Disaster Risk Reduction Policy implementation in Pakistan in line with Sendai Framework

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December 2023
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1. Introduction

Pakistan — a country prone to various natural hazards — falls among the top 10 most vulnerable countries in terms of disasters (David, Künzel and Schäfer 2021). Based on 19 years data from 2000 to 2019, the table below shows that Pakistan stands with 29 Climate Risk Index (CRI) score. It has endured 0.30 fatalities per 100,000 inhabitants, and around $3.8 billion indirect financial losses from 173 extreme weather events, including floods, earthquakes, and heatwaves. These disasters caused widespread losses to human lives, livestock, agriculture, and infrastructure (Siddiqui, 2022).


In response to these disasters, the government has set up a National Disaster Management Authority (NDMA) to reduce the risk of disasters. Since its inception, the NDMA has been working efficiently and proactively to facilitate people besides planning to reduce the risks of disasters. However, there are still many loopholes in the system that need to be addressed.

If we look at the Climate Risk Index (CRI) maps below, we find that Pakistan is ranked among top 10 countries marked with dark red shade. It means the whole country is vulnerable to extreme climatic events. In 2022, the country has experienced the worst kind of floods. The recurring floods have tested the resilience of communities, which has now weakened due to multiple crises and aggravated living conditions of the people who are at risk of climatic hazards. Now they need to be protected and prepared to fight against the future disasters.
2. Methodology

Both the primary and secondary level information and data were used to analyze the implementation of DRR Policy in line with SFDRR. The process started with the review of disaster management plans, strategies, policies, and action frameworks implemented in the context of the SFDRR in Pakistan. The review process served to highlight the successes and challenges of the implementation process.

A series of structured interviews with the sector-specific experts and government officials was conducted to understand the perspectives of the stakeholders in implementing the DRR policies in line with SFDRR by using an open-ended questionnaire. The respondents were asked to talk in the context of projects/initiatives implemented, the existing policy landscape, and the way forward for SFDRR implementation. A questionnaire was developed based on the guidelines provided in Annexure 1 of the “mid-term review Concept Note by the UN Office for Disaster Risk Reduction”1 and the same was shared with the stakeholders hailing from federal, provincial, and local level departments as well as the private sector in line with the SFDRR implementation parameters. These interviews were conducted in-person as well as virtually. In addition, Focus Group Discussions (FGDs) and multiple interviews were also conducted for this study with the help of partner organizations, including Strengthening Participatory Organization (SPO) and Indus Consortium along with case studies from the field, some of which have been highlighted. A total of 18 FGDs were conducted for the study; In the Punjab, four FGDs were conducted (two with men and two with women), while eight FGDs were conducted in Sindh province (four with women, two with both men and women and two with only men). Similarly, a total of 6 FGDs were conducted in Baluchistan (four with women and two with men). This study covers the community perspectives based on interviews and the case studies collected from the field.

1 http://sendaiframework-mtr.undrr.org/media/77425/download
3. Brief description of disasters: Needs Assessment for DRR efforts

Recently, Pakistan has been hit by the flash floods leaving the affected in a state of misery and bringing them to roads unattended. Floods have majorly hit the Sindh province. The Post Disaster Needs Assessment Report 2022 revealed that poverty in Sindh would increase by between 8.9 and 9.7 percentage points; Sindh sustained heavy damages, bearing almost 72% of the total damage caused.\(^2\)

The table below shows a 60-year data of losses and damage due to floods from 1950 to 2010. Out of 10,152 fatalities, 1985 died in 2010 floods while the highest number of deaths so far (2190) was reported in 1950 floods. In 2022 floods, 1,739 people died. Though the highest death toll in floods so far was reported in 1950 floods, but economic and material losses and damage have been huge in 2010 and 2022 floods, which were $43 billion and $30 billion respectively. In 2010 floods, 20 million people were affected, while in 2022 floods, the number raised to 33 million.

