

Gender Equity and Social Inclusion (GESI) Responsiveness in Education Research

*Findings from the KIX Regional Grant Project: Data-Driven
School Improvement (DSI) – Challenges, Opportunities
and Scalable Solutions (2021-2023)*

SOCIETY FOR THE ADVANCEMENT OF EDUCATION (SAHE)

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List of Abbreviations

AEO	Assistant Education Officer
ASC	Annual School Census
ASDEO	Assistant Sub-Divisional Education Officer
ASER	Annual Status of Education Report
BISP	Benazir Income Support Programme
CEO	Chief Executive Officer
CFM	Child Functioning Module
CMO	Chief Monitoring Officer
COT	Classroom Observation Tool
COVID-19	Coronavirus Disease of 2019
DCMA	Data Collection and Monitoring Assistant
DEO	District Education Officer
DPS	District Performance Scorecard
DSI	Data-driven School Improvement
EAP	Europe, Asia and Pacific
EMIS	Education Management Information System
GESI	Gender, Equity, and Social Inclusion
GPE	Global Partnership for Education
HT	Head Teacher
IDRC	International Development Research Centre
ILO	International Labor Organization
KIX	Knowledge and Innovation Exchange
KP	Khyber Pakhtunkhwa
KPEMA	Khyber Pakhtunkhwa Education Monitoring Authority
LSU	Local Support Unit
MA	Monitoring Assistant
M&E	Monitoring & Evaluation

MEA	Monitoring & Evaluation Assistant
MICS	Multiple Indicator Cluster Survey
MPI	Multidimensional Poverty Index
NGO	Non-Governmental Organization
OHCHR	Office of the United Nations High Commissioner for Human Rights
OOSC	Out of School Children
PITB	Punjab Information Technology Board
PMIU	Programme Monitoring & Implementation Unit
PSLM	Pakistan Social and Living Standards Measurement
R4D	Research for Development
RSU	Rural Support Unit
SAHE	Society for the Advancement of Education
SC	School Council
SED	School Education Department
SELD	School Education & Literacy Department
SEMIS	Sindh Education Management Information System
SHNS	School Health & Nutrition Supervisor
SIF	School Improvement Framework
SIS	School Information System
SMC	School Management Committee
SSI	School Status Index
SSMS	Sindh School Management System
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WASH	Water, Sanitation and Hygiene
WEF	World Economic Forum

Chapter 1: Introduction and Purpose

This report is purposed to share learnings and findings from conducting Gender, Equity and Social Inclusion (GESI) responsive research under a KIX-supported regional grant project: Data-driven School Improvement (DSI) – Challenges, Opportunities and Scalable Solutions (2021-23). A joint endeavor of the Global Partnership for Education (GPE) and International Development Research Centre (IDRC), KIX aims to strengthen national education systems and accelerate educational progress in the Global South by filling knowledge gaps, increasing access to evidence, and strengthening systems to support the generation and uptake of evidence and innovations in low- and middle- income countries¹. KIX recognizes education as both a basic human right and a key driver in reducing poverty and achieving gender equality and quality education for all. Therefore, GESI is a cross-cutting theme in KIX-sponsored projects and activities and has been prioritized in at least a fifth of the overall KIX portfolio². It similarly assumes importance in the aims and objectives of the regional KIX-supported DSI research for development (R4D) project, as outlined in the following section(s).

A Brief Introduction to the DSI Project

Awarded in 2021, the DSI is a two-year, research for development (R4D) project designed to respond to a specific priority for countries in the KIX Europe, Asia and Pacific (EAP) region, namely optimizing the use of Education Management Information Systems (EMIS). Almost all countries have established EMISs but their use is often more directed towards project reporting than planning at the school, provincial and central or federal levels. And while existing data collection, processing, and reporting practices help provide snapshots of education systems, they do not help policy- and decision- makers see and address improvement needs of individual schools. This can be achieved by scaling innovations that improve the organization, interpretation and use of education data for school improvement. The DSI project therefore aims to address how countries can adapt and scale such innovations to optimize the use of education data at all levels (school to central/federal).

The general objective of DSI is to generate knowledge based on the scaling of a promising innovation in data-driven school improvement, namely the School Improvement Framework³ being implemented in Pakistan (and its adaptations), that optimizes the use of data produced by schools to improve school management and results as well as enhance the support schools receive from other levels/tiers of government. In line with this broader objective, the specific objectives of the project include:

1 GPE-KIX. *KIX Theory of Change and Results Framework Narrative*.

2 Dayab, Z., Chacon-Zuloaga, R., Aceiton, M. M., Frotte, M.D, and KIX Africa 21. 2022. *Perspectives and Interventions in Gender Equality and Inclusion across the KIX Regional Hubs*. Available at: <https://www.gpekix.org/blog/perspectives-and-interventions-gender-equality-and-inclusion-across-kix-regional-hubs>.

³ The SIF is a conceptual and methodological tool developed to use EMIS data to identify and address schools' needs by actors within the education system. For a detailed note on the SIF, please see below.

- i. identifying the nature, scope, and extent of challenges to the scalability of the SIF, including specific challenges relating to gender equality by way of participation and leadership in school improvement processes.
- ii. identifying conditions for success and effective scaling of the SIF and other EMIS-led innovations to improve school-level outcomes for all children within and across the three countries.
- iii. mobilizing knowledge on optimal use of school-based data for education decision-making, policy and management amongst education stakeholders, and
- iv. strengthening capacities of education managers at all levels to implement SIF and be able to identify and address bottlenecks in the delivery of equitable and quality education at the school level.

The project has been implemented in Pakistan (Punjab, Khyber Pakhtunkhwa and Sindh provinces) and Nepal. In Punjab and KP, where the SIF has already been implemented and scaled, research under the project explores the opportunities, challenges and solutions in effective scaling of the innovation. In Sindh and Nepal on the other hand, where no such innovation exists, the project examines the possibility or feasibility of scaling a contextually relevant innovation in data-driven school improvement⁴. By doing so, the project aims to achieve (i) an enhanced understanding of the frameworks for scaling innovations aimed at data-driven school improvement for actors across the wider education system, and (ii) communities of practice within and across the GPE member countries, which are more knowledgeable of data-driven school improvement. As mentioned, this includes issues of gender, equity and social inclusion, as defined below.

What we Mean by Gender, Equity and Social Inclusion

Gender, equity and social inclusion do not have the same meaning in every discipline. In education, GESI concerns equal and equitable opportunity to quality education for all children, irrespective of their gender, socioeconomic status, ability, ethnicity, religion, language and geographical location. This subsection defines and further clarifies conceptual issues in each of these terms – gender, equity and social inclusion – specifically with respect to education.

Gender

Per the KIX guide to integrating GESI in research⁵, the term ‘gender’ refers to the differentiated and intersectional experiences of women, men, boys, and girls. Acknowledging the duality of gender in the social inclusion discourse is pertinent as gender issues not only cause social exclusion on their own, they also *intersect with other factors* that cause social exclusion. Thus, gender, as defined above, stands on its own as well as with other, intersectional attributes that cause exclusion. In education, gender is reflected in education policies and practices through

⁴ As mentioned further below, the findings presented in this report are limited to the three provinces in Pakistan, that is, one of the two project countries, for cross-province comparisons.

⁵ GPE-KIX. *Guide to Integrating Gender in Your Proposal*.

gender norms, roles and stereotypes, often amplified by prevalent social and cultural practices in schools, households and communities at large. For instance, societies may relegate certain roles to girls and women, compelling them to not enroll in education or unenroll from education, stay at home and/or get married early, and so on. Similarly, boys in poorer communities may be compelled to earn from a very young age at the cost of their schooling. ‘Gender equality — and how people experience it within households, organizations, and communities — in this sense, is the product of how different social systems and structures are designed, negotiated, and implemented’⁶. Gender equality in education can be imagined in at least four dimensions: equality of access, equality of opportunity or achievement, equality of treatment, and equality in society, such as rights and roles and responsibilities⁷. On the other hand (and as explained below), gender *equity* is the means through which gender equality may be achieved, as it involves fair treatment of women, girls, boys, and men according to their respective needs and perspectives.

Equity

Equity is distinct from equality. It involves designing resources and opportunities such that they help *all* children reach the same (or equal) outcomes, in tandem with those who experience more favorable conditions to achieve. Consider a public school which is equally accessible for all, but where particular groups of students struggle to learn because their specific needs are unmet. Equitable education advocates individualized support to such children to address the barriers they may be facing (e.g. disability, poverty etc.), including measures like equitable organization of and participation in classrooms⁸ and (use of) class materials, provision of assistive devices, social assistance, and so on, such that they are equally able to learn as other children.

Social Inclusion

Social inclusion is a process which ensures that those at risk of exclusion – due to age, sex, disability, race, ethnicity, origin, religion, economic status, or other factors – gain the opportunities and resources necessary to participate fully in economic, social, political, and cultural life and enjoy a standard of living considered normal in the society in which they live⁹. It ensures that disadvantaged individuals have access to their fundamental rights and greater participation in decision making which affects their lives. Social inclusion is thus a process as much as a goal, and while it is important to identify and address exclusionary factors, the practice of social inclusion involves adequate attention to processes by which efforts are made to ensure equal opportunities for all.

In education, inclusive education refers to an inclusive learning environment for all, irrespective of their identities of gender, age, location, class, caste, religion, ethnicity, and ability¹⁰. This includes school structures, curricula, teaching methodologies and inclusive data collection and

⁶ IDRC. 2020. *Gender Equality*. Available at: <https://idrc-crdd.ca/en/research-in-action/gender-equality>.

⁷ Vaughan, R.P., 2007. Measuring Capabilities: An Example from Girls’ Schooling. In M. Walker and E. Unterhalter (Eds), 2007. *Amartya Sen’s Capability Approach and Social Justice in Education*. New York: Palgrave Macmillan, pp.109-130.

⁸ Awale, A. 2022. *Conceptualizing and Examining Equity in Basic Education at Yamunamai Rural Municipality*.

⁹ Siddhi, A. 2022. *Social Exclusion in Public Education: A Study of Public Schools at Yamunamai Rural Municipality, Rautahat*.

¹⁰ Ibid.

monitoring to understand and respond to the needs of diverse learners. In other words, inclusive education concerns working with, and learning from, the diversity of children¹¹ and, in the process, identifying and eliminating the barriers they face.

From an education perspective, addressing GESI issues is key to improving access and quality for education for all. Equitable and socially inclusive education is responsive to the needs of all children and addresses barriers not only in educational access, but also barriers that may prevent children from succeeding in learning. As mentioned above, GESI considerations in education thus do not only call attention to school and learning environments, but also quality assurance mechanisms, including collection and use of data for improvement in children's outcomes. This is because where available data does not cater to inclusivity concerns, equity in decision- and policy- making is difficult to achieve, and school leadership is equally unable to meet the varying needs of diverse children. UNESCO¹² advocates that monitoring gaps in education necessitate data collection by income, gender, age, race, ethnicity, migration status, disability, geographic location, and other characteristics of children, relevant to national contexts. Further, integration, analysis and dissemination of relevant information, including GESI considerations, ought to be in a manner that informs decision-making, planning and execution at all levels. However, systems often lack the tools and capacities for using education data effectively at different levels, and creating innovative ways to support offices in charge of education management to do the same remains a challenge. Often, the problem of inadequate data on GESI is also compounded by quality concerns as systems and actors fail to develop and act upon a common understanding of the same. For instance, while women and girls arguably make the largest constituency in GESI and gender is indeed a cause of social exclusion, women and girls are not the only ones – equally important is the consideration of other social groups, such as the poor living in remote communities, men and boys, differently abled individuals, religious and ethnic minorities and so on. However, lack of understanding coupled with other, systemic challenges such as insufficient resources and weak education governance further aggravate education disparities.

