

The Climate Crisis

Education is Critical for Building Resilience to Vulnerabilities

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Pakistan ranks as the 5th most vulnerable country to the impacts of climate change according to the Global Climate Risk Index (UN Habitat, 2023). Climate change and displacement caused by rising global temperatures exacerbate the inequalities and barriers that already exist. In particular, the effects of these are felt more deeply by those belonging to more socio-economically disadvantaged backgrounds, by women and girls, rural communities, and persons with disabilities (UNESCO, 2023). The climate crisis also intersects with another crisis – interruptions to education and learning and the resulting widening inequalities caused by the Covid-19 pandemic.

There is evidence to show that disasters are now increasing in severity and occurring almost five times as often as they did 40 years ago and these disasters are disrupting the education of nearly 40 million children a year. The effects of these disasters on education are direct and indirect – flooding, for example destroys schools, droughts result in children having to go further to collect water, financial impacts of climate shocks mean families cannot afford to keep children in school. Even when children stay in school, environmental changes such as temperature increases and high levels of pollution make learning difficult, as children's physical wellbeing and ability to concentrate are compromised (FCDO Position Paper: The Climate Crisis and Girls' Education).

Current, high-quality research in global contexts shows that without urgent action, climate change will make it increasingly challenging to achieve a quality education. This is especially true for disadvantaged populations. Young Lives research has shown how childhood exposure to climate shocks such as droughts and floods can have an unequal impact on children's long term development and especially on girls and young women who bear the burden of these challenges. Research from Pakistan by Andrabi et al. (2020) that explores the impact of a disaster – the earthquake in Pakistan in 2005 – on student learning shows that it is important to assess children when they return to school post-disasters (earthquakes, pandemics etc.) to ensure they can be taught at the right level. It also shows the need for supporting communities in adapting and responding to 'what works' for them to improve schooling.

This year's Annual Status of Education Report (ASER 2023) has, for the first time, collected rich data on various indicators aimed at capturing self-reported indicators of some of the vulnerabilities that individuals across Pakistan face. Households across the country have been asked questions on aspects such as whether their household was affected by the floods in 2022, whether or not they are a refugee household and whether their family has been affected in any way by a natural disaster. The household survey sheet also included questions on whether the respondent believes themselves to be informed about what climate change is, whether (and by how much) the household's income was affected by the reported natural disaster, whether children's schooling was affected and whether the respondent's psychological wellbeing was affected by the incident. For the first time, we have data on 89,551 rural households, across 4,381 villages, in 151 districts on these critical aspects.

¹<https://www.riseprogramme.org/publications/working-paper-20039-human-capital-accumulation-and-disasters-evidence-pakistan>

The findings from ASER 2023 on these issues are stark. It is well known that certain regions in Pakistan are particularly prone to the impacts of climate change. It is well known that the recent floods that hit the country have been a catalyst for the many risks faced by vulnerable and marginalised populations living in these regions. The rural sample have revealed that whilst nationally, almost 22 percent of the households reported being affected by the floods in 2022, there are stark regional disparities with 49 percent of the households in Sindh and 47 percent in Balochistan noting that their household was affected by the 2022 floods (Figure 1). Other regions in Pakistan reported being substantially less impacted by the floods that devastated other regions so significantly. When asked whether the households have been impacted by *any natural disaster* in the past year (significantly impacted or moderately affected), the findings are even more telling – with 69 percent of households in rural Sindh and almost two thirds of those in rural Balochistan reporting being significantly or moderately impacted by any natural disaster/event in the past year. The self-reported incidences also rise for other regions, indicating the extent of vulnerability faced by rural populations across Pakistan (Figure 2). When asked whether (and to what extent) their income was negatively impacted by these events, nationally the findings suggest that almost half the sampled households reported a negative impact on earnings. In Balochistan, almost a quarter of the rural respondents sampled reported a decline in earnings between 26-50% and in Sindh the equivalent was almost 19% households.

