Centring Teachers and Communities:
School- and Community-Oriented Resilience in Education (SCORE) Framework for Pakistan

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Policy insight highlight

This Insight Note introduces the **School- and Community-Oriented Resilience in Education (SCORE) Framework** for building climate resilience through engaged communities, empowered educators, and coherent systems. The SCORE framework is based on three principles:

Learning from locals
Community-led knowledge and monitoring.

Leading with people
People-centred systems and leadership.

Aligning for resilience
Community-policy coherence and collective wellbeing.

Through school- and community-oriented approaches, this framework aims to support the ongoing effort to move beyond reactive, top-down crisis responses to **proactive, community-driven, and coherent climate resilience**.

Climate-induced and environmental disasters are now among the most significant drivers of disruption to education worldwide

In 2024, at least **242 million children** in **85 countries** had their education interrupted by climate events, according to a conservative estimate (UNICEF, 2025). These events affect the capacity of education systems to provide quality education, and disrupt education systems' operations. They damage infrastructure, force school closures, and displace both teachers and learners, causing a deterioration in learning conditions (GPE, 2023a; Bangay, 2022).

Since 2022, **more than 400 million students** worldwide have lost weeks or even months of instruction due to climate disasters (Sabarwal et al., 2024). These events disproportionally affect low- and middle-income countries, despite their low historic greenhouse gas emissions **(Chancel and Mohren, 2025).**

Countries in South Asia have been among those that have been hardest hit in 2024, with 128 million students affected in Pakistan, India, and Bangladesh, while **East Asia and the Pacific saw 50 million students** lose access to schooling, including widespread closures during Typhoon Yagi (UNICEF, 2025).

128 million students affected in Pakistan, India, and Bangladesh

The detrimental effects of climate risks also extend far beyond classrooms: they cascade through health, nutrition, household stress, migration, and coping strategies, with cumulative impacts on future learning and wellbeing

Cuartas et al., 2024). Growing research documents the long-term implications of this issue for economic and life outcomes. Evidence from Pakistan, for example, shows that the children who experienced the 2005 earthquake faced long-term consequences in health and learning outcomes (Andrabi et al., 2023). What may appear to be temporary shocks in fact compound over the years, threatening learning continuity, increasing dropout—especially among girls—and heightening risks of child labour and early marriage.

These consequences have long-term implications for the economic, life, and social outcomes of the individuals affected, and for generations to come. The economic loss to the world from children and youth not learning amounts to a staggering **US$10 trillion** dollars annually (UNESCO, 2024b).

When disaster strikes, teachers and educators—often victims themselves—are expected to act as first responders to climate-related crises.

In many cases, teacher absence or displacement during crises is one of the most critical bottlenecks affecting educational continuity (UNESCO, 2023b).

Beyond the personal and emotional toll, disrupted school environments, increased workloads, and heightened student needs place enormous burdens on already overstretched educators, with longer-term consequences for teacher wellbeing and retention (Ciampi et al. 2025).

Countries are increasingly adopting flexible strategies to cope with disruptions from climate-induced and environmental disasters.

Bangladesh adjusts school calendars and timings in response to extreme heat.

India similarly modifies school schedules to cope with severe heatwaves.

Pakistan has implemented these adjustments multiple times—but in a reactive, unstructured manner.

Philippines uses formal protocols that allow localised or staggered school suspensions during typhoons, avoiding blanket closures.

Despite progress, most approaches remain **standalone and reactive,** highlighting the need for coordinated, long-term, system-wide strategies for climate-resilient education.

Building resilience requires developing the capacity of national and local systems to anticipate, absorb, and adapt to shocks.

System strengthening is increasingly recognised as the cornerstone of climate-resilient education. Global frameworks—including the Global Partnership for Education's (GPE's) (2023b) **Climate-Smart Education System Framework, the UNESCO's Greening Education Partnership pillars, and World Bank's Education for Climate Action** (Sabarwal et al., 2024)—emphasise that resilience cannot be achieved through piecemeal projects alone: it needs systems-level coherence.

- Integrate climate risk into sector planning and budgets

- Develop early warning and data systems

- Safeguard education financing and flexible funding

- Ensure climate-responsive infrastructure, teacher management, and curricula

Strengthened systems provide the enabling environment within which teachers and communities can act—clear contingency protocols, flexible funding, and responsive teacher deployment make local actors better positioned to protect children's learning.

