

**EXPLORING TEACHERS' PERCEPTIONS OF THE IMPACTS OF
FLOODS ON EDUCATIONAL RECOVERY**



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M.PHIL (PAKISTAN STUDIES)

NATIONAL INSTITUTE OF PAKISTAN STUDIES

QUAID-I-AZAM UNIVERSITY,

ISLAMABAD

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M.PHIL THESIS

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M.Phil. Thesis



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Declaration

I hereby declare that this research thesis with title “Exploring Teachers’ Perceptions of the Impacts of Floods on Educational Recovery” is my own work, neither as a whole nor any part of this has been copied from any source. Furthermore, it is declared that I have written the data entirely on the basis of my personal efforts, made under the sincere guidance of my supervisor. No portion of this work presented in this report has been submitted in support of an application for another degree or qualification of this or any other university or institution of learning. If any part of this work is proved to be copied or found to be a report of some other, I will stand by the consequences.

Sorath

DEDICATION

I DEDICATE THIS THESIS TO MY LATE PARENTS

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My efforts in putting this thesis together would not have been possible without the blessings of ALLAH PAK, Who enabled me to pay attention to what I was doing.

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List of Abbreviation

ASER -Annual Status of Education Report

CSSF- Comprehensive School Safety Framework

ECCE -Early Childhood Care and Education

ECE -Early Childhood Education

EMO - Education Management Organization

FFC- Federal Flood Commission

GADRRRES- Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector

IELP- Integrated Education Learning Program

ITA -Idara-e-Taleem-o-Aagahi

NFE - Non-Formal Education

NGO - Non Governmental Organization

PPP- Public Private Partnership

RBCS - Rural Based Community School

SAS- SEF Assisted Schools

SEF- Sindh Education Foundation

SELD- School Education and Literacy Department

SMC -School Management Committee

TCF- The Citizens Foundation

UNICEF- United Nations International Children's Emergency Fund

Glossary

Aya- Children's care taker in School

KachiPehrin - In Government and Sindh Education Foundation Schools, Nursery and Kindergarten (KG) classes are considered as KachiPehrin

KatchiSarak -Unmetalledroad (a roadway that has not been surfaced with a hard material such as metal or concrete)

Milad- A religious gathering

Otaq - Sindhi's guest room for males

PakkiSarak - Metalled road (the roads made of successive layers of smaller stones, until the road surface was composed of small stones compacted into a hard, durable surface)

Wadera - Landlord of village having some political power as well

Wadera System - A system where villagers are bound to obey their landlords

Abstract

Floods of 2022 created many challenges for people and it also affected their lives in many aspects. Some people lost their lives, majority of people lost their homes, their source of income, they faced health issues, and they were hardly surviving due to lack of facilities. Floods also affected the lives of students specially School going children. In Sindh, most of the Schools were damaged and still not reopened. Thus, this research is designed which aims to explore the perceptions of teachers of the impacts of 2022 Floods on educational recovery. More specifically, the major focus of this research is to deeply explore how Floods affected the School infrastructure and other resources, enrollment, performance and mental health of students and what kind of challenges were faced by management, teachers and students to recover education and what strategies they used to come out of this situation. For this purpose, qualitative research method is used in which data was collected from the principals/head teachers and teachers of the Flood affected public, Private and SEF Schools. It was found that majority of the Schools were damaged; some Schools were reopened while others are still closed due to lack of financial support to Schools. Children belonging to low socio-economic background became out of Schools because they could not even meet the basic needs so either they were dropped from Schools or they left Schools by themselves. Those children who managed to rejoin the School after Floods, they also faced many challenges because the infrastructure of many Schools was damaged, the other resources including furniture, facility of water and electricity was also affected due to heavy rains and other teaching material was also damaged. Floods also decreased the attendance and enrollment of the School which ultimately affected students' performance as well. This research includes different kinds of Schools including Government Schools, Private Schools and those running under Public-Private Partnership (PPP) like Sindh Education Foundation (SEF) Schools. These all Schools have different strategies to deal with challenges including natural disasters like Floods or heavy monsoon rains. Some Schools were recovered from that catastrophic situation while others are still struggling to recover their Schools' buildings and other resources.

Key Words: *Floods, Educational Recovery, Public Private Partnership, Sindh Education Foundation*

Introduction

Climate change is a global phenomenon and has caused enormous changes in the weather, especially in Pakistan. Due to this heavy monsoon rains and Floods occur frequently. It has also been seen in the 2010 Floods that affected the country's infrastructure, agriculture, economy, and education sector. Likewise, in the months since the monsoon season began in June 2022, Pakistan experienced unprecedented monsoon rains and Floods that had caused the deaths of about 1,300 people. There were at least 800,000 homes lost to Flood waters, 1.2 million livestock animals were killed, and 9.4 million acres of cropland were Flooded, according to Pakistani and United Nations (UN) officials. Further, Sindh, where 492 people died and 14.6 million had been displaced, had been the worst affected region. The recent Flood and rain catastrophe had a significant negative impact on the education sector. 3.5 million Pakistani youngsters in School had their education interrupted. One-third of Pakistan was under water as a result of the Floods of 2022, and nearly 26,000 Schools have been devastated, putting the most vulnerable at risk of education and poverty gaps (World Bank, 2022).

During Floods when people were struggling for their survival and basic needs, educational recovery was overlooked in Sindh province. More than 7,062 Schools that escaped damage had been transformed into shelters for storm victims. The 2022 School year and education were hampered by the usage of Schools as temporary shelters for displaced individuals. It was also anticipated to cause more damage to the School system's wash facilities and loss of teaching materials, which will call for additional cleaning and renovations in the future. Also, natural catastrophes such as Floods usually cause Schools to be destroyed, families to be uprooted, and the most pressing needs to arise right away, forcing children and adolescents to drop out of School and start working as young people to support their families during these difficult times. Enrolling students was challenging during Floods because parents didn't want to risk their kids' livelihoods. Schools that frequently experienced Flooding were consequently more likely to close due to low attendance. Parents might choose not to enroll their children in School due to financial limitations as a result of the Floods' impact on lost income. Roads and Schools became unusable due to Flooding, discouraging parents and kids from enrolling their children in such institutions (Hussain et al., 2023). Schools were among the most severely impacted

organizations during Floods. Floods had a serious negative impact on Schools in two ways: directly by causing damage to the School building and other property, and indirectly by turning them into refugee camps for Flood victims who were forced to flee their homes. Floods damage to educational facilities results in the destruction of classrooms, labs, libraries, and boundary walls, finally rendering the entire system useless. Children primarily lost their books and other educational resources, making it impossible for them to attend School during and even long after the Flood recedes (Abbasi&Shaukat, 2020).

Problem Statement

Mazari, H., Baloch, I., Thinley, S., Kaye, T., & Perry, 2022 in their report discusses the impacts of Pakistan's 2022 Floods in general and more specifically how learning is affected and then continued after climate emergencies. Further, the research about the response of Schools after Floods emergency was also conducted by Shah et al., in 2021. Additionally, teachers' experience of a Flood in their School community was studied by Tolentino, in 2017. Some international reports of World Bank and UNICEF discuss the impacts of 2022 Floods on education of Flood affected areas of Sindh, Pakistan. Further, few reports also statistically inform about the impacts of Floods on Schools' infrastructure, other resources and attendance or enrollment in Flood affected areas. Additionally, some scholars have also studied about the preparedness of Schools to mitigate the natural disasters like Floods in Pakistan and national and provincial disasters management authorities have also mentioned in their official reports some strategies for disaster risk reduction. The area of students' mental health is not studied thoroughly in the context of Pakistan. More specifically, when any natural disaster like Floods affects the country, the major areas of research focus on the overall infrastructural, agricultural and economical loss. The educational recovery and students' mental health after Floods are the areas which need to be highlighted and discussed. Thus, this study explores teachers' perceptions of the impacts of 2022 Floods on educational recovery in Flood affected Schools of district Shikarpur of Sindh province of Pakistan. Further, this research emphasizes the perceptions of teachers of the impacts of Floods on the School infrastructure and other resources, attendance, enrollment, performance and mental health of students, and how teachers deal with the students who are mentally affected through Floods, what kind of challenges are faced by teachers to teach students after Floods and which strategies they use to mitigate those challenges.

Research Objective:

To explore three dimensions of the impacts of 2022 Floods on educational recovery; including teachers' perceptions of the impacts of the Floods, the impacts on the resource availability, students' enrollment and performance and the impacts on the students' mental health in three different kinds of Schools.

Research Question:

What are the perceptions of the teachers about the impacts of 2022 Floods on educational recovery including the impacts on the resource availability, students' enrollment and performance and the impacts on the students' mental health in three different kinds of Schools?

Methodology**Research Design**

Researchers who use qualitative methods are said to do "naturalistic" research, as they do not have to manipulate the phenomenon they are studying (Patton, 2002). By using a qualitative design, we can examine deep understanding of interests in a natural environment and interpret meanings in which people construct those (Palinkas, et al., 2010). Hence, no any determined theories or variables are used. Researchers using the qualitative method can interact with their research participants and answer to themes as they emerge as research proceeds (Patton, 2002). Thus, this research used qualitative research method to explore the perceptions of teachers' of the impacts of 2022 Floods on educational recovery.

Further, an analysis of multiple cases is conducted to create detailed descriptions and to explore the phenomenon. The researcher examines the data carefully and deals with it according to research protocol by using research tool. Researchers apply their own perspectives to interpret, understand, and evaluate data (Gall et al., 2006). Patton claims that this approach allows researchers to understand "both externally observable behaviors, as well as internal states" (p. 48). An analysis of teachers' perceptions regarding educational recovery after Floods in public, Private and public Private partnership Schools specifically SEF Schools in district Shikarpur of Sindh province was conducted in this study. The aim of this study was to explore teachers' perceptions about the challenges which they faced during and after Floods, how it affected infrastructure and other resources of Schools, how damaged infrastructure and lack of resources

affect students' performance, how Floods affected mental health of students and what kind of strategies teachers used to overcome those challenges associated with each case (in the current study, cases are different types of Schools). In addition, a cross-case study was conducted to compare how these Schools respond the circumstances caused by Floods.

As a result, a qualitative design is appropriate because it allows us to develop a possible explanation of the phenomenon in real life situations. We need to study the phenomenon holistically, by finding out about teachers' perceptions and how they overcome with these types of situations.

Purposive Sampling

According to Denscombe (2007), purposeful sampling involves selecting a sample that is already familiar to the researcher, as well as selecting specific participants who will provide valuable information. Researchers can utilize purposeful sampling when they believe that certain individuals or events will be crucial to their research (Denscombe, 2007, p. 17). Likewise, Patton (1990) points out that "selecting and analyzing an information-rich case in depth is a useful method of gaining more understanding about issues central to the purpose of the research". Thus, in the current research, teachers from Flood affected Government, Private and SEF Schools were interviewed in order to understand their perceptions regarding educational recovery after Floods because researcher thought these participants will provide rich information related to the research topic. Further, from the selected sample, only those teachers who gave their permission were interviewed.

The data of schools from where interviews were conducted with participants is given below. The below-mentioned data more specifically includes schools' enrollment and attendance before Floods. The data on schools after the Floods will be discussed in Chapter 3 in detail. Further, the description of each type of School is also given below to understand the context of Schools. In that description, the location of Schools, the environment of Schools, and the educational facilities provided to students are discussed to understand how Schools used to run before Floods and how and up to what extent Floods affected those Schools.

Table 1**Schools' Data**

No	School Name	School level	Total Enrollment	Daily Attendance
01	G. G. Primary SchoolLakhiGhulam Shah	Till Grade 5	350	80%
02	Excellence Grammar SchoolShikarpur	Till Matric	700+	75-80%
03	Hira Public SchoolShikarpur	Till Matric	600	88-90%
04	Indus Public SchoolKhanpur	Till Grade 8	250	80%
05	SEF Assisted AgahiSchool System Color Goth UC Sherkot Near Jamra Village TalukaLakhi	Till Grade 5	159	70-75%
06	SEF Assisted AgahiSchool System RasoolBux Burro UC Jano Sharif TalukaShikarpur	Till Grade 5	123	85-87%
07	SEF Assisted AgahiSchool System Fateh Muhammad Brohi UC SultankotTalukaShikapur	Till Grade 5	185	78-80%
08	SEF Assisted AgahiSchool System Soomar Khan Jafri, PirBuxShujra Tehsil Khanpur	Till Grade 5	159	88-90%
09	Foundation assisted School Maps, JunejaMuhalla, LakhiGhulam Shah	Till Grade 5	314	63-65%

Government Schools

The infrastructure of Government Schools of TalukaLakhi district Shikarpur was very good where classrooms were well decorated with sufficient furniture and fans in each classroom.