The humanitarian responses both in 2010 and 2022 remained different in terms of financial and human resources. In 2010, international humanitarian aid touched $3 billion mark whereas in 2022, the response decreased to just US$297 million in grant for relief and early recovery activities in the early months. Instead of focus on humanitarian aid, the global response seems to be mostly through debt-based financing and hence in absence of big global players, the 2022 floods response was a locally-led humanitarian response as big local charities played a key role in human response largely coordinated by NDMA and PDMAs.\(^3\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Direct losses (US$ million)</th>
<th>Lost lives (No)</th>
<th>Affected villages (No)</th>
<th>Flooded area (Sq.km)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>@ USS= PKR 40</td>
<td>@ USS= PKR 86</td>
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<tr>
<td>1950</td>
<td>227</td>
<td>488.05</td>
<td>2190</td>
<td>10000</td>
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<tr>
<td>1955</td>
<td>176</td>
<td>378.4</td>
<td>679</td>
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<tr>
<td>1956</td>
<td>148</td>
<td>318.2</td>
<td>160</td>
<td>11609</td>
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<tr>
<td>1957</td>
<td>140</td>
<td>301</td>
<td>83</td>
<td>4498</td>
</tr>
<tr>
<td>1959</td>
<td>109</td>
<td>234.35</td>
<td>88</td>
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<td>2,388</td>
<td>5134.2</td>
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<td>9719</td>
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<tr>
<td>1975</td>
<td>318</td>
<td>633.7</td>
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<tr>
<td>1976</td>
<td>1,621</td>
<td>34831.5</td>
<td>425</td>
<td>18390</td>
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<tr>
<td>1977</td>
<td>157</td>
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<td>1978</td>
<td>1,036</td>
<td>2227.4</td>
<td>393</td>
<td>9199</td>
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<tr>
<td>1981</td>
<td>139</td>
<td>298.85</td>
<td>82</td>
<td>2071</td>
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<tr>
<td>1983</td>
<td>63</td>
<td>135.45</td>
<td>39</td>
<td>643</td>
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<td>1984</td>
<td>35</td>
<td>75.25</td>
<td>42</td>
<td>251</td>
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<td>1988</td>
<td>390</td>
<td>857.85</td>
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<td>100</td>
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<td>3010</td>
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<td>1994</td>
<td>392</td>
<td>842.8</td>
<td>431</td>
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<td>1995</td>
<td>175</td>
<td>376.25</td>
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<tr>
<td>2010</td>
<td>-</td>
<td>10000</td>
<td>1965</td>
<td>17553</td>
</tr>
<tr>
<td>Total</td>
<td>8023</td>
<td>29184.45</td>
<td>10152</td>
<td>127375</td>
</tr>
</tbody>
</table>

Source: Federal Flood Commission (2011: 11) \(^4\)


\(^3\) Research Study on “Floods in Pakistan: Rethinking Humanitarian Role” (2022) [https://www.ukhih.org/media/filer_public/68/c5/68c585ad-2a0e-4fcc-9ec5-7e6d7a05b8ff/pakistan_floods_1122.pdf](https://www.ukhih.org/media/filer_public/68/c5/68c585ad-2a0e-4fcc-9ec5-7e6d7a05b8ff/pakistan_floods_1122.pdf)

Though the government and the local representatives/players tried to help people by providing relief during 2022 floods, the loss was so huge that people are still facing post floods trauma of being displaced and resourceless. To deal with the underlying vulnerable conditions and to secure the nation from the disasters guided by the Sendai Framework, the governments of Pakistan and Switzerland signed a memorandum of understanding to improve natural disaster prevention and response in Pakistan\footnote{https://www.thenews.com.pk/tns/detail/1090806-a-yawning-aid-gap}. In addition, the irrigation department of Pakistan is trying its best to sort out the problems by strict monitoring and check and balance system. As informed, inappropriate alignment of spinal drain of the Left Bank Outfall Drainage (LBOD) impeded natural flow of rainwater to the Rann of Kutch that could have caused much havoc but all the risks were averted due to the management and monitoring system of the irrigation department.\footnote{bid} Furthermore, Asian Development Bank and the Islamic Development Bank provided about $665 million assistance to finance the Rs195 billion Flood Protection Sector Project-III (FPSP-III) to build resilience in the country against climate change impacts which informs about the compliance of the Sendai Framework for DRR.\footnote{bid}

Looking at the existing vulnerability of communities to climatic hazards, Pakistan needs to enhance its DRR efforts to reduce vulnerability and to build resilience to achieve the goal of sustainable development.

### 4. An overview of the Sendai Framework for DRR \footnote{https://www.preventionweb.net/sendai-framework/sendai-framework-at-a-glance?_gl=1%2Axqu6k%2A_ga%2AMTYyMTk0NzAyM44mNj0O_TY1MzQ4%2A_ga_D8G5WXP6Ym%2AMTY5NDk2NTYyNi4wLjEwMTY5NDk2NTY1M4wLjAuMA.}

The Sendai Framework on Disaster Risk Reduction (SFDRR) 2015 is a global framework, which leads to achieve the aforementioned goal. It provides a comprehensive blueprint for DRR with a focus on understanding risks, risk governance, and risk financing. It further emphasizes the integration of risk reduction into development planning and policy implementation. The Sendai Framework for DRR covers all kinds of risks, i.e. small-scale and large-scale, frequent, and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards. The SFDRR also includes environmental, technological, and biological hazards and risks and also focuses on the multi-hazard management of disaster risk in development. The SFDRR expects substantial reduction of disaster risk and losses in lives, livelihoods, and health in addition to economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries.

The SFDRR suggests that “preventing new and reducing existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience”.\footnote{ibid}
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Targets of Sendai Framework for DRR

The SFDRR sets seven targets to achieve by 2030. Among them, four targets relate to substantial decrease in certain indicators while three are linked to substantial increase in certain indicators. The following figure by UNDRR bifurcates these targets showing downward and upward trends regarding these targets.

To explain more in descriptive terms, following are the seven targets which SFDRR is supposed to achieve by 2030:

- Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015,
- Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015,
- Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030
- Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030,
- Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020,
- Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030,
- Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.

