

Education

Education being the fundamental human right, stands most important element in evolution of human progress and nation development. It develops capabilities to fight against injustice, violence, corruption and many other social evils. Sustainable socio-economic development of a country depends on substantial investment in its human capital through education and skill development. Educated people work as an effective tool in accepting and adopting innovative ideas and means of productivity/technologies, ensuring the elimination of economic and social ailments. Further, as a dividend, it brings socio-economic progress as well as prosperity in the country. An educated and skilled nation is productive enough to accelerate economic growth through expanded vision, creativity and, innovations in the country.

Regional Comparison of Education Indicators

According to United Nations Development Programme (UNDP) Human Development Report 2020, Pakistan is ranked 154th out of 189 countries with the Human Development Index (HDI) value of 0.557 (with 1 being the maximum value). The Table 10.1 below provides regional comparison of education related indicators:

Table 10.1: Education Indicators

Country	Literacy rate adult %age 15 years and older (2008-18)	Youth Literacy rate (%)age 15-24 years old		Population with some secondary education %ages 25 years & older (2015-19)	Gross Enrolment Ratio (GER) 2014-19				Primary School Dropout rate (2008-2018)	Government Expenditure on Education (% of GDP) (2013-2018)	Human Development Index (HDI) Rank
		Female (2008-18)	Male (2008-18)		Pre-Primary	Primary	Secondary	Tertiary			
		SDG 4.6			SDG 4.2	SDG 4.1		SDG 4.3			
Sri Lanka	91.7	99.0	98.5	80.0	91	100	100	20	1.6	2.1	72
Maldives	97.7	99.1	98.4	47.6	92	97	n/a	31	6.7	4.1	95
Bhutan	66.6	92.9	93.3	27.6	34	100	90	16	11.3	6.6	129
India	74.4	90.2	93.0	39.3	14	113	75	28	8.8	3.8	131
Bangladesh	73.9	94.9	91.8	44.0	41	116	73	21	33.8	2.0	133
Nepal	67.9	90.9	94.0	36.2	87	142	80	12	26.5	5.2	142
Pakistan	60.0*	67.5	81.3	37.3	83	94	43	9	29.6	2.9	154
Afghanistan	43.0	56.3	74.1	26.1	n/a	104	55	10	n/a	4.1	169

Source: Human Development Report, 2020 (UNDP)

*: Pakistan Social and Living Standards Measurement (PSLM) District Level Survey, 2019-20, Pakistan Bureau of Statistics
 Note: GER is calculated by dividing the number of students enrolled in a given level of education regardless of age by the population of the age group which officially corresponds to the given level of education and multiply the result by 100.

The Government Agenda

Present government is committed to achieve Goal 4 of SDGs i.e. “Quality Education”, which stipulates equitable education, removal of discrimination, provision and up-gradation of infrastructure, skill development for sustainable progress, universal literacy, numeracy and enhancement of professional capacity of teachers. As per Article 25-A of the Constitution of Pakistan “State shall provide free and compulsory education to all children of the age of five to sixteen years” therefore, the government is working on various initiatives to provide quality education to its citizens.

A Single National Curriculum (SNC) has been designed with the vision of one system of education for all, in terms of curriculum, medium of instruction and a common platform of assessment, so that all children have a fair and equal opportunity to receive high quality education. SNC will be implemented in three phases, **Phase I:** Development of SNC and textbooks for Pre I-V classes in March 2021, **Phase II:** Development of SNC and textbooks for VI-VIII classes in March 2022 and **Phase III:** Development of SNC and textbooks for IX-XII classes in March 2023.

Educational Institutions and Enrolment Data¹

i) Pre-Primary Education

Pre-Primary education is the basic component of Early Childhood Education (ECE). Prep classes are for children between 3 to 5 years of age. At national level, an increase of 1.1 percent in pre-primary enrolment (12.7 million) in 2018-19 over 2017-18 (12.6 million) has been observed and it is further estimated to increase by 6.1 percent to 13.5 million in 2019-20 (Table 10.2).

ii) Primary Education (Classes I-V)

In 2018-19 there were a total of 182.7 thousand functional primary schools with 494.3 thousand corresponding teachers at national level. An increase of 2.9 percent in primary enrolment is witnessed as the total enrolled students increased to 23.6 million in 2018-19 against 22.9 million in 2017-18. However, it is further projected to increase by 4.3 percent to 24.6 million in 2019-20.

iii) Middle Education (Classes VI-VIII)

The total reported middle institutes were 47.3 thousand with 448.6 thousand employed teachers in the whole country during 2018-19. An increase of 3.7 percent in middle enrolment is observed. The total enrolled students increased to 7.6 million in 2018-19 against 7.4 million in 2017-18 and it is projected to increase by 3.9 percent, (from 7.6 million to 7.9 million) in 2019-20.

¹According to Academy of Educational Planning & Management (AEPAM), the estimated data for enrolment, number of institutions and teachers for the year 2020-21 is not available; however, the said data will be available in July 2021 which will be incorporated in the Statistical Supplement of Pakistan Economic Survey, 2020-21. Therefore, the latest available data for the year 2018-19 and 2019-20 is considered for analysis.

iv) Secondary / High School Education (Classes IX-X)

During the academic year 2018-19, a total of 31.7 thousand secondary schools were functional, with 567.1 thousand teachers working in the whole country. An increase of 2.8 percent in secondary school enrolment is observed at the national level as the total enrolled students increased to 4.0 million in 2018-19 against 3.9 million in 2017-18. However, it is estimated to increase further by 6.2 percent, i.e., from 4.0 million to 4.2 million during 2019-20.

v) Higher Secondary / Inter Colleges (Classes XI-XII)

At national level, 5.9 thousand higher secondary schools / inter colleges with 128.1 thousand teachers were functional in 2018-19. The overall enrolment of students in higher secondary education witnessed an increase of 2.8 percent in 2018-19. The enrolment registered during 2018-19 was 1.73 million as compared to 1.69 million in 2017-18. For 2019-20, it is projected to increase to 1.80 million.

vi) Technical & Vocational Education

During 2018-19, 3.9 thousand technical and vocational institutes with 18.2 thousand teachers were functional at the national level. The enrolment was stagnant in 2018-19 at 0.43 million as compared to 2017-18. However, it is estimated to increase by 7.2 percent, i.e., from 0.43 million to 0.46 million in 2019-20.

vii) Degree Colleges (Classes XIII-XIV)

An enrolment of 0.59 million students is expected during 2019-20 in degree colleges against enrolment of 0.60 million in 2018-19. A total of 1,659 degree colleges with 41,233 teachers were functional during 2018-19. The slight decline in expected enrolment in 2019-20 might be due to preference of students to the professional and vocational courses.

viii) Universities

There are 211 universities with 60.3 thousand teachers in both public and private sectors functional in 2018-19. The overall enrolment of students in higher education institutes (universities) increased to 1.86 million in 2018-19 from 1.58 million in 2017-18. The enrolment is expected to increase by 2.5 percent to 1.91 million in 2019-20.