There was a table and chair for the teacher in every class. There were offices and washrooms as well. Schools have proper electricity and water facilities. In those Schools, teachers came to School and also conducted the classes that were assigned to them. The headmaster also ensured to engagement of all the teachers in classrooms. The attendance of that School was 70-80% on a daily basis. On the other hand, one Government School from TalukaKhanpur district Shikarpur was selected for data collection purposes. The infrastructure of that School as well. However, the attendance of that School was very low and teachers also used to remain absent in that School. It was told by teachers that most of the students do work in the fields with their parents so they don't come to School except to give exams. Students of that School belong to families where parents don't take an interest in their children's education. Most of the students are engaged in child labor to fulfill their basic needs. Further, teachers said that those children are very poor and their parents are illiterate, so they don't take an interest in sending their children to School. Additionally, the headmaster of that primary School said that after 2010 Floods the nearby high School was damaged very badly and till now it has not reopened, so that School was also shifted to their primary School. However, the students and teachers of that School don't come regularly. After 2022 Floods, in the district Shikarpur only those Government Schools were reopened which were already in good condition and not damaged badly. Those Government Schools which were damaged very badly are still closed.

PrivateSchools

The infrastructure of PrivateSchools in the main city ofShikarpur was very well. ThreestoreySchool building, well-decorated classrooms with proper furniture, fans, and lights in every classroom. There were also separate washrooms for male and female students and staff members. The principal office was also decorated with awards and shields won by the School in different competitions. There were all the necessary facilities available in Schools including clean water for drinking, electricity, and solar systems. All the teachers and other staff were present in the School. There was almost 80% of students' attendance on daily basis. All the teachers conduct classes on a daily basis, engage students in different activities in the classrooms, and also engage them in extra-curricular activities. Along with weekly lesson plans, teachers also report on students' performance in every subject. Parents teachers meeting also occurs when needed. Most of the students belong to middle-class families, where their parents are also educated. Some of the students also belong to families having low socioeconomic family

backgrounds. Moreover, teachers said that the majority of the students just depend on the education at School. They don't get tuition except a few students who along with School also get tuition from different academies or home tutors. The other PrivateSchool from where data was collected is located in KhanpurTaluka, district Shikarpur. The infrastructure of this PrivateSchool was below average. However, the principal managed to give basic facilities to students. There were small classrooms, and in every class, there were 20-22 students. There was clean water for drinking, electricity, and a solar system as well. All the teachers were present in the School and 70-80% of students came on a daily basis. Teachers also conduct every class assigned to them and try to engage students in the classrooms. Students were not too rich; they belonged to an average or below-average family background, where some parents were educated and had jobs while others were shopkeepers or did any other labor.

Sindh Education Foundation (SEF) Schools

All the SEF Schools from where data was collected were located in villages. The infrastructure of all the SEF Schools was very poor. There were only two classrooms in each School which were not sufficient for students as the average enrollment of Schools was 200 students. The walls of the classrooms were broken. In some Schools, there was furniture including chairs for students while in other Schools students sat on the floor. There was one cupboard in each School to keep office records and other necessary materials. In some Schools, there was a solar system and there was one fan in each class while other Schools did not have any electricity or solar facilities. Some Schools have facilities of clean water to drink while in other Schools there was not a single water cooler, and students and teachers had to endure heat and thirst. There was not any single washroom in Schools except one School where there were two washrooms. Sometimes students go to home for washroom or to drink water and also bring water for their teachers or other students. After the Floods all the Schools were damaged very badly, there was water in every classroom and in the grounds of the School. So, a Private organization that runs the School gave every School tents and instructed them to run the School in those tents. After Flood vacations, they were running their School in tents, but those tents were also damaged when it rained again. So, they waited till the weather became normal and water was drained from the School. All the SEF Schools were closed for 2-3 months. Teachers and students were not provided with enough resources even before the Floods. The condition of the School was not satisfactory before the Floods, but after the Floods, it became worse.

Furthermore, in those villages where there were SEF Schools, there was a *Wadera* system. In one of the SEF Schools, the teacher said that *Wadera* doesn't want village children to get an education. From their forefathers, they have not seen any Government School or any other Government institute or building in that village. *Wadera* wants village people to work for him forever. He always wins in an election; everyone gives the vote to him. When people ask him for School, he refuses to accept that demand. Even a *Paki Sarak* is not built there. People face a lot of difficulties in going to the city in any emergency because there is not any facility in the village even hospitals is not there. In another village, one of the SEF School teachers said that parents do not allow their daughters to go to School. Girls only go to School till grade 3, after that their name is registered in School, but they don't go because their parents don't want them to be sent to a School with only male teachers.

Table 2

Teachers' Data

No.	School Name	Teacher Designation	Pseudonym	Qualification	Experience
01	G. G. Primary School Lakhi Ghulam Shah	Teacher	T1	MA, M.Ed	12 years
		Teacher	T2	BA, B.Ed	33 A Years
		Teacher	T3	MA English	21 years
02	Excellence Grammar School Shikarpur	Principal	T4	MA, M.Ed	16 years
		Vice Principal	T5	BA, MA	16 years
		Teacher	T6	MA Sindhi	8 Years
03	Hira Public School Shikarpur	Principal	T7	B.Ed	
04	Indus Public School Khanpur	Principal	T8	B.Ed	20 years

		Teacher	T9	BA, MA	10 years
		Teacher	T10	BA	4 years
05	SEF Assisted AgahiSchool System Color Goth UC Sherkot Near Jamra Village TalukaLakhi	Head Teacher	T11	BA	12 Years
06	SEF Assisted AgahiSchool System RasoolBux Burro UC Jano Sharif TalukaShikarpur	Head Teacher	T12	MA English	7 years
07	SEF Assisted AgahiSchool System Fateh Muhammad Brohi UC SultankotTalukaShikap ur	Head Teacher	T13	BA	6 years
08	SEF Assisted AgahiSchool System Soomar Khan Jafri, PirBuxShujra Tehsil Khanpur	Head Teacher	T14	B.com	4 years
09	Foundation assisted School Maps, JunejaMuhalla, LakhiGhulam Shah	Head Teacher	T15	BS English language and literature	3 years

Data Collection Tool

As Wellington, Szczerbinski, and Nelson (2007) point out, an interview allows a researcher to probe and discover things that cannot be seen. Perceptions, values, prejudices, opinions, that interviews give researchers an opportunity to hear people's "inner feelings," which can help researchers learn what those people know (information), value and prefer (personal values), and believe (beliefs/attitudes). Therefore, interviews are conducted to gain a deeper understanding of a person's perspective (Patton, 2002). Wellington (2015) says that "whether employers, teachers, students or educators, it gives people the chance to make their views known."

Semi-structured Interviews

Gray (2009) defines a popular research tool known as semi-structured interviews for exploring views and opinions of participants. A semi-structured interview gives the researcher more freedom in how he or she organizes and orders ideas and topics. Denscombe (2001) states that open-ended questions give the interviewee more opportunities to express thoughts as well as ideas. The interviews in the current study were semi-structured. To deeply understand and explore the different perspectives of every individual, I chose to conduct semi-structured interviews because, unlike structured interviews in which researchers are bound to ask only those questions that they design for participants, semi-structured interviews are flexible because they allow the researcher to probe questions from participants' responses and they are not bound to structured questions only. Secondly, semi-structured interviews are more manageable, while avoiding the rigidity of the fully structured interview format (Hammond & Wellington, 2013). I would also like to point out that my interview questions were open-ended and my interviewees had the freedom to talk about the topics raised by the interview questions.

After deciding on the research tool, I also developed an interview guide that incorporates the concepts embedded within the research questions which was reviewed by an expert supervisor. In order to proceed with the data collection, I asked my department head for permission. For the official permission to collect the data from School teachers, he gave me a permission letter that was given to the principals of each School. After taking the official permission from the head of the School, I asked teachers to voluntarily participate in my research. They were informed about the topic and the ethical considerations and assured that

their data would remain confidential. Also, I provided them with a guarantee that their responses would only be used to assist me in my thesis. After getting their consent, I conducted interviews. As per the convenience of participants, the interviews were conducted in Sindhi language.

Data Analysis

Analysis is defined as "the process of dividing up a topic/object into its component parts and understanding how they relate to one another" (Wellington, 2013, p. 9). In this study, at first, cross case analysis was done in which all the cases were analyzed comparatively and some common themes were developed. Further, some of the cases were also analyzed individually. Therefore, the interviews conducted were then translated into English. Researcher analyzed the translated data to make codes from each interview and generated some key themes. A thematic analysis can be more accessible, especially for those just starting out in qualitative research, as it requires less theoretical and technological know-how than grounded theory and DA (Discourse Analysis). As a first step, themes that were common in almost all of the interviews were generated. Moreover, some of the themes had been developed which were very unique and were only discussed by a small number of participants.

Ethical Considerations

First, researcher asked official permission from the principals of the School, and then process of data collection was started. At the time of data collection, participants were asked to participate voluntarily in the research. Only those teachers were interviewed who gave permission to conduct interview. Further, it was also asked from the participants to give permission for the recording of the interviews. With their consent the interviews were recorded and it was also ensured that their data will only be used by the researcher for her thesis. Further, researcher also told participants that their original names will not be discovered and data will be presented with pseudonyms or without mentioning any name. At the time of writing thesis, this thing was strictly followed by the researcher.

Purpose of the Study

There is growing proof that Flooding can affect children's physical, emotional, cognitive, and psychological development in ways that last a lifetime. Examining teachers' perceptions and experiences of the Flooding are crucial because they can play a significant role in assisting students in coping and ensuring that their needs are addressed after experiencing a traumatic

event. It is considered that teachers' perspectives and ideas drive their choices and behaviors, which in turn shape the type of classroom environment and interactions the students will have. Studying teachers' opinions after the Floods is important since children's daily interactions and learning environments are important in the process of recovering from a traumatic event (Tolentino, 2017). Further, the purpose of studying about the facilities of Schools including infrastructure and other resources is that School facilities play very major role in the achievement of students' performance, and it also increases students' enrolment and attendance.

Significance

This study is of special importance since it gives academics, researchers, policymakers, and the Ministry of Education detailed information about the state of education in Sindh's Shikarpur district's Flood-affected Schools. More particularly, it describes how Floods have impacted School enrollment, attendance, and infrastructure, as well as the difficulties that instructors and students have faced in the classroom. This would make it easier for policymakers and the Government of Sindh to take action by creating strategies to mitigate natural catastrophes like Floods and effectively implementing those plans to lower the danger of Floods that have a detrimental impact on education. Additionally, upgrade the School infrastructure to help administrators and instructors deliver high-quality instruction and convenient access to learning for everyone, regardless of background.

Chapter 1

Education System of Sindh

This chapter focuses on the education system of Sindh province of Pakistan. Also, the educational policies, Acts and frameworks designed and implemented by Ministry of Education of Sindh. In addition to this, education system of different kinds of Schools like public, Private and Public-Private partnership (PPP) like Sindh Education Foundation (SEF) Schools are also discussed. Further, the role of all these Schools in promoting educational goals is also highlighted.

1.1 Sindh Province Overview

Sindh is the second-most populous province in Pakistan, home to more than 47 million people. More than 60% more people have lived there than there were ten years ago. As a result, Sindh has a highly young population; it is believed that more than 60% of Sindh's citizens are under the age of 15. Despite being the most urbanized province in Pakistan, over 23 million people (or 50%) of Sindh's population reside in rural areas. High levels of both intra- and inter-provincial migration occur in the province. The bulk of the population speaks Sindhi (60%), followed by Urdu (21%), according to the data that is currently available (Govt. of Sindh, 2019).

Numerous types of poverty afflict Sindh's population, and there are big differences between areas. Even though Sindh's human development index (HDI) is 0.6403, which is higher than Pakistan's overall average, this illustrates the stark differences in development between districts. According to the results of the most recent census, 21 million people—43.1% of Sindh's population—live in poverty on a multiple basis. Sindh's urban and rural areas differ significantly from one another. Three out of four Sindh residents who live in rural areas are affected by multidimensional poverty, compared to one in ten urban residents. But between 2004 and 2014, the percentage of persons living in multidimensional poverty fell in both urban and rural areas: in the former, it went from 28.2% to 10.6%, while in the latter; it went from 88.1% to 75.5%.

There are significant inter-district variations, just like there are in other facets of human development. More than 80% of the people in three districts—Tharparkar (87%), Umerkot (84.7%), and Sujawal (82%)—live in poverty that is multifaceted. Six other communities—

Thatta, Tando Muhammad Khan, Kashmore, Badin, KambarShahdadkot, and Jacobabad—have 70–80 percent or more of their people living in multiple forms of poverty.

Sindh has lower literacy rates than the rest of Pakistan (55% in Sindh vs. 58% overall). Additionally, there is a problem with children's health, as many kids are underweight, stunted, or wasted, and infant and maternal death rates are higher than the national norm. The GDP of Sindh makes up about 27.5% of the entire country. The funding allotted to education by the provincial Government increased from 13.4% in 2011 to 18.5% in 2017.

