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Assessing the Impact of 2022 Flood on School Education in South Punjab

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ABSTRACT

Floods have repeatedly been playing havoc to Pakistan. The 2022 flood was one of the worst floods in the history of Pakistan. It badly affected the socio-economic sectors in Pakistan. The education sector was also affected seriously. South Punjab was the worst affected region in Pakistan. That is why, educational activities were disrupted badly. Qualitative research design besides with explanatory and interpretive techniques is used in this study. For data collection, secondary sources, i.e. published books, journals, articles, newspapers, etc. is used. The study finds out that 2022 flood highly impacted the educational performance in South Punjab. Educational activities were disrupted. Schools remained closed for several months as schools' buildings and class rooms were collapsed; schools' buildings and premises were used as relief and temporary shelter camps. Students' enrollment was decreased and dropout ratio was increased. However, Disaster Risk Reduction techniques and flood resilient schools' buildings are vital to carry on the educational activities unhindered.

Keywords: Flood, Disruptions, Climate Change, Education, Resilience, Infrastructure.

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Introduction

The major climate change induced event is floods. Floods have been listed as top five natural disasters. Many countries witness floods every year as floods affect two-third population across the world every year. South Asian nations are more vulnerable to floods. Among these nations, Pakistan is largely affected from these floods almost every year. In 2015, Aqueduct Global Flood Risk Ranking has ranked Pakistan at 5th in the list of countries which are more prone to the adverse effects of climate change. Since the inception of the country, Pakistan

had witnessed almost 30 minor and major floods. But the worst type of flood in the history of Punjab was the flood of 2022. There are two types of floods in Punjab, Pakistan. One is riverine floods and the other is flash floods. Riverine floods come from rivers. Indus River and its tributaries i.e. Chenab, Jhelum, Ravi and Sutlej are the main source of riverine flooding in South Punjab. The heavy rainfall on the Himalayan ranges and catchment areas and massive melting of glaciers also cause riverine floods in South Punjab. The tributaries of Indus River merge with it at Panjnad, Kotmithan;



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increase the water level and hence cause mighty floods in South Punjab mainly districts Dera Ghazi Khan, Muzaffargarh and Rajanpur. The other type of floods is flash floods. They are not as mighty as the riverine floods are but their sudden occurrence causes huge human and economic losses. Flash floods come due to hill torrent factor. Hill torrents are located in Dera Ghazi Khan, Muzaffargarh and Rajanpur. Heavy rain occurs on Sulaiman hills. The massive accumulation of water outflows suddenly and washes away everything come its way. That is why: besides with riverine floods, flash floods also played havoc 2022 in these districts.

Pakistan is the most flood affected country in the world. Since the inception of Pakistan, floods have repeatedly been causing massive destructions. In past, floods resulted in huge socio-economic losses including the losses of human lives, disruptions in infrastructure and economic, agricultural and livestock losses, destruction of schools and health centers, etc. Being a fragile state, Pakistan remained in a conundrum situation to meet these floods induced losses. Pakistan which has already been suffering from socio-economic challenges like hunger, poverty, illiteracy, inequality and health, climate change induced floods further worsened the fragility of Pakistan. The 2010 and 2022 floods in Pakistan are the instances of it as they affected millions of populations of Pakistan. There are various reasons of floods in Pakistan. The main reasons of the floods in Pakistan are the mighty monsoon rainfall, torrential rainfall, shortage of dams, decreasing the water storage capacity of the existing dams, etc. But climate change is the major cause of flooding in Pakistan. Climate change refers to big, long lasting changes in weather pattern and how the weather works around the world. The continuous rapid increase in earth temperature is resulting in more changes in climate.

