locally known as *Baira*, to cultivate crops during the monsoon season when traditional agriculture is not possible.
- **Key Features:**
  - **Innovation in Agriculture:** Using water hyacinth and bamboo, these floating gardens provide a platform for growing vegetables, thereby ensuring food security even during floods.
  - **Sustainable Practices:** This method is organic and does not require chemical fertilizers or pesticides, promoting sustainable agricultural practices.
  - **Community Involvement:** The initiative involves local communities in construction and maintenance, fostering local ownership and capacity building.
- **Results:** Floating gardens have helped maintain livelihoods and food security in flood-affected regions, providing a sustainable and adaptable farming technique.
- **Adaptation for Pakistan:** This approach could be piloted in areas like the Indus Delta or other flood-prone regions of Pakistan, particularly where waterlogging is an issue.

### 3. SRI LANKA: HOME GARDENS FOR CLIMATE RESILIENCE<sup>31</sup>

- **Overview:** Sri Lanka has promoted home gardening as a climate adaptation strategy to ensure food security and enhance biodiversity.
- **Key Features:**
  - **Diversification of Crops:** Encourages the cultivation of a variety of crops, which improves dietary diversity and reduces dependency on single crop types that may fail due to climate change.
  - **Community Training:** Local extension services provide training on sustainable gardening practices, water conservation, and organic farming.
  - **Resilience Building:** Home gardens contribute to household food security and generate additional income, enhancing resilience to climate shocks.
- **Results:** This initiative has empowered communities, especially women, to be more self-reliant and resilient against climatic variations.
- **Adaptation for Pakistan:** PRP could replicate this model in arid and semi-arid regions of Pakistan, focusing on drought-resistant plants and water-efficient gardening techniques.



# EXAMPLES OF COMMUNITY-BASED ADAPTATION INITIATIVES FROM PAKISTAN

## 1. GILGIT-BALTISTAN: GLACIAL LAKE OUTBURST FLOOD (GLOF) RISK REDUCTION<sup>32</sup>

- **Overview:** In Gilgit-Baltistan, a community-based project was implemented to reduce the risk of glacial lake outburst floods (GLOFs). The project involved local communities in monitoring glacial lakes and building small-scale infrastructure to mitigate the impact of potential floods.
- **Key Features:**
  - **Community Training:** Local communities are trained in GLOF risk identification and preparedness, including the construction of protective walls and evacuation routes.
  - **Early Warning Systems:** The project established community-based early warning systems for GLOFs, including simple technologies like radio and sirens for timely alerts.
  - **Community-Led Drills:** Regular community-led evacuation drills are conducted to ensure preparedness.
- **Results:** The initiative has improved community resilience by reducing vulnerability to GLOF events, ensuring safety and reducing potential losses.
- **Potential for Expansion:** This model can be expanded to other regions in northern Pakistan with similar glacial risks, enhancing early warning capabilities and preparedness.

## 2. SINDH: COMMUNITY-BASED WATER MANAGEMENT IN THARPARKAR<sup>33</sup>

- **Overview:** In Tharparkar, Sindh, communities have engaged in water management projects to adapt to arid conditions and water scarcity. These initiatives include rainwater harvesting, construction of small reservoirs, and the use of traditional water conservation methods.
- **Key Features:**
  - **Rainwater Harvesting:** Installation of tanks and ponds to collect and store rainwater for use during dry periods.
  - **Community Involvement:** Local communities are actively involved in constructing and maintaining water infrastructure, fostering a sense of ownership and sustainability.
  - **Traditional Knowledge:** Utilization of indigenous knowledge and practices, such as using *beris* (traditional wells) for water storage.
- **Results:** These initiatives have improved water availability, agricultural productivity, and reduced migration due to water scarcity.
- **Potential for Expansion:** This model can be expanded to other drought-prone areas of Pakistan, incorporating modern water-saving technologies and community education programs.

### 3. KHYBER PAKHTUNKHWA: COMMUNITY-BASED FOREST MANAGEMENT<sup>34</sup>

- **Overview:** In Tharparkar, Sindh, communities have engaged in water management projects to adapt to arid conditions and water scarcity. These initiatives include rainwater harvesting, construction of small reservoirs, and the use of traditional water conservation methods.
- **Key Features:**
  - **Rainwater Harvesting:** Installation of tanks and ponds to collect and store rainwater for use during dry periods.
  - **Community Involvement:** Local communities are actively involved in constructing and maintaining water infrastructure, fostering a sense of ownership and sustainability.
  - **Traditional Knowledge:** Utilization of indigenous knowledge and practices, such as using *beris* (traditional wells) for water storage.
- **Results:** These initiatives have improved water availability, agricultural productivity, and reduced migration due to water scarcity.
- **Potential for Expansion:** This model can be expanded to other drought-prone areas of Pakistan, incorporating modern water-saving technologies and community education programs.