1.2 Education in Sindh

In rural Sindh, only 5% of primary School children enrolled in PrivateSchools for the 2008–2009 academic years (Government of Pakistan, 2011). The lack of secondary-educated local women appears to be one of the main barriers to the existence of affordable PrivateSchools, as the labor force they provide is essential to the cost structure that makes these institutions financially feasible (Andrabi, Das, &Khwaja, 2013). Government Schools, however, are mostly determined by financial limitations. Although the "typical" community has one or two public Schools, rural villages frequently lack one or have one with inadequate staff and high rates of teacher absenteeism (Barrera-Osorio et al., 2022).

1.3 Education Policy Framework

The basic policy foundation for the universalization of education in Sindh is provided by Article 25A of the Constitution of the Islamic Republic of Pakistan, which upholds the fundamental right to free and compulsory education for children between the ages of 5 and 16. To put Article 25A into effect, the Sindh Right of Children to Free and Compulsory Education Act 2013/Rules 2017 were created. In addition to being provided free of charge in public Schools, the Act defines free education to include textbooks, stationery, Schoolbags, and uniforms. In addition, 10% of the students in PrivateSchools must receive their education for free. The School Education & Literacy Department, the Special Education Department, the College Education Department, and the Higher Education Department are in charge of providing educational services in Sindh. Government Schools (Primary through Secondary) fall under the purview of School Education and Literacy Department (SELD) and the Special Education Department is in charge of providing free and required education to students with disabilities. The creation of the Early Childhood Care and Education (ECCE) Policy Sindh 2015, as well as

the establishment of the ECCE curriculum (2017) and ECCE Standards (2019), was a significant step toward the provision of free and high-quality pre-School programs across the province. By offering opportunities to finish primary and post-primary education through non-formal education programs or through regular Schools via "catch up" accelerated programs within the mainstream system, the Sindh Non-Formal Education (NFE) Policy 2017 aims to ensure that dropout and over-aged children have access to a second chance at education. It also makes an attempt to establish connections with technical and vocational skills in order to increase the employability and opportunities for students in NFE programs. The expansion of the literacy and accelerated programs include skill development. Numerous more regulations also cover the delivery of educational services in Sindh. A framework for Public Private Partnerships (PPP) in all sectors, including education, is specifically provided by the Public Private Partnership Act 2010 and its revision in 2014–15.

1.4 The Sindh Right of Children to Free and Compulsory Education Act, 2013

In addition, the Concurrent List, which classified education as a provincial matter, was eliminated by the 18th Constitutional Amendment. It was observed that centralization and duplication of education at both the federal and provincial levels may have been one of the main causes of delayed progress in educational outcomes. As a result, Sindh became the first province to enact the "Right of Children to Free and Compulsory Education Act" in the first quarter of 2013, in accordance with the adoption of the 18th amendment and the addition of Article 25-A to the Constitution. Clearly stated in the Preamble of the 2013 Act, "it is expedient to provide for the right to education to all children of the age of five to sixteen years as envisaged in Article 25-A of the Constitution of the Islamic Republic of Pakistan, 1973." Additionally, the 2013 Act's Section 30 grants the authority to create Rules to implement its provisions. The School Education & Literacy Department has already drafted and accepted the Rules, but they have not yet been published in the Sindh Government's official gazette (Government of Sindh, 2017).

1.5 Sindh Education Sector Plan 2014-18

The Sindh Government recognized the need to create an all-inclusive holistic framework of education to fulfill the requirements of Article 25-A. This was done by creating the Sindh Education Sector Plan, which was the culmination of a series of steps that began with the 18th amendment to the Pakistani Constitution that gave provinces the authority to take on the

responsibility of education. The Sindh Education Sector Plan 2014–18 (SESP)'s mission statement has been adapted below:

In order for all children to realize their full potential and contribute to the growth of society and the economy, as well as to foster a sense of national identity and instill values of tolerance, social justice, and democracy, the Government must grant them equal access to high-quality education.

A commitment under the SESP to focus on (i) providing educational services to the most vulnerable and marginalized children, (ii) improving student learning outcomes, and (iii) encouraging greater community and parental involvement in their children's education may be how this is translated practically.

The Sustainable Development Goals (SDGs), formally referred to as "Transforming our World: the 2030 Agenda for Sustainable Development," are a more comprehensive intergovernmental agreement that serve as the post-2015 development agenda and replace the Millennium Development Goals, which were expected to be accomplished by 2015. The United Nations is the driving force behind this set of seventeen (17) global goals, which address a wide range of sustainable development challenges, such as eradicating hunger and poverty, enhancing health and education, making cities more sustainable, halting climate change, and preserving forests and seas. The fourth of the Sustainable Development Goals, Quality Education, states:

–Quality Education – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”

1.6 The Role of the Private Sector in School Education

The social investment in education has a significant bearing on long-term economic prospects. In Pakistan, the public sector struggles to fulfill its responsibility to provide top-notch education. Although overall School enrollment in Pakistan has increased significantly, it still faces substantial difficulties in providing eligible students with a good education. According to DFID (2016), 44% of all children aged 5 to 16 are not in School, which equates to about 23 million kids overall. The need to increase access to high-quality Schools grows as more than 2 million children reach School age each year, making the role of the public sector as a provider of educational services even more difficult. The Government can close the gap between the supply

and demand of education and enhance student learning results by enlisting the Private sector effectively in the delivery of high-quality instruction. Private sector service providers are usually dynamic, incentive-driven, creative, and adaptive since the market functions reasonably effectively. They can swiftly adjust to changes in market conditions and demands. The demand for Private education services has created a number of comparative advantages for Private sector education service providers, including easier access to the local labor market, greater accountability mechanisms, and close proximity to local communities and students in terms of geography, culture, and society. Because of its potential and ability to do so, the Private sector is an important partner and stakeholder in the Government's efforts to provide society with high-quality, reasonably priced education (Maleeha Rizwan, 2020). The Private sector, which includes a wide range of fee-based Schools, has been crucial to Pakistani children's education. The Private sector includes Schools with low and high costs, as well as those run by nonGovernmental organizations (NGOs) and financed by provincial education foundations. Over the past three decades, Pakistan's Private sector has progressively assumed the role of a major provider of education services. There are a lot more Private educational institutions now than there were in the early 1990s. The Private sector made up 37.9% of all educational institutions and 44.3% of all enrolments in the country in 2017, according to Pakistan Education Statistics 2017–2018. Private Schools accounted for 64.5% and 57.2% of all educational institutions in the middle and high School levels, respectively. At the elementary level, the percentage of students enrolled in Private Schools increased from 28% to 38% between 2008 and 2018 (Pakistan Bureau of Statistics 2005). This pattern shows that families are becoming more likely to spend money on their children's education because public Schools are of poor quality and are difficult to reach. Additionally, disaggregated test score data reveals that privately managed Schools "perform at least as well as Government -managed Schools in terms of student test scores on average" while requiring far fewer financial outlays (Dahal and Nguyen 2014). The Annual Status of Education Reports (ASER) has also regularly shown that children in Private Schools do academically better than pupils in public Schools. However, Private Schooling is dispersed unevenly. Private School enrollments at the elementary level are far more prevalent in urban than rural locations. Consequently, although the importance of Private education has increased, it is still heavily favored in metropolitan areas. In this situation, 28% of students are enrolled in rural areas at all

levels of education, compared to 55% who attend Private Schools in metropolitan areas (AlifAilaan 2017).

1.7 Public Private Partnership (PPP)

PPPs are described as "mechanisms for Government to procure and implement public infrastructure and/or services using the resources and expertise of the Private sector", with performance and risks shared by both partners. With this arrangement, the Government takes on a different role from that of a direct supplier and instead acts as a regulator, facilitator, and "keeper" of the education industry (Caleiro, 2023).

1.8 Public Private Partnership in Education

To maximize the potential for expanding equal access to education and for enhancing educational achievements, particularly for underrepresented populations, public Private partnerships (PPPs) in education are being developed. Given the scale of service delivery in the province, standard educational methods are insufficient. Due to scarce resources, inadequate management skills, a lack of ownership, and the absence of community and parental involvement, the extensive network of educational facilities throughout the nation is poorly administered. To achieve its goals on an independent basis, the Government requires institutional capacity, including the necessary knowledge, skills, and resources as well as the organizational structures and financial resources. In order to fill these gaps, the Government is therefore working on a number of workable alternatives, mostly Public Private Partnerships. There are willing benefactors (individual and corporate) and competent civil society organizations that can work with the Government to address the challenges with resource constraints, so the situation can be improved. In order for the Government and the Private partner to collaborate and support one another in accomplishing the education goals, a platform was required. The not-for-profit and non-Governmental organizations with management capability and dedication frequently lack the financial resources to further their objectives, while the philanthropists with funding capacity lack the necessary skills and experience to take over management and operations of the Schools. In light of this, the Government has finally understood that working with the Private sector can help education institutions grow in a way that is more effective, adaptable, and efficient. The School Education & Literacy Department is developing strategies and networks for involving the Private sector in public education through the use of PPPs, which have become an

effective policy tool. This will support educational quality improvements and help achieve the educational goals outlined in the Pakistani Constitution (Government of Sindh, 2017).

1.9 Expansion of Public-Private Partnership Education Service Provisions

The growth of the Private sector has recently been seen by the Government as a beneficial opportunity for collaboration. The School education sector has seen the emergence of a number of public-Private partnerships (PPPs), with Punjab serving as the innovator. PPPs have expanded both in size and scope over the previous ten years, with enrollments in Punjab and Sindh increasing exponentially over the last three to five years (ADB 2019). There are several PPP programs running in these provinces that can be broadly categorized into three groups. Private Schools that get Government financing and/or students who are enrolled privately make up the first group. These Schools are run by non-Governmental organizations, but they receive Government funds for educational aid. These institutions seek to increase access for disadvantaged families and underserved communities. Public Schools that are privately administered make up the second category of PPP institutions. The Sindh education management organizations (EMO) model is a recent example. "To manage and enhance the operation of public Schools, the Government enters into contracts with trustworthy EMOs through an open, transparent, and competitive process" (ADB 2019). The third group of PPP models includes "adopt-a-School" initiatives, in which the Government pays for wages and utilities while the adopter pays for all other costs, including the contractual, needs-based hiring of additional instructors. A number of top Private-sector companies came together to form the nonprofit public organization The Education Fund for Sindh (SEF) in 2012. Through its PPP initiatives and voucher program, the SEF has successfully worked with low-cost Private Schools to provide high-quality education to 138,000 out-of-School children, half of whom were girls, since its start. Around 530,000 people participated in all programs run by the SEF in 2018, more than twice as many as in 2014–2015. The SEF aided School program provides funding for children's education at specific province-wide low-cost Private Schools. Additionally, to support students in Private Schools, the fund worked with other educational groups like Building Resources Across Communities, The Citizens Foundation (TCF), and Developments in Literacy. The SEF has also started a campaign called "adopt-a-School." In accordance with this initiative, the SEF invites people and groups (from the Private sector and civil society) to adopt public Schools and provides them with guidance to assure public School rebirth and implement changes to children's

education. The SEF recently launched a program for middle and high Schools that will transform current SEF primary Schools into middle and high Schools (ADB 2019).

1.10 Sindh Education Foundation under the SEF Act, 1992

Established under the Sindh Education Foundation Act, 1992, the semi-autonomous Sindh Education Foundation (SEF) is tasked with supporting education in the province through a range of actions. The Act gives the Foundation extensive power to support the education sector using a range of instruments and programs. The Foundation has made great efforts since its establishment in 1992 to increase students' access to high-quality education across Sindh, particularly for those who reside in the isolated and impoverished regions of the province. The primary focus of SEF's first business plan was providing loans and grants to higher education institutions. These days, the Foundation collaborates with individuals and/or groups to provide communities with access to top-notch education. The Foundation extends professional development and capacity building services for the School partners and the teachers on a regular basis in an effort to improve the provision of equitable quality education across its portfolio. In addition to a School monitoring system that is being further upgraded, the Foundation has established a student assessment system for tracking student accomplishments. The Foundation designs and creates a number of projects that are effectively implemented. The specifics of a few Foundation programs are listed below.