SFDRR’s Priority Actions

The SFDRR lists four priority actions. 1) Understanding disaster risk in all its forms such as vulnerability, capacity, exposure of persons and assets, hazard and the environment; 2) Strengthening disaster risk governance to manage disaster risk at the national, regional and global levels and in all sectors ensuring the coherence of national and local frameworks of laws, regulations and public
policies that, by defining roles and responsibilities, guide, encourage and incentivize the public and private sectors to take action and address disaster risk; 3) Investing in disaster risk reduction for resilience through public and private investment in DRR by undertaking structural and non-structural measures to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment. Such measures need to be cost-effective and instrumental to save lives, prevent and reduce losses, and ensure effective recovery and rehabilitation; and 4) Enhancing disaster preparedness for effective response, and to ‘Build Back Better’ in recovery, rehabilitation, and reconstruction ahead of the disasters through integrating disaster risk reduction measures by promoting DRR leadership of women and persons with disabilities in line with gender-equitable and universally accessible approaches during the response and reconstruction phases of disasters.

Guiding Principles

Following are the standard guiding principles of Sendai Framework for DRR 10.

- Primary responsibility of States to prevent and reduce disaster risk, including through cooperation.
- Shared responsibility between central government and national authorities, sectors and stakeholders as appropriate to national circumstances,
- Protection of persons and their assets while promoting and protecting all human rights including the right to development,
- Engagement from all of the society,
- Full engagement of all state institutions of an executive and legislative nature at national and local levels,
- Empowerment of local authorities and communities through resources, incentives and decision-making responsibilities as appropriate,
- Decision-making to be inclusive and risk-informed while using a multi-hazard approach,
- Coherence of disaster risk reduction and sustainable development policies, plans, practices and mechanisms, across different sectors,
- Accounting of local and specific characteristics of disaster risks when determining measures to reduce risk,
- Addressing underlying risk factors cost-effectively through investment versus relying primarily on post-disaster response and recovery,
- ‘Build Back Better’ for preventing the creation of, and reducing existing, disaster risk,
- The quality of global partnership and international cooperation to be effective, meaningful and strong,
- Support from developed countries and partners to developing countries to be tailored according to needs and priorities as identified by them.

10 https://www.preventionweb.net/sendai-framework/sendai-framework-at-a-glance?_gl=1%2Avxgu6k%2A_ga%2AMTYyMTk0NzAyMjI4xNjk0OTY1MzQ4%2A_ga_D85WXP6YM%2AMTY5NDk2NTYyNi4xLjEuMTY5NDk2NTY1Mi4wLjAuMA..
5. DRR Policy 2013 Implementation and SFDRR

Since 2005 earthquake, Pakistan’s vulnerability to disaster risks necessitated for the country to shift from its traditional response-focused to a more proactive and anticipatory approach. In this paradigm shift, Pakistan started building its disaster management portfolio by promulgating its first legal instrument on disasters ‘the National Disaster Management Ordinance 2006’ (NDMO 2006). Later on, the National Disaster Management Act 2010 (NDM Act 2010) replaced NDMO 2006. Another development was the institution of the National Disaster Risk Management Framework 2007-2012 (NDRMF 2007-2012), which gives a comprehensive DRR agenda. Then the DRR Policy 2013 was developed in line with the UN Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters.

The National DRR Policy 2013 provides a proactive and anticipatory approach by focusing on risk assessment, prevention, mitigation, and preparedness to achieve the goal of making Pakistan disaster resilient. This vision of the DRR Policy 2013 also contributes to the prime aim of Sendai Framework for DRR, which talks about preventing new and reduce existing disaster risks and to contribute to strengthen resilience. The DRR Policy 2013 seeks to promote priority measures to reduce the existing vulnerability to hazard, leading towards risk sensitive development and resilience. 

The policy is based upon an extensive review of existing background documentation, including assessments, relevant frameworks, policies and plans. The building blocks of the current DRR policy reflect the priority actions of the HFA and are within the NDM Act 2010 that decentralized responsibilities for the implementation of DRR to the provincial and district level. The policy is based upon consultations with district, provincial and national government stakeholders as well as civil society actors and development partners.

The DRR Policy 2013 requires a thorough revision amid new emerging climatic hazards and in line with ‘Pakistan’s Voluntary National Report for the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 (MTR SF)\(^\text{11}\), which has analyzed the country’s implementation status of the SFDRR or in wider terms ‘Pakistan’s DRR agenda’. Despite resource constraints, Pakistan has achieved some progress on the DRR front but much more is still needed. The MTR SF has assessed progress and challenges in terms of reducing disaster risk, identifying new and emerging issues, and changes in the disaster and risks context since 2015. The MTR SF gives recommendations for prioritized, accelerated and integrated international, national and local cooperation and action to be taken till 2030. \(^\text{13}\)


\(^\text{13}\) ibid
The concept of building back better, as mentioned in the SFDRR Guiding Principles, has gradually become a centre of attention to the provincial, local and federal government to reduce the risks of any disaster and to create a resilient society in the country. To help the people better, new flood resilient villages should be established which are safe and risk free. Moreover, this will provide people with newer employment opportunities and become an opportunity to build back a better Sindh through a large-scale social reconstruction.  