The aim of this study is to assess the impact of 2022 floods' disruptions on the school education in the South Punjab. It was difficult to study the whole South Punjab and thus this study has been narrowed down to only three districts of South Punjab, i.e. Dera Ghazi Khan, Muzaffargarh and Rajanpur. So, the findings got from these districts would be helpful to know the impact of 2022 flood on the school education from the rest part of the South Punjab, whole province Punjab and the entire country as well. This study highlighted that 2022 flood disrupted school education in South Punjab

especially in districts under study by destroying schools' buildings, infrastructures and losses of learning materials. It also impacted educational performance by increasing the ratio of dropout and decreasing the ratio of enrollment. Flood induced migration was the major reason of it. This research further highlighted that this flood highly impacted psychological wellbeing of the teachers and students. It probed that there were large educational losses but governments, NGOs and civil community played active role to mitigate educational losses through quick recovery and rehabilitation efforts.

Literature Review

The existing literature is reviewed in order to understand and assess the impact of 2022 flood on education in the South Punjab, Pakistan. Literature review assisted me to understand research design, to explore relevant studies, and to highlight gaps in existing literature.

Samad & Sheikh, (February 2024) explores in their article 'Catastrophic Sways of Floods on the Education Sectors in Pakistan' that the 2022 floods had heavily impacted on the already weak education sector in Pakistan. The repercussions of floods ranged from the disruptions of the school's buildings to administrative and institutional infrastructure destructions. The infrastructural damages developed more hardship for the students to reach schools. They said that floods further resulted in mass migration. Effected people settled somewhere else. Some of the families returned and some families did not come back. So, it resulted into a large scale of student absenteeism and drop outs of the students. Moreover, floods had also psychological and economic impacts on the victim families. It upset them psychologically. They became distress and drop out their children from getting education. Floods further put massive economic constraints on their already poor economic conditions. They took their children from schools and sent them at several work places to earn something to meet the livelihood expenditures. After floods, many schools had been declared ghost and unfit for operations. They suggested that reconstruction of the damaged schools, teacher training, coordination and cooperation among several departments, inter-sectoral cooperation to reach out the poorest and provision of Temporary Learning Centers (TLCs) were necessary for proper

uplifting school education.

The 2022 flood severely affected Pakistan. Two million students were affected and they became unable to get education. 27000 schools were either partially or totally damaged. Millions of students went under traumatic condition due to the loss of their homes, family members, and school's buildings and related paraphernalia. Once they left schools, their returning to schools became uncertain. Most of the students left schools for ever. This further aggravated the already low literacy rate in Pakistan. Pakistan has already 22.8 million children out of schools and hence stands at 2nd at world rank in terms of out of school children (UNICEF, 2024 and 2023).

The 2022 flood induced by monsoon rainfall and flash and torrent floods destroyed 3115 km of roads and 439 bridges. This disrupted to road networks and infrastructures which created difficulties for the students and teachers to reach schools. This resulted in large absenteeism and hence increased the dropout ratio of the students. Moreover, it further brought health issues such as vector and water borne diseases, and severe respiratory problems. Around 8 million flood affected people needed health services. The stagnant water, damages of infrastructure and inadequate sanitation facilities further undermined their education (Wang, et al; 2023).

Manzoor, et al; (2022) investigated that 2022 flood played havoc to the public sector educational institutions. It is estimated that around 17205 educational institutions including primary schools to higher secondary schools, colleges, vocational and technical, special education institutes, training centers and universities were affected by it. Nearly 10980 educational institutions were partially destroyed and around 6225 educational institutions were fully destroyed by it.

Lieven, (2012) argued that Pakistan had been facing impacts of climate change perpetually. The major impacts of it are the massive floods and the ecological disasters. He further told that Pakistan had been facing the issue of ecological change which was more dangerous to insurgency. The devastating floods and ecological disasters have massively damaged and weekend the system of Pakistan. Floods have been destroying the infrastructure which is vital for the economic development. They are also destroying towns and

villages. A large scale of dislocation of the masses have been witnessing for last many years. He further expressed that climate change would result in the melting of the glaciers. The melting of glaciers will further result in rise sea level. So, it will pose existential threats to Pakistan. After the melting of glaciers, Pakistan will gradually be dire. Thus, the combination of climate change, floods, ecological disasters, and fragile water infrastructure have ability to weaken Pakistan and its society.