Within these systems, what ultimately determines resilience when disasters hit is the collective action of teachers, school leaders and communities.

Schools often become relief hubs and shelters during crises, and eventually centres for continued learning. Whether children can keep learning depends largely on real-time actions by teachers, school committees, parents, and local leaders.

Teachers play a pivotal role by ensuring learning continuity through adaptive pedagogy, classroom stability, and psychosocial support—core elements of classroom recovery.

School leaders assess shifting conditions, adjust schedules, manage risks, and anchor support systems for learners during emergencies.

Communities mobilise resources, create improvised solutions, and advocate for children when formal systems fail to respond in time.

Evidence shows teacher resilience is essential to successful community disaster education and to the wider community's response capacity.

During COVID-19, teachers in Afghanistan, Ghana, and Sierra Leone supported learning while also taking on counselling, caregiving, and information-sharing roles—often without any structured support.

Climate resilience in education cannot be imposed from the top. It requires teachers, schools, and communities to be central actors—with the resources, agency, and leadership space they need.

School- and Community-Oriented Resilience in Education (SCORE) Framework

which places communities' **needs, priorities, and innovations at the forefront,** recognising teachers and educators (and the schools they operate in) as key leaders in maintaining learning access and continuity during crises.

The framework complements existing climate resilience policies by showing how **teachers' and communities' agency** and actions can be systematically recognised, integrated, and institutionalised to ensure coherent, relevant, and effective climate-resilient education systems.

The DARE-RC research portfolio is uniquely positioned to identify these dynamics, **capturing how teachers, schools, and communities** in Pakistan are already responding to floods, heat, and displacement, and offering insights into what system-level reforms are needed to sustain and scale these grassroots adaptations.

Box 1. Pakistan snapshot (2022–2025)

Pakistan offers one example of the severity of climate-related educational disruption. Despite its less than 1% (0.23%) historic greenhouse gas emissions, it ranks as one of the countries that was **most affected by extreme weather impacts in 2022,** with systemic exposure to floods, storms, heat, and drought (Adil et al., 2025). The 2022 floods alone affected **33 million people, displaced 8 million, and damaged more than 26,000 schools** (Government of Pakistan et al., 2022). That devastation still shapes national education recovery efforts.

Since then, climate impacts on schooling have only intensified. In August 2025, monsoon floods displaced **2.5 million people** and inundated over 1,400 villages. For weeks, flood-affected schools doubled as shelters, leaving children without classrooms.

In many communities, the damage has been long-lasting: when school buildings and infrastructure are washed away, children face months without access to formal learning, while displaced teachers and families struggle to re-establish routines. These disruptions **compound existing inequalities** and place enormous strain on communities already mobilising to cope with loss.

Air Pollution & Heat Impacts

Air pollution and smog crises have also closed schools repeatedly. In late 2024, Lahore and other Punjab cities suspended in-person instruction for weeks as Air Quality Index (AQI) levels reached hazardous levels, affecting an estimated 26 million children. Meanwhile, recurrent heatwaves in Sindh and Punjab have forced shortened schedules and early summer breaks, further shrinking instructional time (International Rescue Committee, 2023; Save the Children, 2024). Pakistan also has some of the world's highest $PM_{2.5}$ exposure levels, which studies have linked to reduced student performance (Heissel et al., 2020; Naveed and Khayyam, 2022).

Climate-Resilient Education Efforts

To prepare schools and education systems in Pakistan for the ever-increasing threats of climate-induced and environmental disasters, there has been a surge of focused and coordinated efforts to support climate-resilient education systems. These include:

- The **UNESCO–Save** the Children–GPE Climate Smart Education Systems Initiative (CSESI), which convened federal and provincial stakeholders in July 2025 to develop a national workplan for mainstreaming climate resilience across policy, planning, teacher development, curricula, and resilient school infrastructure.

- Anticipatory action **pilots signposted by UNESCO**, Save the Children, and Education Cannot Wait to reduce learning disruption through early warning and preparedness measures.

- **UNICEF-supported** diagnostics and guidance on building a climate-resilient education system in Pakistan that informs policy dialogue and planning with provincial governments.