1.11 SEF Assisted Schools (SAS)

The largest initiative of the Foundation, the SEF Assisted Schools (SAS) Program combines the Integrated Education Learning Program (IELP) and Rural Based Community School (RBCS) programs. It aims to create public-Private partnerships for expanding access to and enhancing the quality of education (Primary, Elementary, and Secondary) for kids throughout Sindh. The inputs are primarily focused on expanding access to high-quality education at the grassroots level, improving the learning environment in Schools through teacher professional development, and providing learning resources for engaging teaching and learning activities for kids. SAS works to change the SEF partners' mindset from one that prioritizes profit before education. Access to fundamental education and rising literacy rates are key components of SEF's strategy for high-quality education. Through public-Private and community collaborations, it aims to create and execute workable educational models that are contextually

pertinent to the requirements of the area and directly contribute to the long-term sustainability of the communities it serves. Support given: A monthly subsidy of PKR 500 is given to primary School students, PKR 700 is given to elementary School students, and PKR 800 is given to secondary School students, free textbooks and copies for students; capacity building for teachers and School administrators through workshops and trainings. Government s use public-Private partnerships (PPPs) as a strategy in many policy sectors, including education. PPPs can take a variety of forms, from the simple construction of public Schools by Private partners to the real operationalization of day-to-day teaching within Schools. Public-Private partnerships (PPPs) in education are said to be becoming more common in the Global South, despite the lack of a thorough analysis of their numbers or agreement on their definition. Pakistan has extremely low levels of GDP investment in education compared to other emerging nations. For the past 20 years, the nation has used PPPs to address many of its educational problems in an effort to address this issue. In the nation, PPP programs have enrolled more than 3.3 million kids. Given that 32% of Pakistan's children aged 5 to 16 do not attend School, one of the country's major educational concerns is access. This translates to more than 20 million kids, the second-highest absolute number of kids worldwide who don't attend School. In Pakistan's educational system, boys outnumber girls at every level, and by significant margins: when simply looking at primary and a lower secondary level, the percentage of out-of-School children is 21.17% for boys and 33.6% for girls. Everywhere has high dropout rates, and even well-established Schools frequently lack the necessary resources. The learning outcomes for students currently enrolled in School are insufficient, and in 2019, before to the pandemic, 3 out of 4 children of late primary age (adjusted for out-of-School children), did not read at a proficient level. This is a major worry since educators frequently emphasize that fundamental learning, which is defined as the first few years of School and achieving reading and numeracy at the appropriate age, ensures the framework upon which later learning is built. Two disruptive occurrences, beginning in 2020, are likely to have made these pre-existing difficulties in both access and learning outcomes worse. The first is that Schools in Pakistan were closed (completely, partially, or intermittently) for 64 weeks between March 2020 and March 2022 as a result of social distance policies to limit the COVID-19 pandemic, some of the longest closures in the world with little or no assistance for online learning. After quickly reopening, many Schools were forced to close once more because of the devastating Floods in 2022, which severely damaged the infrastructure supporting

education. Increased dropout rates and "large, persistent and unequal" negative effects on learning are linked to School closures, which highlights the difficulty in ensuring that all students master fundamental literacy and numeracy skills by the appropriate age. Pakistan's education system is decentralized, and since the 18th Amendment to the Constitution was passed in 2010, provinces are now legally obligated to provide education to all children between the ages of 5 and 16 as part of their constitutionally guaranteed right to education. PPPs are the preferred solution, along with additional measures and improvements. The second-largest province in terms of the population in the entire country, Sindh, has similarly emphasized the need of PPPs in tackling educational issues by using public funding for Private supply of facilities, instruction, and School management. Here, we look at their organizational structure and one of its initiatives, the PPRS (Promoting Low-Cost Private Schooling in Rural Sindh), which, according to a recent research, raised enrollment and test results (Caleiro, 2023).

Chapter 2

Floods in Pakistan

In this chapter, the overview of Floods, its causes and impacts on the globe is discussed thoroughly. Further, the history of Floods in Pakistan is elaborated in detail. After, the question how Floods affect the education system and Schooling of Pakistan has been answered. At the end of this chapter theoretical framework is explained.

Worldwide, the existence of species and the integrity of ecosystems are acknowledged to be seriously threatened by climate change. The amount of literature on the projected ecological and hydrological effects of climate change has expanded significantly over the past years (Erwin, 2009). Under the warming climate, the frequency of extreme weather occurrences has significantly increased globally (Chinita et al., 2021). Pakistan can be classified into three geographical regions, 311766 km² of Indus River plains, 242,683 km² of Baluchistan Plateau in the south-west, and 241,647 km² of mountains in the north and north-west. The country experiences precipitation from three different weather systems, including the most significant, monsoon depressions from the Bay of Bengal, as well as winter rains brought on by westerly waves from the Mediterranean Sea and cyclones brought on by seasonal lows from the Arabian Sea. In the nation, there are four different climate seasons. The months of April, May, and June are the hottest and driest. The monsoon season in July, August, and September brings severe heat and widespread, heavy rain. The cool and dry phase begins in October and lasts through November. December, January, and February are then the coldest months of the year. Pakistan's hydrology is divided into three sections: the Indus Basin, the Kharan Basin, and the Makran Coastal Drainage Area. These basins' Flooding dynamics vary widely (Khan, 2013).

In Pakistan, Floods are frequent occurrences that are primarily caused by heavy rains during the summer monsoon season and sometimes by tropical cyclones. The upper tributaries of the Indus basin Flood when strong summer monsoon rainfall and glacial melt cause Flooding, historically affecting Northern provinces the most. Extreme precipitation-related Flooding started in the northern sections of the Indus River during the great Flood event of 2010, which later damaged the downstream regions (Martius et al., 2013). However, the heavily populated

Floodplains of southern Baluchistan and Sindh were the hardest affected during the summer monsoon of 2022, affecting a sizable population (Mallapaty, 2022).

The three various ways that monsoonal depressions created in the Bay of Bengal reach different sections of Pakistan are how Pakistan receives monsoon precipitation (PMD, 2022). Depressions from the Bay of Bengal are transported along the Gangetic plains over India and Pakistan in two of the three methods. In the third category, precipitation over Pakistan is brought on by upper atmospheric circulation like the jet stream and moisture convergence from the Arabian Sea and the Bay of Bengal. In contrast to the high precipitation during the 2010 event, the majority of the depressions that formed over the Bay of Bengal in 2022 converged to the southern provinces without going to the north or eastern sides of Pakistan (L Otto et al., 2022).

Preceded by a terrible heat wave in May, Pakistan's "monster" Flood of August 2022 disproportionately affected the southern provinces of the nation. One-third of the world's fifth-most populous country was impacted by the Flood, which domestically displaced 32 million people and killed 1,486 people, including 530 children. Estimated economic losses exceed \$30 billion (L Otto et al., 2022). In addition to the immediate effects, starvation is imminent due to the extensive destruction of agricultural fields and potential disease epidemics in makeshift shelters (Baqir et al., 2012).

2.1 History of Floods in Pakistan

One of the main causes of ecological and anthropological damage is Flooding. It degrades the ecosystem, impairs public health, causes unemployment, and has an impact on socioeconomic conditions (Allaire, 2018; Parida, 2019).

In Pakistan, the approach for preventing Floods is a somewhat complex issue. Due to the unique physiographic, climatic, topographical, and socioeconomic conditions in each of the four provinces, the issue's complexity varies (Chaudhri, 1981). Following independence, the first significant Flooding occurred in 1950, 1956, and 1957. However, due to a lack of administrative frameworks and financing, a systematic Flood management program was never put into place at the national level. Up to 1976, regional administrations had the sole authority to prevent and manage Flooding. That changed during the devastating Floods of 1973, which claimed 474 lives and incurred 160 billion Pakistani Rupees in damage (Tariq and van de Giesen, 2012).

Pakistan had devastating Floods in 1973, which prompted the Federal Flood Commission (FFC) to be established in 1977. The commission was set up to carry out national Flood control, with a focus on the Indus River Basin, and operated under the Ministry of Water and Power. The FFC's primary responsibilities include creating national Flood control policies, approving Flood management plans created by local Government s and federal agencies, assessing Flood damage to public sector facilities and analyzing plans for repair and rehabilitation, forecasting Floods, enhancing alert programs, and offering guidelines for managing Flood protection reservoirs (GoP Annual Flood Report, 2009).

Following the establishment of the FFC, the first National Flood Protection Plan (NFPP-I) was created, with a spending schedule to be implemented over the course of the 1978–1988 decade. In order to coordinate the activities of the Provincial Irrigation Departments, particularly in the drainage zone, a Federal Coordination Cell (currently renamed as the FID Cell) was established in 1982. The Dam Protection Council was created in 1987 to review plans for new dams, as well as existing dams via DSO WAPDA (GoP Annual Flood Report, 2009).

This study focuses on Pakistan, which has experienced catastrophic Flooding almost every decade since the 1950s. Flooding has resulted in the destruction of thousands of homes, the relocation of millions of people, and the interruption of livelihoods for hundreds of others [5, 6]. Floods struck the nation in 1950, 1973, 1976, 1988, 1992, 1997, 2010, 2011, 2012, 2015, and 2022, with the 2010 Flood being the worst on record(Yaseen et al., 2023).

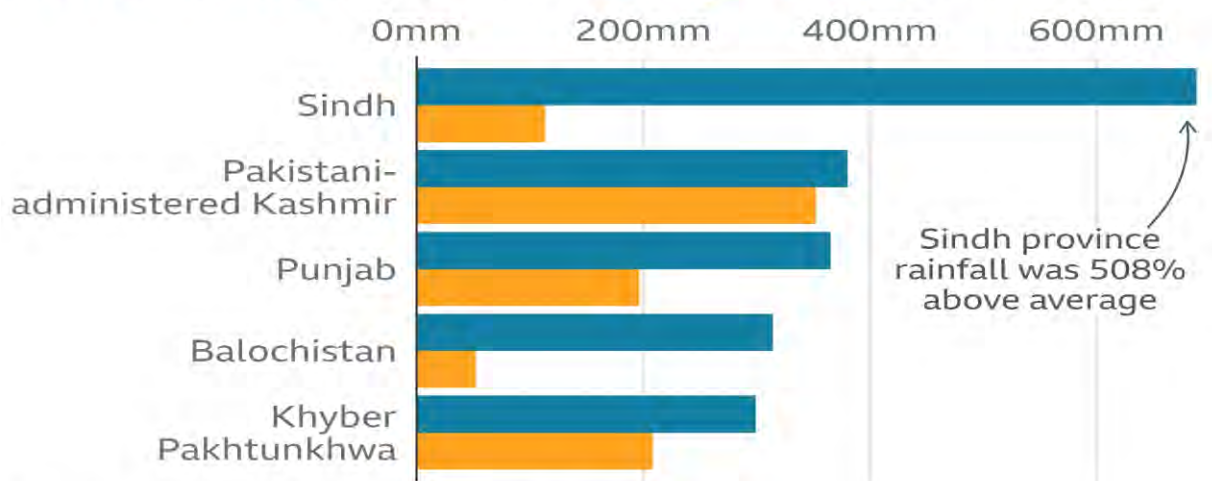
2.2 2022 Floods in Pakistan

The UNICEF believes that the Floods in Pakistan have prevented more than 3.5 million children from finishing their Schooling. It cautions that the longer Schools are closed, the higher the risk that kids won't finish School at all, increasing their chance of being subjected to other sorts of abuse and being pushed into child labor in the impoverished South Asian nation of approximately 220 million people. According to United Nations International Children's Emergency Fund (UNICEF), Pakistan already has the second-highest percentage of out-of-School children in the world, with an estimated 22.8 million children between the ages of 5 and 16 who are not enrolled in School, or 44% of the country's population overall. Many of the regions hardest devastated by the Flooding were already among Pakistan's most vulnerable communities, where 50% of kids were inhibited and a third of boys and girls were already out of

School. Less than six months later, the significant Flooding damage means that pupils are once more excluded from learning. Remote learning is mostly unavailable due to extensive damage to infrastructure, including electricity and internet connectivity, according to UNICEF. In the most severely impacted districts of Pakistan, UNICEF claims to have opened more than 500 temporary learning centers and provided instructors and students with School supplies.

Rainfall well above average in most regions

Rainfall in 2022 compared to average rainfall, 1 Jul-30 Aug



Note: The average rainfall figures are for 1961-2010

Source: Pakistan Meteorological Department

B B C

Approximately two million School-going children have lost their education because of Pakistan's devastating Floods, with 46% of those students being girls, according to Sindh Education Minister Syed Sardar Ali Shah. According to him, initial surveys suggested that over 15,000 Schools were either completely or partially destroyed by Floods, making it challenging for the administrations to carry on with academic activities. He mentioned that there were currently 5,000 additional Schools housing Flood victims. These 20,000 Schools are home to over 2.5 million kids, he added. Even once the Flood waters recede, we don't have the resources to keep 20,000 Schools open. There is concern that these youngsters may quit School permanently.

In Pakistan, worries about education are raised by water damage to Schools. Since August 2010, large amounts of debris, such as bricks, pieces of wood, and smashed household goods in concrete, have been spotted throughout Punjab's southern district, which has been

devastated by Flooding. It could be months before the impacted children can return to School due to the harm that Floods have done to families and School infrastructure (Hussain et al., 2023).