Lodhi, (2011) explored that floods emanated from climate change and heavy monsoon rains posed immense losses to Pakistan. They have resulted in massive disruptions and displacement. Twenty million people had affected by it. It added fuel on the fire as they had already been facing hardship and misery. It is a big challenge for the state of Pakistan to rehabilitate the displaced peoples and rebuild physical and social infrastructure. She said that Pakistan had suffered around \$10 billion damages and 20 million people were affected during the 2010 flood alone.

Various scholars and several reports focused on the impact of floods on different sectors such as agriculture, economic, security, health, and migration. With reference to the earlier scholars and literature, there is a research gap which has clearly been identified for further inquiry. Although there is plenty of literature on floods and its impacts, yet a comprehensive literature in the context of impact of flood-related disruptions on school education in South Punjab, Pakistan, is missing. So, this research has accomplished the missing gap.

Research Methodology

Qualitative method along with interpretive and explanatory techniques is used in this study to explore the effect of 2022 flood on the school education in South Punjab, Pakistan. Interpretive technique tries to find out the reasons of floods whereas explanatory technique tries to find out the impact of 2022 flood on the school education in the under study area. Secondary sources such as published books, journals, reports, articles, newspaper, etc. are used for the purpose of data collection.

The Flood of 2022 and Its Impact on School Education in South Punjab

Background

In 2022, monsoon rains resulted in one of the worst

floods including flashfloods in the history of Pakistan. It resulted in temporary relocation of millions of the affected households and also disrupted the lives of these communities, families, and children. These floods had resulted not only in infrastructural damage and loss of livelihoods, but also triggered protection risks for women and children among others. After mighty 2010 floods, the areas of D. G. Khan, Muzaffargarh and Rajanpur also faced several other floods such as 2013, 2014, 2015, 2017, and 2022 (Ashraf, I., et al; 2023). The 2022 floods were the worst flood among these floods. It submerged one-third of the entire country of Pakistan, affected 33 million population of Pakistan (Aleha, A., et al; 2024). National Disaster Management Authority (NDMA) of Pakistan estimated that 2022 flood affected every one in seven individuals which could be approximately 33 million people and dislocated 8 million people (NDMA, 2022). Similarly, Khan, N. A., et al; (2024) explore that floods in Pakistan are regular phenomena and often occur repeatedly after two years. The 2022 flood was unprecedented in the history of Pakistan. It surpassed all the previous floods history especially 2010 flood in terms of destruction and economic losses. It wreaked havoc and resulted into US \$ 10 million losses, 33 million people were displaced, tragic deaths of peoples were recorded and damaged crops and livestock.

Disruptions of 2022 Flood to School Education in South Punjab

Flood Induced Migration and Its Impact on Education

Floods are the major reason behind the mass migration and refugee movement (Rezzonico & Sikorsky, 2022). Chaudhry, R., and Youkhana, E. (2024) say that Pakistan was the most vulnerable to climate change emanated displacement. The 2022 flood resulted into a massive mass migration. This catastrophic displaced 664,000 people and forced them to reside into relief camps. Moreover, it compelled 5.4 million people including 2.5 million children to migration either temporary or permanent (UNDP, 2023). Nearly 6,35,000 people were taking shelter in the relief camps till the 7th September 2022. Only in district Muzaffargarh, 71% of its population displaced for more than two months. They stayed with their friends and relatives for temporary basis and returned to their native places when flood induced water receded. Both

government and Non-government relief organizations provided relief to the affected communities (Leal Filho, W., et al; (Eds.). (2020). South Punjab including the districts of Rajanpur, Muzaffargarh and D.G. Khan were severely devastated by the 2022 flood and they had to confront the issue of people migration. Moreover, the extreme temperature during summer and winter also highly affects the agriculture which is the major source of income of the marginalized and the poor people of the South Punjab. Besides with floods, it also forces the population of the South Punjab to move towards the save places. Sometimes, the seasonal migration turns into permanent displacement.