# CONCLUSION AND RECOMMENDATIONS

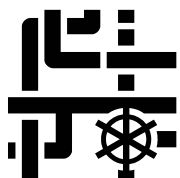
Climate change is amplifying the frequency and intensity of extreme weather events such as heatwaves, heavy rainfall, and sandstorms. These events have devastating consequences for agriculture, infrastructure, and human health. Pakistan has witnessed devastating floods in recent years, causing widespread damage to property, infrastructure, and agriculture. The 2010, 2012 and 2022 floods were particularly catastrophic, ranking among the worst in the country's history. On the other hand, drought conditions, especially in southern Pakistan, have led to water shortages, crop failures, and displacement of communities. Extreme heatwaves are becoming more frequent, posing serious health risks to the population, especially vulnerable groups like the elderly and children.

By adopting and localizing successful models, expanding existing initiatives, engaging local communities, promoting knowledge sharing, integrating modern technology, and focusing on multi-sectoral approaches, the Pakistan Resilience Plan (PRP) can effectively enhance community resilience to climate change. These strategies, grounded in both local wisdom and international best practices, will foster sustainable adaptation practices that are tailored to Pakistan's unique geographical and climatic conditions, ultimately ensuring a more resilient and prosperous future for the nation.

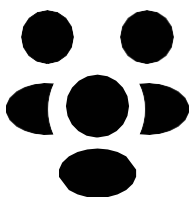


# RECOMMENDATIONS FOR PRP IN PAKISTAN

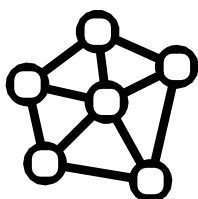
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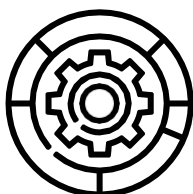
1. **Expand Existing Initiatives:** PRP should consider scaling up successful initiatives within Pakistan, like GLOF risk reduction in Gilgit-Baltistan or water management in Tharparkar, incorporating lessons learned and best practices.
- 



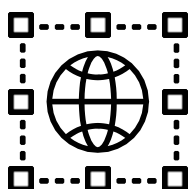
2. **Engage Local Communities:** Emphasize community involvement in all stages of adaptation initiatives to ensure sustainability and ownership. Train local leaders and use indigenous knowledge for effective adaptation strategies.
- 



3. **Promote Knowledge Sharing:** Facilitate knowledge exchange between communities and regions within Pakistan and across borders. This could be through workshops, exchange visits, or collaborative projects focusing on adaptation techniques.
- 



4. **Integrate Modern Technology:** While leveraging traditional practices, incorporate modern technologies such as mobile apps for early warnings, GIS for resource mapping, and remote sensing for monitoring environmental changes.
- 



5. **Focus on Multi-Sectoral Approaches:** Encourage integrated approaches that combine water management, agriculture, forestry, and disaster risk reduction to address multiple vulnerabilities at once, promoting resilience in a holistic manner.
- 

By focusing on these strategies and learning from both local and regional examples, PRP can significantly enhance community resilience to climate change in Pakistan, fostering sustainable adaptation practices that are community-driven and context-specific.

# “ ABOUT THE AUTHORS

*"Adeel Kaiser holds a Master of Business Administration with a specialization in Project Management. He serves as a Program Development Advisor, Researcher, and Trainer within the humanitarian sector. With an extensive background in designing, implementing, and leading humanitarian projects, Adeel has contributed significantly to efforts in Pakistan, Bangladesh, Myanmar, Yemen, South Sudan, Kenya, and Syria, under the auspices of prominent international non-governmental organizations.*

*Adeel is a valued member of the Himat Consulting Team and DEW Pakistan. He has evaluated projects and carried out research in a variety of contexts and in a number of different fields, including public health, education, and water, sanitation, and hygiene (WASH). Furthermore, he provides remote program development support to Niger, Mali, Yemen, Sudan, Sri Lanka, and Afghanistan, through his role in the Humanitarian and International Partnership Department of Muslim Hands UK.*

*Adeel has also been instrumental in designing a third-party monitoring system for the Tameer e Khalaq Foundation, commissioned by UNICEF. His contributions underscore a profound commitment to enhancing the efficacy and reach of humanitarian interventions globally."*

## ENDNOTES

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3. <https://thedocs.worldbank.org/en/doc/4a0114eb7d1cecbbf2f65c5ce0789db-0310012022/original/pakistan-floods-2022-pdna-main-report.pdf>
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# SITUATIONAL ANALYSIS AND PRP ROAD MAP

ASSESSING COUNTRY'S PREPAREDNESS AND RESPONSE