

Policy Brief

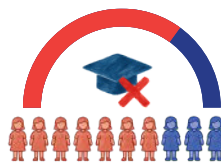
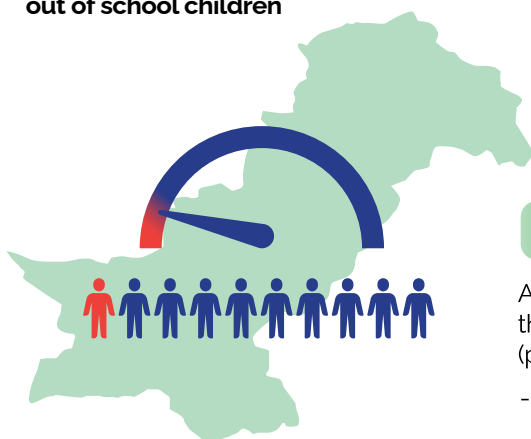
EARLY WARNING SYSTEM: PREVENTING DROPOUTS – REDUCING OUT OF SCHOOL CHILDREN

CONTEXT

THE CHALLENGE

Despite significant progress, **Pakistan lags in achieving SDG target 4.1**. UNICEF reports that Pakistan has the second highest proportion of out of school children globally. Millions of children are denied access to basic education in Pakistan each year. An estimated **25.1 million Pakistani children are out of school (Pakistan Education Statistics, 2023-24)**. While large numbers never enroll in schools, the daunting threat is that many of those who are enrolled may drop out without completing primary/secondary school.

25.1 million
out of school children



Dropout Rate

Around **70 per cent of girls** drop out of their academic journey between Katchi (pre-school) to **Grade 10**

-Pakistan Institute of Education (PIE)



SDG 4 – Target 4.1

By **2030**



Ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.

Out of School Children

The children of compulsory school age who are not enrolled in and/or are not attending school. These are children:



Who have never entered school or any kind of recognised education provision.



Who have dropped out from school before completion of compulsory education.

WHY EARLY WARNING SYSTEM (EWS)

Implementing an Early Warning System (EWS) is an **effective addition to tools** that can be employed to tackle the underlying causes of student dropouts. By leveraging global best practices and adapting them to Pakistan's social, developmental, governance and cultural context, **EWS can play a pivotal role in identifying at-risk students and enabling timely interventions.** A structured approach to gathering and analysing data of at-risk students can lead to more effective policy responses.

To understand and address the challenge, the Pakistan Institute of Education (PIE), along with the relevant partners from the provincial education departments, embarked on a lengthy process of technical analysis, consultative policy dialogues and immersive focused group discussions (FGDs) to synthesise findings and produce this policy brief with key policy recommendations.

WHAT IS EARLY WARNING SYSTEM?



"An EWS is a system (i.e. a sequence of procedures that have been thought through and that are recognised and shared by all concerned staff) that **enables schools and education authorities to identify students with specific needs and support them in a timely and appropriate way.**"

 UNICEF (2018)

POLICY PROCESS

POLICY ANALYSIS PROCESS



1

IDENTIFICATION OF POLICY ISSUE



Document Analysis



Contextual Analysis

First Stage

Reviewing Perceptions of Stakeholders/Policy Makers



Focused Group Discussion (FGDs)



2

POLICY DIALOGUE



Second Stage



3

SYNTHESIS OF FINDINGS

Third Stage



SYNTHESIS OF FINDINGS



Data Management and Accuracy

- Identify dropout risks, through data-driven strategies
- Enhance role of parents and community
- Ensure school based management and accountability



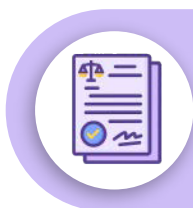
Equity and Inclusivity in Education

- Improve instructional quality
- Initiate training and exchange programmes
- Improve governance (teacher absenteeism)



Community and Stakeholder Engagement

- Create centralised databases
- Start digital attendance tracking
- Bridge the digital divide (low-cost apps)



Policy and Government Support



Create real-time, reliable databases



Integrate socio-economic data



Address governance challenges

Student Retention and Dropout Prevention



Provide financial and social support



Develop effective policies on girls and marginalised groups



Simplify legal documentation process



Create customised/tailored curriculum

Teacher and School Performance



Strengthen collaboration



Increase awareness via social media and leaders



Initiate school councils

Technology and Digital Solution



Coordinate all stakeholders



Address legal documentation challenges



Provide financial incentives for students



Develop policies for standardised Database Management System

EXISTING PRACTICES OF EARLY WARNING SYSTEM

EWSs have been more commonly implemented in the developed contexts than in developing ones. Their focus varies depending on the country's contextual challenges. Across the globe, EWSs have been found to improve a country's data management and accuracy, student retention and dropout prevention, equity and inclusion, teacher and school performance, community and stakeholder engagement, and policy and government support.