As a result of this flood, local communities relocated to safe spaces to take shelters which were sometimes provided by the government, however often families resided with host communities such as with their close/distant relatives within and/or outside their own districts. This temporary relocation disrupts lives of affected population including putting a hold on teaching-learning activities of children, and non-provision of essential medical-care to children and women who might also include pregnant and lactating mothers. Further, the utilization of school buildings for flood affected people also undermined educational activities. Schools building used for relief camps for a long time and the educational activities were suspended (Ali, Q. 2025).

Direct and Indirect Disruptions to School Education during 2022 Flood

It is common phenomena that after any natural calamity or disease outbreak, ratio of out of school children and school dropout ratio increases. Pakistan especially South Punjab experienced the same issue after 2022 flood. The 2022 flood caused two million children unable to go to schools. Owing to it, millions of children lost their homes, family members, access to schools and underwent into traumatic situation. Their future educational career became uncertain as they did not come back to schools (Ahmad, N. (2024). This further deteriorated the already fragile educational standard of Pakistan where 22.8 million children were already out of schools and hence it was ranked 2nd in the world in out of school children (UNICEF, 2024). As this flood displaced 8 million population of Pakistan, children were the most affected part of

the affected communities. One third children were suffered from flood and 1700 were died during it (Aleha, A., et al; 2024). Moreover, Save the Children (2022) claimed that it also destroyed 18590 schools whereas UNICEFF (2022) expressed that it destroyed 27000 schools across the country. Only in Muzaffargarh, the 2022 flood resulted in collapsed of schools' buildings and also injured 14 children of primary schools. This sorry state of affair discouraged children to pursue their dreams of getting education. According to the provisional data about dropout ratio acquired from Punjab Education Department, children dropout from schools permanently and 7062 schools were taken for temporary shelter for the displaced people (Rose, S. 2023). Jamshed, A. (2015) says that the 2010 and 2022 had important impact on the education of the children. He says that 2010 flood in Muzaffargarh resulted in dropout ratio as 2.8 children out of 5.5 children came after floods. In 2014 flood, attendance of children further reduced to 39%. Further, floods deteriorated the financial condition of the marginalized communities. Parents preferred children to work to assist flood victim family financially

Moreover, flood also became the breeding ground of various pathogens as it produced and spread many diseases such as diarrhea, skin issues, infection in eyes fever and malaria. Sick children did not pursue their education. It also discouraged children education in the flood affected areas of the South Punjab. The given below tables clearly show the disruptions of all the levels of schools across the country as well as in the South Punjab.

During 2022 flood, 7000 schools were converted into relief camps which halted education of 3.5 million children (Springer, A., 2023). Destruction of school infrastructure and building further made children vulnerable and stooped their education. It also forced 33 million people including the larger part of children for migration. It resulted in death toll of children lives approximately 27,148 and affected 33 million students at all level across the country (Sujaya, K. et al; 2023). According to Pakistan Education Sector Working Group, it destroyed nearly 18,590 schools including 15,842 in Sind, 544 in Baluchistan, 1180 in Punjab and 1024 in KPK (World Bank Group, 2022). Moreover, according to Save the Children International, approximately 670,000 children in Pakistan affected during 2022 flood (Arooj, 2022). Nearly 400 children death and 550 injuries were occurred due to building collapse. It also resulted in the killing of 3800 adults (Arooj, 2022). The then foreign minister of Pakistan, Bilawal Bhutto Zardari said that children were the most vulnerable part of the society as every third died during flood was the children. It destroyed educational system as third of children either boys or girls were out of schools. Temporary learning centers were established to carry on educational activities. Moreover, large number of children left schools and that is why dropout ratio increased massively. South Punjab region is the victim of frequent floods and educational institutions have want of resilient structure in terms of school buildings, poor infrastructure, insufficient technical facilities, untrained staff and inadequate rescue operation (Shah, A. A. et al; 2018).