- New **World Bank-financed** provincial programmes that integrate climate resilience into service delivery and school facilities in Balochistan and Punjab, alongside foundational learning reforms.
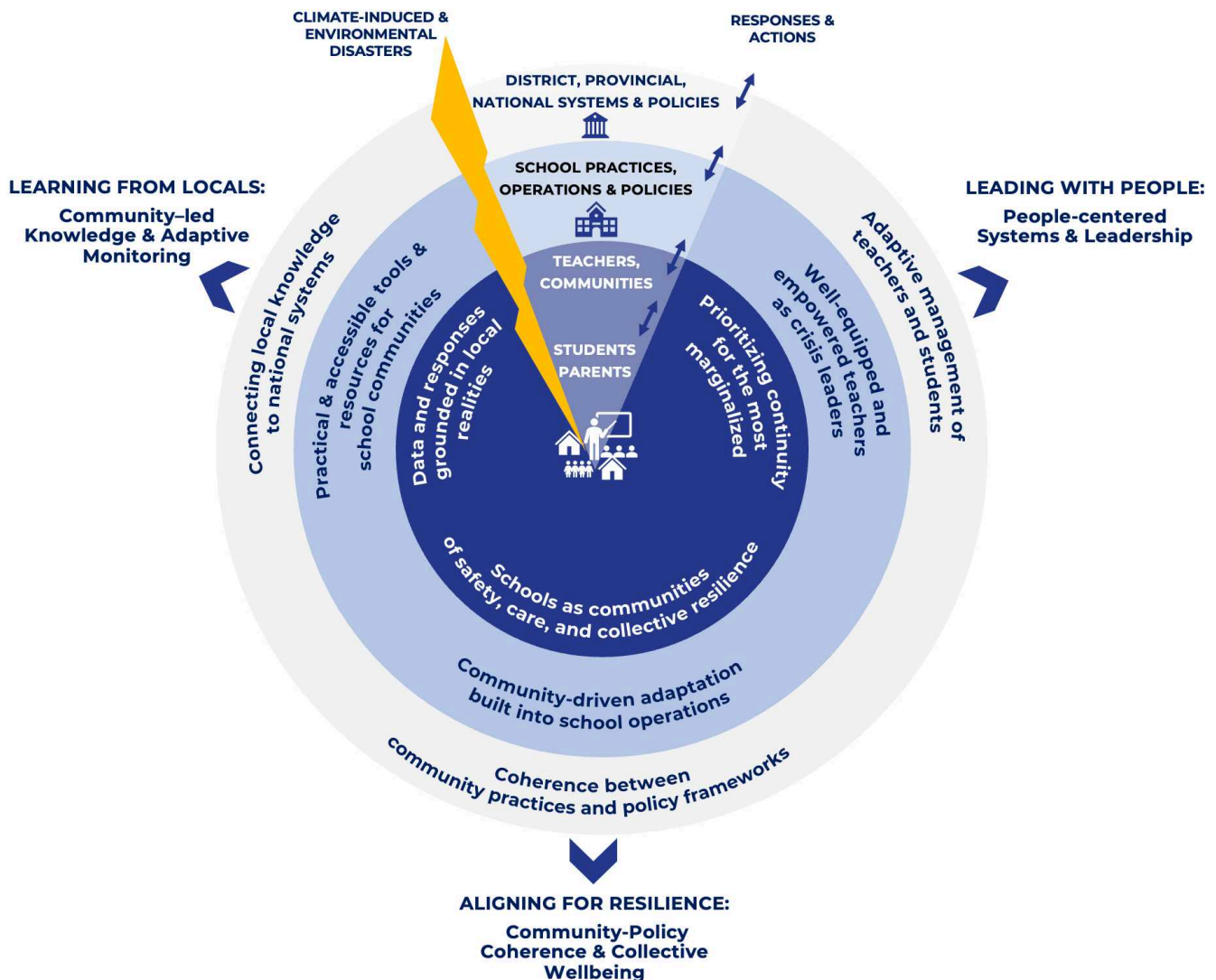
Together, these efforts aim to shift from ad hoc response to system-wide risk reduction and preparedness, while highlighting the need to strengthen community-led assessment, co-governance, and localised financing so resilience measures reflect local risk profiles and priorities.

> **The 2022 floods affected** 33 million people, displaced 8 million, and damaged 26,000+ schools.

School and Community Oriented Resilience in Education (SCORE) Framework

Centring teachers' and communities' **needs, priorities, and actions** at the heart, the SCORE Framework identifies three interlinked principles—**learning from locals, leading with people, and aligning for resilience**—that operate across micro (students, teachers, communities), meso (school practices and operations), and macro (district, provincial, national systems and policies) levels, collectively preparing against and responding to crises, and building climate-resilient education systems (Figure 1).