Children's academic performance suffered significantly in Khyber Pukhtoonkhwa's Flood-affected areas. Poor student performance was caused by three factors: first, Schools had to close due to Flooding; second, Flood victims' families were housed in Schools; and third, the accommodation of victims' families resulted in structural, furniture, and fixture damage. These circumstances led to the cancellation of School days and even to the transfer of students to other institutions. Students had trouble adjusting to new Schools and started to lose interest in their academics (Abbasi&Shaukat, 2020).

Children's education is often negatively impacted by high-intensity Floods in a number of ways. The residence became a wet mess as household furnishings, children's books, and standing water were all washed away by the quickly moving Floodwater. Families are initially preoccupied with finding food and housing for women, kids, and other older family members. Then, if the house totally falls, they start cleaning up the wreckage, or if the house is just half destroyed, they clean up and save valuable belongings. Throughout the entire process of suffering from the Flood, after its forced relocation while living in temporarily constructed shelter homes, and finally during the rehabilitation process as the entire family remains in crises one after the other, children's education is given very little or no consideration. Additionally, the lack of teachers, relief camp Schools, and the loss of books and other educational resources all contribute to lowering children's interest in their studies, which in turn results in poor exam performance. Schools may also be unavailable due to Flood damage or because they have been converted into relief camps (Abbasi&Shaukat, 2020).

2.3 Impact of Floods on Education

Children would probably find it much harder to go to School and acquire a good education as a result of the Floods. Between 18.7 and 20.7 million children were not attending School prior to the Floods (PAMS 2021, Government of Pakistan 2019). Additionally, 75% of Pakistan's 10-year-olds were unable to read a book that was appropriate for their age (World Bank 2019). New estimates indicate that learning poverty may rise to 79 percent in the wake of

the recent Floods (Saavedra and Sherburne-Benz 2022). According to the estimates below, at least 1 million more kids might decide not to go to School.

Disasters have a detrimental influence on Schooling and may have cumulative, long-lasting impacts, according to substantial global data (Baez, de la Fuente, and Santos 2010). The devastation of Schools or restricted access to them as a result of the loss of other vital infrastructure (such as roads, bridges, etc.) is the immediate direct impact on education. Disruptions to instruction have negative short- and long-term effects on quality as well as children's abilities to accumulate human capital (Andrabi, Daniels, and Das 2021; Husted, Opper, and Park 2022).

Floods have an instantaneous effect on children's access to education. 51 percent of the families who said that their neighborhood had experienced Flooding said that the Floods had a detrimental effect on their children's Schooling. Over one-third (28%) of respondents said their kids' Schools were damaged or disturbed, and nearly another third (35%) said their kids' Schools were totally destroyed. Sindh and Balochistan were the most common places where water caused damage to Schools. The infrastructure of Schools has been further weakened by the usage of about 17% of them as makeshift housing for displaced families. Sindh was where this condition was most common.

Furthermore, 72% of parents stated their kids weren't studying during the School closures due to Flooding, while 28% of parents said their kids were still learning. Twenty percent of this group said their kids received printed educational materials, and twenty percent said teachers visited their kids. Just 4% of parents said that their children attended distant learning programs, while 9% of parents said their kids completed their education in makeshift classrooms.

Due to limited access to public services like health and transportation, limited employment opportunities in the near future, and the already high cost of education, families may be forced to make less investments in their children's education as a result of the Floods. Numerous calamities have been linked to declines in enrollment, retention, and advancement in a number of different South Asian nations (Andrabi, Daniels, and Das 2021; Jacoby and Skoufias 1997), African nations (Jensen 2000), Latin American nations (Ureta 2006; Santos 2007), and

other regions. Given that 66% of households with children reported income losses during the Floods, these examples highlight the true risk that Pakistan confronts.

It's possible that a sizable portion of kids won't be going back to School after the Flooding. Along with questions about whether their children were "somewhat likely" and "very likely" to attend School, more than half (52%) of parents stated their children would be extremely likely to do so after the Floods. The survey also revealed that 83 percent of households were at least somewhat likely to send their children back to School. Around 90% of families expressed interest when asked about their children's attendance at School if classes started tomorrow. Based on these answers, it appears that between 10 and 20 percent of parents do not think their kids will return to School.

2.4 Comprehensive School Safety Framework 2022-2030

The Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES) updated its Comprehensive School Safety Framework (CSSF) in response to the growing risks to children and education posed by the COVID-19 pandemic, escalating violence, and climate change. The CSSF 2022–2030 offers Governments a practical framework to make quick progress in a number of children's rights and the sustainable development agenda by using all-hazard, all-risks approach to protecting children and education.

Every child should be able to exercise their rights to safety and survival, protection, growth, and participation in education. However, children and School employees are at risk from natural and technical threats, climate change, epidemics and pandemics, violence, conflict, and everyday risks. When these dangers materialize, they have the potential to have long-lasting, cumulative effects on children's development and societies. These effects are felt differentially as a result of gender, disability, and social and economic inequality, placing the most marginalized kids in an unacceptable state of vulnerability.

The goals of CSSF are to take a participatory risk-informed approach to:

- Safeguard students, teachers, and staff from harm, violence, and death in classrooms and other learning environments.
- Plan for continuity in education and protection, and in the face of shocks, stressors, risks, and threats of all types, minimize disruptions to learning.

- Promote learner and duty-bearer knowledge and abilities to aid in risk mitigation, resilience development, and sustainable development.

Expected Outputs

1. The security of all children and employees working in the education field both inside and outside of Schools has increased.

2. In the face of these dangers, the resilience of the educational system is enhanced:

- enabling systems and policies are formed, together with priorities, responsibilities, and actions that have been decided upon at all levels;
- School facilities are safer and greener, and investments in the education sector are protected;
- mechanisms for managing educational continuity and School safety are in place;
- to enable CSSF at the School level, teachers are strengthened and given more power.

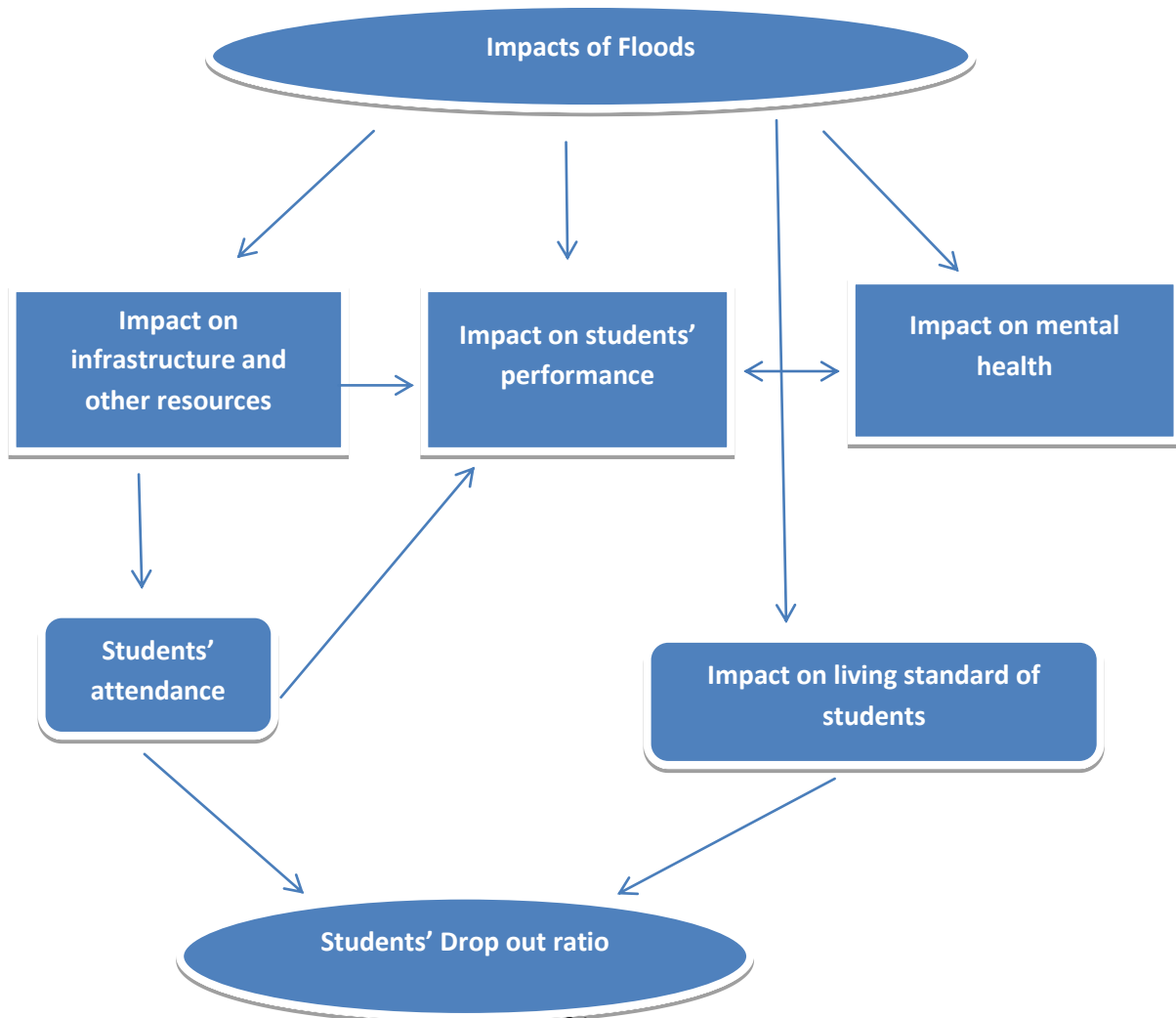
3. Educational barriers to the most vulnerable learners – due to age, gender, disability, digital gap, and social exclusion (e.g., inter-sectional ethnic, linguistic, and cultural diversity, as well as migrants and refugees) are identified and removed.

4. Collaboration across sectors and the triple nexus of peacebuilding, development, and humanitarianism are enhanced.

Chapter 3

Impacts of 2022 Floods on Educational Recovery

In the chapter of findings, the researcher has discussed the results/findings of her research which was aimed to explore the perceptions of the teachers of the impacts of 2022 Floods on educational recovery. For that purpose, interview questions were distributed in two parts. In the first part, teachers' were asked about the enrollment, attendance and performance of students before Floods. In the second part of the interview, researcher asked about the impacts of Floods on School infrastructure and other resources of School and how it affected students' enrollment, attendance and performance. Further, questions related to mental health of students' were also asked. Additionally, teachers were also asked about their experiences and perceptions regarding challenges faced by them during and after Floods. The main findings of this research are distributed in some common themes which are explained below.



3.1 Challenges Faced by the Teachers

First of all the participants were asked about their challenges which they faced during and after rains/Floods when they came to School. It was explored by the researcher that teachers faced multiple challenges. When Schools were reopened the major challenges which were faced by School teachers‘ included closure of School for different time period at different Schools and the ratio of students‘ absenteeism was also increased in every School.

Participants from every school reported that all of the schools were closed in August 2022 due to the nearly 13–14 days of nonstop rain. Rainfall ceased in the first week of September 2022 and began during the final ten days of August 2022. All private schools reopened in two to three days after the rain ceased, while the majority of government and SEF schools opened in early November 2022, about a month later or even later, depending on the state of the schools and surrounding roads. The first issue that teachers encountered, according to participants from a government school, had to close the school for an extended length of time since families affected by flooding were residing there. As a result, the school only reopened around a month after rain. When the staff arrived, the school had not been cleaned; due to the rain, all of the supplies including books, furniture, cabinets, and stationery had been gathered into one room. As a result, it had taken some time to reorganize each classroom and the headmaster's office.

“During rains some families shifted to our School for almost 2-3 weeks because of that School was closed. When we came, School was not cleaned; there was lots of trash because some families lived in our School during rain. There was dust on furniture and some furniture was burnt by families. We complained about that to our headmaster and the higher authority when they visited our School after rains” T2.

Additionally one of the participants from SEF Schools told that

“Some of the families also lived here in our School when School was closed, they were not using our classrooms but outside the classrooms or in corridor they stayed for few days. It took time to reopen the School because we had to clean the School; those families had cattle as well with them in this School. Obviously, we could not say anything to them because it was question of their survival. Thus, our School was closed for more days than other Schools. Now these challenges are overcome with the passage of time” T12.

Another challenge which was faced by teachers of all the Schools including Government, Private and SEF was students' absenteeism. Most of the families were shifted to other cities during rains, so they took some time to come back to their homes. It took almost 2-3 months on average to recover the attendance in Government and SEF Schools while Private School attendance was recovered within 1 month. Like one of the SEF School teachers said that

“Because rainwater was standing in this School and many families whose homes were completely damaged they shifted to Lakhi, so the remaining families who were here, only their children were coming to School. Thus, only 85 out of 112 students used to come to School. And those 85 students were not from our School only, other children who came from other villages also used to come in our School” T11.