Table 3.1: *School affected across Pakistan during 2022 flood*

Province	School affected
Sindh	19808
Baluchistan	3000
KPK	100
Punjab	1180

Table 3.2: *Schools affected in Muzaffargarh, Rajanpur and D. G. Khan during 2022 flood*

District	School affected
Muzaffargarh	790
Rajan Pur	657
D. G. Khan	222

Source: UNICEF, PDMA

Table 3.3: *Detail of damages in District Rajanpur*

Flood -2022		
Sr. No.	Damage Details District Rajanpur	
1	Total UC.s	69
2	UC.s Affected	44
3	Mouza Affected	356
4	Deaths	31
5	Injuries	3177
6	Affected Papulation	253300
7	Total Area Affected (ACRES)	697119
8	Crops Area (ACRES)	238847
9	Houses Damage	35170
10	Fully	11301
11	Partially	23869
12	Roads Damage	94
13	Roads Damage in KM.s	386
14	Total Formal Schools	953
15	Formal Schools Damage	484
16	Total Non-Formal Schools	480
17	Non Formal Schools Damages	173
18	Health Centers Damage	16
19	no. of Aimals affected (Small)	133211
20	no. of Aimals affected (Large)	67456

Source: PDMA, NDMA

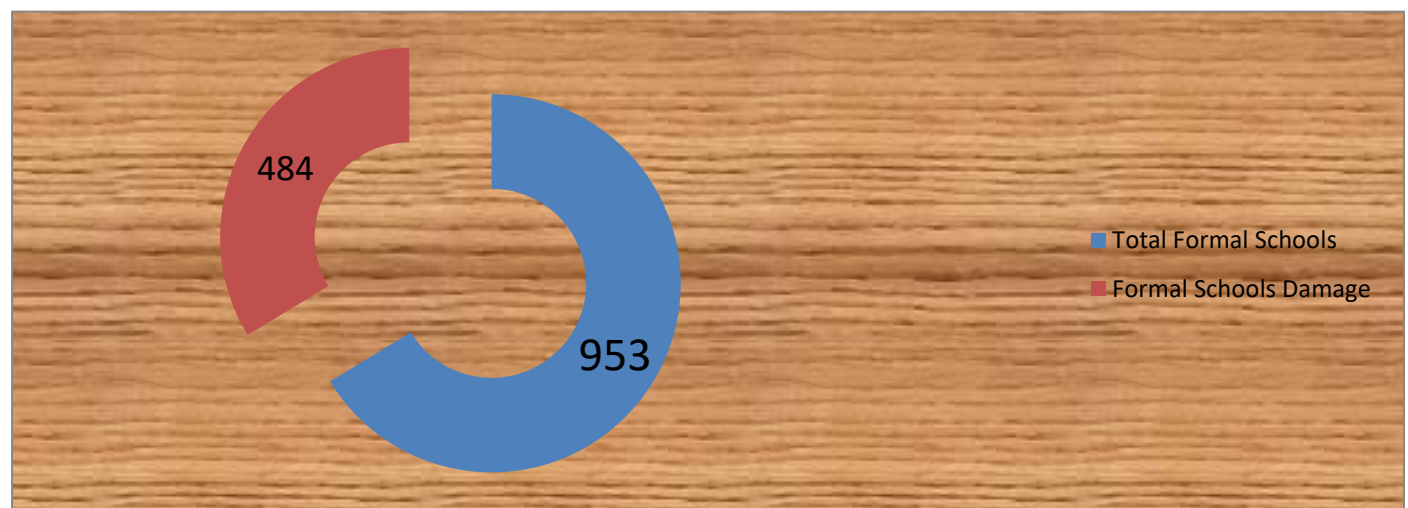
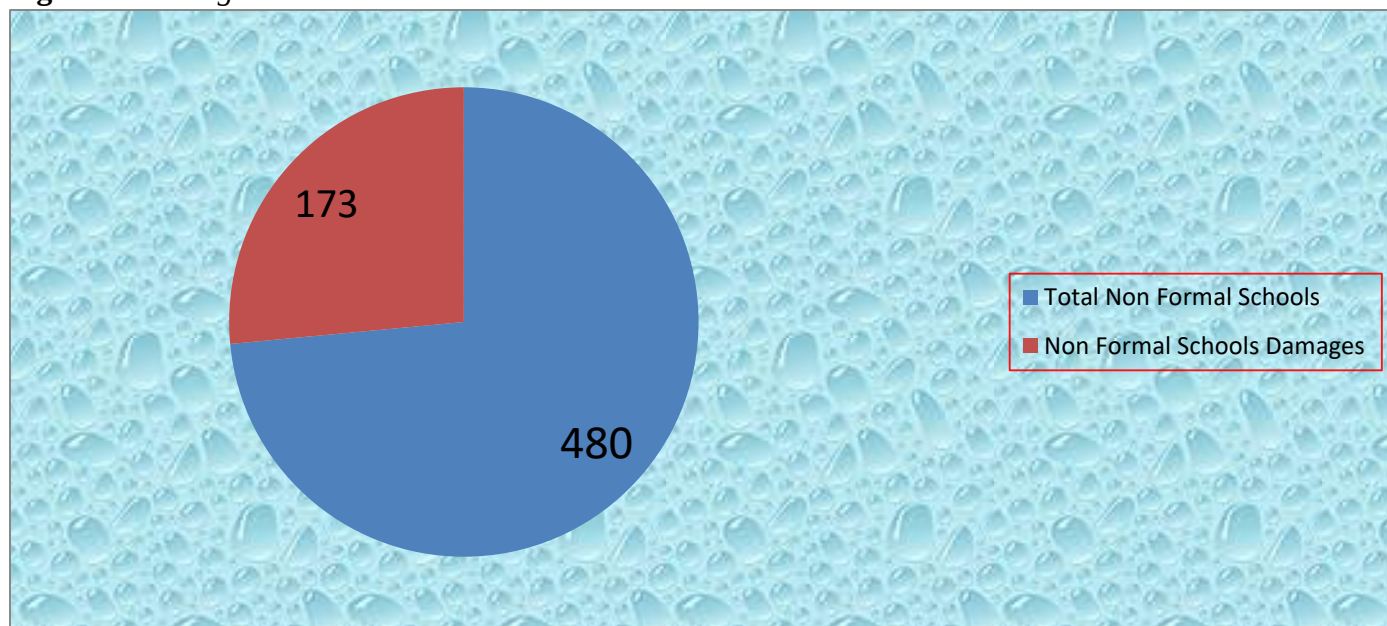
Figure 3.1: *Diagram*

Figure 3.2: *Diagram*

Reconstruction and Rehabilitation

The response of the government and the education department and the international donors was positive to respond properly to the floods induced disruptions to school education. According to the report of October 28, 2022, education sector needed nearly 197 billion rupees for reconstruction and recovery process. Only European Union sanctioned 12.6 million Euros, World Bank approved US \$45 million for the reconstruction and rehabilitation of flood affected schools. Government struggled to increase physical and structural organizations of education sector's capacity to lessen vulnerabilities of schools. Multi sectoral efforts were done between the government and private sector to improve quality of life and education of children. Further, government encouraged multipurpose humanitarian assistance under conditional cash transfer via linked to education, nutrition, health and welfare programs. Owing to minimize educational losses, government followed Indonesian and Bangladesh model while giving additional times to students to compensate their educational losses. Government also adopted both short and long term approaches to reduce educational losses. For short term from 6 to 12 months, temporary learning centers were set up for urgent reconstruction and recovery processes. For long term, it was decided to reconstruct and repaired the fully damaged and partially damaged institutions. Besides it, emergency communication, disaster management and Geographic Information System were used for safety measures. Emergency Calling System (ECS) and Early Warning System

(EWS) were also followed. Moreover, it was developed a comprehensive and coordinated education sector 'Flood Contingency Plan' to ensure continuity of teaching and learning processes. This contingency plan was divided into three phases such as preparation before the floods, rehabilitation during the floods and recovery after the floods.