CLIMATE-INDUCED & ENVIRONMENTAL DISASTERS

RESPONSES & ACTIONS

DISTRICT, PROVINCIAL, NATIONAL SYSTEMS & POLICIES

SCHOOL PRACTICES, OPERATIONS & POLICIES

TEACHERS, COMMUNITIES

STUDENTS PARENTS

LEARNING FROM LOCALS:
Community–led Knowledge & Adaptive Monitoring

LEADING WITH PEOPLE:
People-centered Systems & Leadership

Connecting local knowledge to national systems

Practical & accessible tools & resources for school communities

Data and responses grounded in local realities

Adaptive management of teachers and students

Well-equipped and empowered teachers as crisis leaders

Prioritizing continuity for the most marginalized

Schools as communities of safety, care, and collective resilience

Community-driven adaptation built into school operations

Coherence between community practices and policy frameworks

ALIGNING FOR RESILIENCE:
Community-Policy Coherence & Collective Wellbeing

Climate-resilient education systems depend on grounded knowledge—on the capacity of schools and communities to observe, document, and interpret local conditions and feed this intelligence upwards into system-wide decision-making. Participatory, community-led approaches to assessment and monitoring foster more context-appropriate recovery and adaptation than exclusively top-down processes (Bangay and Blum, 2010; Jan et al., 2025). Community-driven data on risk assessments during non-emergency times, as well as school accessibility, attendance, and damage during crises, provide the first line of risk monitoring and response in crises, and when institutionalised, strengthen the feedback loops that underpin adaptive planning (GADRRRES, 2022; Cameron et al., 2024).

Micro	78% maps
Students, teachers, community data	

Meso	71/100
School operations, funds, CRSAT	

Macro	35% EMIS
EMIS, dashboards, policy	

Micro level:

At the level of students, teachers, and communities (micro level), learning from the local begins with **data and responses that are grounded in lived realities.** Teachers and community members identify immediate risks to learners' safety and continuity—whether heat exposure,

flood access, or displacement—and co-design mitigation measures. **Community-based participatory risk mapping in Vietnam** has demonstrated that such locally led diagnostics improve early warning accuracy and reduce school disruption. The responses need to reflect the needs and priorities of the school community, especially those of marginalised communities, whose understandings and experiences of climate disasters often differ significantly from prevailing policy assumptions and official accounts. DARE-RC researchers are actively exploring the effects of climate events marginalised populations from the perspective of students, teachers, and communities, and are identifying promising strategies to enhance school communities' resilience (See DARE-RC Climate Resilience Study Portfolio 1, 2, 5). Prioritising data and adaptation strategies rooted in their perspectives is essential for equity and effectiveness, ensuring climate resilience policies genuinely address those who are most—or disproportionately—affected (Ali et al., 2024).

Meso level:

At the level of school practices, operations, and policies (meso level), communities require **practical tools and resources to translate local insight into action.** School-level diagnostics, preparedness plans, and accessible grant mechanisms—such as those piloted in UNICEF's 'Heat is On!' initiative—enable educators to assess structural risks and prioritise cost-effective mitigation (Kagawa, 2022). In Pakistan, an adapted version of the assessment and preparedness toolkit, the Climate Risk School Assessment Tool (CRSAT), is currently being piloted, led by a DARE-RC researcher (see DARE-RC Climate Resilience Study Portfolio 4). In the Philippines, school management committees and local governments are empowered to mobilise and manage both regular and emergency 'quick response' and disaster resilience funds for school disaster preparedness and resilient infrastructure through the Local Disaster Risk Reduction and Management Fund (LDRRMF). Case studies show that school management committees can plan, allocate, and utilise community-level finance for pre-disaster mitigation and school-based response activities (Domingo and Manejar, 2018; Shrestha, 2016).

Macro level:

At the level of district, provincial, and national systems and policies (macro level), resilience requires **connecting local knowledge to national systems.** When community-school data are integrated in education management information systems (EMISs) and provincial dashboards, authorities can make evidence-based decisions relating to resource allocation and emergency response. International technical guidance now recommends explicitly embedding climate risk and continuity indicators within EMISs to institutionalise real-time monitoring and create stronger system-level feedback (GADRRRES, 2022; Cameron et al., 2024).