Overall Assessment

The overall education situation based on the key indicators, such as enrolments, number of institutes and teachers have shown improvement. The total number of enrolments during 2018-19 was recorded at 52.5 million as compared to 51.0 million during 2017-18, which shows an increase of 2.9 percent. It is estimated to increase to 55.0 million during 2019-20. The number of institutes recorded at 273.4 thousand during 2018-19 as compared to 262.0 thousand during 2017-18. However, the number of institutes is estimated to increase to 279.4 thousand in 2019-20.

Similarly, there were 1.76 million teachers in 2018-19 as compared to 1.77 million last year. The number of teachers is estimated to increase to 1.80 million during 2019-20.

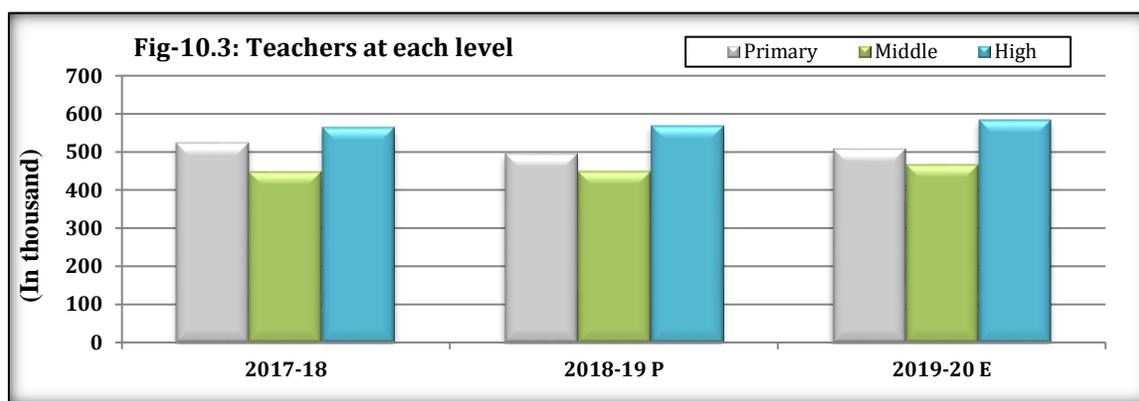
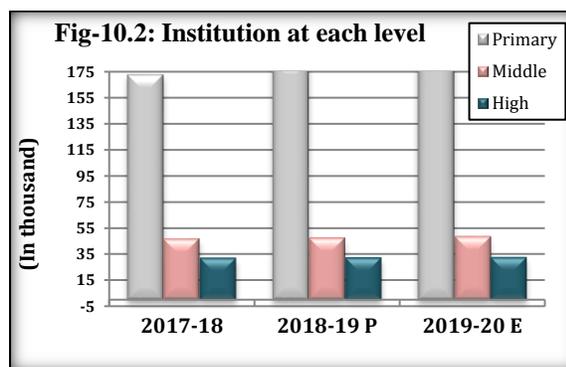
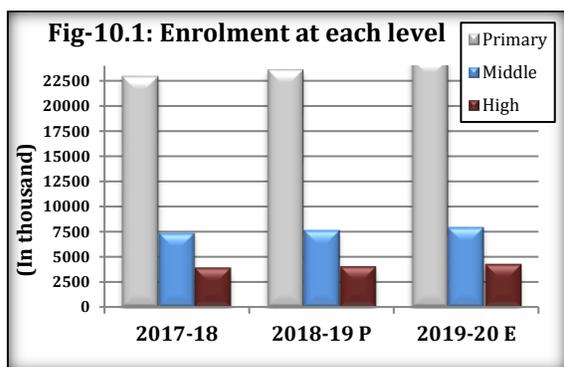


Table 10.2: Number of Mainstream Institutions, Enrolment and Teachers By Level (Thousands)

	Years	Pre-Primary	Primary [^]	Middle	High	Higher Sec./ Inter	Degree Colleges	Technical & Vocational Institutes	Universities	Total
Enrolment	2012-13	9284.3	18790.4	6188.0	2898.1	1400.0	641.5	302.2	1594.6	41099.1
	2013-14	9267.7	19441.1	6460.8	3109.0	1233.7	465.4	308.6	1594.6	41880.9
	2014-15	9589.2	19846.8	6582.2	3500.7	1665.5	510.6	319.9	1299.2	43314.1
	2015-16	9791.7	21550.6	6922.3	3652.5	1698.0	518.1	315.2	1355.6	45804.0
	2016-17	11436.6	21686.5	6996.0	3583.1	1594.9	537.4	344.8	1463.3	47642.6
	2017-18	12574.3	22931.3	7362.1	3861.3	1687.8	604.6	433.2	1575.8	51030.4
	2018-19*	12707.1	23588.0	7634.1	3969.0	1734.9	604.6	433.2	1862.8 [@]	52533.7
	2019-20**	13487.9	24591.7	7931.5	4213.5	1804.1	598.8	464.5	1910.0	55002.0
Institutions	2012-13	-	159.7	42.1	29.9	5.0	1.5	3.3	0.147	241.6
	2013-14	-	157.9	42.9	30.6	5.2	1.1	3.3	0.161	241.2
	2014-15	-	165.9	44.8	31.3	5.4	1.4	3.6	0.163	252.6
	2015-16	-	164.6	45.7	31.7	5.5	1.4	3.7	0.163	252.8
	2016-17	-	168.9	49.1	31.6	5.1	1.4	3.8	0.185	260.1
	2017-18	-	172.5	46.7	31.4	5.8	1.7	3.7	0.186	262.0
	2018-19*	-	182.7	47.3	31.7	5.9	1.7	3.9	0.211 [@]	273.4
	2019-20**	-	187.1	48.3	32.0	6.1	1.7	4.0	0.224 [@]	279.4
Teachers	2012-13	-	428.8	362.6	489.6	132.0	48.8	16.1	77.6	1555.5
	2013-14	-	420.1	364.8	500.5	124.3	26.0	16.4	77.6	1529.7
	2014-15	-	430.9	380.8	514.2	118.1	36.6	19.4	88.3	1588.3
	2015-16	-	444.6	394.2	529.5	123.1	37.1	18.2	83.4	1630.1
	2016-17	-	475.2	455.4	560.6	120.3	37.9	18.2	58.7	1726.3
	2017-18	-	522.4	448.1	563.3	123.2	41.2	18.2	56.9	1773.3
	2018-19*	-	494.3	448.6	567.1	128.1	41.2	18.2	60.3	1757.8
	2019-20**	-	506.8	466.4	582.0	127.4	40.2	18.6	58.0	1799.4

*: Provisional, **: Estimated, ^: Including Pre-Primary, Mosque Schools, BECS and NCHD, @: Figures are based on HEC.