In order to deal with natural disasters, a state of preparedness is required within the nation which is guided by the Sendai Framework and follows all those set of principles defined in it. Every district should develop a contingency plan with clearly defined roles for various departments, local NGOs and other volunteers. NDMA and PDMAs are responsible for the functionality and effectiveness of the programs that must be designed to deal with the consequences of natural disasters. Both NDMA and PDMAs should be provided with the resources that offer sustainable and resilient plans to deal with the risks of disasters and to reduce its consequences, keeping in view the principles of Sendai Framework.

Sendai Framework on Disaster Risk Reduction (SFDRR) provides an outline for reducing disaster risk which is currently being implemented by the countries which are trying to reduce disaster risk as much as possible. Pakistan being a developing nation has complied with the implementation of the Sendai Framework, however, the government of Pakistan still has a long way to go.

Pakistan has made significant progress in the implementation of the Sendai Framework for Disaster Risk Reduction (SFDRR) since the adoption of the post-2015 development frameworks (SFDRR, SDGs, and the Paris Agreement). The government has to a greater extent aligned its legislative instruments and policy frameworks on disaster risk reduction to the spirit of the Sustainable Development Goals (SDGs) 2015, SFDRR 2015, and the Paris Agreement 2015. This has created an enabling environment for the implementation of these important global frameworks both at national and sub-national levels. Building community resilience to climate change and disaster risks is the shared foundation of the Paris Agreement, the 2030 Agenda for Sustainable Development, and the Sendai Framework for Disaster Risk Reduction. Therefore, it is essential to adopt an integrated and inclusive approach to incorporating climate change adaptation, disaster risk reduction, and sustainable development measures in planning and developing policies [UNDRR, 2021]. The concept of ‘Building Back Better’

is not well-understood and popular among vulnerable groups and indigenous communities. There is a dire need to fill the gap in the institutional framework, enhance coordination mechanisms, create awareness among the public, and practice effective and proactive implementation strategies to improve the livelihoods of vulnerable groups and mitigate the impacts of climate-induced disasters.

Pakistan has developed and implemented a comprehensive National Disaster Risk Reduction Policy 2013. The policy provides a coordinated framework for disaster risk reduction across the country. Significant improvement has been made in coordination and collaboration among the stakeholders, including national and international partners, academia, the private sector, and civil society organizations.

The early warning systems have been improved by installing weather monitoring equipment and establishing a National Drought Monitoring Center. The NDRMF has been established to support the implementation of the National Disaster Management Plan 2012 and National Flood Protection Plan IV (2015-2025).

Investment in disaster risk reduction and resilience-building initiatives have also been enhanced to some extent to address the impact of climate change and climate-induced disasters. However, an increase in the frequency of disasters, lack of attention to disaster risk reduction at the local level, limited financial resources, and institutional capacity hamper the scale and effectiveness of interventions.

One of the most critical issues is that the Sendai Framework for Disaster Risk Reduction lacks concrete commitment to financial aid for developing countries such as Pakistan to combat climate-induced disasters. The framework also does not recognize climate change adaptation as a cross-cutting theme for disaster risk reduction and management [UNDRR 2023]. In short, the country has made considerable achievements in furthering its national DRR agenda. The achievements include:

1. Establishment of a functional Disaster Risk Management (DRM) institutional mechanism comprising of National Disaster Management Authority (NDMA), Provincial Disaster Management Authorities (PDMAs), and District Disaster Management Authorities (DDMAs). However, DDMAs are not as strong as NDMA and PDMAs;
2. Development of a comprehensive DRM/DRR policy framework;
3. Increased coordination among all stakeholders;
4. Improved weather forecasting and monitoring, and early warning capabilities;
5. The establishment of a dedicated National Disaster Risk Management Fund [NDRMF] for supporting SFDRR implementation;
6. Increased awareness on disaster and climate risks in the country.

Challenges

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Despite many achievements, Pakistan is also faced with several challenges in fully accomplishing the goal of a resilient country. The challenges include:

- The country’s high vulnerability to climate change;
- Limited financial resources and funding for disaster risk reduction initiatives;
- Limited institutional capacity and expertise for disaster risk reduction at the local level;
- The cross-cutting nature of DRR and climate change adaptation (CCA) requiring wider participation and contribution from all stakeholders;
- The lack of support for DRR policies and programmes due to frequent changes in political priorities and weak governance and resource-constrained DRR and preparedness programmes at local level.
- Insufficient focus on understanding the root causes of disaster risk, including poverty, inequality, and environmental degradation.

6. Community Voices on disasters, risks, and preparedness

Given below some of the case studies of women from the vulnerable community to provide a direct perspective of the community members on various aspects of disaster cycle. The women talked about the vulnerabilities, causes of their plight, and gave recommendations to the duty bears. The case stories should not be seen as individual cases, they must represent millions of others undergoing the same fate.

1. RESTORING HOPE

Amma Mukhtar, a traditional midwife from Rohri, Sukkur, burst into tears when she told us that she lost her livestock, house, and her most beloved son on the saddest morning of September 2022 when the deadly flood hit her village. With a sigh of grief and pain, told us how people brought the body of her 23-year-old son, Ali, in front of her just moments after the flood. “My husband could not survive this shock and passed away due to a heart attack,” she said.