Building resilient education systems requires protecting, organising, and leading people in school communities who can maintain learning and care during crises: teachers, students, and community members, especially the most vulnerable. Effective educational crisis response hinges on community leadership, social trust, and empowerment; and community members and teachers often take on the role of first responders and leaders, mobilising the community and strengthening community resilience (Fu and Zhang, 2024; Sabarwal et al., 2024).

Micro High Priority	**Meso** Core Pillar	**Macro** System-Level
Students, teachers, vulnerable groups	Teacher PD, wellbeing, school leadership	Policies, substitute pools, records

Micro level:

At the micro level, resilience starts with **prioritising learning continuity for marginalised groups.** Marginalised children, including girls, children with disability, and children from marginalised communities, are disproportionately affected by climate-induced and environmental disasters. There are increasing calls for a shift in policy, from blanket provisions to more targeted support for girls and other marginalised groups; there is also a need to acknowledge that disadvantages are intersectional and can impact how an individual responds

to a crisis (Chidambaram and Khalid, 2024). During floods or heat emergencies, flexible scheduling, temporary learning spaces, and inclusive teaching are critical to protect access for girls, displaced children, and rural learners facing the greatest disruption (Chidambaram and Khalid, 2024; Sujaya et al., 2023). Recent World Bank-supported reforms in Pakistan incorporate these principles through enabling more flexible service delivery and safe transport, particularly for girls in **Balochistan and Punjab.**

⚖️ Meso level:

At the meso level, teacher wellbeing and professional development are essential for response capacity: through **equipping and empowering teachers as crisis leaders.** Training that integrates psychosocial support, crisis pedagogy, and adaptive leadership prepares teachers to sustain engagement during systemic disruption (Fu and Zhang, 2024; Falk et al., 2019; Parrott et al., 2025). The CSESI process in Pakistan identified teacher support and wellbeing as a core pillar under the 'greening teacher education' agenda. DARE-RC studies in Sindh and Punjab aim to integrate actionable insights with conceptual analysis to generate knowledge for strengthening climate resilience in education systems, especially through informed and targeted teacher professional development (see DARE-RC Climate Resilience Study Portfolio 1, 3).

📈 Macro level:

At the macro level, **adaptive management of educators and students**—including substitute teacher pools, portable records, and flexible examination policies—enables quicker system recovery after shocks (Cameron et al., 2024). An ongoing DARE-RC study exploring the challenges facing, and needs of, climate-induced child migrants highlights the need for flexible, adaptive, and coherent management policies and systems to ensure sustained quality education provision during crises (see DARE-RC Climate Resilience Study Portfolio 2). Policy innovations to allow flexible arrangements for students and teachers include simplified administrative enrolment procedures and digitised academic records for climate-displaced children in Indonesia and India (Gujarat Council of Elementary Education, 2014; UNESCO, 2023a), the use of alternative shelters as temporary schools, and support for mobile teachers and substitute 'floating' teacher pools during disaster response (UNESCO, 2023b). Under reforms in Punjab in Pakistan, there are now plans to establish contingency management systems linked to emergency response (National Disaster Management Authority, 2024).

Sustaining resilience requires alignment between the social capacities of communities and the policy frameworks that govern schooling. Both horizontal coherence (across local communities, schools, and agencies) and vertical coherence (across system levels) coherence are essential to foster durable adaptation (Pritchett, 2015; Kim et al., in press; UNESCO, 2024c). When school, district, provincial, and national policies and responses account for and align with the needs and priorities of local school communities, and learn from and scale the effective solutions applied by communities, education systems become more adaptive and responsive, enabling innovations proven at the grassroots level to inform, transform, and strengthen policy implementation at scale. This reciprocal alignment enhances collective ownership, improves

Micro — Wellbeing Impact	Meso — Community-Led	Macro — National Scale
Psychosocial recovery, Wellbeing, Supportive schools	Community-led adaptation, School committees	Policy alignment, National resilience plans

crisis response, and ensures that resilience strategies remain contextually relevant and sustainable over time. Two DARE-RC studies are currently examining the state of school–community collaboration and alignment between the needs of school communities and education systems' policies and responses; their findings emphasise the need for institutionalising community voice and strategies in resilience plans and policies (see DARE-RC Climate Resilience Study Portfolio 3, 5).

📄 Micro level:

At the micro level, safe, inclusive, and supportive schools have been shown to accelerate both academic and psychosocial recovery after shocks (Lai et al., 2024; UNESCO, 2024c). Schools serve as **communities of care and collective resilience, nurturing psychosocial wellbeing for children, teachers, and families** (UNESCO, 2024c). In Pakistan, new adolescent resilience programmes, such as the United Nations Population Fund's initiative with School of Leadership Foundation (SoLF), blend wellbeing and climate education for marginalised students.