GESI Considerations under DSI

Understanding how the DSI project integrates GESI considerations necessitates familiarization with: (i) the design and operation of the innovation the scalability of which is being explored under the project, namely, the School Improvement Framework, and (ii) the specific research questions pertaining to GESI which subsequently inform the project's research methodology and findings (detailed in the next chapter(s)). This subsection sheds light on both these aspects.

A Note on the DSI Innovation: The School Improvement Framework

Effective use of EMISs requires more than just data collection. In addition to relevant information on key education indicators, it requires a coherent structure that meaningfully organizes and translates data into actionable information for stakeholders at different levels of government. This

¹¹ Bešić, E. 2020. Intersectionality: A Pathway Towards Inclusive Education?. *Prospects*, (49), pp. 111–122. Available at: <https://doi.org/10.1007/s11125-020-09461-6>.

¹² UNESCO. *Equity*. Available at: <https://www.education-progress.org/en/articles/equity>.

is particularly relevant for schools from where a lot of information is collected, but very little is channeled back throughout the education system to drive school-level improvements. The School Improvement Framework (SIF) is a conceptual and methodological tool developed to use EMIS data to identify and address schools' needs by actors within the education system by doing the following:

(i) *Organizing indicators into key domains of school performance.* In Punjab (Pakistan), for instance, the SIF organizes 24 key education indicators into the following domains:

- (1) Student participation and personal development
(e.g. student attendance, achievement, graduation rate)
- (2) Teachers and teaching
(e.g. teacher adequacy, presence, professional development, teaching practices)
- (3) Leadership and school support
(e.g. headteacher availability/presence, instructional leadership to teaching staff)
- (4) School environment
(e.g. adequacy, safety and quality of school infrastructure).

(ii) *Creating a coherent basis for determining school performance.* Once indicators are assigned to domains, the SIF estimates a weighted composite index called the School Status Index (SSI).

$$\text{School Score} = I_{\text{(Student Participation)}} + I_{\text{(Teachers \& Teaching)}} + I_{\text{(Leadership and Support)}} + I_{\text{(School Environment)}}$$

(iii) *Categorizing schools by level of need for improvement.* The SSI is computed for each school. The SIF categorizes schools on the basis of the SSI into various bands, according to their needs for improvement (e.g. Needing Improvement, Satisfactory, Good and Outstanding).

(iv) *Providing feedback to schools for self-appraisal.* Given the nature and level of their needs, schools can develop and implement plans to improve performance as well as compare their progress over time.

(v) *Generating and managing actions at each level of the system.* Based on the reports generated using SSI, the SIF identifies actions that different actors at different levels of the education system need to take. Consider the challenge of teacher shortages in Punjab (Pakistan), for instance. Since this factor is beyond the control of schools or School Heads, the action management system resulting from SIF nudges the concerned authorities at the provincial level of government to fill vacant teacher posts. Not only this, by categorizing schools in terms of their needs, the SIF helps governments prioritize allocations of limited resources to schools that need them the most.

Public schools, however, are nested within a larger system, and the characteristics of the communities and government departments that support individual schools vary widely. Thus, while scaling the technological elements of SIF is rather straightforward, its uptake and use – influenced by these variations – is uneven among knowledge users, resulting in the need to identify the conditions that underpin successful use of information generated by the SIF. This includes special attention to GESI concerns in processes of data collection, integration,

interpretation, and use, especially as they continue to assume increasing importance in global and regional education reform agendas.

GESI Research Questions under DSI

From a GESI perspective, the SIF may be conceived in two parts: (i) a conceptual framework or tool to make sense of education data, and (ii) a methodology for data-driven actions and action management across different layers of the system. Regarding the first, a natural line of research enquiry is whether the SIF preserves the importance of gender, equity and inclusion by including GESI- sensitive indicators, and whether there are potential tradeoffs in using the framework to highlight gender and inclusion as key dimensions of school performance across different domains, such as quality and cost-effectiveness of data collection. Regarding the latter, it is important to ascertain whether, in driving action management, the SIF unravels and addresses challenges to ensuring equal gender participation and leadership for school improvement processes. These two lines of enquiry provide the basis for GESI- responsive research under DSI, as encapsulated in the following GESI-specific research questions:

- (i) To what extent are GESI considerations reflected (or not reflected) in dimensions of school performance across the different domains of the SIF, and
- (ii) To what extent do GESI-related challenges or opportunities present themselves in SIF processes for school improvement and their scaling.

The former research question pertains to items (i) – (iv) in the description of the SIF above i.e., the identification and organization of relevant indicators in key domains of school performance to reflect the level of schools' needs through a composite indicator and become the basis for providing feedback to schools. The latter research question pertains to item (v) on generating and managing actions at each level of the system or, in other words, the very *processes* of school improvement. Additionally, the DSI research also aims to explore whether there are any contextually relevant, locally adapted solutions to GESI-based impediments as envisioned and co-constructed by men and women in the considered research contexts themselves.

By exploring these aspects, the project aims to:

- (i) Inform the design of SIF or similar innovations to make them more inclusive as part of optimal scaling so that, over time, they may lead to transformative changes.
- (ii) Identify GESI-related impediments and opportunities in processes for data-driven school improvement across contexts and address them through contextually/locally relevant strategies.
- (iii) Strengthen the capacities of education managers on GESI issues, enabling them to identify and address bottlenecks in the delivery of equitable and quality education at the school level.

Report Outline

GESI is an increasingly important global aspiration in education and education research. This report is purposed to add value by not only sharing findings and insights from a GESI-responsive research project, but also learnings from the very experience of integrating GESI into every element of the design of a R4D project, as well as practical challenges in implementation and strategies for overcoming the same. It is important to note that these findings are limited to Pakistan, one of the two project countries, where data from multiple provinces potentially allows interesting inter-provincial comparisons.

Chapter 2 details the research contexts in Pakistan in which DSI was implemented. Chapter 3 provides a step-by-step account of integrating GESI into the research design, alongside detailing the challenges in implementing GESI-sensitive research, and appropriate strategies adopted by the project team to address the same. Chapter 4 discusses the project's research findings in response to the two GESI- specific research questions mentioned above, on GESI considerations in the design of the SIF as well as GESI-related challenges or opportunities in SIF processes for school improvement and their scaling. Accordingly, Chapter 5 presents some recommendations from research on improving GESI-responsiveness in the design and scaled implementation of SIF and similar innovations and conducting GESI-responsive research at large.

Chapter 2: The Research Context in Pakistan

Preparing for anticipated elections in 2023, Pakistan is a fragile economy with a deepening political, economic and more importantly human development crisis. With a population of over 230 million¹³, Pakistan's Human Capital Index (HCI) value of 0.41 is low both in absolute and relative terms, lower than the South Asia average and also Nepal (0.49) (also included in the project's scope)¹⁴. This means that a child born in Pakistan today can expect to be only 41 percent as productive by her 18th birthday as she could be, if she enjoyed complete education and full health¹⁵. More recently, the COVID-19 pandemic has also worsened learning poverty in the country and the 2022 floods have further deepened the learning crisis, submerging over one-third of the country under water, affecting over 33 million people, and causing billions in damage to agriculture, health, education and other sectors, especially in the three project provinces: Punjab, KP and Sindh¹⁶. For education in particular, the floods resulted in 24,000 schools being damaged or destroyed, and disrupted schooling for approximately 3.5 million children. The Post-Disaster Needs Assessment estimates recovery and reconstruction needs to the tune of US\$918 million, which are likely to be higher once a detailed, facility-by-facility needs assessment is conducted by school heads themselves¹⁷. Moreover, given rampant educational disparities (highlighted below), it is likely that response and relief efforts continue to be less accessible for the already disadvantaged, further marginalizing them and increasing their vulnerability.

Social Disparities

The majority of Pakistan's working population is concentrated in the informal sector and engaged in unskilled labor. Among these, women and children, the disabled and the elderly are the most vulnerable. A vast majority of women work in rural agriculture and its sub sector of livestock. Despite the Benazir Income Support Programme (BISP), social safety and poverty alleviation efforts in the country remain inadequate, given that a large population continued to live below the poverty line. The Multidimensional Poverty Report employing the Multidimensional Poverty Index (MPI) shows stark regional inequalities between provinces such as Balochistan and Punjab provinces, and also between districts. The proportion of people identified as multidimensionally poor in urban areas is also significantly lower than those in rural areas, 9.4 percent compared with a whopping 54.6 percent respectively¹⁸. Similarly, literacy rates are higher in urban

¹³ The World Bank. 2023. *Population, Total – Pakistan*. Available at:

<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=PK>.

¹⁴ Amin, T. 2023. Human Capital Index: Pakistan's Value Lower than South Asia's Average: World Bank. *Business Recorder*. Available at: <https://www.brecorder.com/news/40240051>.

¹⁵ Ansari, A. and Hasan, A. 2023. *3 Reasons Why Investing in The Early Years Is Crucial for Pakistan*. Available at: <https://blogs.worldbank.org/endpovertyinsouthasia/3-reasons-why-investing-early-years-crucial-pakistan>.

¹⁶ Ministry of Planning Development & Special Initiatives. *Pakistan Floods 2022 – Post Disaster Needs Assessment*. Available at: <https://www.undp.org/pakistan/publications/pakistan-floods-2022-post-disaster-needs-assessment-pdna>.

¹⁷ Ibid.

¹⁸ Ministry of Planning, Development & Reform. *Multidimensional Poverty in Pakistan*. Available at: <https://www.ophi.org.uk/wp-content/uploads/Multidimensional-Poverty-in-Pakistan.pdf>.

populations, 73.3 percent compared to 54.0 percent (rural), as is male literacy, 73.4 percent, versus. 51.9 percent for females¹⁹.

Gender Disparities

Ranking 153 out of 156 countries, the Global Gender Gap report places Pakistan second last in South Asia in terms of education attainment, economic participation, health and political empowerment²⁰. In education, gender gaps as large as 13 percent or more exist across all levels. Overall, only 46.5 percent of women are literate, 61.6 percent attend primary school, 34.2 percent attend high school and 8.3 percent are enrolled in tertiary education courses. Discriminatory attitudes and cultural practices serve as the push factor for greater gender disparities. Alongside patriarchal gender norms and behaviors, barriers to women's social and economic participation include limited mobility and lower education attainment. Gender bias rooted within school and classrooms environments reinforces messages that affect girls' ambitions, their own perceptions of their roles in society, and ultimately gives way to labor market engagement disparities and occupational segregation. When gender stereotypes are reinforced through school and classroom learning environments, they are likely to have sustained impact on children's learning and development. Additionally, increased incidence or risk of violence also prevents children from accessing and completing education – for instance, where distance from school is significant, girls and their parents are reluctant for them to walk long distances. Similarly, boys often face violence in the form of corporal punishment, potentially resulting in dropout. Finally, early marriages are also common in Pakistan – the country is home to over 19 million child brides, with 1 in every 6 young women married in childhood and, often, the poorest individuals with little or no education and living in rural areas are victims²¹.

Nevertheless, through the 18th Amendment to the Constitution of Pakistan, the national government has taken significant policy measures to: (i) anchor education as a constitutional right for all children ages 5-16, and ii) empower provincial governments to lead on the delivery of equitable quality education. Subsequently, provincial education sector plans and policies have endeavored a greater focus on girls' education such as through scholarship and stipend programmes for girls, conditional upon school attendance.