Conclusion and Recommendations

The purpose of this research is to assess the impact of 2022 flood's disruptions on the school education in South Punjab. It is difficult to study the whole South Punjab and thus this research has been narrowed down and restricted to only three districts of South Punjab namely Dera Ghazi Khan, Muzaffargarh and Rajanpur. So, the findings got from these districts will be helpful to know about the impact of 2022 flood on the school education of the rest part of the South Punjab and the whole Pakistan as well. This research proposed 2022 flood disrupted school education in South Punjab especially in districts under study by destroying schools' buildings, infrastructures and losses of learning materials. This flood also impacted educational performance by increasing the ratio of dropout and decreasing the ratio of enrollment. Flood induced migration was also the major reason of decreasing the enrollment. This study further highlighted that this flood highly impacted psychological wellbeing of the teachers and students. It probed that there were large educational losses but governments, NGOs and civil community played active role to mitigate educational losses through quick recovery and

rehabilitation efforts. This research employed Qualitative Method research design to assess the impact of 2022 flood induced disruptions on school education in South Punjab, Pakistan. This research design integrated to explore the effects of flood disruptions on educational performance, attendance, infrastructure and functioning of schools in the flood affected region.

The 2022 flood was the worst flood since the independence of Pakistan. It was triggered by heavy and unprecedented monsoon rain fall, torrential rain falls induced flash flood and melting of glaciers due to rise in temperature. Rainfall continued for 72 hours continuously and broke the 30 years' record. According to National Disaster Management Authority (NDMA), every one out of seven people were affected by it. It submerged one third of the entire country, affected 33 million populations, dislocated 8 million people and resulted 1700 human deaths across the country. Moreover, it damaged 2 million houses, destroyed 8330 KM roads, 439 bridges, 3127 KM railway tracks, killed 800,000 animals, demolished 900,000 acres of land and unemployed 4-3 million peoples. Only torrential induced flood watered 85,000 km lands and demolished 806,000 houses. South Punjab was the most affected region. It affected 678 localities in South Punjab including 176 localities in Rajanpur, 24 localities in Muzaffargarh and 366 in Dera Ghazi Khan. 2022 flood caused \$ 15.2 billion economic losses along with \$ 14.9 billion in damages. Cost estimated for rehabilitation and reconstruction was US \$16.3 billion.

The 2022 flood did not spare the educational sector too. According to Save the Child, it destroyed 18590 schools across the country. According to UNICEFF, it damaged 27000 schools in Pakistan. 19808 schools were affected in Sind, 300 in Baluchistan, 100 in KPK, and 1180 in Punjab. It also affected 770,000 children, resulted nearly 400 children deaths and 550 children injuries due to collapse of buildings across the country. In South Punjab, this flood affected 790 schools in Muzaffargarh, 657 in Rajanpur and 222 in Dera Ghazi Khan. One third children suffered from it. Just 14 children of primary schools in Muzaffargarh were injured due to the falling of buildings. So, 2022 flood caused 2 million children unable to go to schools. Millions of children lost their homes, family members, livelihood, learning materials and access to schools. The usage of schools as relief

camps also affected educational activities as many schools were used as temporary shelters for the displaced people. Nearly 7062 schools were used for temporary shelters across the country. Schools were shutdown till the departure of the displaced people. Moreover, flood induced migration also impacted educational activities. Approximately 664,000 people migrated including 2.5 million children. Just 71% of the population of Muzaffargarh migrated. Children migrated with their parents. Some families migrated permanently. That is why, it resulted in the increase in dropout ratio and decreased enrollment. It hindered education of 3.5 million children in Pakistan. According to then foreign minister of Pakistan, Bilawal Bhutto Zardari, 'children were the most vulnerable part of the society as every third child had been affected by the flood'. Further, MSRNA claimed that 2022 flood put more than 1.96 million children at risk of losing out of education.