Later, Amma Mukhtar’s along with her children shifted to her parents’ home, as she could not raise them due to her extreme poverty. In such a challenging time, it was only the community members, who supported her by providing PKR 5,000 per month to meet her basic needs. From the government, she only received single tranche of PKR 2000 for ration through Ehsaas Program.

Amma Mukhtar tried to resume her role as a traditional midwife. However, it was not welcomed in a disaster situation because she was too old and stressed while the clinics required more protection and survival matter, Mukhtar is also suffering from being alone without any family member at an elderly age, which many other women faced during disaster and felt unprotected, unsafe, and vulnerable to multiple forms of exploitation.
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skilled and energetic staff. Sharing her experiences as a birth attendant, she said natural disasters aggravate maternal and neonatal mortality due to poor public healthcare, which must be the priority of the government. It is not only the issue of lack of food and shelter, but also the absence of reproductive health facilities. The dearth of menstrual hygiene supplies causes many health issues and embarrassment to adolescent girls and women. Oxfam with its local partners addressed this issue by distributing hygiene kits among adolescent girls and conducting orientation sessions on hygiene promotion during floods 2022.

Amma Mukhtar proposed that “the government must develop a programme to provide a monthly stipend in a dignified way for the deserving women. They have no option left for managing their basic needs and rebuilding their damaged houses. Moreover, standing in ration queues and facing abusive language of distributors is also very humiliating.” She demanded of the policymakers to address the issues related to climate change, which have resulted in such unforeseen disasters. She is conscious of women’s and girls’ health. She wants the government to provide micro-nutrients for better health of women and girls, who are struggling to bring their lives back to normal.

2. SUSTAINABLE TOMORROW

Parveen, a 40-year-old mother of three children from village Daanawan of Sukkur district, lost her three-year-old daughter, Mehtab, and an expected baby during the floods 2022. She also lost four out of 11 goats, the only source of her livelihood. “I have never seen such a devastating flash floods in my entire life, which swept away all the houses, took many lives, and left scores of people injured and homeless,” she said with sorrow.

With tears in her eyes, Parveen said that none of her family members noticed Mehtab’s absence from home for hours, as they were engaged in de-watering their home. Later, some people found Mehtab dead in the flood water and brought her body home. “I was pregnant with a baby boy at the time but lost him. Had there been adequate maternal and new-born health facility, he might have survived,” she said. Parveen had to suffer the labour pains for more than 48 hours as she could not go anywhere due to continuous rain spell and absence of any medical practitioner. When she reached a health facility in Khairpur after selling her goat, paying inflated vehicle rent and the cost of the medical aid, the doctors did not even attend to her properly. Later, when she screamed in pain, they took notice of her and dealt with her delivery matters.
She firmly believes that the flood-affected areas are in urgent need of necessary maternal health services to safeguard the well-being of numerous pregnant mothers, guaranteeing a safe pregnancy and childbirth.

Parveen along with her husband spent many days without food and shelter, but gradually they struggled to bring their lives back to normal. However, her grief and emotional loss still persists. “Miseries of life never end and struggle continues, the pain of the loss of dear ones remains with you forever,” Parveen concludes her unforgettable personal life experience. With her resilient attitude, Parveen started running a small shop of cookies and other food items to meet her basic daily needs. She did not give up hope. She said: “The government should develop a program to provide micro credit so that the people like us might secure a decent livelihood and be able to sustain their lives.”

She demanded of the government that there should be some supportive mechanism for the disabled, under-served women, and families so that they might survive in a safe and dignified way during such calamities. She also demanded of the government to facilitate pregnant women with transport at the time of delivery and ensure availability of doctors in hospitals.

3. FROM DESPAIR TO REPAIR

Lal Khatoon, a middle-aged poverty-stricken woman, is a mother of two daughters. She has experienced poverty, miseries, and troubles when she and family faced disaster caused by floods 2022. Lal Khatoon had experienced unkind attitude from the people because of her disability caused by polio. She was already coping with multiple discriminations in her life. She thinks that it was due to ignorance of her parents that she was not vaccinated and caught up in polio.
Her wrinkled face, trembling hands at the age of 42, broken house, and inability to feed the family due to extreme poverty tell the desperate plight of flood victims.

While sobbing on her situation, she said: “The floods were nothing less than a torment for our family, as our house was underwater, so we were compelled to spend almost three months in a roadside tent.” She acknowledged her husband rescuing her on his shoulders while passing through the flood. “At several stages of life, I used to find myself helpless due to difficult and uncertain circumstances. However, when I look into my husband’s eyes, someone who put consistent efforts to bring something to feed the family, I feel content and confident. My husband is a street vendor and sells chickpeas. I want to contribute to my family so that we might accomplish our dreams.”

Narrating her experience of living in a tent for three months, she said: “Just imagine when you cannot go to toilet for entire day and wait for the night. Her dependence on her husband to go and use toilet was a cause of extreme distress for her.

Though Lal Khatoon had a lot of questions and complaints about the mismanagement in relief and emergency response, which made the disabled and weak persons more vulnerable. However, her only priority was to get her own home dewatered so that she could stay in it with dignity.