Power Dynamics

Pakistan's first national Human Development Report (2020) defines power or the country's political economy to be one of the three key drivers of inequality²². This refers to privileged groups

¹⁹ Finance Division, Government of Pakistan. *Pakistan Economic Survey 2021-22*. Available at: https://www.finance.gov.pk/survey_2022.html.

²⁰ World Economic Forum (WEF). 2022. *Global Gender Gap Report 2022*. Available at: <https://www.weforum.org/reports/global-gender-gap-report-2022/>.

²¹ UNICEF. *Child Marriage Country Profile (Pakistan)*. Available at: <https://www.unicef.org/pakistan/documents/child-marriage-country-profile-pakistan>

²² UNDP. 2018. *Pakistan National Human Development Report*. Available at: <https://www.undp.org/pakistan/publications/pakistan-national-human-development-report>.

making use of loopholes, networks, and policies for their benefit. In many ways, structural inequality is both exacerbated and reinforced by such groups accumulating wealth, power, and privilege at the expense of others. In Pakistan, several visible and invisible forces are at interplay at multiple levels, shaping human interaction, political and economic competition and service of justice (or lack thereof), leaving the common person greatly disadvantaged. The power dynamics cost the poor significantly because inequalities are reinforced by making patriarchal and hierarchal local structures acceptable to those who do not have power, and often result in regional conflicts and human rights violations. For religious minorities that make up about 4 percent of Pakistan's total population, for instance, violence, discrimination and exclusion are an everyday experience²³. Similarly, land distribution and ownership is a key challenge with two thirds of all rural households in Pakistan not owning land, and women not being given share(s) in property, despite legal and religious provisions²⁴.

Excluded and Marginalized Children

The 2020 Global Education Monitoring (GEM) Report establishes that, globally, the poorest children are four times more likely to be out of primary school than their richer counterparts²⁵. This ratio is similarly stark in Pakistan – while 92 percent of the richest attend primary education, only 28 percent of the poorest do the same²⁶. ILO statistics show that nearly 1 in 10 children (approximately 9.8 percent) ages 5-14 are also economically active, implying unenrollment in or drop out from school²⁷. Additionally, social discrimination against children (girls and boys) from ethnic and religious minorities, children with disabilities and those displaced due to conflict or living in rural areas is also common.

Out of School Children (OOSC)

Pakistan has the world's second largest number of Out of School Children (OOSC), an estimated 22.8 million children ages 5-16, or roughly 44 percent of the country's total age population (5-16 years)²⁸. For the OOSC that are aged 5, a hundred percent have never attended school, and the proportion of dropouts (vis-à-vis) never enrolled continues to rise steadily with age. Drop out is also a consistent problem across all provinces in Pakistan, although there are wide variations in provincial estimates of OOSC, indicating lack of reliable data on the subject. Disparities in OOSC are associated with gender, socio economic status and geography. For instance, evidence suggests that a majority of the OOSC children are girls, and for children belonging to marginalized geographical areas, drop out is high, retention is low, and learning outcomes are poor.

²³ Fuchs, M., M., and Fuchs, S.W. 2020. Religious Minorities in Pakistan: Identities, Citizenship and Social Belonging, South Asia. *Journal of South Asian Studies*, 43 (1), pp. 52-67.

²⁴ Pakistan Bureau of Statistics. 2006. *Pakistan Integrated Household Survey 2005-06*. Available at: <https://www.pbs.gov.pk/publication/household-integrated-economic-survey-hies-2005-06>.

²⁵ UNESCO. 2020. Global Education Monitoring Report – Gender Report: *A New Generation: 25 Years of Efforts For Gender Equality In Education*. Paris, UNESCO.

²⁶ UNESCO. 5-Year Progress Review of SDG4 – Education 2030 in Asia-Pacific. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000379173>.

²⁷ ILO. 2020. 2020 Findings on the Worst Form of Child Labor. Available at: https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2020/2020_TDA_BigBook_Online_optimized.pdf.

²⁸ UNICEF. 2022. *Education*. Available at: <https://www.unicef.org/pakistan/education>.

Exclusion Within Schools, and the Learning Crisis

Exclusion in education does not only mean being out-of-school – worldwide, there are more non-learners *within* schools than out of school, implying that several children struggle to achieve learning outcomes even when in enrolled in and attending education. In Pakistan, a large number of children in school still cannot write, read and do simple arithmetic²⁹. Per the Pakistan Social and Living Standards Measurement (PSLM) surveys, some of the factors contributing to such increasing ‘learning poverty’ include the inability of teaching-learning processes to meet the different styles or needs of learners, the language of instruction being incomprehensible, negative or discouraging experiences for learners at school e.g. discrimination, prejudice, bullying, violence etc. and learners attending school hungry, among others.

Children interact with school and classroom environments which, if disabling, can affect their academic and personal development. These barriers could relate to the structural quality of education (e.g. school infrastructure, facilities etc.) or process quality (such as inability of teaching learning practices and/or processes to meet diverse children’s needs due to lack of teacher training or other factors). However, the general dearth of data on children’s learning outcomes, individual characteristics and teaching-learning practices implies that accurately identifying and estimating the extent of exclusion within school and classroom environments is even more challenging in the country’s context. For instance, the dearth of data on the type and extent of disability among children in Pakistan implies data-driven corrective action cannot be taken for ensuring inclusive education.

Table 1: Gender-based Learning Disparities in Pakistan

	Can read story in Urdu		Can read sentences in English		Can do two-digit division	
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
<i>Punjab</i>	54	51	58	56	53	52
<i>KP</i>	45	37	61	51	45	39
<i>Sindh</i>	31	24	36	24	19	23

Source: ASER 2021

A Note on Intersectionality

It is pertinent to mention that none of the afore-mentioned disparities operate in isolation. Many marginalized communities and children, for instance, face multiple disparities at the same time such as poverty, intra-household inequalities, gender roles, and so on. Thus, a girl in Khyber Pakhtunkhwa may be faced with cultural barriers in accessing schooling, affecting her attendance and learning, but her participation may also be low if she shoulders a higher burden of household

²⁹ ASER. 2021. *ASER-Pakistan 2021*. Available at: https://aserpakistan.org/document/asere/2021/reports/national/ASER_report_National_2021.pdf.

responsibilities e.g. taking care of her younger siblings while her parents are away. Understanding intersectionality therefore is an essential step on the pathway towards inclusive education as it can better help identify children's needs as well as provide for them more effectively compared to a single marker such as gender or disability.

Provincial Education Data Systems, and Status of GESI

Against the broader research context described above, this subsection specifically outlines each of the provincial education systems in Punjab, Khyber Pakhtunkhwa and Sindh in Pakistan, including processes of collection and use of data as well as the overall status of GESI in education. The descriptions enable linkages with the project's research methodology, as outlined in subsequent chapters.

Punjab

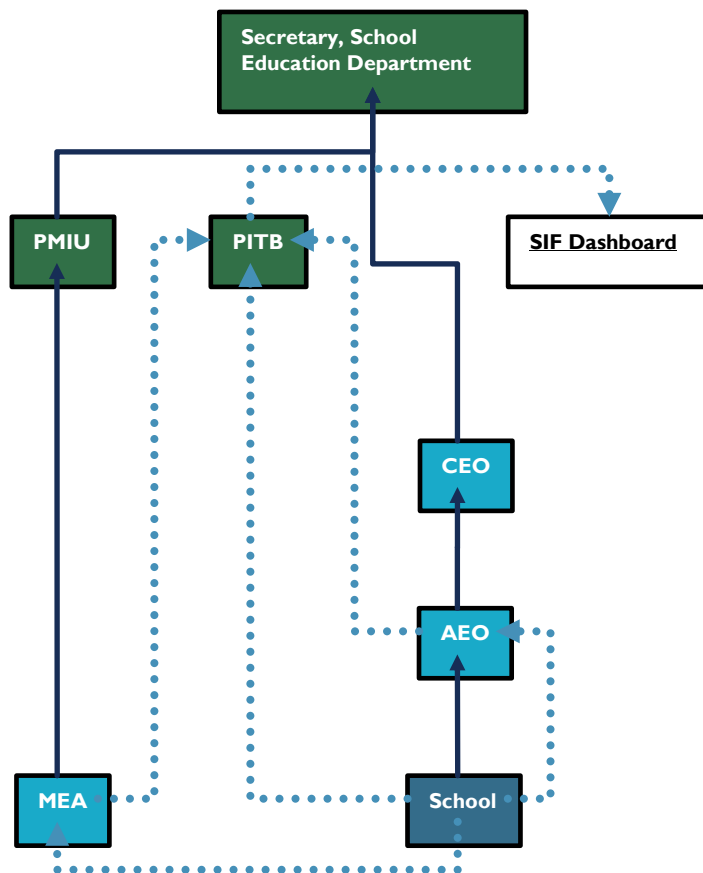
Being the country's most populous province, Punjab is home to 48,238 public schools – 22,731 (47%) boys' and 25,507 (53%) girls' schools – with an overall enrolment of 11.14 million (5.6 million or 51% male and 5.5 million or 49% female students) and teaching staff of 366,671 (45% male and 55% female)³⁰. The Punjab School Education Department (SED) is one of the largest civil departments in Pakistan, responsible for the primary, elementary, secondary and higher secondary education of children (pre-school to Grade 12) in the province. Headed by the Secretary, it ensures maintenance of the prescribed educational standards in public and private schools across the province with the support of several attached departments, including the semi-autonomous Programme Monitoring and Implementation Unit (PMIU) providing dedicated support for the implementation of donor-supported programmes and independent monitoring in each of the province's 36 districts.

In Punjab, data collection from schools is an amalgam of external- and self- reporting. As shown in Figure 1, data is collected from schools by independent monitors known as Monitoring and Evaluation Assistants (MEAs) reporting to the PMIU, as well as Assistant Education Officers (AEOs), reporting to District Education Officers (DEOs) and Chief Executive Officers (CEOs) in the government hierarchy. It is important to note that MEAs serve as external monitors who randomly visit schools on a monthly basis to report data on certain indicators using an MEA application while AEOs are responsible for providing academic leadership and school support to Head Teachers and teachers, and collect data through a Classroom Observation Tool (COT) application on indicators related to teaching and learning. In addition to these two sources of data, Head Teachers undertake self-reporting on a regular basis through the School Information System (SIS), an android-based application installed on tablets provided to schools, which has recently started feeding into the province's annual school census reports. The data collected from all three sources – MEAs, AEOs and the SIS app – is used by the Punjab Information &

³⁰ PMIU-PESRP. 2022. *Annual School Census 2021*. Available at: https://www.pesrp.edu.pk/downloads/school_census/2020_21/School_Census_Report_2020_21.pdf.

Technology Board (PITB), an autonomous body set by the Government of the Punjab, to feed the SIF dashboard and generate school reports, which are then used for action management.

Figure 1: Data collection in Punjab



GESI in Education

This section (and subsequent *GESI in Education* sections for KP and Sindh) reports data from the recent Multiple Indicator Cluster Survey (MICS)³¹ data for the three provinces, allowing an assessment of GESI in education including both public and private education, as well as comparability across provinces. In terms of completion, the percentage of children ages 3-5 years above the intended age for the last grade who have completed that grade dwindles as the level of education increases e.g. completion rate at the primary level is 66.3% but at the lower secondary and upper secondary levels is 56.1% and only 38.6% respectively. Stark differences

³¹ Bureau of Statistics Punjab, Planning & Development Board, Government of the Punjab. 2018. *Multiple Indicator Cluster Survey Punjab, 2017-18, Survey Findings Report*. Lahore, Pakistan: Bureau of Statistics Punjab, Planning & Development Board, Government of the Punjab.