Source: Ministry of Federal Education & Professional Training, AEPAM, Islamabad

Literacy

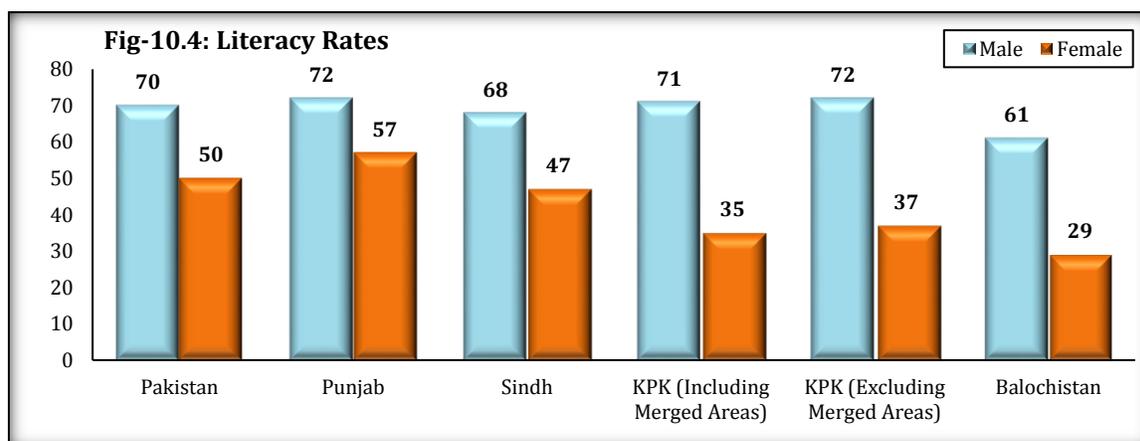
According to the Pakistan Social and Living Standards Measurement (PSLM) district level Survey 2019-20, the literacy rate of population (10 years and above) is stagnant at 60 percent in 2019-20 since 2014-15. The literacy rate is higher in urban areas (74 percent) than in rural areas (52 percent). Province wise analysis suggests that Punjab has the highest literacy rate, with 64 percent followed by Sindh with 58 percent, Khyber Pakhtunkhwa (Excluding Merged Areas) with 55 percent, Khyber Pakhtunkhwa (Including Merged Areas) with 53 percent and Balochistan with 46 percent (Table 10.3).

Table 10.3: Literacy Rate (10 Years and Above)-Pakistan and Provinces (percent)

Province/Area	2014-15			2019-20		
	Male	Female	Total	Male	Female	Total
Pakistan	70	49	60	70	50	60
Rural	63	38	51	64	39	52
Urban	82	69	76	79	67	74
Punjab	71	55	63	72	57	64
Rural	65	45	55	67	48	57
Urban	82	73	77	80	72	76
Sindh	70	49	60	68	47	58
Rural	55	24	40	53	23	39
Urban	82	70	76	79	66	73
Khyber Pakhtunkhwa (Including Merged Areas)	-	-	-	71	35	53
Rural	-	-	-	69	31	50
Urban	-	-	-	80	53	67
Khyber Pakhtunkhwa (Excluding Merged Areas)	71	35	53	72	37	55
Rural	69	31	50	70	34	52
Urban	80	52	66	81	54	68
Balochistan	61	25	44	61	29	46
Rural	54	17	38	55	22	40
Urban	78	42	61	76	47	63

Note: Area of erstwhile FATA is now part of Khyber Pakhtunkhwa and covered first time. Therefore, values of Khyber Pakhtunkhwa are given both with and without merged areas. However, the exact comparison of Khyber Pakhtunkhwa with the previous year is only possible by comparing Khyber Pakhtunkhwa, excluding merged areas.

Source: Pakistan Social and Living Standards Measurement (PSLM) District Level Survey, 2019-20, Pakistan Bureau of Statistics.



Primary Enrolment Rates

A. Gross Enrolment Rates (GER)

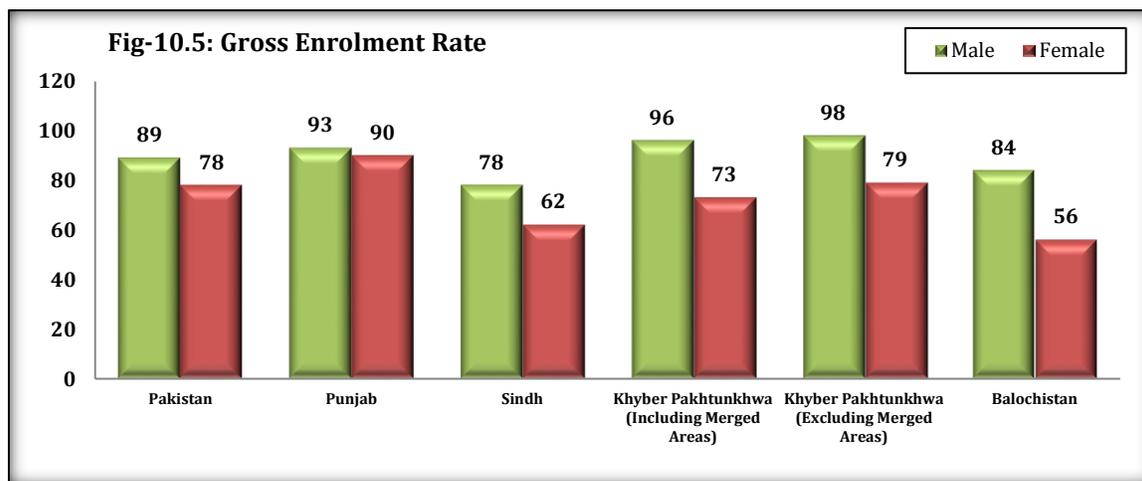
GER at the primary level excluding Katchi (prep) for the age group 6-10 years at the national level during 2019-20 declined to 84 percent as compared to 91 percent in 2014-15. Province wise data suggests that GER is declined in all provinces i.e. Punjab witnessed declined from 91 percent in 2014-15 to 84 percent in 2019-20, Sindh from 79 percent to 71 percent, Khyber Pakhtunkhwa (Excluding Merged Areas) from 92 percent to 89 percent and Balochistan from 73 percent to 72 percent (Table 10.4).