Figure 1: Household self-reports on whether it was affected by the 2022 floods, rural

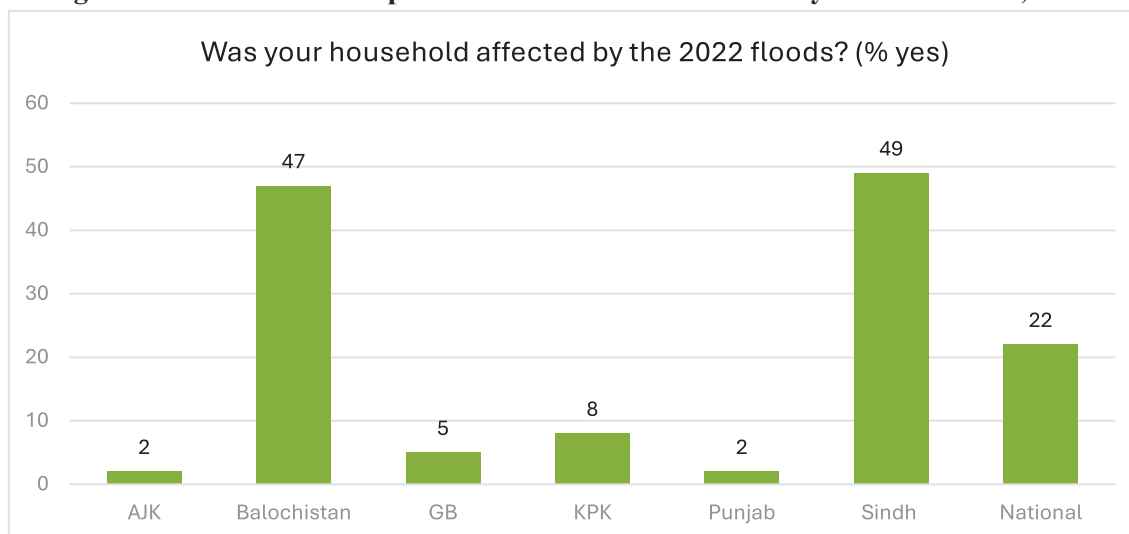
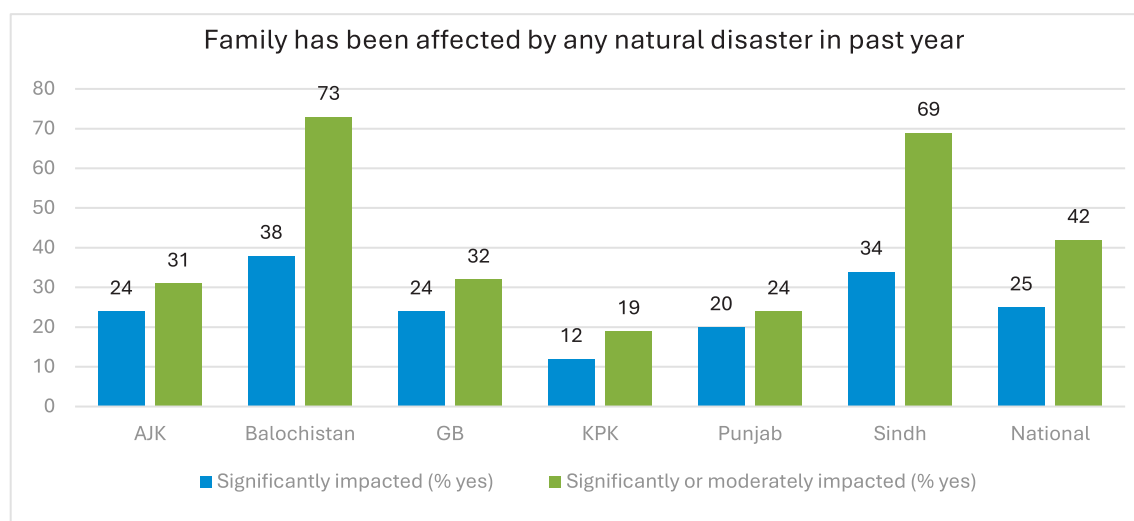


Figure 2: Household self-reports on whether it has been affected by any natural disaster in the past year, rural