Bureau of Statistics, Planning & Development Board, Government of Sindh, 2020. *Sindh Multiple Indicator Cluster Survey 2018-19, Survey Findings Report*. Karachi, Pakistan: Bureau of Statistics Sindh, Planning & Development Board, Government of Sindh.

Bureau of Statistics, Planning & Development Department, Government of KP. 2021. *Khyber Pakhtunkhwa Multiple Indicator Cluster Survey, 2019, Survey Findings Report*. Peshawar, Pakistan: Bureau of Statistics, Planning & Development Department, Government of Khyber Pakhtunkhwa.

in completion rates also exist by location, wealth quintile, and gender. Per the MICS data, at least 12.9% of the children of primary school age and 20% children of lower secondary school age in Punjab do not attend school (including any grade from preschool/Katchi to upper secondary school or higher), indicating a sizeable out of school population. The proportion of children out of school is also higher for females than males at both levels, as well as for children in rural areas and belonging to lower wealth quintiles. This further highlights the need to incorporate GESI considerations in data collection for school education, its analysis and effective use for policy and planning purposes. Further, at least 17.9% of children roughly school age (that is 5 – 17 years) are also reported with functional disabilities in at least one domain³², and the proportion of children with functional disabilities not attending school is higher (20.8 %) compared to those attending school (17.1%), although differences by wealth quintiles, location and gender are less significant. Nevertheless, the fact that children with functional difficulties are enrolled in school merits further evaluation of the kind of resources afforded to such children for equitable opportunities for learning (e.g. school infrastructure, teaching aids, teachers' professional development and strategies to promote learning etc.). It is also pertinent to note that only 7.7% of children ages 7-14 years use the same language at home as their teachers use in school.

Khyber Pakhtunkhwa (KP)

There are 27,524 functional government schools in the settled districts in KP, with an enrolment of 4.83 million and a teaching staff of approximately 155,898 (98,670 or 63% male and 57,228 or 37% female staff)³³. The Elementary and Secondary Education Department in KP, the province's largest civil department, is responsible for providing quality education to students from primary to secondary levels in the province. The department, headed by a Secretary, is responsible for the implementation of policies, programs, and initiatives to improve the standard of education in KP and is supported by eight attached departments. In KP, the Khyber Pakhtunkhwa Education Monitoring Authority (KPEMA) is responsible for data collection from schools through Data Collection and Monitoring Assistants (DCMAs), who enter and report data through handheld devices/tablets. The data is collected in real-time and on regular basis, and directly uploaded to the KPEMA database. At the same time, similar to the AEOs in Punjab, data is also collected through Assistant Sub-Divisional Education Officers (ASDEOs) who report to district-level leadership such as the District Education Officers (DEOs) in the government hierarchy.

GESI in Education

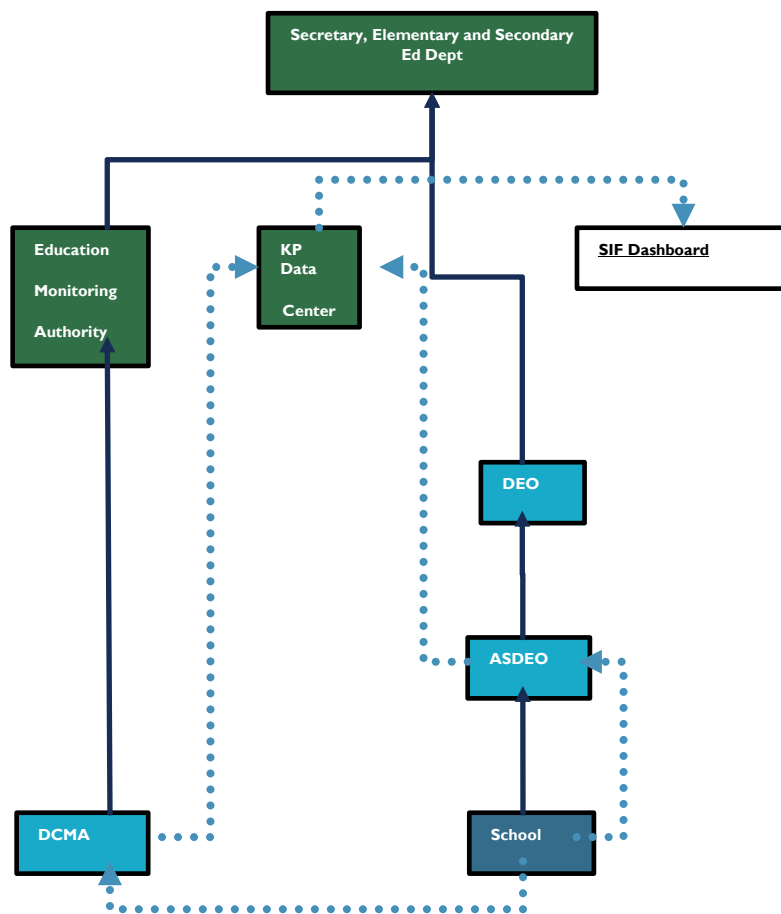
Like Punjab, education completion rates for KP also diminish as the level of education increases. For instance, as opposed to a completion rate of 52.3% at the primary level, only 46.6% and 34.8% of the children at middle and secondary levels complete education. In other words, barring primary, more than half the children who attend school education do not end up completing it. There are also stark inequalities in completion rates by gender (e.g. 44% for females versus

³² In MICS, the entire Child Functioning Module (CFM) is applied comprising seeing, hearing, walking, self-care, communication, learning remembering, concentrating, accepting change, controlling behavior, making friends, anxiety and depression. However, there are slight variations in data sets and its presentation.

³³ KPEMA. 2022. Annual School Census Report for Settled Districts 2020-21. Available at: http://175.107.63.45/newimuseite/images/reports/ASC_Report_2020-21_Final.pdf.

60.3% for males at the primary level, and 24.7% for females versus 44.1% for males at the secondary level), as well as location and wealth quintile. Further, more than a third of the children of primary school age (33.7%) are out of school while more than one fourth of the children of middle school age (25.7%) are out of school. Again, these statistics are far worse for female children, children living in rural areas, and children belonging to poorer wealth quintiles. With respect to child functioning, almost one in every five (or 19.1%) of the children ages 5 – 17 suffer a functional disability in at least one domain. A greater proportion of these children does not attend school (21.14% versus 17.7%) but differences based on area, gender and wealth are less pronounced. However, an alarming finding is that only 3.4% of the children ages 7-14 years speak the same language at home that teachers use at school.

Figure 2: Data collection in KP

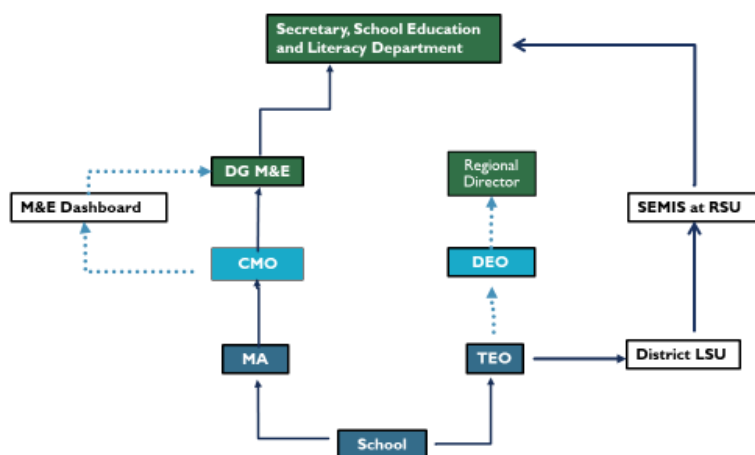


Sindh

There are 49,103 schools in the public sector in Sindh from primary to higher secondary levels, with an enrolment of 4,561,140 (62% male and 38% female students) and a teaching strength of

133,076 government teachers (90,207 or 68% male and 42,869 or 32% female)³⁴. Like Punjab and KP, the education service delivery in Sindh is managed by the School Education & Literacy Department (SELD), headed by a Secretary, supervising a number of attached departments and institutions and providing provincial leadership on school education matters. Sindh has two parallel streams for school education data collection and reporting in the province. Firstly, the Sindh Education Management Information system (SEMIS) collects data annually (paper based) from all schools, employing the services of selected teachers and Head Teachers. The paper-based data is transferred on smart devices and shared with the district Local Support Unit (LSU) where it is cleaned and validated (for 10% of the data) before onward submission to the Reform Support Unit (RSU) in Karachi. The RSU consolidates data from all districts and publishes an Annual Census Report reporting numerical data against various indicators. All SEMIS data is gender disaggregated. Secondly, the Sindh School Monitoring System (SSMS) collects data on a monthly basis using smart devices and a mobile application covering all the schools. Data is collected by Monitoring Assistants (MAs) recruited and deployed at the taluka level (roughly 2 to 3 MAs per taluka). There are 29 Chief Monitoring Officers (CMOs), one per district who supervise the MAs and prepare a monthly data collection plan for them for the respective districts. After data is collected by the MAs, the CMOs review and validate the data for onward submission to the Provincial M&E Directorate. Data for all districts is consolidated at the level of the M&E Directorate as well as quality assured before being uploaded on the M&E Dashboard, which is updated every month. All data under SSMS is gender disaggregated like the SEMIS. It is important to reiterate that there is no School Improvement Framework or similar innovation currently being implemented in Sindh, but existing processes for data collection and use hold promise for their introduction.

Figure 3: Data collection in Sindh



GESI in Education

Compared to Punjab, Sindh reports much lower completion rates at the primary, middle and secondary school level i.e. 45.2%, 41.9% and 34.7% respectively. The rates imply that in the very least, more than half the children who attend school end do not end up completing it. As is mostly

³⁴ Sindh EMIS Report 2019-2020.

the case, stark inequalities exist by location, wealth and gender. Sindh also reports a much higher percentage of children out of school i.e. 42.7% of children of primary age and 41% children of middle school age do not attend school (including any grade from preschool/Katchi to upper secondary school or higher), indicating a sizeable out of school population. Again, like Punjab and KP, these figures are more pronounced for females than males at both levels, as well as for children in rural areas and belonging to lower wealth quintiles, indicating inequities in education. In terms of disability, 15% of children roughly school age (that is 5 – 17 years) are reported with functional disabilities in at least one domain, although differences by attendance to education, differences by wealth quintiles, location and gender are less pronounced. In contrast to Punjab, however, a very high percentage of children 7-14 years, 71.5% use the same language at home as their teachers use in school³⁵.

Thus, given Pakistan's broader landscape as well as the specific, MICS-reported findings pertaining to GESI in education across Punjab, KP and Sindh, this chapter has established the need for exploring GESI-related challenges and opportunities in school education data collection and use in each province. The next chapter, then, highlights how the DSI project appropriately and adequately incorporates GESI in all elements of research design, implementation and analysis.

³⁵ As subsequent chapters highlight, this may partly owe to the mixed medium of instruction in government schools in the province, as well as procurement/provision of textbooks in multiple languages e.g. Urdu and Sindhi.

Chapter 3: Integrating GESI in the DSI Research Methodology

This chapter details how DSI is rendered a *GESI responsive* project, in incorporating GESI considerations in its rationale, design and methodology, and rigorously analyzing them to inform and influence communication and strategies. The chapter provides a step-by-step account of conducting GESI- responsive research by detailing how GESI was integrated into the DSI research – including design, methods and analysis – alongside discussing the challenges in implementing GESI-sensitive research and appropriate strategies adopted by the project team to address the same.