The decline in GER is mainly due to enrolment of over aged children is decreasing since 2012-13.

Table 10.4: National and Provincial GER (Age 6 -10 years) at Primary Level (Classes1-5)(percent)

Province/Area	2014-15			2019-20		
	Male	Female	Total	Male	Female	Total
Pakistan	98	82	91	89	78	84
Punjab	103	92	98	93	90	92
Sindh	88	69	79	78	62	71
Khyber Pakhtunkhwa (Including Merged Areas)	-	-	-	96	73	85
Khyber Pakhtunkhwa (Excluding Merged Areas)	103	80	92	98	79	89
Balochistan	89	54	73	84	56	72

Source: Pakistan Social and Living Standards Measurement (PSLM) District Level Survey, 2019-20, Pakistan Bureau of Statistics.



B. Net Enrolment Rates (NER)

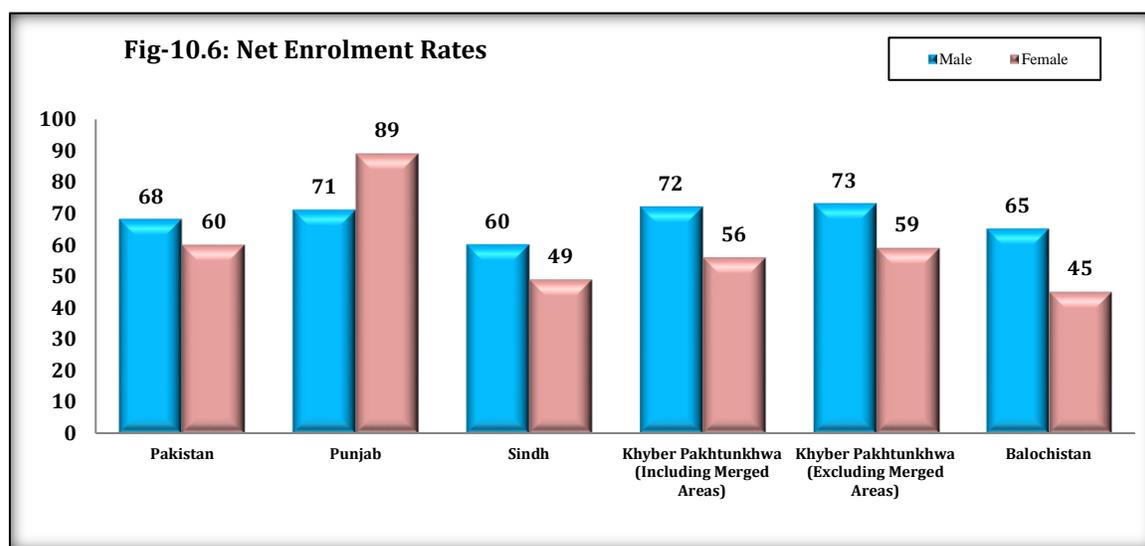
NER at the national level during 2019-20 declined to 64 percent as compared to 67 percent in 2014-15. Province wise comparison reveals that, NER in Punjab and Balochistan remained stagnant at 70 percent and 56 percent respectively, while declined in NER has been observed in Sindh and Khyber Pakhtunkhwa (Excluding Merged Areas), where NER decreased from 61 percent to 55 percent and 71 percent to 66 percent respectively (Table 10.5).

The NER is either stagnant or decreasing due to the fact that 32 percent of children aged 5-16 years are currently out of school at national level. The percentage is highest in Balochistan with 47 percent followed by 44 percent in Sindh, 30 percent in Khyber Pakhtunkhwa (Excluding Merged Areas) and 24 percent in Punjab.

Table 10.5: National and Provincial NER (Age 6 - 10 years) at Primary Level (Classes 1-5) (percent)

Province/Area	2014-15			2019-20		
	Male	Female	Total	Male	Female	Total
Pakistan	72	62	67	68	60	64
Punjab	73	67	70	71	89	70
Sindh	67	54	61	60	49	55
Khyber Pakhtunkhwa (Including Merged Areas)	-	-	-	72	56	65
Khyber Pakhtunkhwa (Excluding Merged Areas)	78	62	71	73	59	66
Balochistan	67	42	56	65	45	56

Source: Pakistan Social and Living Standards Measurement (PSLM) District Level Survey, 2019-20, Pakistan Bureau of Statistics.



Expenditure on Education

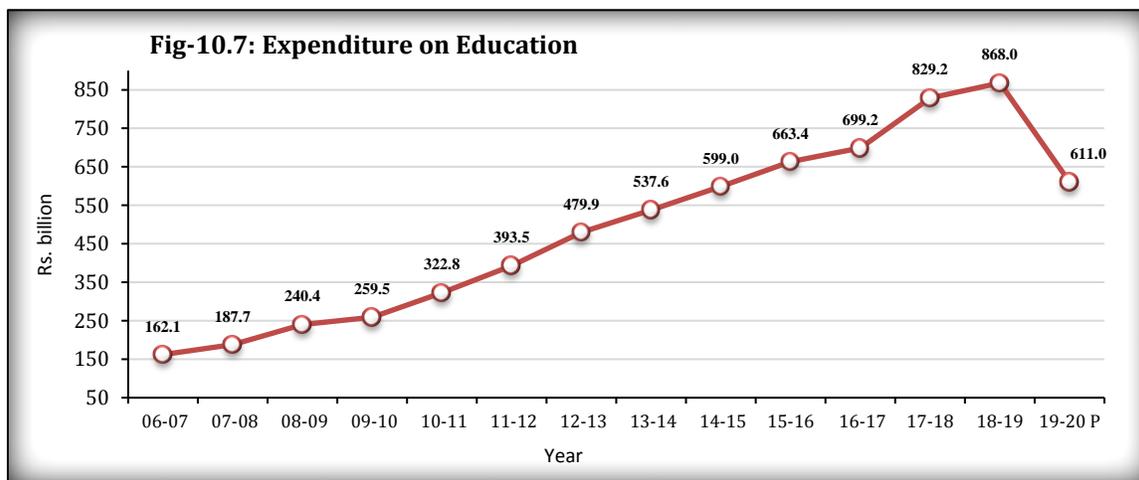
Cumulative education expenditures by federal and provincial governments in FY2020 stood at 1.5 percent of GDP as compared to 2.3 percent of GDP in FY2019.² Expenditures on education had been rising gradually till 2018-19 (Fig-10.7), but in 2019-20 education-related expenditures witnessed a decrease of 29.6 percent i.e, from Rs 868.0 billion to Rs 611.0 billion. The education related expenditure details are given in Table 10.6 and Figure 10.7:

² The education related expenditures witnessed a decline in FY2020 due to closure of educational institutes amid country-wide lockdown and decrease in current expenditures (other than salaries) due to COVID-19 Pandemic. Furthermore, as a result of COVID-19 crisis, there was an increase in expenditure of other Social Sectors i.e., health, natural calamities & other disasters, Benazir Income Support Programme, Pakistan Bait-ul-Maal etc.

Years		Current Expenditure	Development Expenditure	Total Expenditure	As % of GDP
2015-16	Federal	84,496	34,665	119,161	2.3
	Punjab	224,608	26,863	251,471	
	Sindh	123,855	11,153	135,008	
	Khyber Pakhtunkhwa	92,306	19,925	112,231	
	Balochistan	36,121	9,364	45,485	
	Pakistan	561,386	101,970	663,356	
2016-17	Federal	91,139	16,890	108,029	2.2
	Punjab	221,049	39,593	260,642	
	Sindh	134,650	12,082	146,732	
	Khyber Pakhtunkhwa	109,482	26,639	136,121	
	Balochistan	40,571	7,127	47,698	
	Pakistan	596,891	102,331	699,222	
2017-18	Federal	100,428	26,495	126,923	2.4
	Punjab	295,893	44,910	340,803	
	Sindh	152,298	13,705	166,003	
	Khyber Pakhtunkhwa	126,149	16,494	142,643	
	Balochistan	47,107	5,673	52,780	
	Pakistan	721,875	107,277	829,152	
2018-19	Federal	103,787	21,780	125,567	2.3
	Punjab	339,402	32,413	371,815	
	Sindh	153,492	9,110	162,602	
	Khyber Pakhtunkhwa	132,516	20,195	152,711	
	Balochistan	49,298	6,029	55,327	
	Pakistan	778,495	89,527	868,022	
2019-20 (P)	Federal	83,266	31,300	114,566	1.5
	Punjab	182,616	35,378	217,994	
	Sindh	165,028	5,427	170,455	
	Khyber Pakhtunkhwa	28,161	18,088	46,249	
	Balochistan	53,640	8,111	61,751	
	Pakistan	512,711	98,304	611,015	

P: Provisional

Source: PRSP Budgetary Expenditures, External Finance Policy Wing, Finance Division, Islamabad



Development Programmes 2020-21

Federal Public Sector Development Programme (PSDP) 2020-21

An amount of Rs 4.5 billion has been allocated in PSDP 2020-21 for 22 on-going and 6 new development projects of the Ministry of Federal Education and Professional Training. While, an amount of Rs 1.2 billion has also been allocated for 6 on-going and new education related development projects sponsored by Finance, Defence, Housing & Works and Kashmir Affairs & Gilgit Baltistan Division. The implementation of PSDP funded education projects can have an enduring impact on socio-economic development of the country.

Provincial Annual Development Programmes (ADPs) 2020-21

The provincial governments have prioritized areas of interventions in education sector such as provision of missing facilities, improvement of the physical infrastructure, establishment of IT/Science labs, up-gradation of girls and boys primary schools to middle, high and secondary levels, construction of new boys and girls schools and colleges, provision of scholarship through endowment funds and other scholarship schemes. Early Childhood Education (ECE) at Primary level and strengthening of Provincial Institutes of Teacher Education (PITE) and other areas of interventions. Education Foundations have been provided sufficient resources by the provinces. The development budget has also been allocated for capacity building of teachers to provide quality education and for the establishment of the cadet colleges to meet the prerequisites of education.

Punjab

During 2020-21, Government of Punjab has allocated an amount of Rs 34.6 billion for 110 on-going and 29 new development projects of education sector. Out of which Rs 27.6 billion has been allocated for school education, Rs 3.9 billion for higher education, Rs 0.6 billion for special education and Rs 2.5 billion for literacy and non-formal education.³

Sindh

During 2020-21, the Sindh government has allocated Rs 23.4 billion for 399 on-going and 11 new development projects of education sector. Out of which an amount of Rs 15.5 billion has been allocated for School Education & Literacy, Rs 3.7 billion for college education, Rs 0.13 billion for Department of Empowerment of Persons with Disabilities, Rs 0.7 billion for Sindh TEVTA and Rs 3.4 billion for Universities & Boards.

Khyber Pakhtunkhwa

The government of Khyber Pakhtunkhwa has allocated Rs 30.1 billion in 2020-21 for 188 on-going and 61 new development projects. Out of which an amount of Rs 6.3 billion has been allocated for primary education, Rs 9.7 billion for secondary education and Rs 9.0 billion for higher education. This amount is 94 percent higher than the last year allocation⁴.

³ The allocated amount doesn't include TVET sector allocation here.

⁴ It does not include TVET sector allocation here.

Balochistan

The Balochistan government has allocated Rs 9.1 billion for CFY2021 for 108 on-going and 176 new development projects. Out of the total allocation, an amount of Rs 1.1 billion has been allocated for primary education, Rs 0.7 billion for middle education, Rs 2.1 billion for secondary education, Rs 4.1 billion for college education, Rs 0.7 billion for university education, Rs 0.1 billion for general education and 0.3 billion for technical education.