She said: “It is the government’s responsibility to provide immediate relief to the vulnerable and disabled women in the time of disaster by recognizing their needs in every aspect, including the sanitation facilities.” She further emphasized that it was equally important that the government facilitate families to establish a decent livelihood where one can manage food, shelter, medicine, and personal hygiene. After having been exposed to multiple threats of exploitation, violence, and abuse, she is still optimistic to resume her life by repairing economic and emotional loss.
7. Discussion and Analysis

According to the FGD participants from Badin, around seven disasters had hit Badin district in the years between 2000 -2022, among which 2001, 2007 and 2010/11 was ranked high, in addition to the 2022 floods. These disasters had significant and far-reaching impact on the local community, affecting various aspects of livelihood, living conditions, socio-economic vulnerabilities, infrastructure, and the environment. The increased unemployment was observed due to the destruction of local businesses and infrastructure such as roads and households.

The community members, who were already displaced or resettled due to previous disaster events or development projects, faced additional challenges in coping with the 2022 floods due to their disrupted living situations and limited access to resources, social, economic, and environmental losses. The key humanitarian actors, including local, national, and international organizations in close coordination with district administration and the Sindh government have started their response from rescue, camps management, relief activities such as provision of food and non-food items, cash for work, and then started the recovery and rehabilitation phase along with different agencies of the Sindh government. They have conducted surveys and baselines to collect data on loss and damage in order to prepare a constructive and effective plan to facilitate the flood victims. As per the participants, there is no early warning system established in Dadu district yet, or if there is/was one, it is not currently operational. However, the Laar Humanitarian and Development Programme (LHDP) has organized a coordination meeting involving all stakeholders. In this meeting, it was decided to establish an early warning system at the district level, which will be set up in 2023.

A coordination gap was observed among working organizations of the district, district administration and other relief departments and institutes and philanthropists. The Sindh government should play pivotal role in developing better coordination through its social welfare and revenue departments. The main challenge was the non-availability of urgently needed funding for immediate response, which was required to protect the precious lives of the flood victims. When the disaster occurred and displaced hundreds of the people where no immediate funding was available at key stakeholders such as local, national, and international NGOs, the miseries of the victims were increased. The respondents suggested that there should be a funding pool available at local, national, and international organizations. The government should also have the contingency stocks to manage, reduce or minimize the impact of disasters and should have resources for rescue and relief activities to be initiated.

From the focus group conducted with female participants in Village Muhammad Hayat Makrani, Union Council Pir Kiyor, Sanghar district, it was emerged that there were three flood events in the local area with a high flood in 2011 and a low flood in 2020. The 3rd event was the 2022 flood, termed as ‘mega-flood’ by the participants. The participants marked and categorized the rain flood of 2022 as a mega rain flood compared to previous reported floods. Specifically, the flood 2011 had a devastating impact, whereas the rain flood of 2020 caused less losses.
Focus group discussion with female representatives of Village Muhammad Hayat Makrani, Union Council Pir-kiyor, District Sanghar

Besides floods, the participants shared that "locust also attacked agricultural land 4 to 5 times, which caused damage to their agriculture, which is the main source of livelihood in the area."

As agriculture and livestock are the main sources of livelihood, the rain flooding led to complete damage to crops (all types), resulting in a shortage of animal fodder. This fodder shortage issue and some outbreaks caused a significant increase in livestock mortality, especially in ruminants and big animals like cows, and buffalo. The floods not only affected the crops directly but also had a cascading effect on the availability of food for the livestock. These were the challenges faced by the community during reported disasters.

These floods have also directly impacted the lives of natives. The respondent said that the agriculture sector was 100% destroyed, while the livestock mortality ratio observed in our village/areas was: Goat, 40-50%; Cow, 20-30%; and Buffalo, 3-5%.

Secondly, the women shared that the shortage of food items was also a big issue during the floods. They said that with the destruction of crops and agricultural lands, the availability of fresh produce and staple food items was considerably decreased. Many households faced difficulties in accessing nutritious food. Similarly, hunger became a prevailing concern among children, women, and elder people.

The respondent shared that during the floods, all the natives of the village Hayat Makrani in UC Pir Kehore, Taluka Sanghar, had to shift to Dil Shad Shak, [a safer and raised place in the area]. This
relocation lasted for 3-4 months, and almost 90% of the population moved there, along with all their family members and some necessary luggage. The decision to move to Dil Shad Shak was a challenging task, especially for pregnant women, as well as lactating and elderly women, who also faced issues during floods. In our villages, the floodwater was more than two to three feet high, which affected our lives and properties.

During our stay at Dil Shad Shak, we established local huts with materials available in the area and constructed them according to our needs. One of the female respondents shared that the lack of facilities such as washrooms, bathing, and cleaning of clothes made our living conditions worse. The lack of such facilities caused health and hygiene risks, especially in women and girls. The limited privacy and unhygienic conditions caused difficulties during our displaced period.

They also highlighted the issues of elderly and people with disabilities (PWDs) while staying at new huts on canal side. All infrastructure in the village was affected during the rain flood. Since most houses were constructed with local mud, the continuous 48-hour rainfall caused severe damage to many houses, either partially or completely. To prevent further human loss and ensure safety, many chose to live outside their homes during the flood.