⚖️ Meso level:

At the meso level, **community-driven adaptation and participatory decision-making in school climate resilience efforts**—joint risk assessments, decision-making authority exercised by school committees, and community co-financing—ensure that climate adaptation is embedded in daily practice rather than only emergency response (Shah et al., 2020; Thapa et al., 2024). When school committees are empowered to assess risks, plan, and allocate resources, they transform schools into disaster preparedness hubs—ensuring safety, learning continuity, and shelter for the whole community during recurring climate shocks (Chidambaram and Khalid, 2024; GADRRRES, 2024; Global Center on Adaptation et al.,2022; GPE, 2023a). This inclusive, participatory approach to school management, when institutionalised in school policies and operations, ensures that risk reduction and preparedness are sustained over time and aligned with specific school and community needs.

📈 Macro level:

At the macro level, **coherence between community practices and policy frameworks** is critical. Without systemic backing, community-led solutions remain isolated and unsustainable. Such coherence can be achieved by ensuring local knowledge, needs, and innovations are considered and embedded in district, provincial, and national system-wide policies and funding mechanisms that actively recognise and amplify grassroots and community-led solutions. For example, the Climate-Smart Education Systems Initiative—piloted in countries such as Malawi, Zimbabwe, Cambodia, and South Sudan—supports ministries of education to institutionalise climate resilience, community feedback, and adaptation strategies within sector plans, budgets, and curricula (GPE, 2023b; UNESCO, 2024a). Through this approach, successful models—like school-based rainwater harvesting or community-managed emergency funds in Malawi—are formally resourced and scaled at the national level, rather than remaining isolated projects.

In Saint Lucia, the government's adaptation strategy and action plan—developed in partnership with GPE and the NAP Global Network—involves teacher unions, civil society, and school leaders in policymaking and financing, creating policy pathways to scale locally driven school resilience interventions (NAP Global Network, 2025). Additionally, innovative national funding mechanisms, such as the **Philippines' People's Survival Fund**, provide direct support for school and community-led adaptation projects, institutionalising grassroots climate action across the education system (GPE, 2023a).

What the SCORE Framework look like in Pakistan?

The Heart of Resilient Education

Resilience comes from people and relationships, not just infrastructure.
Empowered teachers, engaged communities, and coherent systems transform local knowledge into institutional action.
Education connects classrooms → communities → systems, becoming an anchor of stability in crises.

Teachers & Communities as Leaders

Teachers are supported as leaders.
Communities are given tools and authority to assess risks and act.
Local knowledge and innovations are embedded into national systems.

Pakistan's Path Forward

Move from reactive, top-down to proactive, community-driven preparedness.
Embed climate resilience in every level of education policy:

- Daily teacher practices
- School management committees
- Provincial & national planning, budgeting, governance

Strengthen vertical (policy) & horizontal (community) linkages for continuity during disasters.

Learning from Local Innovations

DARE-RC explores local strategies protecting learning from climate shocks.
Local insights inform system-level policies.

By following "Learn from Local → Lead with People → Align for Resilience", Pakistan can:

- Transform education systems
- Withstand climate shocks
- Nurture adaptive, connected, future-ready generations

Principles for School Community-Centred Climate Resilience

System Level	LEARNING FROM LOCALS: Community-led knowledge and monitoring	LEADING WITH PEOPLE: People-centred systems and leadership	ALIGNING FOR RESILIENCE: Community–policy coherence and collective wellbeing
Micro: students, teachers, communities	**Data and responses grounded in local realities:** Identify and prioritise education responses that are rooted in the lived experiences of students, teachers, and communities through locally led assessments rather than top-down approaches.	**Prioritising continuity for marginalised groups:** Safeguard the learning of the most vulnerable—girls, displaced and migrant children, and poor peri-urban or rural learners—who face the highest risks of exclusion.	**Schools as communities of safety, care, and collective resilience:** Recognise schools as protective, cohesive spaces where teachers, families, and students rebuild stability, mutual care, and shared safety.
Meso: school practices, operations, and policies	**Practical and accessible tools and resources for school communities:** Provide low-cost, scalable instruments, such as school-level risk diagnostics, preparedness plans, micro-grants, and teacher hardship allowances.	**Well-equipped and empowered teachers as crisis leaders:** Prepare and support teachers as anchors of continuity, safety, and psychosocial support during shocks.	**Community-driven adaptation built into school operations:** Embed participatory risk monitoring systems and shared decision-making so adaptation becomes part of everyday school management.
Macro: district, provincial, and national systems and policies	**Connecting local knowledge to national systems:** Aggregate and share community-level data on climate risks, damage, readiness, and student and teacher attendance and outcomes through EMISs and dashboards to inform real-time planning and response.	**Adaptive management of teachers and students:** Strengthen mechanisms such as substitute teacher pools, documentation waivers, stipend protection, and flexible examinations to sustain learning continuity.	**Coherence between community practices and policy frameworks:** Align grassroots innovations with policy frameworks so they are recognised, resourced, and scaled across the system.