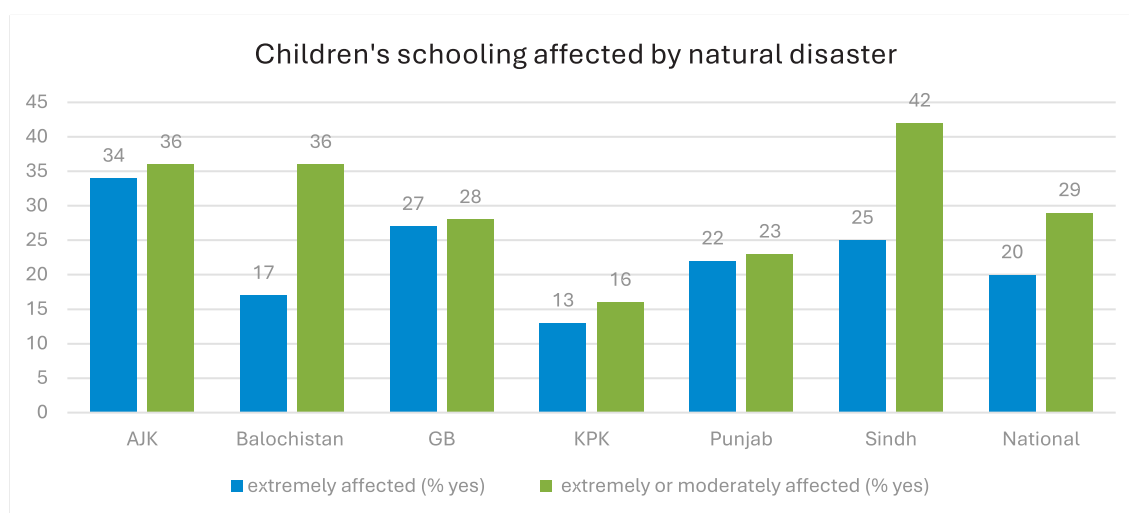
²When training the enumerators, the volunteers were instructed to explain to the respondents that the term covers phenomena such as floods, droughts, earthquakes, cyclones, wildfire etc. which may have affected them in the past year.

These climate related vulnerabilities also affect children the most - the recent floods of 2022 clearly indicated how children and their education was gravely affected across Pakistan (MPDSI, 2022). Idara e Taleem o Aagahi (ITA), in partnership with FCDO and the Sindh Education and Literacy Department (SELD), implemented the 'Foundational Learning Recovery: Flood Response in Sindh' programme in Shikarpur and Ghotki districts in Sindh. The programme consisted of three intervention arms including support in the form of materials and resources through distribution of back-to-school kits, school stabilization kits, and health and hygiene kits, and a 60-day Teaching at the Right Level (TaRL)-based, accelerated learning camps to boost learning of in-school children in grades 3-5 and for out of school children aged 6-13 years; and a micro-intervention in two villages from the target districts. A total of 210,000 children benefitted from the programme (i.e., intervention I, II, and III), out of which 30,873 children attended the TaRL-camps. Nearly 80 per cent those who attended the accelerated learning camps were mainstreamed into public schools. The assessment results from TaRL-based learning camps show significant improvements in learning levels across all 4 cohorts and the 3 subjects i.e., Sindhi, Arithmetic and English.

The decline in earnings reported as a result of natural disasters by respondents is likely to have an adverse impact on children's education. We know that climate shocks reduce incomes and this exacerbates a major barrier to education especially for the poorest, girls and children with disabilities. The limited resources on hand available to households are diverted for survival instead of for learning, trapping vulnerable populations in a vicious cycle of marginalisation, and vulnerability, facing school drop-out, child labour and in the case of girls, early marriage and early pregnancy. The impacts of climate shocks will have long lasting effects on the wellbeing, learning, life and economic outcomes of those directly affected but are also likely to be transmitted across future generations.

Figure 3 illustrates self-reported responses by households on whether their children's schooling was 'extremely affected' due to a natural disaster and here the findings indicate quite significant impacts on children in rural regions across almost all the regions – with almost 34 percent households reporting schooling being extremely affected in AJK followed by 27 percent in GB, closely followed by 25 percent in Sindh. It is worth noting that a fifth of all households in rural Pakistan (20 per cent) reported their children's schooling being 'extremely affected' due to a natural disaster.

Figure 3: Household self-reports on whether children's schooling has been affected by any natural disaster in the past year, rural



¹<https://cdpr.org.pk/wp-content/uploads/2023/11/Foundational-Learning-during-Emergencies-Learning-is-Not-a-Lost-1.pdf>

However, it is worth noting that only in Sindh and in Balochistan, the two most significantly flood-impacted provinces, a far larger percentage of households reported children's schooling being moderately affected by a natural disaster as well. Nationally, almost 30 percent of the respondents suggested schooling being significantly or moderately affected.