Design and Scope

The multi-faceted nature of GESI places a practical limitation on effectively addressing all its constituent dimensions. Thus, a detailed desk review was conducted during inception and the initial months of project implementation to arrive at a prioritized list of GESI considerations for further exploration through the DSI research. As mentioned in the previous chapter, however, the dearth of educational data in each province – for instance, data on children’s learning outcomes and identification characteristics beyond the binary of girls and boys etc. – presented a further challenge. Nevertheless, to ensure that significant inequalities in the broader context of Pakistan’s education system(s) were appropriately addressed in the research design, the following four dimensions were included after iterative team consultations:

Gender

As indicated in previous chapters, gender is a cross-cutting theme in DSI, and intersects with other identities for boys and girls, and men and women, such as poverty, disability, ethnicity and so on. It is important to reemphasize that the scope of gender issues under DSI is not only limited to girls’ and boys’ schooling, but also the lived experiences of individual men and women associated with education service delivery, such as teachers and Head Teachers, officials collecting school-level data etc. Gender was also a consideration in the composition of data collectors/enumerators and research participants, which was 48 percent and 46 percent female respectively.

Disability

Per the UNICEF Child Functioning Module (CFM), disability refers to the physical, visual, hearing and learning impairments individuals or children may face, with varying degrees of difficulty (mild, moderate and severe). Acknowledging national and international concerns on lack of rigorous and comparable data which potentially impedes understanding and action on disability inclusion in education, the project aimed to explore disability and related challenges in the collection and use of education data in greater detail.

Poverty

Poverty is a major determinant of whether a child can access and complete his/her education. Although multidimensional in nature, the use of the term 'poverty' under the project had to be reduced specifically in reference to poor children (and parents) or households who receive support from national social assistance programme(s) because of dearth of data on such dimensions, as mentioned on several occasions above. Such children (and families) are likely to need resources for transport, stationary, uniforms and even shoes for attending school.

Ethnic and Religious Minorities

Aligning closely with Pakistan's context, the term 'ethnic and religious minority' was used to refer to marginalization associated with three distinct characteristics:

1. Geography, including migration and/or practicing a different culture/not belonging to the majority community in a given area (for example, migration of Afghan refugees in KP)
2. Language, that is, speaking a different mother tongue or dialect, potentially also owing to migration, and
3. Religion, that is, belonging to a non-Muslim population such as Hindu, Sikh, Christian or other religious groups.

The potential benefits and risks such as cultural sensitivities in enquiring about ethnicity were also carefully considered when embedding GESI into different aspects of research. Additionally, constant learning and adaptation informed subsequent data collection in different provinces regarding what may or may not work in enquiring research participants about GESI.

Methods

To recap from Chapter 1, the GESI-specific research questions under DSI included:

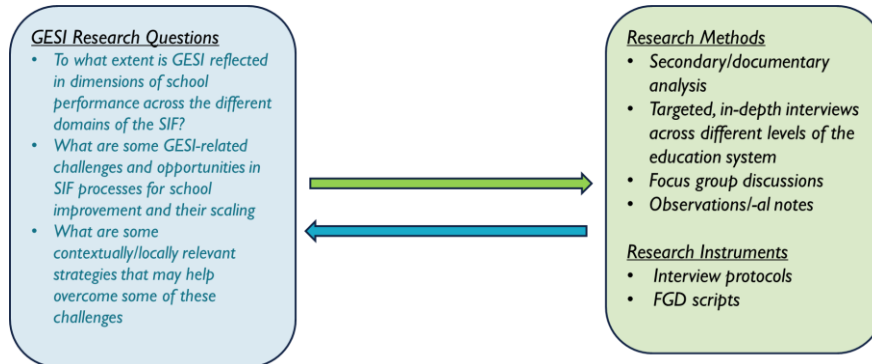
- (i) To what extent are GESI considerations reflected (or not reflected) in dimensions of school performance across the different domains of the SIF, and
- (ii) To what extent do GESI-related challenges or opportunities present themselves in SIF processes for school improvement and their scaling.

Additionally, the research also aimed to explore whether there are any contextually relevant, locally adapted solutions to GESI-based impediments as envisioned and co-constructed by men and women in the considered research contexts themselves.

Once a common understanding of the GESI elements in the afore-mentioned questions was established (namely gender, disability, poverty and ethnicity, as described above), the team combined documentary analysis with a mix of qualitative methods such as one-to-one interviews and focus group discussions to inform instrument development and, consequently, data collection (see Figure 4). The GESI-specific items in research instruments explored aspects such as: (i) the

extent to which data is collected on GESI-relevant indicators, and preferences and possibilities for including the same, and (ii) the barriers education staff may face in collecting and utilizing

Figure 4: GESI in DSI Research Design



education, especially by virtue of their identities. Additionally, observational notes were meant to assess whether school environments promoted inclusiveness more generally, and whether education officials at all levels had a (shared) understanding of what GESI entails. To ensure quality data collection, enumerators underwent rigorous trainings that familiarized them with key GESI terms and distinctions (for example, equity versus equality; inclusion and social exclusion etc.), the importance of conducting GESI-responsive research, and ethical considerations and cultural sensitivities in making GESI-related enquiries. Each round of data collection was also preceded by a small pilot, enabling learning and adaptation in probing GESI issues with respondents. As highlighted in the sample details provided under Annex A, data was collected from approximately 350 stakeholders (including pre-pilot and pilot activities) across all the different layers of the education eco-system and included a careful mix of men and women stakeholders at each level for greater representation of diverse views.

Analysis

The qualitative data was analyzed using Dedoose software employing hybrid coding, including both deductive coding based on the research objectives of DSI, and inductive coding based on the readings and interpretations of raw data. The analytical lens adopted was GESI-sensitive in questioning the underlying relations reflected in data collection, coding and development of themes and categories, and ensured reflexivity so that researchers were wary of their own beliefs, judgements and practices in the process. Conducting a GESI-differentiated analysis in such a manner helped excavate barriers in optimal data collection and use for diverse participants, and aided understanding of contextualized possibilities for reform, influence and impact in and across diverse contexts.

The Challenges in Incorporating GESI in DSI research

The process of incorporating GESI into DSI research was dotted by several challenges, including:

- (i) Initiating a 'discourse change' when beginning to talk about notions and concepts that are otherwise seldom discussed culturally or locally in the context of education research, especially in people-to-people interactions. In this sense, emphasizing the importance of gender, equity, and social inclusion in education, developing a common understanding of what the terms entail among enumerators and research participants alike, and eliciting relevant responses from the latter proved particularly challenging. The team mitigated these challenges in several ways:
 - a. Firstly, the formulation and translation of GESI-specific items in the research instruments were simplified and repeatedly refined keeping in view local knowledge and literacy levels (e.g. in the case of interviews with parents and other School Council members), as well as substantiated with prompts and specific examples that helped clarify the terminology. Translations to Urdu proved particularly challenging and time-consuming in this regard, as it was important to ensure that the true meaning of key terms was not lost in the process. However, the team capitalized on the pre-pilot and pilot activities as opportunities to co-construct ideas, reach consensus on and successfully pilot (translated and simplified) GESI-specific items with intended groups of informants themselves, such as Head Teachers, teachers, AEOs etc.
 - b. The training of enumerators included detailed GESI-specific modules, as well as observation during mock and pilot exercises to suggest improvements in the delivery of questions and elicitation of responses. A GESI glossary was also developed and provided to enumerators as part of the data collection pack, in case of need of quick referral to key terms (see Annex B).
- (ii) Intensifying the exercise of iterative data collection to collect GESI-relevant information from different stakeholders in the field. The project team continuously adapted and learnt from data collection rounds as they materialized at different research sites, to ensure that greater and better quality GESI-specific information was collected in every subsequent round. For instance, the first round of data collection in Punjab in Pakistan did not yield significant information on GESI items. In subsequent round(s) of data collection, therefore, more prompts and sub-questions on GESI were added to the research instruments, and field enumerators in KP and Sindh were imparted more detailed trainings to be able to probe GESI-specific items better. Similarly, given that data collection in Sindh had to be completed in two rounds owing to challenges caused by the 2022 floods in Pakistan, the team re-emphasized GESI-related information gathering in the second.
- (iii) Unpacking intersectionality in research settings where common understanding on gender, equity and social inclusion is low. For instance, the sensitivities around eliciting information on people's ethnicity in Pakistan's context imply that it may even be considered discriminatory to pose such a question to respondents. The team resolved this challenge by including brief notes and guidelines for enumerators to be able to successfully communicate the purpose of including such item(s) in the interviews or focus groups, as well as providing respondents the option to not answer if not comfortable. At the same time, enumerators were guided not to use any form of influence with the respondents, and also remind them of data confidentiality at all times.

Chapter 4: Findings and Insights

Per the GESI-specific research questions, the findings and insights reported in this chapter pertain to: (i) the design of SIF (and its adaptations), and the extent to which GESI considerations are reflected across the different domains of school performance, and (ii) GESI-related challenges or opportunities that present themselves in SIF processes for school improvement and their scaling.

GESI in the Design of SIF (and its Adaptations)

In determining the extent to which GESI considerations are or ought to be reflected in the design of SIF, the project team employed a mix of desk review and primary research to assess both the ‘technical’ evidence on its scaling, and the ‘moral justification’ by research participants on whether and to what extent GESI-elements ought to be included in the design of SIF. In simpler words, technical evidence explores whether an innovation *can* scale, such that its positive impacts outweigh negative impacts. On the other hand, moral justification refers to whether those impacted by the innovation consider that it *should* scale³⁶.

Findings revealed that stakeholders at the micro- or the school- and sub-district levels indeed acknowledged the benefits of the SIF. For instance, Head Teachers across Punjab and KP believed that scaled implementation of the SIF had aided improvements in student attendance, teacher attendance, teaching quality (as measured by a classroom observation score), and student cleanliness and hygiene among other dimensions of school performance.

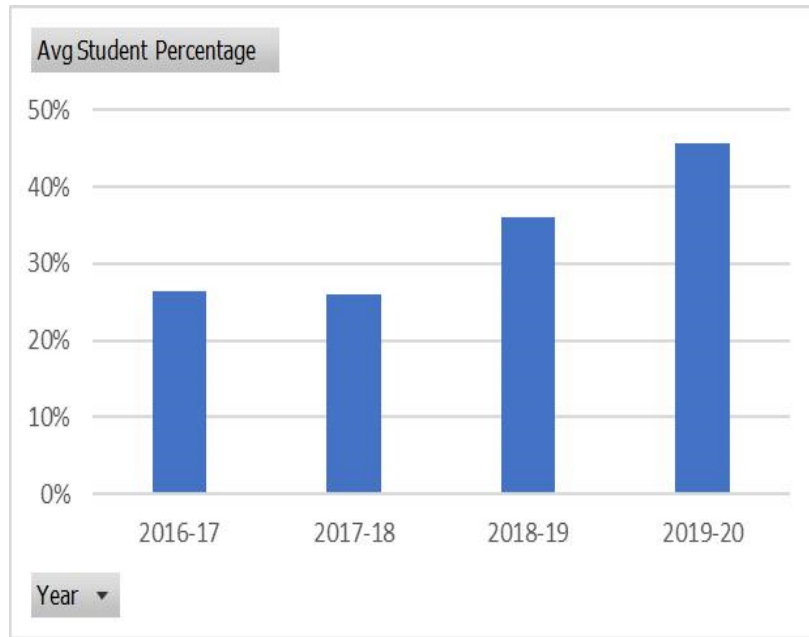
“Teachers’ attendance has improved. [Student] cleanliness and personal hygiene is also better. [To improve hygiene], we have introduced several wash points in school, and also created a cleanliness club for children.”