Another SEF School teacher told that *“100-110 out of 145 students used to come”* T14. While another SEF teacher told that

“It took almost three week to recover students' attendance because students belong to the same community in which our School building is, so we send our School peon and our School Aya to those families” T15.

In addition to one of the teachers told that

“50% attendance was affected, because most of the people's homes were destroyed so they shifted to Sukkur, it took them almost 1 month to come here. If you will visit this village now, you will see till now many of houses are destroyed and not reconstructed again because people don't have money for that” T12.

Additionally, another teacher told that

“it took almost 2 months to come back to School, because of water standing in this School and road. So, we could not come to School, also we could not find any other place to teach students, water was everywhere” T14.

All the PrivateSchool teachers told that they were in contact with parents, and they emphasized them to send their children to School. Like one of the PrivateSchool teachers told that

–Attendance was very low at that time; we issued notice for parents to send their children to School. Some of the parents were in contact with us through phone; to some families we sent our students and to some families we sent notice” T9.

Another teacher told that *–We were in touch with parents via phone; we also gave parents funds to help them” T5.* Additionally one of the GovernmentSchool teachers told that *–Students’ attendance was affected, because some families shifted to other cities” T2.* Some of the teachers from Government Schools and SEF Schools were also in contact with parents; still they could not send their children to School because of their financial crisis. Most of the children from Government and SEF Schools started working in the fields with their parents while many students started any other labor to help their parents financially.

3.2 Impacts of Floods on Mental Health of Students

When participants were asked about the mental health of the students, it was explored that mental health of students not only affected the attendance of overall School but also on students’ performance. Almost every participant from each type of School told that students were very afraid when they came back to School. One of the teachers told that

–People were very much upset and the children who were coming here were also very upset, afraid and confused” T11.

Most of the students’ homes were damaged, walls and roofs of many houses were collapsed in the villages, they became homeless, water entered into their homes and they had to shift to any other safe place. Most of the students witnessed these incidents at their homes and their surroundings, so they were very afraid to come to School, because they did not want to see such things happening in the School. Because of fear, many students remained absent and parents also did not sending their children to School. One of the participants told that

–Actually, Floods made everyone afraid of the situation, including teachers, students, and parents. The first question of the parents was that what is the condition of School building,

should we send our children to School; there is no danger of the building collapsing, isn't it? So students were very afraid” T8.

Additionally another teacher told that

–Some of the families were really upset to send their children to School because they knew that School was damaged during the rain and some of the rooms were leaked. So they were afraid of any misshapen” T9.

Almost every teacher told that when students started to come to School after rains, they were mentally very disturbed. They were not taking any interest in their studies, which also affected their performance and mid-term grades. Like one of the teachers told that

–Students were very disturbed at that time because of these circumstances. They were not performing well in the class. However, when things started to become normal, they started to come regularly, all things were recovered then” T4.

That situation not only affected students‘ and parents‘ mental health, teachers were also mentally disturbed especially teachers from SEF Schools who were living in the villages, their homes were entirely damaged. Teachers also had to shift to other places. They also faced many difficulties during Floods because they had not only to shift to other safe places, but also they had to continue their jobs and teach students. They used to come to School far from their homes and other villages just for their job. One of the SEF teachers told that during continuous rains, he became very hopeless and he was thinking that their life will not be normalized again, but when they saw sun, he started to become hopeful. He said that

–When I saw sun, I thought everything will be ok now because weather was becoming normal. Personally I was thinking before that life will not become normal, because it was continuous raining, in the morning, in the evening, at night, every time it was raining, so it was very difficult for us to get out of that difficult phase of our lives” T12.

3.3 Impacts of Floods on the Infrastructure and Other Resources of School

Further, participants were asked about the impacts of Floods/rains on the infrastructure and other resources of the Schools like furniture, facility of water and electricity and other teaching material. PrivateSchool teachers told that their School building and other School resources were

almost safe except few PrivateSchool teachers who told that some of their School resources were damaged while most of the Government and SEF School teachers told that their School building and other resources were damaged very badly expects few participants who told that their Schools were safe. The PrivateSchools' teachers told that their School building was safe and did not damage and their other School resources were also safe. Like one of the PrivateSchool teachers told that

"We have two buildings and our both buildings are built very well. Not even a single leakage occurred" T4.

Few PrivateSchool teachers told that some of their classrooms walls and roofs were collapsed which they made repaired during vacation of Floods because in PrivateSchools they have to do all the things by themselves, so they managed to reconstruct the School building. Almost all the PrivateSchool buildings in district Shikarpur are on rent, so principals and administrators either with the cooperation of building owner or by themselves managed to reconstruct and repair the damages. One of the PrivateSchool teacher told that *"School was damaged, but we reconstructed it during Floods vacation"* T7. Additionally another teacher told that

"Our solar system was damaged in which one plate was broken in the wind, and other two plates were not working, so we had to buy new solar plates. At that time the weather was cold, so we did not need it a lot but we need it in the summer. We have electricity facility as well" T9.

Moreover, one of the Government School teachers told that their School building is built very well, so rains did not affect School infrastructure and other resources were also safe. One the contrary one of the Government School teachers who was also PrivateSchool principal told that since 2010 Floods, their Government School building is damaged and they opened their School in the primary School building which is near to their own School. After, 2022 Floods, they started their School in that primary School again. He told that

"After the Floods of 2010, our School building is damaged, till now it is not reconstructed. Near our School, there is a primary School, so we run our School in that primary School building" T8.

Additionally, participants from SEF Schools told that most of their School buildings were damaged during Floods. Till now they have not reconstructed their School buildings, at present time, they have only one or two classrooms, in which they manage to compensate all the students. One of the SEF School teachers told that

–Windows and doors were damaged of each classroom. Classrooms walls were also damaged. School was closed for 4-5 months. We ran School in a tent, but that tent could not accommodate 185 students, so we made shifts” T13.

They have very limited space in their School, without any facility of washrooms except one SEF School in which there were two washrooms. Furthermore, participants from SEF Schools told that their furniture, solar system, and office record was also damaged during Floods. One teacher told that

–As long as it was raining, the School was closed, and after rain, we did not open School directly, because it was not in a good condition, the roofs of the rooms were leaking during rains so we had fear of collapsing; all the furniture got wet. We also could not come to School because the road from where we come to School was not built properly; it is katchiSarak, lots of water was standing there, so we reopened School for I think one week after rains. So I think in total it was closed for at least three weeks” T12.

Another teacher told that

–Roofs of the rooms were leaked during rain, so when we came to School we cleaned it, and also decorated it so that students can easily sit. Then more students started to come” T14.

On the contrary one of the SEF School teachers told that

–We have 7 classrooms and one staffroom in our School. Further, we give students textbooks and other material which teachers use in their teaching is also provided by School. During Floods our School was not damaged, it was in a good condition as it was before Floods. Some furniture was damaged only” T15.

Participants from Government Schools told that before Floods they had furniture, blackboards and chalks in the classrooms and they also had some textbooks stored in the

storeroom. After Floods, when they came back to School some of the furniture was damaged, and some textbooks were also got wet, but till now they are not given any material from Government . They managed to run School with that remaining material. One of the Government School teachers told that

–Every year SMC fund is given to every Government School, but after Floods that SMC fund was also late, we did not have any funds to buy new furniture or repair other small damages of electricity or water facility. Till now we are running our School with a lack of resources” T3.

Further, they told that with this condition of School in which proper electricity and water facility is not available in School, parents did not allow their children to come to School, except one Government School which was in very good condition, with proper infrastructure, furniture, water, electricity and solar facility. On the other hand, the condition of SEF Schools was also not satisfactory, there was very limited space in the classrooms and they have to manage to compensate all the students just in two classrooms, where there is neither electricity, washrooms nor water to drink, in summer, they face a lot of difficulties in teaching students, because students when they feel thirsty, they go to their homes for drinking water and don't come back to School. This lack of proper facilities also affects students' performance because their basic needs are not fulfilled. Students don't participate in classrooms. On the contrary, participants from Private Schools were very satisfied because they have all the facilities in the School, good infrastructure, cleaned and better furniture, washrooms, water, electricity facility and other teaching materials are also provided to them.

3.4 Impacts of Floods on Students' Performance

All the participants from each type of School told that students' performance was affected after Floods/rains and they were observing it while teaching them and when they conducted their Mid-term exams. Their grades were not satisfactory. Like one of the SEF School teachers told that *“Students forgot all the things when they came back to School. Students performance was affected very much” T11.* While another SEF School teacher told that

–At learning level, we faced some difficulties. When students came after Floods, they forgot all the things but they recovered. 80% our students have passed the exams. As per Government

instruction, we have promoted grade 1&2 students, but we conducted exams from grade 3, 4 & 5 students. ASER assessment was also conducted” T12.

Moreover, other teacher told that

–Yes, of course students’ performance was affected. The students of ECE and class two are very young, they were really affected, but grade 5 students are somehow adolescence, they can cover the things quickly as compared to grade 1 or grade 2 students” T14.

One of the Government School teachers told that

–When they came to School, they lost their books, their copies and other material. Some students said that their bags have been damaged when their homes were damaged. However, some students brought their bags. Students were disturbed. Some students forgot all the things, some students covered it quickly, but some students were facing difficulties” T2.

While one of the PrivateSchool teachers told

–Yes, performance was affected and we also informed parents. We also make parents responsible for that and ask them if you will give attention on students’ studies we will promote them otherwise they will remain in the same class. Some parents made promises but they did not give proper attention to their children’s studies. However, I ask my teachers that teach every student in the class no matter how intelligent or dull they are; at least they should get 33% marks in the exams. I think if students are not getting 33% results then they are not getting proper education, I always ask my staff about students’ performance and also inform their parents” T7. Another teacher told that –Yes almost 20-30% students’ performance was affected and they did not get good grades in their exams. So slowly and gradually, it recovered because students were mentally very disturbed. It also took some time to convince parents and children to come to School and get out of shock” T8.

3.5 Impacts of Floods on Attendance and Enrollment

Additionally, when research participants were asked about the impacts of Floods on attendance and enrollment of students, they responded that attendance and enrolment was decreased. Participants from all the Schools said that their attendance was highly affected, almost 40-50% of students used to remain absent. When School was reopened after Flood vacations,

only 30-40% of students used to come. Thus, recovery of attendance took some time. All the teachers and headmasters/principals were in touch with parents. Government and SEF School teachers were contacting parents via phone calls or they were sending some students or teachers to their homes to send their children to School. Some PrivateSchool teachers and principals were contacted through phone calls and also issued notices and sent those notices to students' homes. Comparatively, PrivateSchools recovered their attendance somehow faster than Government and SEF Schools. The reason for fast recovery in PrivateSchools is that students pay fees so parents by themselves send their children to School. Additionally, PrivateSchools were not as damaged as Government and SEF Schools. Moreover, PrivateSchools were in the main city, Floods did not hit those Schools as they hit the Government and SEF Schools which were in villages where water was stood on roads creating hindrances for people to go somewhere and that was the main reason the Government and SEF Schools were closed for a long time period. One of the SEF School teachers told that after rains to recover attendance they organized *Milad* in School in which they invited all the students and parents, and also distributed prizes among students which created motivation and interest among students. That strategy worked there and students started to come to School.

–When students came to School we did not directly started our teaching or pressurized students because everyone was very disturbed so first we organized an event of Milad and invited all the students and we also distributed prizes among students which increased our School attendance even more. Parents also cooperated with us in this regard” T15.

Participants said that Floods created financial crises for almost every family, especially those who were working in the fields or those who were earning on a daily basis in the shops or doing any other labor. Many people became jobless and homeless. They were struggling to survive and fulfilling their basic needs. When people's basic needs including food, water, clothes, or home are not fulfilled, education becomes their secondary choice, and they prefer their survival rather than getting an education. Thus, many students started working and engaged in child labor to fulfill their basic needs which not only reduced attendance in Schools but also some students were drop out of School. One of the School teacher told that *–Some of the students remained absent who used to work in fields with their parents” T13.* Participants from all Schools said that their attendance was reduced, but it was recovered after 2-3 months.

PrivateSchool participants said that some of their students left School because they could not afford the expenses of education in PrivateSchools. Although the Government announced the discount policy in which discount was given to students in their monthly dues from every PrivateSchool some students were dropped because of inflation. One of the teachers told that

–Yes, some of the students were dropped, at least 4-5%” T4, while another teacher told that–Out of 650 students, 40 students were dropped.It happens because this district is very poor district. People are Government servants than businessmen. People have very limited income, so it occurs sometimes” T7.

Additionally another teacher told that

“Floods affected enrollment. Almost 20% enrollment was decreased. The enrollment of School was reduced because most of the students’ parents are laborer. So they dropped their children from School and they started making their children to work because they were suffering from financial issues” T8.