DARE-RC Climate Resilience Study Portfolio 1

Building resilience to climate vulnerabilities through education: supporting schools, educators and students in Pakistan (study lead: Dr Shenila Rawal; study context: Sindh)

📖 Study summary:

This study explores how climate-related incidents have affected education outcomes for learners in Pakistan. It examines the adequacy of school and teacher resources and support for facing climate-related challenges, and the implications of this for teacher professional development. It investigates equity aspects in education by examining the differential effects on marginalised groups (e.g. girls). Using a mixed methods approach in two districts of Sindh province—Khairpur and Badin—it examines the extent to which school leaders, educators, and students are equipped to manage climate-related risks. Three villages per district and three government secondary schools per village (ensuring single-sex and mixed schools) are selected.

💡 Key hypothesis:

The effects of climate change jeopardise the delivery of quality education, and while climate-related incidents themselves may last days or months, their effects on children and their education and life chances last for years. Teacher professional development—both pre-service and in-service training—can serve as a vital mechanism to strengthen teacher and school preparedness for climate-related emergencies.

⚖ Policy implications:

By integrating empirical insights with conceptual analysis, the findings generate actionable knowledge for strengthening climate resilience in education systems—particularly through informed, targeted teacher professional development. The study also aims to identify effective and scalable strategies to enhance the resilience of schools, teachers, and learners.

🗇 Relevant SCORE Framework approaches:
- **Learning from locals:** Data and responses grounded in lived realities
- **Leading with people:** Well-equipped and empowered teachers as crisis leaders

DARE-RC Climate Resilience Study Portfolio 2

Tracing child migrants' education access amidst climate-induced disruptions in Pakistan (study lead: X; study context: Khyber Pakhtunkhwa and Sindh)

📖 Study summary:

This qualitative study in Khyber Pakhtunkhwa and Sindh examines the educational access, continuity, and quality of climate-induced child migrants aged 5–16. Drawing on a desk review, semi-structured interviews with children and parents, focus group discussions with children and parents, and key informant interviews with education officials, service providers, community leaders, and teachers, the study explores how migration affects learning access, safety, and quality in fragile, resource-constrained settings.

💡 Key hypothesis:

Preliminary findings suggest that climate-induced child migrants rely largely on community- or NGO-led temporary learning centres that lack trained teachers, formal oversight, and basic infrastructure. Irregular attendance, loss of documentation, unsafe learning spaces, and curricular disconnects compound exclusion risks. These barriers are gendered, with girls facing heightened dropout risks due to care burdens and protection concerns, and are further intensified for children from religious or ethnic minority groups, who experience discrimination and exclusion in both formal and non-formal education spaces. In destination areas, climate-induced child migrants experience a mismatch between previous and current curricula, and limited inclusion in public schools, due to capacity and verification constraints.

⚖️ Policy implications:

The study emphasises the need to strengthen coordination between public systems and non-state providers to ensure sustained and quality education access for climate-induced child migrants. The findings will inform policies on linking education recovery to social protection initiatives (such as cash grants for families and social assistance programmes) and addressing systemic barriers around infrastructure deficits (such as inadequate curricular resources, the disconnect between previous and new learning environments, and enrolment difficulties due to lost/destroyed documentation).