-Head Teacher (Punjab)

In KP, where a district performance score has been developed in addition to the school status index, the effects of actions taken at the provincial level become visible in the improvements in school indices. Over time, the province has witnessed improvements in learning outcomes after the introduction of School Improvement Framework and District Performance Scales. Figure 5 below shows the trend of Grade 5 student overall percentage over the four years in a bar chart. As evident, the average scores for the first two years remained approximately the same (around 26%), but the next two years show an upward trend, with the average for 2019-20 at approximately 46%. This trend is supported by the density plot in Figure 6, which shows that the distributions of scores for 2016-17 and 2017-18 were almost identical, but for 2018-19 and 2019-20, the curve shifts to the right indicating an overall improvement for the next two years. These trends coincide with the implementation of the School Improvement Framework in KP.

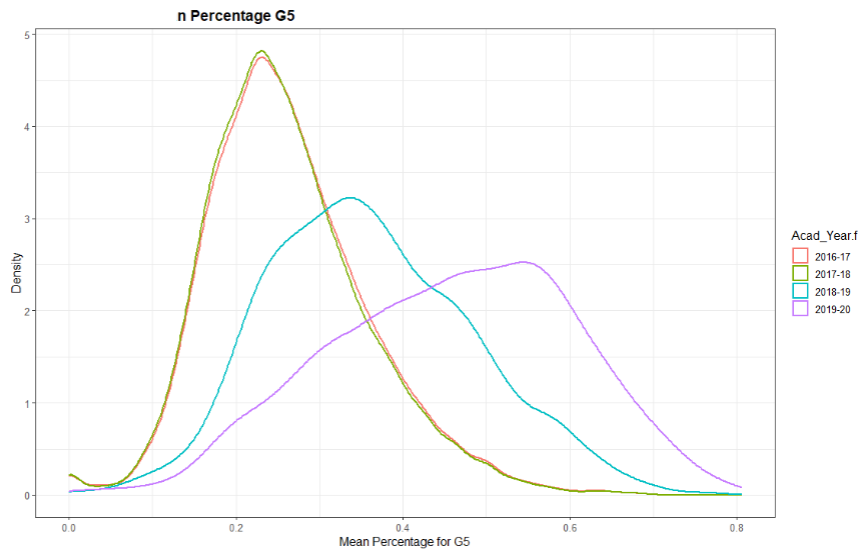
³⁶ Price-Kelly, H., Van Haeren, L. & McLean, R. 2020. *The Scaling Playbook*. International Development Research Centre, Ottawa, Canada.

Figure 5: Average Overall Percentage Trends



Source: Khyber Pakhtunkhwa Education Sector Programme Data Analysis Report 2020

Figure 6: Density Plot for Mean Percentage



Source: Khyber Pakhtunkhwa Education Sector Programme Data Analysis Report 2020

However, findings based on the analysis of SIF domains/indicators as well as participant interviews and FGDs reveal that there is room and need for including GESI-sensitive information in the computation of the School Status Index, and consequent representation of school

improvement needs as places of learning for them. While data is collected on indicators such as student enrolment and attendance, social dimensions pertaining to children's disability, poverty, ethnicity etc. are often missing, limiting the framework's ability to identify and address potential linkages with student enrolment or drop out, attendance, and, consequently, performance. A related issue is the need to address gender beyond the binary of girls and boys, as described in Chapter 1. For instance, including sex-disaggregated information on enrolment and attendance of children in its existing form may not suffice as the framework may still be limited in its ability to distinguish between the reasons behind and consequent ways of improvement in poor performance on the same for boys and girls. The design of the framework thus needs to be altered such that subsequent action management appropriately incorporates the differentiated reasons behind absence from school and/or unenrollment (e.g. menstruation, distance from school, child labor etc.) and effectively addresses *gender* equality. Further, the intersectionality of children's identities – such as gender combined with disability, poverty, ethnicity and so on – and resulting vulnerabilities remain unexplored and warrant greater consideration in the framework. Interestingly, some respondents in Sindh alluded to how generation and use of disaggregated data on aspects such as disability or minority/ethnicity may also potentially lead to discrimination against these groups. This fear further underscores the need for broader discussions and capacity-building efforts on GESI data collection, informed by relevant literature and best practices, as well as provincial context(s) to address the dual challenge of ensuring that data collection supports inclusion, while also establishing safeguards to prevent misuse of sensitive information.

The collection and utilization of data on GESI dimensions is also faced with several impediments, including:

1. *Lack of awareness and shared understanding regarding GESI dimensions.* Participant responses overwhelmingly indicated limited understanding of what GESI and its constituent dimensions entail on part of actors spread across the education ecosystem. For instance, most Head Teachers and teachers viewed disability through the narrow lens of physical ability alone, and, at best, mentioned the presence (or lack thereof) of ramps and separate washrooms for disabled children as potential indicators to be included in the School Improvement Framework. Similarly, most participants viewed poverty from the lens of financial support alone and did not necessarily acknowledge its multidimensionality and/or intersectionality with other factors such as intra-household inequalities that potentially affect children's learning. Relatedly, a missing realization was that the poor or disabled do not comprise a homogenous group, for instance, the type(s) and intensity of poverty vary so that some children are substantially poor compared to others, unable to bring a meal to school or afford a school uniform, shoes or even stationary. Similarly, the ways in which poverty affects children's learning at school also remains unconsidered in the collection and use of data e.g., how girls from poorer families may need to drop out to assist with household chores or boys may need to earn additional income after school. Thus, even where there is provision to include GESI-relevant indicators in data collection routines, the informational constraints associated with the same potentially place limitations on the quality of data being collected, as well as effective use of the same data by actors for school-level improvements. It is important to note that knowledge gaps pertaining to the understanding and importance of

GESI dimensions were apparent among senior officials at the level of the provincial government as well. These findings signal that capacity on treating gender, equity and social inclusion as important parameters in ensuring ‘education for all’ is weak among notable education staff, and that, in the absence of such capacity building, introduction of GESI indicators in data collection and utilization is unlikely to yield the desired impact.

2. *Perceptions or beliefs that the incidence of disability in Pakistan is low.* As mentioned above, lack of understanding regarding what comprises disability coupled with other factors such as fear of social stigma implies that disability is underreported in Pakistan. Further, given that separate departments exist for special education within the provincial government set-up, majority participants, especially at the school-level, were of the view that mainstream schools did not include a significantly number of differently abled children. Thus, the perception or belief that the incidence of disability among children in mainstream public schools is low is critical as it bears potential implications for social exclusion for children already ‘included’ in the learning process or mainstream schools. It obviates the lack of understanding on part of education officials and school personnel regarding both the incidence of functional disabilities among children and their severity (mild, moderate and severe) as well as the corresponding actions necessary to adapt teaching and learning for such children.

Unlike disability, there was greater acknowledgement of the presence of different ethnic and religious minorities across the three sites of research, but the collection and use of data on these dimensions, particularly for school improvement purposes, was still limited. For instance, in Punjab, Head Teachers confirmed the presence of children from different ethnicities in school, including Pashtuns and Seraiki-speaking populations as well as religious minorities like Sikhs, Hindus and Christians. Similarly, in KP, respondents acknowledged the presence of Afghan refugee children as well as linguistic barriers in teaching and learning for the same, especially in non-Pashto speaking districts like Haripur³⁷. However, this acknowledgement has, so far, not translated into collection and use of data pertaining to children’s different social groups. On the other hand, in Sindh, data on ethnic and religious minorities is collected to determine preferences and requirements for textbooks – for example, separate ethics textbooks for non-Muslim children and Sindhi textbooks for children studying in Sindhi medium schools – but the use of such data is limited to procurement of textbooks alone.

3. *Trade-off between potential inclusion of GESI indicators and resources needed for collection.* Although most actors at different levels of government such as sub-district- and district- level officials acknowledged the benefit of SIF in fostering a balanced distribution of responsibilities for action management, they pointed out potential tradeoffs in collecting greater or more detailed data and the resources (including man hours) available for data collection (see *Staffing* below). Thus, while collecting GESI-specific information may be desirable for stakeholders, its feasibility, owing to lack of resources as well as practical limitations in enquiring about people’s poverty, home environments, ethnicity and so on present potential

³⁷ Recall from Chapter 2 the finding from KP MICS where only 3.4% of the children ages 7-14 years speak the same language at home that teachers use at school.

challenges in effectively incorporating GESI considerations in innovations for data-driven school improvement.

4. *Weak implementation.* As in most cases, legislative and regulatory policies often do not translate into effective implementation, at scale. For instance, the Sindh Empowerment for Disabilities law (2018), known to be the most progressive disabilities law in Pakistan, has a clause on Equity and Education that entrusts the provincial government with the responsibility to ensure that all educational institutions funded or recognized by it provide inclusive education to children with disabilities in mainstream schools, including provisions for teacher training, scholarships, surveys and research. However, the weak implementation of this law is visible in schools, and also in the (lack of) awareness exhibited by education officials and teachers.

To summarize, the challenges highlighted above can result in a gross under-representation of GESI in the architecture of school improvement framework (s). This not only includes provision to include GESI-specific indicators in the design of the SIF (and similar frameworks), but also their ability to appropriately address the underlying GESI impediments rooted in every context as well as accord adequate weight to these indicators in subsequent determination of school improvement needs³⁸. Further challenges in action management and consequent processes of school improvement pertaining to GESI are elucidated below.

GESI-related Challenges in Processes of School Improvement

The process of school improvement – from data collection to action management – is dotted with GESI-related impediments including staffing of female officials, cultural barriers, and logistical/mobility constraints faced by women AEOS/ASDEOs in accessing schools etc. as outlined below:

1. *Staffing.* In Punjab and KP, where the SIF has scaled, there is dearth of female officials responsible for data collection, leading to further challenges. For example, in Punjab, all MEAs responsible for monthly collection and reporting of data are male – intersecting with local and cultural norms, this results in reluctance on part of some female Head Teachers in communicating freely with male MEAs during regular school visits. Similarly, in KP, many women ASDEO positions remain unfilled, thus increasing the data collection burden of existing ASDEOs. For instance, one female respondent in the district of Swat, KP, mentioned how she was responsible for data collection from 92 schools in a single month. It is pertinent to note that male officers are not permitted in female schools – thus, in instances where male ASDEOs are required to collect data from additional schools to ensure full coverage, female

³⁸ For consistency of thought, readers are reminded that these pertain to items (i) – (iv) in the description of the SIF above. The next set of findings i.e. 'GESI-related challenges in processes of school improvement' pertains to item (v) on managing and generating actions for school improvement processes.

Head Teachers are sometimes compelled to communicate through their husbands with them. These issues have implications for collecting real time data from schools and its quality.