Whatever the participants of the FGDs told about the devastation in their area due to floods is also reflected in the Post-Disaster Needs Assessment 2022. The extent and severity of these losses and damage varied from one community to another, with some areas experiencing more significant impacts than others.

Another FGD was conducted with male participants from Village Yousaf Rajput in UC Sadheno in Sanghar district which approximately 23 kilometers away from the district headquarters. The village has a notable Rajput population, with Shar and Jatoi also living alongside them. There is a minority caste Mahgwar in the village. Around 95% of the population is involved in agriculture and livestock-related activities.

The FGD participants mentioned five disasters that hit their area. They included: floods 2006, 2011, and 2022, locust attacks in 2017-19-20-21 and COVID attack in 2019, which impacted their lives and livelihoods badly. “The floods 2022 affected us to a great extent. Locust attacked our agricultural lands. As agriculture serves as our primary source of income, both the attacks of locusts and the impacts of floods over the past two decades have directly affected and impacted our lives,” said one of the participants of FGD.

The participants shared that “the heavy floods affected our agriculture and livestock both, as these are the main sources of income in our area. During floods, more than 80% of crops were destroyed, which additionally resulted in animal fodder shortage, impacting the mortality ratio in livestock. As all households are farmers, the series of floods impacted our lives and our source of income.”
During the floods, almost 90% of the village population in Yousaf Rajput, UC Sadheno, Taluka Sanghar was to displace to desert in Khipro area for more than four months. They had to live under an open sky whereas some people were shifted to temporary shelters where they faced several problems. They remained hungry during flood days and faced safety-related issues; education of children was also affected for over three months because schools were inundated. The floods also severely impacted the infrastructure as most of the houses, being made of mud, were severely damaged and even wiped away entirely.

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A Focus Group Discussion with residents of village Yousaf Rajput in UC Sadheno, Sanghar district.

In Balochistan province, six FGDs were conducted (four with women and two with men). During the two FGDs conducted with female participants in Goth Doran and Goth Sardar, both groups identified three major flooding events as major disasters and ranked them by severity.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Disaster</th>
<th>Rank</th>
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<tbody>
<tr>
<td>1.</td>
<td>2010 Flood</td>
<td>1st</td>
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<tr>
<td>2.</td>
<td>2012 Flood</td>
<td>2nd</td>
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<td>3.</td>
<td>2022 Flood</td>
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The participants of the 3rd female FGD in UC Nozband differed slightly and ranked the 2012 floods as the most severe. Despite their lower ranking, the 2022 floods still had a profound impact on the local community, leading to widespread devastation of homes, poor living conditions, and disruption of traditional livelihoods such as agriculture and local businesses. Socio-economic vulnerabilities were exacerbated, access to necessities of life became scarce, and vital infrastructure, including roads and bridges, damaged significantly. Environmental consequences included soil erosion and resource depletion. In the aftermath, the top two concerns for post-disaster rehabilitation were the restoration of sustainable livelihoods and the rehabilitation of essential infrastructure, both of which are crucial for the community’s recovery and resilience.
The losses caused by floods brought a miserable condition in villages and community; Some people died after flood due to severe disease attack, mostly because of lack of land connectivity and unavailability of resources. Children became sick and suffered a lot due to various skin diseases and other water borne diseases. Food security and livelihood situation had worsened, rice crop was destroyed, and the small shops and businesses were badly damaged. The fodder for livestock was also rendered unusable and compounded with water borne diseases, which led to massive cattle/livestock mortalities. The orchards in Balochistan were damaged. Owing to flood water, the firewood that is used as fuel became wet resulting in cooking problems and staving off the harsh winter. The key point highlighted by participants was the lack of a proper early warning system, awareness, preparedness against disasters, and risk reduction strategy to protect them from future suffering.

In Punjab province, four FGDs were conducted in Muzaffargarh [two male and two female] with almost similar results as emerged from the other provinces. Between the years 2000 and 2022, the community was exposed to two major disaster events, both of which were floods. The flood of 2010 stands out as the most significant and devastating disaster event during this period. It resulted in widespread destruction and loss of life. The flood of 2014, although slightly less severe than the 2010 flood, left a considerable impact on the community.

A Focus Group Discussion in Muzaffargarh with female community members.

These disasters had substantial impact on the communities, affecting various aspects of livelihood, living conditions, socio-economic vulnerabilities, infrastructure, and the environment. The floods of 2010 and 2014 caused widespread displacements, destruction of homes, disruption of livelihoods and loss of livestock, crops, and property. The inundation of farmlands led to a decline in agricultural productivity which was the community’s main source of income. The floods strained the existing socio-economic vulnerabilities of the community, and exacerbated poverty and inequality. Educational institutions remained closed for a long period that affected education and student retention. Additionally, women could not maintain their personal health & hygiene amid crisis. The top two concerns in post rehabilitation were: i) livelihood restoration, ii) infrastructure rehabilitation.
During the discussion, it was learnt that there was a lack of an effective and efficient alert system in the community. The absence of a reliable mechanism for disseminating timely information posed a significant challenge during disaster events. Additionally, there were inadequate directions and guidance provided to the residents during emergencies, resulting in confusion and delayed responses. In the absence of formal early warning systems, ad hoc measures were taken; announcements were made in mosques to indicate the threat level.