🗇 Relevant SCORE Framework approaches:

- **Learning from locals:** Data and responses grounded in lived realities
- **Leading with people:** Prioritising continuity for marginalised groups; adaptive management of teachers and students
- **Aligning for resilience:** Coherence between community practices and policy frameworks

DARE-RC Climate Resilience Study Portfolio 3

Resilient education systems for adolescent learners: inclusive community-based participatory research in urban and rural settings in Pakistan (study lead: Dr Sapana Basnet; study context: Islamabad Capital Territory, Punjab and Sindh)

📖 Study summary:

This action-oriented and inclusive community-based participatory research in Islamabad, Punjab, and Sindh examines adolescents' understanding and experience of climate-induced and environmental disaster risks. The study uses a mixed-methods design, incorporating a desk review, key informant interviews, focus group discussions, Photovoice, and GIS mapping to generate contextually grounded evidence on what resilient education means for adolescents (aged 10–19 years), their teachers, education authorities, and communities in Pakistan.

💡 Key hypothesis:

Adolescents, parents, and teachers already improvise their response to ensure educational continuity (home-based learning, peer education), but their voice and solutions are not embedded in school- or district-level planning. Schools lack engagement in climate resilience and disaster preparedness activities. Most schools lack emergency action plans beyond basic fire and earthquake drills, leaving them unprepared for more frequent disasters and there is little coordination across sectors. Teachers and students express a strong interest in contributing to preparedness efforts, highlighting the need for climate education, training, and community involvement. Psychosocial strain and teacher preparedness gaps are recurrent challenges, while girls and students with disabilities face systemic barriers that require adapted support.

🔨 Policy implications:

The study highlights implications for teacher professional development and school leadership capacity in emergency response, psychosocial support, and inclusive pedagogy. Initial findings emphasise the importance of school–community collaboration and institutionalising community voice in resilience plans and policies, including mobile learning units, home-based and low-tech solutions, improved transport facilities, school safety plans, disaster drills, and equitable investment across urban and rural communities.

📑 Relevant SCORE Framework approaches:

- **Learning from locals:** Practical and accessible tools and resources for school communities
- **Leading with people:** Well-equipped and empowered teachers as crisis leaders
- **Aligning for resilience:** Schools as communities of safety, care, and collective resilience; community-driven adaptation built into school operations; coherence between community practices and policy frameworks

DARE-RC Climate Resilience Study Portfolio 4

School Climate Risk Assessment (CRSAT) pilot (study lead: Dr Sapana Basnet; study context: Khyber Pakhtunkhwa, Punjab and Sindh)

📖 Study summary:

This pilot study tests the Climate Risk School Assessment Tool (CRSAT) in schools across Punjab, Sindh, and Khyber Pakhtunkhwa. CRSAT is a participatory diagnostic that engages teachers, students, and community members in identifying school-specific risks and preparedness needs. The pilot aims to adapt the tool for Pakistan's context and assess its feasibility for wider use.

💡 Key hypothesis:

The study will assess the feasibility of the adapted CRSAT, focusing on locally grounded risk assessments for climate events (e.g. flooding, heat, unsafe infrastructure) by schools and communities, and the preparedness actions they propose. These processes are expected to strengthen school–community collaboration and raise awareness of resilience needs, though many schools may lack the resources or funds to act on identified priorities.

⚖️ Policy implications:

If findings suggest CRSAT is feasible, sustainable, and effective, it could be scaled under the Pakistan School Safety Framework (PSSF) as a low-cost, school-level diagnostic that enables schools to identify and implement risk-reduction plans tailored to their communities.

🗂️ Relevant SCORE Framework approaches:

- **Learning from locals:** Practical and accessible tools and resources for school communities
- **Aligning for resilience:** Community-driven adaptation built into school operations

DARE-RC Climate Resilience Study Portfolio 5

Schooling strategies and climate change: A coherence analysis of local policy and community adaptations (study leads: Dr Rabea Malik and Dr Hadia Majid; study context: Sindh)

📖 Study summary:

This study documents the ways in which multiple climate events affect the education and livelihood journeys of adolescent boys and girls in Pakistan. The study combines quantitative spatial and exposure analysis, and qualitative participatory methods to better understand where climate impact on learning and livelihood journeys of adolescent boys and girls is most acute, and the extent to which local governments and communities in these areas are aligned with the needs of adolescents and communities in how they respond through policies and strategies.

⚖ Policy implications:

By synthesising insights from the exposure analysis and participatory methods, the study aims to provide actionable recommendations for enhancing climate-resilient educational systems that prioritise the educational and livelihood journeys of adolescents in Pakistan in high-risk areas.

⬚ Relevant SCORE Framework approaches:

- **Learning from locals:** Data and responses grounded in local realities
- **Aligning for resilience:** Community-driven adaptation built into school operations; coherence between community practices and policy frameworks

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