Technical and Vocational Education

National Vocational & Technical Training Commission (NAVTTTC)

NAVTTTC is an apex body at national level under the umbrella of Ministry of Federal Education and Professional Training with the vision to regulate, facilitate and provide policy direction in Technical & Vocational Education and Training (TVET). Since its inception, NAVTTTC has given a high priority to un-addressed areas and challenges being faced by TVET sector which are included under the core activities/programmes of professional training for human resource development (HRD) assigned to NAVTTTC. Socio-economic progress of youth through skill development and infrastructure up-gradation in HRD is also included in globally agreed 17 Sustainable Development Goals (SDGs). TVET imparts academic as well as technical hands-on knowledge and skills to youth to prepare them for decent employment and self-employment in the shortest possible time. Accordingly, this is the quickest and most effective method of youth empowerment and channelizing their energies for socio-economic development of the country.

The CPEC project and other global emerging advancements are bringing technological innovations to Pakistan which require greater preparedness of youth in high-end and high-tech technologies. Realizing the emerging needs, a detailed market gap analyses has been conducted by NAVTTTC, both for identifying the demand for such high-end trades and the available institutional capacity for conducting training courses in these trades.

Box-I: Online Courses in the wake of COVID-19 Crisis

To provide opportunity to Pakistani youth for best utilization of their time on closure of training institutes during COVID-19 pandemic, special online courses in advanced technology were designed by NAVTTTC in accordance with National Vocational Qualification Framework (NVQF), which are at par with international certification. More than 12,000 applicants were enrolled in these courses. The scope of the courses is being further enhanced to additional courses as per job market demand. About 2,500 students are being skilled through these online courses. Apart from the above initiative of NAVTTTC, skill training components have also been included in the government Ehsaas programme for the most marginalized segments of society, which is being pursued for the socio-economic betterment of youth and deprived segments of the society. Moreover, online teachers' training has been started under which latest teaching techniques are disseminated methodologies is being provided to the teachers at their doorstep.

In addition, development partners like United Nation High Commission for Refugees (UNHCR) have joined hands with NAVTTTC to equip the youth (Afghan refugees and Pakistani host citizens) in Pakistan

with technical hands-on skills. Under this initiative, NAVTTC in collaboration with UNHCR has equipped more than 3,500 youth with technical hands-on skill.

Key Objectives behind NAVTTC's Mission

Key objectives behind the vision of NAVTTC is envisaging “**Skills for Employability, Skills for All**”, to make TVET sector in Pakistan responsive according to the need of both youth and industry. In this regard, reforms were introduced with the aim for achieving following key objectives:

- a) Improved Governance
- b) Enhanced Funding for TVET sector by exploring multiple sources, both public, private and through donor interventions
- c) Capacity Enhancement
- d) Quality Assurance and international recognition
- e) Ensuring Access & Equity
- f) Industry Ownership and Public Private Partnership (PPP)
- g) Skill Development for International Market
- h) Communication Plan for enhancing image of TVET sector in Pakistan

NAVTTC's Initiatives for Realization of Vision

NAVTTC has taken numerous initiatives for implementation of National “**Skills for All**” Strategy, which is a comprehensive roadmap to uplift TVET sector in Pakistan. For this purpose, NAVTTC is formulating skill development programmes, funded by public & private sector and other international organizations i.e. ILO, British Council, JICA, TIKA, Korean HRD, Department of Foreign Assistance Ministry of Commerce, China etc.

Prime Minister's Skills for All – Hunarmand Pakistan Programme

A wide-ranging skill development programme namely, “**Prime Minister's Skills for All – Hunarmand Pakistan Programme**” under the umbrella of **Kamyab Jawan** has been formulated and is being implemented by NAVTTC. The programme targets 02 major categories of interventions including: i) Human resource development through youth skill development and ii) Upgradation of TVET infrastructure at par with standards of local and international job market.

Initiatives for Enhancement of Quality of Training

Following initiatives have been taken for the enhancement of quality of training:

1. **Training in most demanded trades:** Training is being provided in accordance with national and international job markets the most demanded trades especially in Construction and Hospitality sectors etc. Training programmes in Conventional, High-Tech / High-End, cutting edge technologies and industrial occupations have

been launched. More than 100,000 youth will be equipped with technical and vocational hands-on skills.

2. **Inclusion of High-End Technologies:** To cater the needs of the modern industry both nationally and internationally, with specific focus on the expected requirements for CPEC projects, NAVTTC is introducing Skill trainings in High-Tech / High-End and cutting edge technologies aligned with “Industrial Revolution 4.0” and the courses such as Mechatronics, Robotics, Industrial Automation, Internet of Things (IoT), Cloud Computing, Free Lancing are being introduced in state of the art Universities, Institutions and Industries.
3. **Updated, Demand-Driven Curricula:** Curricula of more than 100 trades have been completely updated and brought in accordance with demands of local and international job markets with technical assistance of development partners.
4. **Quality Assurance through Accreditation Regime:** For the first time in history of Pakistan, a comprehensive accreditation regime for TVET sector has been introduced. More than 400 TVET institutes and 1,500 training programmes have already been accredited under the programme.

Strengthened Industrial Linkages

One of the major reasons for non-performing TVET sector in Pakistan was the absence of strong industrial linkages. To overcome this deficiency, special emphasis has been laid on giving pivotal role to industry and private sector for TVET sector development in the country. For this purpose:

- a) Three Sector Skill Councils (SSCs) have been established in the Construction & Hospitality, Renewable Energy and Textile Sector.
- b) The concept of Institute Management Committees (IMCs) has been introduced for the first time in the country, which gives greater representation to private sector in the management and training delivery at the TVET institute level.
- c) Industry has been actively involved in all aspects of training such as curricula development, final assessments, on-job training and selection of institutes.

Job Placement Centres (JPCs)

For the first time, NAVTTC took the initiative for establishing Job Placement Centres (JPCs), with dedicated resources. The JPCs linking Pakistani skilled workforce with employers in both national and international job markets. In addition to this 104 Job Placement and Vocational Counseling Centers (JP&VCCs) have been established across the country for the benefit of youth. Skill profiles of more than 570,000 Pakistani youth are available on this job portal and NAVTTC is providing free of cost facility to both youth and Pakistani industry to bring them closer and realize the dual objective of employment for youth and quality skilled workforce for industry⁵.

⁵ <http://jobplacement.gov.pk>

Institutional Capacity and Infra-Structure Upgradations

To upgrade the existing training facilities and bring Pakistan's TVET training at par with the international standards, seven (07) Centres of Excellence are being established across the country by NAVTTC for practicing best TVET models in Pakistan. In addition, laboratories and workshops of more than 70 TVET institutes have been upgraded with latest machinery and equipment. To build up soft institutional capacity of TVET sector in Pakistan, following initiatives have been undertaken;

- ▶ Two Batches of Pakistani TVET trainers have been sent to China for latest IT related skills, in collaboration with Huawei. Additionally, some 800 training instructors were provided training in latest methodologies / techniques across the country.
- ▶ NAVTTC has signed an MoU with Turkish Development Agency TIKA for establishing a state-of-the-art Centre of Excellence at Islamabad, with an estimated cost of more than Rs 900 million.