Other findings in ASER 2023 allude to the effects of these events on children's learning – there is a visible and significant decline in children's learning across most regions and whilst we can't attribute this decline directly to these events without more sophisticated analysis, it is safe to conclude that the school closures and lost schooling days from these events would have contributed to this learning loss. Figures 4 and 5 present the learning levels of percentage of grade 5 students who are able to read an Urdu story and the percentage of class 5 students who are able to do two-digit division, comparing the learning levels in 2014, 2019 (pre-pandemic) and the subsequent rounds of ASER (2021 and the most recent in 2023). There are some very striking findings apparent in these graphs. Firstly, it is worth noting that for Urdu and Arithmetic learning nationally, a larger percentage of children know how to read a story in Urdu or do division in 2023 (50% and 46.3% respectively) as compared to in 2014 (46.4% and 40.4% respectively). However, in 2019, before the pandemic hit, the percentage of children who could read an Urdu story or do division nationally had improved by 12.7 percentage points and 16.5 percentage points respectively. There is a noticeable decline in learning outcomes after the pandemic (comparing 2019 to 2021) in both Urdu and Arithmetic outcomes nationally and, similarly, there appears to be another declining trend between 2021 and 2023. This decline is larger in some regions than in others – we observe a small decline in the flood-impacted provinces of Balochistan and Sindh, but larger declines are visible in Punjab and KPK in mathematics outcomes and in Punjab and KPK in Urdu outcomes.

Figure 4: Percentage of children who can read an Urdu story (5-16 years), rural, by region