DEVELOPED CONTEXT

- National EWS (Austria)
- Regional EWS (Belgium)
- EWS governed by Education Decrees (Croatia)
- Basic Record for Education Database (England)
- Drive to Reduce Dropout Rates (Netherlands)
- School-based EWS (Poland)
- National Database (Portugal)
- Integrated within school monitoring and management systems (Slovenia)
- Municipality and School-based EWS (Sweden)

DEVELOPING CONTEXT

- Southeast Asia (Timor-Leste): SDPP (School Dropout Prevention Pilot Program)
- South Asia (India): SDPP (School Dropout Prevention Pilot Program)
- East Africa (Tanzania): DEWS (Dropout Early Warning System)
- Latin America: ENTR (Early Notification and Response to Transition)

PAKISTAN

- To address the crises of OOSC, Prime Minister of Pakistan formally declared a National Education Emergency. In response, an Education Taskforce was formed and a Challenge Fund was allocated to support targeted interventions.
- Directorate General Of Monitoring and Evaluation, School Education & Literacy Department - Sindh has been implementing a monitoring system to identify and reduce students dropout.
- JICA in collaboration with PIE has undertaken an experimental initiative to develop an ICT-based dashboard to enrol out-of-school children.

RECOMMENDATIONS

STRATEGY



Provide real time data-based information on basic indicators that would flag the risks of children dropping out, which will prevent children from leaving school and, in the long run, reduce the number of out of school children.

Indicators:



Classroom attendance



Scores in formative assessments



Health screening

Initially the system will only monitor attendance and engage parents to support improved child engagement in school. In the medium to long term other areas like learning and health related issues of children will be added to the list of indicators for identification of at-risk children. The former will require a more standardized formative assessment system where teachers will be able to add weekly/monthly data on scores to the dashboard and for the latter teachers will have to be trained on basic health screening and collaboration with the Department of Health will be required for regular screening of children for health-related issues. The system will evolve, along with the responses, over time.



RECOMMENDATIONS

School-Based: Non-Technological Solutions



01 Enhance Attendance Monitoring

- Assign teachers or community members to follow up on absentee students through home visits.
- Engage class representative for monitoring students' absenteeism.
- Introduce a reward system for students with high attendance.



02 Strengthen Communication and Engagement

- Organise bi-monthly meetings between parents, teachers, and the community to track students' progress and address absenteeism.
- Develop a school-led mentorship program for at-risk students.
- Establish/revitalise school-based parent committees for dropout prevention.
- Conduct door-to-door awareness campaigns highlighting the importance of school continuation.

School-Based: Technological Solutions



01 Implement Digital Attendance Systems

- Introduce biometric or mobile-based attendance tracking for students.
- Send automated SMS alerts to parents when students are absent.



02 Use Digital Communication Tools

- Use WhatsApp groups for teacher-parent communication regarding attendance and performance.
- Create school-based online portals for student tracking and progress monitoring.
- Enable automatic alerts for school administrators when a student's attendance drops below a certain threshold.

Province/District-Level: Non-Technological Solutions



01 Establish a Standardised Student Identification System

- Mandate NADRA/Union Council offices to issue unique student IDs at birth.
- Link these IDs to education and health ministries for long-term tracking.



02 Strengthen Policy Coordination among Stakeholders

- Form a Provincial Education Task Force with government, NGOs, and development partners to complement efforts towards students' retention.
- Conduct regular cross-sectoral meetings to address dropout prevention.



03 Community Mobilisation and Awareness

- Launch province-wide awareness campaigns on the importance of school attendance.
- Partner with local influencers/religious leaders.
- Implement legal frameworks to discourage child labor and early marriages.

Province/District-Level: Technological Solutions



01 Develop Centralised Education Dashboards

- Establish a digital platform integrating school attendance, enrolment, and performance data into a district/province-wide online dashboard.
- Enable real-time monitoring of at-risk students and dropout trends.



03 Integrate AI-Based Systems

- Use AI tools to analyse dropout patterns and identify at-risk students.
- Send automated alerts to school authorities and parents where hotspots of dropout children are identified.



02 Implement SMS-Based Reporting Mechanisms

- Establish an SMS-based reporting system for schools in low-connectivity areas.
- Enable school administration to report attendance and dropout data via mobile-based reporting.
- Provide school administrators with a mobile application to submit monthly reports digitally.

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