Introducing Matric-Tech Pathways for Integrating TVET and Formal Education

There is a complete disconnect between formal education and technical training in Pakistan. Resultantly, youth graduating from formal education system are handicapped in acquiring skills in accordance with demand of the labour market. To bridge this gap and to integrate TVET and formal education, Matric-Tech scheme is being launched on pilot basis in 15 selected schools of Islamabad, Gilgit Baltistan and Azad Jammu & Kashmir region covering 09 vocational trades. Under the scheme, students in Matriculation will be offered a third stream in the shape of Matric-Tech, where along with compulsory courses they will also be imparted hands-on technical skills in latest technologies. On completion of their Matric-Tech courses, students will have both the option open before them, either to enter the job market or to continue their further studies.

Higher Education Commission (HEC)

HEC plays a critical role in the production of human capital and the generation and transmission of knowledge, which is essential for achieving a high economic growth and a competitive position in the global knowledge economy. The new knowledge-based society and its economic growth are completely dependent on the generation of intellectual capital. This leads to dramatic rise in the demand for higher education. The youth are the biggest stakeholders in the process. Thus, there is a dire need to enable the higher education sector to lead the processes of learning management, delivery of services, innovation, creativity, research and commercialization for a synergistic way forward. In this regard, HEC has developed a "Vision 2025" which focuses on improving quality education, faculty development and maximizing the research and development opportunities in higher education sector.

There are a total of 224 Higher Education Institutes operating in the country, public sector (137) and private sector (87) having total enrolment of 1.9 million approximately. The number of sub-campuses of these universities has also been expanded to 102 (Public Sector: 75 & Private Sector: 27).

Quality of Higher Education

HEC aims to enhance quality of education through strong coordination and collaboration amongst universities and accreditation & professional councils, improve education system through proper assessment and evaluation processes with the cooperation of the concerned councils. At present 1,800 programmes are accredited by the Accreditation Councils established by HEC.

Quality Enhancement Cell (QEC):

HEC ensures that all existing and new universities should have a QEC to observe the standards being set for curricula, faculty, examination, management and digital resources. Currently, 209 out of 224 universities have established their QECs.

Human Resource Development

Human Resource Development (HRD) Division of HEC is responsible for the provision of scholarships to talented candidates. Programmes are primarily designed to fill the gap of the trained people in various fields relevant to the emerging national needs and priorities. The HRD performance for the CFY2021 (July-March) is as under:

Overseas Scholarships: A total number of **1,171** scholars proceeded abroad for their Ph.D. studies and **221** completed their studies. In addition, **378** scholars have been awarded a 6-month Ph.D. research fellowship abroad under International Research Support Initiative Programme (IRSIP) during the said period.

Indigenous Scholarships: A total number of **3,267** indigenous scholarships were awarded for Under-Graduate, Post-Graduate and Ph.D. studies and **550** scholars completed their studies during 2020-21.

Need-Based Scholarships: A total number of **1,835** needs-based scholarships were awarded under different need-based programmes, whereas **3,347** scholars completed their studies. It includes:

- i. HEC Needs-based scholarships
- ii. USAID-funded Merit & Needs-based Scholarship Programme
- iii. OGDCL Needs-based scholarship programme.

The Ehsaas Undergraduate (UG) Scholarships: A total of **18,275** scholarships are approved for Ehsaas UG Scholarship Phase-II for FY2021. The selection process at 129 HEIs is underway which is expected to be completed during FY2021. Funds to 47,000 awardees of Ehsaas UG Scholarship Phase-I have been released.

Research & Development

HEC aims to motivate and facilitate the Higher Education Institutions (HEIs) to make research a top priority for a sustainable economic growth and future knowledge economy. By putting all efforts in tailoring programmes and formulating policies, it assures relevant research to address the significant societal issues as well as

internationally compatible research for sustainable and progressive research ecosystem in the county.

HEC executes programmes and projects which ensure sustainable and progressive research culture. HEC focused on those research activities that have a direct impact on community wellbeing and economy of the country which includes;

- i. National Research Programme for Universities (NRPU); 105 projects have been awarded, while 265 projects completed during CFY2021.
- ii. Five (5) projects have been awarded under Grand Challenge Fund of Higher Education Development Programme (HEDP).
- iii. Seventeen (17) projects have been awarded under Technology Transfer Support Fund of HEDP.
- iv. Six (06) joint research grants have been awarded under Innovative & Collaborative Research Grant (ICRG) up to Max Rs 50 million for each partner by HEC & British Council.
- v. Under Technology Development Fund (TDF), Grants released to 64 research projects already awarded against various Calls. 29 products have been developed, 50 Commercialization agreements signed between industry & university.
- vi. 80 Travel Grants to attend conferences/Seminars abroad have been supported.
- vii. 35 cases under Library Support Programme were reimbursed to the Universities for purchase of books, Journals etc.
- viii. Research Publications: An IT based system termed “HEC Journals Recognition System” (HJRS) has been introduced under which more than 300 local and 28,000 international research journals across all the scientific fields have been recognized.
- ix. The policies of HEC’s flagship programmes, Office of Research Innovation and Commercialization (ORICs) and Establishment of Business Incubation Centres (BICs) were reviewed through National Committee on R&D and approved by the Commission for implementation by all public and private sector HEIs.
- x. Establishment of ORICs across the universities of Pakistan that will serve as a pivotal point to connect research activities and commercialization under one umbrella. So far, HEC has established 71 ORICs in different public and private sector HEIs.

National Academy of Higher Education (NAHE)

NAHE is a standalone, autonomous institution, operating initially under the auspices of HEC to improve the quality of teaching, research and academic governance in HEIs across Pakistan.

NAHE has trained more than 1,500 HEI faculty members (mid and senior) in the areas i.e. teaching effectiveness, effective research and project management. Despite uncertainties and restrictions due to the COVID-19 pandemic, NAHE steered successful collaborations in its first full year of activities. NAHE also conducted a series of

consultative and capacity building workshops, awareness sessions and top-up trainings engaging a total of 1,149 participants from HEIs during FY2021.