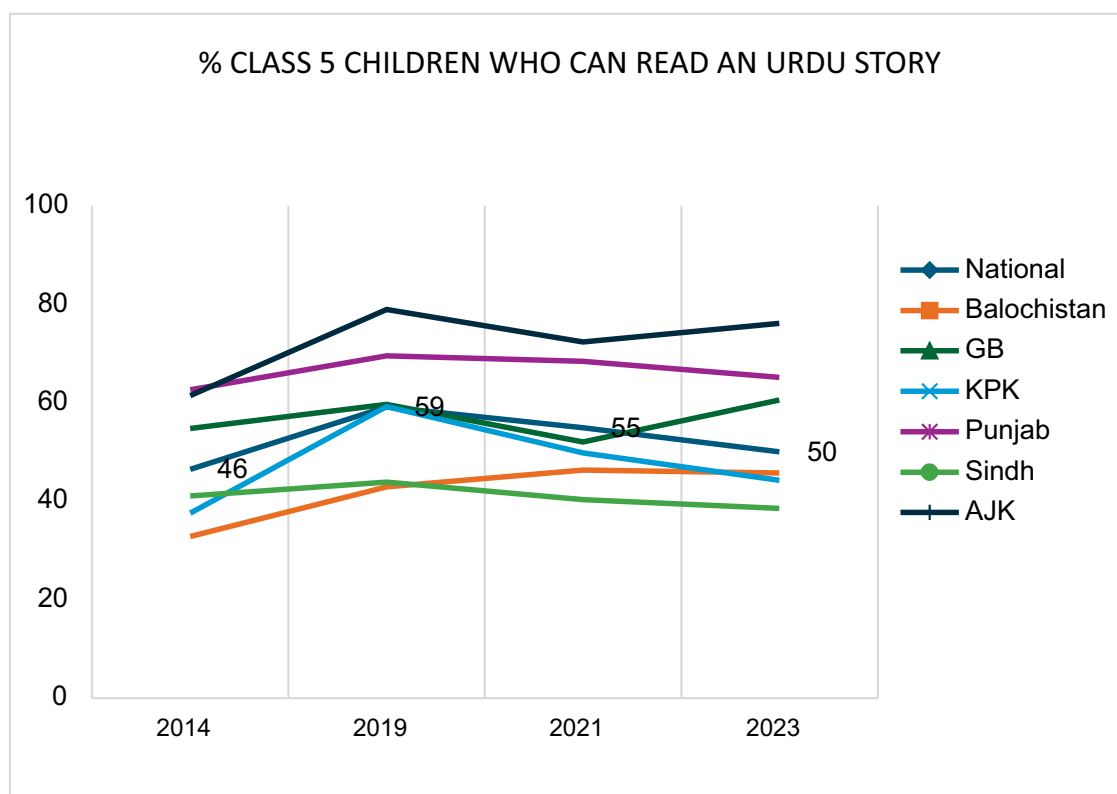
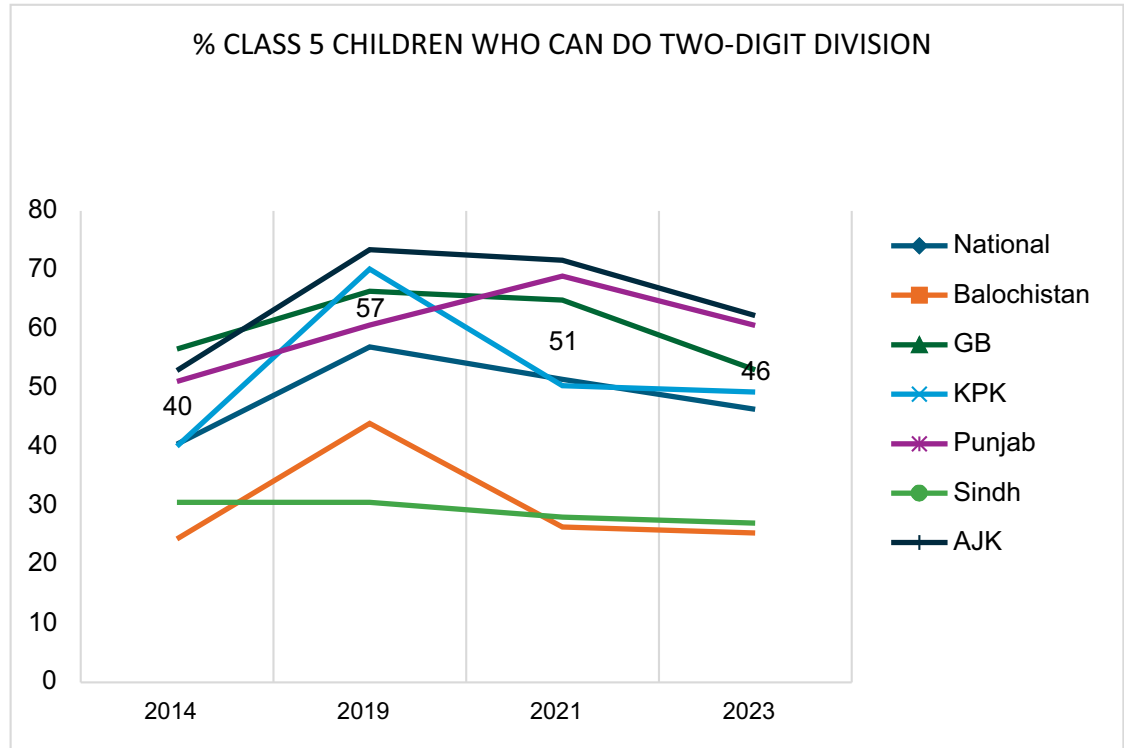


Figure 5: Percentage of children who can do two-digit division (5-16 years), rural, by region



Source: 2023 ASER rural report

The low levels of learning and their persistent nature in Pakistan is a cause for concern. The trends over the 9-year period between 2014-2023 suggest persistently low and declining learning levels across many regions in the country. Climate and environmental change pose an accelerating threat to the education of the most marginalised and poorest and especially girls and taking stock if this situation and planning for it is critical for Pakistan since 18% of rural girls aged 5-16 remain out of school as per the latest ASER figures. Pakistan stands at a crucial juncture – we know that many education systems are consistently failing the majority of children – many children in Pakistan can't read a simple text or do simple arithmetic. We know that Covid-19 was the biggest disruption to education in recent history and will continue to have long-lasting effects on access and learning. We know that natural disasters and conflict take children out of school and reduce their chances of re-entering the education system. We know that climate and environmental changes are likely to exacerbate conflict for scarce resources. And finally, we know that the burden of these climate-related incidents is most likely to be felt by the most marginalised, the most vulnerable – climate change will intensify these inequalities even more and will reverse any gains made in getting children into school and to give them a meaningful education.