From those dropped students, some students got admission to Government Schools to continue their education. Furthermore, one of the Government School teachers who was also the School in-charge said that the ratio of dropped students was higher than the students who got admission to Government Schools.He told that

“Yes some of the students got admission in Government School.There were more students who were dropped than students who got admission. That GovernmentSchool is high School, and now we have 200 students there. Actually, in that area parents are not concerned about their children education so it affects overall students’ attendance and enrollment” T8.

Another participant told that

–No madam these students can’t afford to buy books, they even can’t afford to buy a pencil. Parents want us to do all the things. Here, parents and students depend on their teachers only” T11.

Additionally, one of the participants told that

–We have students from middle and lower middle class families. We have businessman, some parents are shopkeepers and doctors. We have only 2% upper middle class students; mostly we have middle class students” T4.

3.6 Process of Recovery at Different Types of Schools

It was explored that the process of recovery is different in different types of Schools depending on the policies and rules regulations of the School or the amount of financial support which Schools get from the stakeholders.

The first thing which participants from Government School told about the process of recovery after Floods was that Government School teachers and principals/headmasters don't do anything by themselves especially when it comes to buy furniture and other resources or to reconstruct the School building when it is damaged. They wait for the orders of Government and School funds. Any official person visits School, they have to present the report of School, its damages or unavailability of any resource. When it is approved from higher management, then they are given funds and resources and this is very long process which takes time. Resultantly, Government Schools' disaster recovery occurs very slowly.

PrivateSchool participants told that their School recovery occurs very fast because they don't have to wait for any Government order or approval, neither they wait for funds. PrivateSchools work independently. If because of any natural disaster like Floods any resources or School infrastructure is damaged, they recover it at the very same moment. One of the PrivateSchool teacher told that *–School was damaged, but we reconstructed it during Floods vacation” T7.* Another teacher told that

–With the cooperation of the building owner, we managed to reconstruct the building within a month. PrivateSchools, they are very active, because they want to increase their attendance and enrollment” T8.

Further, they told that PrivateSchool is like a business, if they will not provide satisfactory services to their customers (students and parents), they will get loss in the form of low enrollment of School. In case if there is low quality of education at School, parents drop their children from School and admit them in other School where they are provided with better services. Additionally, PrivateSchool teachers are also responsible for teaching effectively in the

classrooms because in PrivateSchool parents complain if their children don't learn anything or don't get good grades while in Government School, teachers just go to School for attendance and teach students at their own wish. No one ask them to conduct class. There is lack of proper check and balance in GovernmentSchool. On the contrary PrivateSchool teachers are properly evaluated on the basis of their performance.

Participants from SEF Schools told that officers from Private organization under which their School runs visits School after disaster, take entire report of School damages, and send some resources including textbooks, and other relevant material. However, many participants had complained about School infrastructure and other School facilities like lack of electricity or solar system, lack of water facility and lack of washrooms in the School. Textbooks, furniture, registers and cupboards for office which are given to them were also not sufficient. Some students get textbooks, others are asked to wait and in this session end. If they are provided with fans in School, those are also not enough for every classroom. Most of the teachers from SEF Schools were not satisfied because of lack of support from Private organization. One of the teachers told that

–Before Floods they used to give us stationary for students at the time of exams. But now we have not got anything, if someone visits our School they bring some material here but when we ask them to bring material they don't give us. Now they ask us to bring material by your own, now you tell me we are given just 10000 rupees salary, how can we manage it” T11.

Another teacher told that,

“There is very little support from institution,here is not even a single washroom in our School. They give us material as per their own wish, this time they have told us that because of Floods they are provided with less number of textbooks” T11.

While another teacher told that

–They provide us material, but sometimes they don't. But we understand, this is not the only School for them, they have other Schools as well. Overall they are supportive. A month ago, they have given us School material” T12.

Moreover, other teacher told that

–They support us, but not that too much which they are supposed to do. Doors of washrooms are still broken. There is not a proper water facility. If we are keeping solar facility, people steal solar plates. Students sit here, but it's very hot here. Students go to their homes for drinking water, and don't come back. We have requested sir to give any peon or gate keeper or any helper for doing these small works but still we don't have any peon. We are requesting them since 2017” T13.

Additionally, the performance of teachers is properly checked, they have to give report of everyday in a Whatsapp group which was made by that Private organization.

In addition to this, one of the SEF School teachers told that

–When we started this School in 2017 most of the Government School children came here because at that time our School was the best School, students were getting quality education from this School. But someone took action on Government School teachers to bring their students back to School so the teachers were very strict with the children now children go to Government School because of their teachers' fear. But students are very happy here in our School because we engage students in different activities and games. In Government School teachers are not punctual and they don't teach students anything. Now we have listened that someone has strictly ordered teachers to go to School and teach students. Now students go there and learn something” T11.

3.7 Implementation of Strategies to Overcome the Challenges Caused by 2022 Floods

It was found that each School management used different strategies to overcome the challenges caused by 2022 Floods. Those strategies included discount in fees, promotion of students till grade 3, and reduction of syllabus. Further, SEF Schools opened temporary learning camps till the reopening of School. Teachers used multi-grade teaching when attendance was very short and then syllabus was also repeatedly taught by teachers when all the students started to come to School.

Participants told that after Floods when most of the people lost their source of income, it became difficult for them to send their children to Private School or bear their educational expenses. Thus, Government announced and issued a notification in which order was given to all

PrivateSchool administrators to give discount to deserving students. One of the Private teachers told that

–After Floods we gave three months to parents to submit their remaining dues. And one more thing, all the PrivateSchools gave 50% discount in their fees after Floods. Government also asked PrivateSchools owners to give relief in students’ fees. We were in great loss but if we will not do so our enrollment could be affected very much, we were helpless because both Government and Supreme Court took decision and announced to give relief. Thus, almost all the Schools especially those Schools who were afraid that if they will not give relief their School will be closed and their businesses will be closed, they gave relief to students in their fees. Those Schools which are very high standard PrivateSchools they recover their fees very quickly because in those Schools children’ parents can easily afford the education expenses of their children. But in lower level School, students get relief, and if three to four siblings study together, they also get some discount in normal days as well. Further, in Covid19 we did not get fees of 7 months and we only got 50% fees at that time. And some students did not even pay for a single month, but PrivateSchool principals have to run their Schools so they give relief. People take advantage from low level PrivateSchools” T8.

Most of the participants told that it is general policy of the Sindh Ministry of Education to conduct exams from the students who are in grade 4 and above, those who are studying in between ECE to grade 3 are promoted without exams. However, some participants told that they conduct exams of all the students so that they can decide whom they should promote and who will remain in the same class. Like one of the PrivateSchoolteachers told that

“It is Government policy that we are not supposed to conduct exams from ECE to grade 3, these students are directly promoted every year. In GovernmentSchools exams are conducted from grade 4. Further, PrivateSchool don’t follow this policy of Government, they conduct exams of every students. Another thing from which PrivateSchools take advantage is that they earn from exams fees. This is annual income of PrivateSchools, because from monthly income they don’t earn too much, from monthly income they just fulfill their monthly expenses” T8.

Other teacher from SEF School told that

–We used to conduct exams from all the students but it has been two years we are conducting exams from three and four class students and this year we conducted exams from four class students only” T11.

In addition to this, another teacher told that

–we have classes from KachiPehrinto 8th, we don’t fail students till grade 3, but we conduct exams so that they can get experience of exams. Further, we make levels of students according to their performance after conducting exams then we promote or keep them in the same class” T15.

Most of the participants from each type of School told that after Floods when most of the School attendance was affected and students were mentally disturbed so they decided to reduce the syllabus. One of the teachers told that *–We in PrivateSchools took all the exams of every subject but we reduced our syllabus” T8.* Other teacher told that

–We skipped some topics from our syllabus which were tough or difficult to understand because students after Floods were not only mentally disturbed they were also physically weak so we did not want them to get burden of their syllabus” T15.

One of the SEF School teachers told that

–We make weekly and monthly syllabus, but we reduced it after Floods because students forgot all the previous concepts and things which they had learnt before” T11.

On the contrary, one of the teachers told that

–No, we did not reduce syllabus, once syllabus is approved; it can’t be reduced, although we repeated our topics, because students forgot previous topics, but we tried to manage our syllabus and it was the major challenge for us. But after Floods we changed our strategy, before Floods we used to make monthly lesson plan, after Floods, we have started to make weekly syllabus, because nature is very unpredictable” T12.

SEF School teachers told that after Floods when their Schools were damaged and they could not reopen the School immediately so they started to teach students in learning camp. One of the teachers told that

–We were facing lots of difficulties in teaching them. Even students did not want to come to School. We made TLC (Temporary Learning Camp); we decorated our place to engage students. It took at least a week to overcome children’s fear. But the challenge of that camp was that it was becoming very hot, those days were very hot even parents were complaining about that. Parents were very much concerned about the health of their children. So we requested sir (ITA Manager) to solve this problem, then they gave us fans and solar plates. We ran School in camp for two months. After two months we were given order to reopen the School because families were returning to their own village and our School children were coming to School, again we faced similar challenges because when parents saw the condition of School which was much damaged, they were afraid that School building can collapse anytime. So we talked to parents and convince them to send their children to School because we teachers are also coming here” T11.

Another SEF teacher told that

–Some furniture was also damaged, record was got wet, but it is safe and recovered now. We came to School during rain to see the condition of School, but because of water we could not open the School. For few days we opened our School in Otaq, after two months we reopened our School when water got dry” T14.

After Floods when few students were coming to School, teachers used multi-grade teaching strategy to teach students and engaged them. Like one of the teachers told that

–We used multi-grade teaching strategy because attendance was affected. So, we all four teachers were teaching combine to all the students. The material we did not have, so we developed our own low cost material. We engaged students practically” T12.

Other teacher told that *“Actually students don’t like to sit with the students of another class, but we did it and we make them understand because we had shortage of teachers”* T2.

Teachers told that when they came back to School after Floods students forgot the topics which they had learnt before Floods, so they had to repeat the topics. Like one of the teachers told that

–For me the main challenge was that after Floods some of the families were shifted to other villages or cities because their own homes were damaged. So students from those families came to School after a very long time period. So we faced difficulties to teach students because some of the students who started to come to School after Floods were really good in some topics because they learnt it already, but those who were coming late were not known to those topics and concepts, so we had to teach separately to all those students” T10.

Additionally, another teacher told that

–As I have told you that for example if before Floods the level of students was on lesson three, then after Floods their level was not on lesson three. So we had to repeat our topics. Because mentally they were disturbed” T12.

Other teacher told that

–After Floods we started our teaching with the repetition of the previous topics. In the start we faced many difficulties to teach students, to cover the syllabus, but then we completed it after some time period” T14.

3.8 Routine Challenges Faced by SEF Schools Teachers

It was found that even before the Floods, SEF School teachers faced some challenges on daily basis including increased enrollment and lack of space and other resources in Schools. Further, there is *Wadera*'s control in School who does not allow people to get education and because of that people don't appreciate children to go to School especially there is restriction on girls' education.

SEF Schools' teachers told that they have very limited space in their School, every year new students come to School for admission but they don't admit them because of lack of space in School. One of the teachers told that

–Some of the families, who shifted here in this village, send their children in this School, still now students are coming for enrollment but we have stopped our enrollment because we don't have space now. (We have classes from one to four and new students of ECE)” T11. Other teacher told that –We could not enroll more students because we did not have further space. In every class we had already 35 students. In 2022 we opened admission and enrolled 80 new students. This year

we have 100 new admissions but we have space issues, we don't have classrooms. We don't have fans in our classrooms; it's very hot here we cannot sit in tent for even 5 minutes. Furniture is broken. So we can't enroll more students" T13.

One of the SEF School teachers told that it is their routine problem that they don't have resources in their School. He told that

–No, we did not have material even before Floods. Some material was provided in the camp but from there we could not bring it here. Still we are not provided with material. Even our cupboard is not here in our School in which we used to keep our records and other material because someone was stealing our material from that cupboard, so we have placed that cupboard in village's wadera's home. Only textbook and other small things are here with me that I daily take with me to my home and bring it here" T11.

One of the SEF teachers told that there is *Wadera's* control in this village and because of him they cannot do any progressive thing in the village. Like he said that

–Our village is very backward. There is not a single Government School here. No one is educated here. Actually here is zamindari system; the Wadera of this village does not want us to get education, get good job. He wants us to work for him only. Our father use to tell us that once they made approval of Government School but wadera of this village did not make it happened. This village is large compared to other nearby villages, and in those villages there are Government buildings but we don't have a single Government building here".

Further he told that,

–They just don't want any Government School here; any institution can run School, he will not do anything. I am trying very hard to educate the children of my village. It's my wish to teach them" T13.