In 2022, some residents received SMS alerts from the district government, but the effectiveness of this approach was limited due to a high rate of illiteracy among the population. The participants also highlighted the absence of a proper assessment of losses for effective post-disaster rehabilitation. This lack of information impeded the recovery process for the affected population. Moreover, there was a lack of comprehensive risk assessment to anticipate and mitigate potential future flood events.

The existing sources of disaster-related information primarily consisted of government agencies such as Rescue 1122 and the District Disaster Management Authority. However, these sources were not sufficiently equipped to provide accurate and timely information to the community. Non-Governmental Organizations (NGOs) and civil society also played a role in disseminating information, but their reach was limited. Local knowledge and past experiences were relied upon to some extent, but these were often not formalized into effective disaster response strategies.

8. Policy Recommendations

To address the identified challenges and the recipes provided by the experts as well as the communities, Pakistan may move forward with the following strategies by:

- Increasing its financial resources and funding for disaster risk reduction initiatives;
- Building institutional capacity and expertise for disaster risk reduction at the local level;
- Promoting wider participation and contribution from all stakeholders in DRR and climate change adaptation;
- Ensuring support to DRR policies and programs from all the political parties and leaders, regardless of change of governments;
- Focusing on the root cause of disaster risk and address these through integrated DRR and climate change adaptation interventions;
- Establishing and strengthening early warning systems to provide timely alerts and preparedness measures for communities at risk;
- Giving a say to local communities right from planning to implementation to evaluation stages of any community-based DRR plans and projects and making them part of planning and decision-making processes;
- Improving the coordination among government departments/agencies concerned, donors, UN and humanitarian agencies, NGOs, Community-Based Organisation/Self-help groups and private sector to work together in disaster risk management while preparing contingency plans,
preparedness of communities and DRR and humanitarian response plans for a better disaster management at district/local level.

- Adopting community-driven approaches and more effective and context-specific strategies for better acceptance and cooperation during emergency responses.
- Empowering DDMAs with the full support from NDMA and PDMAs so that they fulfil their mandated roles and responsibilities; (Each DDMA in disaster prone areas should be given better equipment for its emergency operations, a management information system and stronger technical capacity. Additionally, contingency stocks should be stored in the vicinity of vulnerable areas so that boats and other relief and rescue work can be started immediately.)
- Investing in training programmes for communities, local authorities, and response teams as this may help build resilience and equip them with the necessary skills to handle disasters effectively.
- Enforcing disaster management strategies to address specific hazards prevalent in the region, such as floods or heavy rains for targeted and effective responses;
- Incorporating lessons from post-disaster recovery efforts to help communities bounce back, reduce vulnerabilities, and build back more resilient infrastructure.

9. Conclusion

Though initiatives have been taken to improve disaster preparedness against floods and heavy rain, the provided information is limited and primarily emphasizes the challenges faced by the community rather than specific details about these initiatives. If the community had access to an effective early warning system, they could receive timely alerts about potential floods or heavy rain. This could enable them to take proactive measures, such as evacuating to safer places and protecting their belongings, thereby reducing the impact of the disaster on their lives and properties.

The community intends to establish a rain/flood response group within their village to enhance their preparedness and response to disasters. They requested trainings on survival skills during floods and heavy rain to better protect themselves and their belongings. They also requested the provision of essential kits containing items such as solar lights and hand torches, which would be crucial during any disastrous situation. Moreover, the community desires training on modern livestock rearing techniques and advanced agricultural practices to address the challenge of water logging. By forming the response group and receiving the necessary training and resources, the community aims to build resilience, ensuring that they are better equipped to tackle future floods and heavy rain with more confidence and efficiency.

After a thorough analysis of the 18 FGDs and over 50 interviews, it is concluded that the best way to realize the goals of Sendai Framework for Disaster Risk Reduction in Pakistan may be done through awareness raising and capacity building of the communities who are at risk of disasters. This is in line with the MTR of Sendai Framework which states that “To effectively realize the outcomes and goals of the Sendai Framework in Pakistan, one key step is to sensitize all end stakeholders and beneficiaries, including line departments and ministries, about the targets, goals, and mechanisms outlined in the SFDRR. This will ensure maximum coverage and build the capacity of personnel to follow the required
Disaster Risk Reduction Policy implementation in Pakistan in line with Sendai Framework

procedures and mechanisms to achieve targets and report progress. Top officials alone should not be relied upon to pass down instructions to their subordinates.” (NDMA Pakistan, 2023).

There is a dire need that the DRR Policy 2013 should be aligned with the key priority areas of SFDRR in next seven years until 2030. For a better preparedness against disasters and climatic hazards and risks and implementation on DRR policy and actions, adequate resources should be invested as if we spend a portion of amount on the preparedness and DRR efforts, we can save six times higher the amount which otherwise we need to spend on disaster response.

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