2. *Training.* In addition to the fact that AEOs and ASDEOs are not provided training on GESI considerations, respondents expressed that there is dearth of female trainers for female officers, despite their preference for the same. At a broader level, lack of capacity strengthening opportunities is a concern for male and female officers alike – training on data collection and use is not a regular feature, with ASDEOs in KP reporting receiving the training only once, and new inductees still not receiving any training on data collection. There is little surprise, therefore, that several respondents at various levels of the education system (e.g. provincial, district- or sub-district- levels etc.) exhibited lack of awareness about existing GESI-relevant indicators on which data is collected system-wide, as well as lack of clarity regarding their analysis and use for planning and school-improvement purposes, if any. Secondary research under the project also lends weight to this claim as, despite the provision of data collection on selected GESI-relevant indicators in the annual school census in provinces like Punjab and KP, census reports make little or no mention of their findings and implications for processes of school- (and learning-) improvements.
3. *Mobility.* Several challenges impede the mobility of female AEOs and ASDEOs in the two provinces, compounding the issue of dearth of female appointments in the first place. Firstly, institutional barriers such as lack of adequate and safe transport and/or adequate compensation for transport for female officers affects their mobility, while male officers enjoy greater flexibility in scheduling visits and are also more easily able to access schools, given their commute via motorbikes. In the districts of Haripur and Swabi in KP, for instance, participants reported the inadequacy of allowances for female officers to cover even basic costs of commute to far flung areas, thus resulting in lack of regular data collection from girls' schools. Secondly, and relatedly, female officers' safety and security (including safe transport) poses an additional concern, especially in remoter areas with no internet, difficult/mountainous terrains (e.g. in KP) and bad weather. Additionally, given the cultural milieu of KP, this often means that female officers have to request a male member of their family to accompany them to schools located in remoter areas, implying dependence on male members despite being economically empowered.
4. *Cultural barriers.* In KP, the District Performance Score (DPS) indicators do not accurately capture the challenges faced by female school personnel, for example, absence of female Head Teachers and teachers due to maternity leave. This means that the indicators for student and teacher participation do not effectively reflect gender-based barriers to inclusion. Further, female officials and school personnel also expressed the need for a separate, female-only meeting for women to discuss actions and action management based on composite indicators such as DPS. As mentioned above, the broader sociocultural sensitivities in KP also sometimes imply that female officers and school personnel are unable to communicate comfortably and effectively with their male counterparts.

5. *Connectivity*. In KP, some female Head Teachers also highlighted connectivity issues in schools, affecting data reporting/collection. And while the data does not indicate the extent to which this is maybe a gender-specific impediment, broader research suggests a GESI-based digital divide³⁹, hampering equitable access to the internet for females, individuals in rural communities and so on.

6. *Attitudinal issues*. Several perceptions and behaviors on part of various actors in the education system potentially impede the effective use of GESI-relevant information for learning- and school- improvement purposes. In addition to factors already highlighted above such as perceptions about low or no incidence of children with disabilities in public schools, arguments dismissing inclusion included the already excessive classroom burden that teachers must tend to, given extraordinary student-teacher ratios and the lack of promotion of inclusive education through education policy and financing at a broader level. ASDEOs in KP, for instance, described how differently abled children often get ignored by teachers in the classroom as the latter are focused on completing lessons on time. DCMA's further highlighted how, in the absence of proper training on how to deal with issues facing children with disabilities, teachers may end up demonstrating negative behaviors towards them including scolding, ridiculing and name-calling children, especially those with cognitive difficulties. Some other respondents even questioned why, given financial and other resource constraints, public choices must involve prioritizing children with disabilities rather than the bulk of able children in mainstream schools whose needs continue to be unmet. All these findings indicate the need for greater immediate sensitization as well as advocacy of longer-term behavioral change on GESI, enabling the torch bearers of education to fully appreciate and address equitable education for all. There is also, at the same time, a need to sensitize School Councils on viewing education and school environments from an equity and inclusion perspective. In provinces like Sindh where SIF or a similar innovation has not been implemented, the potential is even greater as School Management Committees (SMCs) can be oriented right from the beginning on the need for, and their role in, ensuring inclusive learning environments. A silver lining from the project findings is that SMC members in Sindh already displayed sensitivity to GESI concerns, and awareness about challenges in persuading parents of child laborers to enroll or re-enroll their children in school⁴⁰.

7. *Emergency response*. The dearth of (collection and use of) data on dimensions of gender, equity and inclusion is already evidence above. However, data-related challenges for GESI become even more pronounced in the face of shocks and emergencies such as the global COVID-19 pandemic and the 2022 floods in Pakistan. In Sindh, for instance, the massive floods resulted in thousands of children being displaced, but teachers and Head Teachers expressed during interviews and focus groups little clue on how to account for flood-affected or displaced children in school rosters. One teacher informed that flood-affected children were largely shown to be absent, while another mentioned how, despite their influx, no additional data was requested by provincial authorities on displaced children who began attending

³⁹ UNICEF. What We Know About the Gender Digital Divide for Girls: A Literature Review. Available at: <https://www.unicef.org/eap/media/8311/file/What%20we%20know%20about%20the%20gender%20digital%20divide%20for%20girls%20A%20literature%20review.pdf>.

⁴⁰ Per the ILO findings on the worst forms of child labor (2020), 11.6% of the children ages 5-14 in Sindh combine work and school.

school in a new location. Such dearth of data is even more pertinent when the impact of floods is likely to exacerbate already existing inequalities and vulnerable groups such as women, children, people with disabilities, and refugees, are likely to be disproportionately affected due to their limited access and availability to social protection and coping mechanisms⁴¹. Thus, in addition to the need for greater data collection and use of information on GESI, it is important that education systems have identification mechanisms in times of emergencies to reveal which children are the most vulnerable, how are they affected (e.g. drop out, get displaced or forced to enter the workforce due to loss of livelihoods of families etc.), what their needs are, and how their needs are best addressed through iterative cycles of planning and school improvement. These and other recommendations stemming from the evidence presented above are discussed in greater depth in the final chapter of the report, Chapter 5.

⁴¹ Ministry of Planning Development & Special Initiatives. 2022. *Pakistan Floods 2022 Post Disaster Needs Assessment*. Available at: <https://thedocs.worldbank.org/en/doc/4a0114eb7d1cecbbf2f65c5ce0789db-0310012022/original/Pakistan-Floods-2022-PDNA-Main-Report.pdf>.

Chapter 5: Recommendations

The previous chapter detailed the findings and insights pertaining to GESI considerations in the SIF, and related processes for school improvement and their scaling. In the light of these findings, this chapter is aimed at making proposals for improving GESI-responsiveness in the SIF and its processes in (i) the short-medium term, and (ii) the medium-long term.

Short-Medium Term Recommendations

The proposed short-medium term measures include:

1. *Capacitating school education personnel and SMCs on GESI considerations.* Given the lack of understanding and awareness about the importance of gender, equity and social inclusion, provincial governments are recommended to develop and undertake trainings for education officials (including those serving more senior positions and/or at higher levels of government), school leadership and teachers, and SMCs alike on the relevance these concepts, issues of intersectionality, the importance of collecting GESI-relevant data, ways of analyzing it and effectively translating it into policies and programs to promote inclusion and equity. As mentioned in the context of Sindh, it is pertinent that capacity building sessions clarify that GESI-responsive data collection and use is not discriminatory, but rather an essential step in adopting a targeting approach to improving educational opportunities and outcomes for disadvantaged children. Human rights bodies continue to show concerns on the lack of stratified data on minorities owing to which they continue to fall through the cracks and become locked in a cycle of marginalization in development and education programmes⁴². Other perceptions or beliefs regarding GESI issues such as (lower) incidence of disability among children in mainstream schools also need to be clarified by explaining exclusion within schools and suggesting ways in which teachers and schools can effectively avoid it. Furthermore, steps must be taken to ensure that such professional development is not a one-off event but rather a continuous learning process, responding to the emerging needs of teachers, school leaders and education officials as they grapple with inclusion and equity in understanding, analyzing and applying data for improving schools. Where available, such as in the case of Punjab, digital training platforms can also potentially provide a quick and cost-effective way of capacitating teachers and other personnel on GESI issues.
2. *Optimizing the (collection and) use of GESI-information in the SIF and similar innovations.* The DSI research findings suggest that, although limited, all three provincial education data collection systems include provisions for and/or collect some data on GESI-relevant indicators. For example, in Sindh, some data is already collected and available for children

⁴² OHCR. 2009. *State of the World's Minorities and Indigenous People. The Importance of Ethnic Data to Promote the Right to Education*. Minorities Rights Group International. (The report also documents that some states believe recognizing ethnic, religious and linguistic differences can have a negative effect, but by doing so, they are indeed striving for a homogenous identity at the cost of denying these communities equal rights).

belonging to different ethnic groups, but its use is limited to the procurement of ethics and Sindhi medium textbooks. However, the same data can be repurposed or additionally purposed to become linked with and inform school-level improvements by being adopted/ adapted in the design of the SIF or similar innovations. Where such data is missing to begin with, for example in the existing scaled implementation of the SIF in Punjab and KP, the design of the Framework should be altered to include more GESI-relevant indicators given the moral justification that concerned stakeholders provide for it. While the determination and inclusion of such indicators requires iterative consultations with concerned stakeholders and is thus beyond the scope of this project, the following examples help illuminate some possibilities for such data collection in the short-term across the existing domains of school performance in the SIF:

- a. *Domain 1: Student Participation:* This domain could potentially include information on GESI-relevant characteristics of children such as disability and need for social assistance, as well as define actions for improvement in the light of the same⁴³. For instance, in addition to blackboard visibility (and/or seeing difficulties), data may be collected on children with hearing, walking and other impairments in the framework, and action management strategies for the same. Similarly, if, majority of the children attending a public school in a rural context are extremely poor and lack access to even basic facilities such as WASH services, action management against the existing indicator on student cleanliness in the framework would need to take place in the considered context, not divorced from the ecosystem in which the children reside. The examples suggested above are indicative only – the avoidance of prescribing a set of indicators for SIF adoption or adaptation is deliberate as each country/context should ideally employ a participatory approach to build consensus with relevant stakeholders on indicators against which data ought to be collected and reported in their unique context. This is a time intensive and context-dependent exercise, beyond the scope of the existing research.
- b. *Domain 2: Teachers and teaching:* In the short term, simple indicators such as those indicating whether teaching aids are available for children with special needs, whether teachers have been provided training on inclusive education and so on can be added to the Framework. Similarly, existing indicators such as the classroom observation score which includes a reference to inclusivity in the classroom can further be unpacked with specific indicators to measure inclusive teaching practices.
- c. *Domain 3: Leadership and school support:* Again, in the short term, this can include indicators such as Head Teachers’ training on inclusive school environments and

⁴³ Note that the discussed version of the SIF already includes male/female disaggregation. In addition to gender and disability, other dimensions extending beyond the focus of this research such as displaced and/or refugee populations –e.g., evacuees resulting from natural calamities like earthquakes and floods and conflict-ridden regions –, ethnic minorities, religious minorities and so on may also be included in adapted versions of the SIF as suited in each given context. To re-emphasize, doing so in Pakistan’s context as outlined in the report necessitates broader discussions and capacity-building efforts to address the dual challenge of ensuring that data collection supports inclusion, while also establishing safeguards to prevent misuse of sensitive information. Similarly, given the general dearth of learning data at a school- or more granular level in Pakistan and other developing countries, the same can also be added to the SIF, provided that optimality and cost-effectiveness in sustained scale are maintained (for a more detailed account on optimal scaling of innovations in data-driven school improvement, see the DSI research report titled “Scaling Strategy for Innovations Aimed at Data-driven School Improvement”). For Out of School Children (OOSC), however, it is important to clarify that the SIF, as its name implies, only caters to children already in school since it is a “school” improvement framework. Therefore, to the extent that the Framework helps improve the overall quality of schooling within schools AND the same has a bearing on demand for education for OOSC and/or their families, the SIF may help address the challenge of OOSC, but it does not promise anything beyond.