So, repeated floods are disproportionately impacting the educational institutions in South Punjab. The safety of the schools and continuity of educational activities have become challenge for authorities. It is the responsibility of the school authorities to escape students from the scourge of floods. Only safe and strong educational atmosphere can enhance emotional and physical growth of the students. Children dropout ratio increases if educational institutions' continuity is halted by repeated floods. The assessment of the World Health Organization is that children are the 30-50 percent of the total fatalities induced by floods. Floods vulnerable children suffer from depression, emotional stress and behavioral issues. Moreover, floods also destroy infrastructure and buildings of schools which further halt students' access to education.

Findings of the Study

Climate change causes floods in Pakistan. These floods played havoc to all the sectors including the sector of education. The 2022 flood washed away school's buildings, class rooms and walls. Roads and railways tracks were also damaged. Houses were destroyed. People were forced to migrate to safe areas. Many schools were used for temporary shelters. Hence educational activities were suspended. Drop out ratio increased and enrollment decreased. Syllabus was not covered due to closure of schools for months. Temporary Learning Centers

were established to continue educational activities but these were inadequate. Government did its best but recovery process was slow due to financial, governance and technical restraints. However, in many areas, majority of affected schools were either repaired or reconstructed and educational activities continued without any hindrance.

Recommendations

- i. Policy makers are to be educated enough to formulate pragmatic and realistic policies to mitigate the impact of flood on school education disruptions and to build resilience in the society.
- ii. Early warning system and precautionary measures are mandatory to save schools from the scourge of floods.
- iii. The flood vulnerable villages and residential areas should have to be protected by developing flood protective embankments. Mostly the educational institutions are constructed inside of villages and residential areas. Therefore, protective embankments around the residential areas surely save schools from the destruction of floods.
- iv. After receiving confirmed and authentic news by the government agencies regarding floods, all the necessary and important furniture and learning materials of schools should also be shifted to safe places.
- v. School education was the most flood affected sector. It is necessary to assess the flood emanated damages to the education and to start rapid recovery and rehabilitation process for the restoration of educational activities. In this regard, damaged schools' buildings are to be repaired and rebuilt as soon as possible. The newly reconstructed school buildings are must be flood resilient structure. Moreover, learning materials were also lost in floods. So, government should provide learning materials to the students so that they can restore their educational activities. Developing resilience in

educational system for the climate led disasters through proper planning and management is mandatory.

- vi. Temporary Learning Centers (TLCs) should be set up and parents are to be encouraged to send their children there. It will reduce the dropout ratio and encourage the enrollment.
- vii. Government's Ehsaas Education Stipends (EESs) was a good initiative for students to continue education during the Covid-19. Similar program would be taken for the students of all grades belonging to the flood prone areas.
- viii. Floods enforced majority of people to dislocate. Shelters camps were arranged in public buildings mainly the school's buildings. Schools were closed and educational activities were suspended for time being. It disrupted educational performance of the students. Government should arrange substitute sheltering and relief camps instead of school's buildings
- ix. Last but not the least, constructions of major, medium and minor dams should be lifeline for Pakistan. It is understood that climate change induced floods due to variations in monsoon rainfall pattern, torrential rainfall, melting of glaciers and the release of surplus water from the upper riparian Indian dams will pose risk of heavy flooding to Pakistan every year. Inability to construct new dams and ignorance to repair and restore the water capacity of the existing dams will let flooded water to cause destructions to Pakistan every year. However, it should be top priority to construct major, medium and minor dams along with major, medium and minor canals to consume and restore water maximum especially during the season of floods. The restored water will be used during the dry seasons for agriculture, commercial and household uses. In addition, proper water management is highly necessary to store additional flooded water.

Conflict of Interest

The authors showed no conflict of interest.

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