Moreover, telling about his village he told that

–Our roads were filled with water; we could not go anywhere, which was very challenging. Wadera and other authoritative people only save their own area and damage other areas by sending water to other villages" T13.

SEF Schools' teachers told that in their village, girls are not allowed to get education; they hardly come to primary School. One of the teachers told that

"We have only one School in our village other School is 4 km away from here, these students can't go there. Now we have passed 30 girls this year but they can't go for their admission in grade 6 in that School. You know the environment of village; parents will not allow their girls to go far away. We have requested higher management of this School to give us permission for elementary School just for these girls. From this whole village I am the only person who has done intermediate. There are 400 houses. 1-2 other boys have done matric" T13.

Other teacher told that

–Actually we have some girls aged 10-12 years but parents don't send their daughters to School because here we are all male teachers. There is not a single female teacher, so they are not allowing their daughters to come to School. Even though we talked to them that if you are not sending their daughters to School, at least they should study at their homes because their brothers and cousins are coming here so I suggested them to ask their boys to teach those girls at home. But they did not give positive response" T14.

3.9 Recommendation

Teachers from SEF Schools also gave some recommendations for their Private organizations to consider it for the betterment of both teachers and students. One of the teachers told that

–We want our higher management to cooperate with us; at least there should be washroom, proper water facility and fans in our rooms. We are coming from very far; there is a lot of distance between our homes and Schools, we want them to increase our salary so that we can come by any vehicle but they don't increase it" T11.

Other teacher told that

–There should be teachers' training especially after disasters. It will be very good because if teachers will be mentally prepared for this, he/she will better teach his/her students and will be able to overcome his/her personal challenges as well" T12.

Additionally, another teacher told that

“I want organization to help us in decorating or painting our School, so that students can get interest and motivation to come to School. Further, I also motivate parents to send their children to School” T14.

Discussion and Conclusion

This research aims to explore the perceptions of teachers of the impacts of the 2022 Floods on educational recovery, in which teachers were asked about the major challenges they faced during and after the Floods, how they overcame those challenges, how Floods impacted infrastructure, School resources, attendance, enrollment, students' performance, and their mental health and how they recovered from all these challenges to give students' quality Education. The findings of the current research will be discussed in this chapter.

Exploring teachers' perceptions and their experiences of the 2022 Floods, it was found that all the teachers faced multiple challenges during and after the Floods. The first and foremost challenge was to reopen the School when there was stagnant water on roads and in Schools as well. Thus, School authorities announced Flood's vacation because some Schools were damaged; others were closed because of stagnant water, while some of the Schools were used as shelters for Flood-affected families. All the Schools were closed until they managed to reopen it. Private Schools were opened a bit earlier than Government and SEF Schools because they work independently and they reconstructed their buildings on their own if it was damaged. Government and SEF Schools were reopened a bit late because of Flood-affected families in their Schools and it took them some time to find an alternative place for School buildings if it was damaged. Some of the SEF Schools were run in temporary camps after Floods and one of the SEF Schools was run in Otaq (Sindhi's guest room for males).

Nevertheless, when Schools were reopened, teachers faced multiple challenges including students' absenteeism, shortage of resources, lack of students' interest in studies, and disturbed mental and physical health of students. Private Schools recovered all the damages very fast and managed to come back to normal School routine by contacting parents. They informed all the parents about the reopening of the School to decrease students' absenteeism and principals instructed their staff to help students in their studies by repeating the already covered syllabus. Teachers repeated the syllabus because most of the students when they came back to School forgot all the topics which they had already learnt. As students from Private Schools belong to financially stable families bring their textbooks and copies from home and teacher material was provided to teachers by the School so they recover their attendance and studies. In addition to this, Government and SEF School teachers also contacted parents to reduce students'

absenteeism, yet most of the students remained absent because their homes were damaged during Floods and they shifted to other villages and cities, while some of the families were not sending their children to Schools because they were very afraid of rain and Floods. However, when the situation improved, students started to come to School.

Now the other challenge of SEF School teachers was to compensate a large number of students in just two classrooms because their other rooms were damaged. They were lack of resources including furniture, water, and electricity facilities, so they started to run School in shifts. Parents also complained about that, yet teachers could not do anything because they were waiting for the Government's support. The other challenge was to help students in their studies because they forgot all the previous topics. Teachers repeated the already covered course and retaught them yet they were not performing well. All the participants told from every School including Private, Government, and SEF teachers that when they conducted mid-term exams of students after the Floods, they noticed a change in students' grades because they could not study well due to the Floods. It took some time to recover students' performance. When students' final exams were conducted in March 2023, they performed very well and improved their grades.

However, it was also found that the condition of SEF Schools was not satisfactory even before the Floods. Teachers said that in their Schools, they already were lack of resources; Private organization gives them very limited resources. It does not even give all students textbooks before Floods. Moreover, they had very limited space in School and they didn't enroll all the students who came for admission. Every year some students are left and they don't get a chance to get admission to School, and the 2022 Floods increased the ratio of out-of-School children. Additionally, SEF Schools are located in villages where there is not any other School around. Children from nearby villages also come to that School. One of the reasons for less number of Schools in villages is that people from those villages are not educated so there is not any single Private School. Parents also prefer to engage their children in child labor because they have limited income and struggling very hard for their survival. They work hard to meet their basic needs only; getting an education is not their priority. Furthermore, the *waderas* of those villages don't want village children to get an education, so they have never tried for any Government School to open in their village. They want their villagers to work in the fields and work for them. Another challenge of SEF Schools is that there are more male staff than female

staff. One of the major reasons for male staff is that females find it hard to do a job in other villages because the villages in which SEF Schools are located lack educated girls, so girls are hired from other nearby villages. Moreover, lack of facilities like lack of female washrooms, lack of water, and electricity in Schools are the reasons girls don't prefer to do School teacher jobs. As a result, parents don't allow their daughters to go to School because there is only male staff in School. In SEF Schools the ratio of boys is higher than girls.

Apart from this, it was found that the 2022 Floods affected many families' businesses and their source of income as well. Resultantly, it affected children's education. Most of the families who were suffering from financial crises either dropped their children from School or sent their children to Government Schools instead of Private Schools. However, it was explored that the students' dropped ratio was higher than those who were getting admission to Government Schools. In addition to this, Floods also affected the annual income of Private Schools because when the students were dropped from Private Schools, they did not pay their dues. Other remaining students also submitted their dues very late. Looking at the financial crisis of many families, the Government also issued a notification regarding the discount on students' fees in Private Schools. Resultantly, Private Schools owners had to compromise on students' fees and bear loss. They did not only give students' discount in their fees, rather they also utilized their savings in reconstruction of Schools.

To overcome the challenges caused by the 2022 Floods teachers used some strategies like in order to increase students' attendance they met students and parents personally and also sent notices at students' homes. Further, they also contacted parents through phone calls. Moreover, to improve students' performance and not put pressure on students' mental and physical health, they reduced the syllabus and gave students some time to recover properly either mentally, physically or academically. However, infrastructural damages and other resources were recovered quickly in Private Schools because Private Schools run independently without any organization's financial support and they also had to run their business. It was the only option for Private School owners to make their Schools' condition better for students; otherwise their Schools could be closed for forever because in other case students from Private Schools easily get admission in another School. On the other hand, the buildings of Government Schools that were completely damaged are not reconstructed till August 2023 and those Schools are not reopened,

while those Government Schools that were slightly damaged were reopened after Floods vacation. Moreover, SEF Schools were also reopened after the Flood's vacations, but their condition is not much satisfactory. They have two classrooms in each School without any proper windows and doors. Water, electricity, and washroom facility is also not available in Schools. A Private organization has provided some materials like solar plates and fans but they are also not sufficient for their School space. Further, a limited quantity of textbooks and other office materials is given to them. It has been almost one year, yet they are not provided with any kind of support from the Government or their Private organization.

From above discussion it can be concluded that Floods and monsoon rains in Sindh especially in district Shikarpur severely affected the overall education system of that particular area. All types of the Schools including Government, Private and SEF Schools don't have any plan to overcome challenges caused by Floods or heavy monsoon rains. The preparedness to cope up with any disaster among these Schools is equal to nothing. They don't have any alternative resources for recovery. Resultantly, educational recovery becomes very slow. Instead of resolving this issue at the very first hand, the Sindh Government and other official bodies give it second priority because when any kind of disaster hit this district, the survival becomes first priority. Schools are used as a rehabilitation centers during these days.

Recommendation

It is recommended to policy makers and Ministry of Education of Sindh province to design some educational policies regarding fast educational recovery of institutes especially Schools to resolve the issues caused of any natural disasters like Floods. It is also recommended that there should be some post disaster rehabilitation strategies for every educational institute in which the safety of students, teachers and other School staff should be ensured. Further, each School should have an alternative plan for recovery in case if one strategy is not working, there should be enough resources and facilities for fast recovery. In addition to this, it is highly recommended to Sindh Government and Ministry of Education to conduct teachers training in which teachers should be trained about how to teach students especially after Floods when teachers and students both are mentally disturbed.

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Head Teacher, T12, SEF Assisted Agahi School System Rasool Bux Burro UC Jano Sharif Taluka Shikarpur (08.06.2023, Thursday)

Head Teacher, T13, SEF Assisted Agahi School System Fateh Muhammad Brohi UC Sultankot Taluka Shikarpur (08.06.2023, Thursday)

Head Teacher, T14, SEF Assisted Agahi School System Soomar Khan Jafri, PirBuxShujra Tehsil Khanpur (10.06.2023, Saturday)

Head Teacher, T15, Foundation Assisted School Maps, JunejaMuhalla, LakhiGhulam Shah (05.06.2023, Monday)

Principal, T4, Excellence Grammar SchoolShikarpur (03.08.2023, Thursday)

Principal, T7, Hira Public SchoolShikarpur (03.08.2023, Thursday)

Principal, T8, Indus Public SchoolKhanpur (03.06.2023, Saturday)

Teacher, T1, Primary School Teacher (PST), Government Girls Primary SchoolLakhiGhulam Shah (02.08.2023, Wednesday)

Teacher, T10, Indus Public SchoolKhanpur (03.06.2023, Saturday)

Teacher, T2, Primary School Teacher (PST), Government Girls Primary SchoolLakhiGhulam Shah (02.08.2023, Wednesday)

Teacher, T3, Primary School Teacher (PST), Government Girls Primary SchoolLakhiGhulam Shah (02.08.2023, Wednesday)

Teacher, T6, Excellence Grammar SchoolShikarpur (03.08.2023, Thursday)

Teacher, T9, Indus Public SchoolKhanpur (03.06.2023, Saturday)

Vice Principal, T5, Excellence Grammar SchoolShikarpur (03.08.2023, Thursday)

Appendices

Interview Guide

Interview questions for principals

What is the total enrollment of your School (before and after Floods)?

What is your daily attendance of School (before and after Floods)?

How many classrooms and offices are there in your School?

What are other resources in your School (Lab, textbooks, stationary, etc.)?

Up to what extent Floods have damaged your School resources?

What kind of challenges you as a principal faced when you reopened School after Floods?

How you respond to those challenges, what were your main strategies?

How Government helped after Floods?

Interview questions for teachers

Class and subject of teaching

Experience of teaching

Total number of students in the class

Daily attendance

What do you think how Floods have affected you as a teacher and your students?

What kind of challenges did you face in teaching students after Floods?

Did you feel any change in students' behavior or way of learning after Floods?

How did you help your students in their learning then they were having any difficulty?

SUMMARY OF DAMAGE, LOSS, AND NEEDS

TABLE 1: Damage, Loss, and Needs by Region

Sectors	Damage		Loss		Needs	
	(BillionPKR)	(Million US\$)	(BillionPKR)	(Millio nUS\$)	(BillionPKR)	(Millio nUS\$)
Balochistan	349	1,625	541	2,516	491	2,286
Khyber Pakhtunkhwa	201	935	141	658	168	780
Punjab	111	515	122	566	160	746
Sindh	1,948	9,068	2,444	11,376	1,688	7,860
Cross-Provincial ¹²	587	2,731	14	67	975	4,540
Special Regions ¹³	7	32	11	49	10	48
Grand Total	3,202	14,906	3,272	15,233	3,493	16,261

TABLE 2: DAMAGE, LOSS, AND NEEDS BY SECTOR GROUP AND SECTOR

Sectors	Damage		Loss		Needs	
	(Billion PKR)	(Million US\$)	(BillionPKR) (Millio nUS\$)	(Millio nUS\$)	(BillionPKR) (Millio nUS\$)	(Millio nUS\$)
Housing	1,200	5,586	137	636	592	2,757
Health	23	109	7	34	40	188
Education	120	559	47	219	197	918
CultureandHeritage	1	6	1	7	2	9
InfrastructureSectors	843	3,927	85	396	1,168	5,437

Resource: The Government of Pakistan, Asian Development Bank, European Union, United Nations Development Programme, World Bank