- teaching practices, and the number of SMC meetings in which decisions pertaining to making schools and classrooms more inclusive are taken as part of broader steps towards school improvement.
- d. *Domain 4: School environment*: This can potentially include some of the indicators already mentioned by respondents such as the availability of ramps for children with walking difficulties, separate washrooms for girls and disabled children, and so on.

It is pertinent to mention, however, that optimality would require more than just mere inclusion of GESI-relevant indicators and actions in the SIF. For instance, in addition to appropriately addressing the underlying causes of GESI-related challenges in the different domains of school performance (e.g. gender roles in student enrolment and attendance), the architecture of the Framework will need to be responsive to compounded disadvantage through the challenge of intersectionality. That is, even when adequate data are collected on each individual – their intersectionality and children’s compounded disadvantage will need to be captured in the organization, interpretation and utilization of data. Furthermore, as described below, medium-long term measures that adequately address other challenges such as staffing, staff mobility and sustainability would need to be addressed at the same time for GESI-responsiveness to result in the desired (collection of) impacts.

Medium – Long Term Recommendations

The proposed medium-long term measures include:

1. *Balancing equity and sustainability considerations*. While equity and inclusion data can be a powerful tool for informing decision making and reducing educational disparities, its mainstreaming is not a simple or straight forward process. In addition to measures highlighted above such as continuous training for relevant stakeholders, such additional data collection will require consideration of time and resource constraints. For instance, one of the primary reasons why staff positions within education departments are left vacant by provincial governments is the financial burden that filling them can bring. The DSI research in Nepal has shown that self-reporting of data at the school level may result in a significant cost reduction for data collection. In other words, where the collection of data by a large fleet of monitors is being compromised in the face of fiscal pressures, a hybrid data collection model—involving both external data collection as well as self-reporting by schools—offers a practical strategy to address this challenge. At the same time, optimizing human resources like AEOs and ASDEOs is also important, such that they have fewer schools in their span of control, and are able to dedicate spared time to school improvement activities, such as providing academic leadership and school support (as already the case in Punjab). Leading from the front, education departments also need to consider recruiting a diverse and inclusive team of education officers to begin with, and appropriately provide for their diverse needs, with the spillover benefit of rendering the entire exercise of data collection more representative and even accurate. Without such supporting interventions, the addition of GESI- indicators to the

SIF or similar innovations can prepare the ground for equity and inclusion but not translate into the desired impact for school-level improvements.

2. *Technological innovation.* To reduce some of the data collection burden, provincial governments may, over time, explore synergies across sectors or departments in data collection and use. For instance, the ongoing School Health & Nutrition Program in Punjab already involves screening of primary and middle school children for detection of common health problems by general physical examination as well as specific eye, ear, nose, throat, dental and skin examination through the School Health & Nutrition Supervisors (SHNSs). Further strengthening data collection through this touch point and leveraging technology to permit inter-operability between health and education data systems such that information under one can directly inform innovation under the other may provide an efficient and even-cost effective solution to the challenge of sustainable data use for school improvement. Similarly, to overcome connectivity issues in hard-to-reach areas, offline modalities for data collection and entry should be developed and offered to education officers, with the necessary quality assurance mechanisms in place to ensure reliability of data. Over time, departments can also experiment with the idea of introducing a GESI-specific report card through the SIF dashboard to highlight and fully integrate GESI analysis and action management in school improvement processes.
3. *Creating an enabling environment with GESI reform.* The transition towards a more equitable education system with data collection and use geared towards the same objective requires time and a better enabled environment. From legislative and policy reform to financial allocation and implementation processes, equity and inclusion considerations need to imbue all elements of reform such that the differences and needs of diverse children are understood and addressed to achieve results at scale. This can include targeted efforts to address specific groups of children at risk of exclusion from the learning process, such as children with disabilities, for instance. Prioritizing these objectives and coordinating the scaling effort such that development partners, local NGOs, educationists and other stakeholders also form alliances for scaling an adapted SIF or similar innovation to promote equity and inclusion can also help achieve and even catalyze the desired impact. However, given that education and scaling systems are dynamic and constantly evolving, and that prioritization and correct addressal of GESI considerations necessitates longer-term behavioral change, care must be always taken in sustaining and intensifying advocacy and capacity building on these aspects across a wide spectrum of stakeholders. For instance, in contexts like Sindh where an innovation in data-driven school improvement is yet to scale, stakeholders such as Head Teachers, teachers and SMC members must not only be involved in the design stages of the innovation, but rather continuously – before, during, and after implementation – to obtain constant feedback and insights into how to further improve the design and implementation of the framework, as well as respond to changing realities on ground (for instance, in emergencies or situations that are unpredictable).
4. *Supporting GESI-responsive education research.* Given the afore-mentioned findings, provincial and federal governments in Pakistan, together with development partners, may

support long-term education research on ways in which the country's existing systems of data collection and use may be expanded to accommodate gender equality, equity and social inclusion considerations. This includes, among other things, identification and addressal of professional development needs of education personnel as mentioned above, and a pre- and post- analysis of the extent to which such professional development may actually translate into improved outcomes for GESI at all levels, school to central/federal. As mentioned on several occasions, supporting the professional development needs of school leadership, teachers and data collection and monitoring staff in understanding, analyzing and applying equity and inclusion data for school improvement should be a continuous and not one-time activity, one in which improvements over time are also imperative. Where schools consequently succeed in effective use of equity data and are able to demonstrate school improvement over time, a model can also be developed based on their experiences for replication in other, similar contexts.

Annexures

Annex A: Sample Details for Each Research Context

Punjab

Microsystem		Mesosystem		Exosystem		Macrosystem		Total
Stakeholders	Number	Stakeholders	Number	Stakeholders	Number	Stakeholders	Number	
Teachers	31	MEAs	19	WB	[Engagements at/through sensemaking meetings and research dissemination events]	Secretary Education	1	
Head Teachers	9	AEOs	19	FCDO		PMIU	1	
School Councils	30			UNICEF		PITB	2	
Total	70		38				4	112

Stakeholders		Lahore		Multan		Rawalpindi		Total
School Council		M	F	M	F	M	F	
13 M	17 F	4	9	7	2	2	6	30
Teachers								
5 M	26 F	0	9	3	8	2	9	31
Head Teachers								
3 M	6 F	0	3	2	1	1	2	9
MEAs								
19 M	0 F	7	0	5	0	7	0	19
AEOs								
10 M	9 F	4	4	4	2	2	3	19

Total								
<u>50 M</u>	<u>58 F</u>	<u>15</u>	<u>25</u>	<u>21</u>	<u>13</u>	<u>14</u>	<u>20</u>	<u>108</u>

Khyber Pakhtunkhwa

Stakeholders		Swabi		Swat		Haripur		Total
ASDEOs		M	F	M	F	M	F	
8 M	9 F	2	3	3	3	3	3	17
DCMAs								
11 M	11 F	3	3	4	4	4	4	22
DEOs								
3 M	3 F	1	1	1	1	1	1	6
Total								
<u>22 M</u>	<u>23 F</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>45</u>

Sindh

Stakeholders		Mirpur Khas		Shikarpur		Karachi		Total
School Council		M	F	M	F	M	F	
25 M	28 F	11	24	14	4	-	-	53
Teachers								
15 M	25 F	4	17	11	8	-	-	40
Head Teachers								
6 M	5 F	3	3	3	2	-	-	11
MAs								
16 M	0 F	7	0	4	0	5	0	16

DEOs/TEOs								
4 M	0 F	2	0	2	0	-	-	04
CMOs (3 M-0F)								
3 M- 0F		1	0	1	0	1	0	03
DG M&E (1M-0F)		-	-	-	-	1	-	01
Total								
<u>70 M</u>	<u>58 F</u>	<u>28</u>	<u>44</u>	<u>35</u>	<u>14</u>	<u>7</u>	<u>0</u>	<u>128</u>

Annex B: GESI-Related Training Materials for Enumerators

I. **GESI-Specific Module in Enumerator Training**



Salma Jafar

Gender, Equity and Social Inclusion Advisor, DSI

II. **Glossary Explaining Gender, Equity and Social Inclusion (GESI) Concepts for the Data-driven School Improvement (DSI) Project**

The Data-driven School Improvement (DSI) project includes four dimensions of marginalization based on Gender, Equity and Social Inclusion (GESI) considerations in its scope. These include: (i) gender, (ii) disability, (iii) poverty, and (iv) ethnic and religious minorities. This glossary of key GESI terms and concepts employed under the project has been prepared to facilitate you, the enumerators, in collecting data from the research participants on GESI dimensions. Kindly review the following glossary keeping in mind the detailed enumerator training delivered to you, especially the GESI-specific module. The glossary will help you ask the relevant GESI questions and probe into answers.

- (i) **Gender:** A social construct that varies from community to community and is not simply referring to the biological differences between man and woman. It is about the social construct which defines gender roles assigned to men and women by the society they live in, which affects their educational opportunities and outcomes both. Education, literacy, cultural norms, demography etc. all have an influence on these roles.
- (ii) **Disability:** Disabled persons face some or a lot of difficulty in any or more than one of the following: seeing, hearing, walking and difficulty in reading and writing. When asking questions about difficulty, it is important to emphasize its extent as well. This is pertinent because if, for

instance, a child's ability to see or hear is severely impaired, the teacher can make seating and other arrangements such that the child is better enabled to do these things.

- (iii) **Poverty:** Poverty under this particular research study pertains to very poor children whose parents come under the Benazir Income Support Programme/Ehsaas social assistance program. DSI employs BISP as a proxy indicator because it is otherwise difficult to measure poverty, especially given its multidimensionality. However, school teachers may often be aware of the challenges facing their students such as the need for transport, stationary, uniforms, even shoes and /or the need to work for an income. It is also important to keep in view intersectionality like disability, gender and religion/ethnicity may together increase the vulnerability and risk for some children to get excluded from the education process even when attending school.
- (iv) **Ethnic and religious minorities:** Ethnic minorities refer to people who do not belong to the majority community in a given area and speak a different mother tongue or have either migrated from another area and practice different culture and use a different language or dialect. They, by virtue of these characteristics, are marginalized. Religious minorities refer to communities and/or member of communities that do not belong to the majority religion. For example, the majority religion in Pakistan is Islam so non-Muslims such as Christians, Hindus and Sikhs come to comprise religious minorities. These people may face discrimination in access to school and/or their children may face discrimination in school from peers through bullying and humiliation (like name calling) and even from teachers through discouragement. There can also be forceful participation in religious events that are not their own. It is pertinent to note that the emphasis here is on *forceful* participation as communities may in fact participate by choice for inter-faith harmony. The content of a majority religion permeating textbooks such as that of Urdu or English in Pakistan is also an example of religion-based marginalization, although such analysis is not directly in the purview of our research.

In addition to the definition of key GESI concepts, it is also important to distinguish between equality and equity and inclusion:

Equality implies that everyone has the same rights and benefits but, unlike equity, does not address specific issues e.g. a school maybe equal in opportunity for enrolment but some students may struggle with learning because their specific needs are not met in the school.

Equity implies that resources and opportunities are designed and provided to help all people reach the same/equal outcomes which people living in more favorable conditions achieve. This includes, for instance, individualized support such as assistive devices, social assistance, stationary, uniforms etc. to children in schools who face barriers like disability and poverty.

Inclusive education refers to education policy or practice that provides equitable access to children who otherwise are marginalized by virtue of their gender, disability, economic status, ethnicity, religion, culture etc. Being inclusive means having provisions such as supportive schools structures, teaching methodologies, data collection and use, and so on for an inclusive learning environment.