NAHE will work to collate and establish regional hubs of excellence with institutional partners across Pakistan, develop research policy frameworks that could lead to excellence in teaching and learning for faculty, staff and higher education progress and provide support to HEIs.

Planning & Development of Higher Education

To achieve the goals / targets of higher education mainly with respect to low & inequitable participation in higher education, improved quality of teaching & research and increase in capacity building of faculty, the HEC every year prioritize the projects / programmes which are to be funded through PSDP.

In FY2021, the government has allocated Rs 29.5 billion to HEC for implementation of 144 development projects (113 ongoing & 31 new approved projects) of Public Sector universities/HEIs. During July-March, FY2021 an amount of Rs 22.5 billion (76 percent of the total allocation) has been authorized to HEC for meeting expenditure against development projects.

Annual Status of Education Report, 2021, Measuring the Impact of COVID-19 on Education in Pakistan

Annual Status of Education Report (ASER), 2021, is the largest citizen-led household-based learning survey mostly in all rural and selected urban areas. It is led by the Idara-e-Taleemo-Aagahi (ITA) in collaboration with other stakeholders.

After unprecedented periods of school closures in 2020 and early 2021, ASER conducted a research study with the aim to measure the impact of COVID-19 on Education in Pakistan. The survey sample comprised of 12 rural districts (4 in Punjab, 4 in Sindh & 4 in Khyber Pakhtunkhwa). The reporting includes a total of 7,176 households, 18,838 children aged 3-16 years and out of these, 16,058 children aged 5-16 years (41% girls and 59% boys) were assessed for language and arithmetic competencies from 345 government and 184 private schools.

Box-II: Summary of Key Findings & Comparison between ASER 2019 and 2021. Enrolment (National Rural)	
<ul style="list-style-type: none"> ▶ In 2019, 86% of 6-16-year-old children in these 12 rural districts were enrolled in schools (14% out-of-school children). Amongst the enrolled, 67% were in government schools and 33% were enrolled in non-state institutions (private schools & madrasa). ▶ Pre-school enrolment (3-5 years) in 2019 recorded at 40%. 	<ul style="list-style-type: none"> ▶ In 2021, 84% of 6-16-year-old children were enrolled in schools, while 16% were out-of-school (6% are drop-outs). Among 6% who dropped out, 20% reported that they dropped out during COVID-19 due to financial hardships. Amongst the enrolled, 79% were enrolled in government institutes and 21% were enrolled in non-state institutions (private schools & madrasa). ▶ Pre-school enrolment (3-5 years) in 2021 stood at 35%.

<p>Conclusion: Enrolment has dropped slightly for age group 6 to 16, but more significantly for age-group 3 to 5. COVID-19 drove many households into financial hardships leading to an increase in dropouts. Moreover, a higher percentage of girls were found to be dropped out compared to boys.</p>	
<p>Quality of Learning (National Rural)</p>	
<p>In 2019,</p> <ul style="list-style-type: none"> ▶ Percentage of class 3 students able to read class 2 level story in Urdu/Sindhi/Pashto: 20 ▶ Percentage of class 5 students able to read class 2 level story in Urdu/Sindhi/Pashto: 58 ▶ Percentage of Class 3 students able to do 2-digit division: 22 ▶ Percentage of Class 5 students able to do 2-digit division: 47 ▶ Percentage of Class 3 students able to read Class 2 level English sentences: 23 ▶ Percentage of Class 5 students able to read Class 2 level English sentences: 49 	<p>In 2021,</p> <ul style="list-style-type: none"> ▶ Percentage of Class 3 students able to read Class 2 level story in Urdu/Sindhi/Pashto: 19 ▶ Percentage of Class 5 students able to read Class 2 level story in Urdu/Sindhi/Pashto: 56 ▶ Percentage of Class 3 students able to do 2-digit division: 12 ▶ Percentage of Class 5 students able to do 2-digit division: 44 ▶ Percentage of Class 3 students able to read Class 2 level English sentences: 23 ▶ Percentage of Class 5 students able to read Class 2 level English sentences: 48
<p>Conclusion: Learning losses for children of class 3 are higher compared to children of class 5. Subject-wise losses are more severe for arithmetic.</p>	
<p>Learning and Teaching During the COVID-19 Pandemic</p>	
<ul style="list-style-type: none"> ▶ About 52% of the surveyed children were not able to give proper time (at least one hour a day) to their studies during schools' closure periods. ▶ Of those who were able to give time to their studies, one-third reported that they had faced difficulty while studying Mathematics, Science and English on their own. ▶ About 50% students reported that they lacked confidence to study on their own during schools' closure. ▶ PTV's Tele-School & Home Support: About 27% students reported that they took some learning support from PTV's Tele-School programmes. Another 47% and 13% reported that they took family members' and paid tuitions' support/help to continue learning during COVID-19. ▶ Technology Support: About 27% students reported that they relied on TV for learning, another 16% used smart phones for continuing their learning. Average reported number of hours that children had access to household technology (computer/laptop/smartphone) for learning was 1 hour. 	
<p>Conclusion: It is observable that government, school and family resources remained modest for children to continue learning during COVID-19; however, a beginning for innovative distance learning and home support has been made for almost 30% and 54% of the students, respectively.</p>	
<p>School Facilities</p>	
<p>In 2019,</p> <ul style="list-style-type: none"> ▶ Teacher attendance in government schools was 88% compared to 85% in private schools. ▶ 86% of the government schools had toilets, compared to 96% in private schools. ▶ Drinking water facility was available in 86% and 98% in government and private schools respectively. ▶ 18% government and 20% private schools had a functional computer lab. 	<p>In 2021,</p> <ul style="list-style-type: none"> ▶ Teacher attendance in government schools recorded at 75%, compared to 72% in private schools. ▶ 77% of the surveyed government schools had toilets. Similarly, 95% surveyed private primary schools have toilet facilities. ▶ Drinking water facility is available in 68% and 81% in government and private schools, respectively. ▶ 14% government and 27% private schools have a functional computer lab.

<p>Conclusion: There is a disparity among available facilities in government and private schools and technology access remains limited. It is also of concern that compared to 2019, government schools have not maintained trends in making basic facilities available for children.</p>
<p>Schools' SOPs & Preparation to Prevent the Spread of COVID-19</p>
<ul style="list-style-type: none"> ▶ Alternate Day Schooling: Only 38% of the surveyed government and 55% private schools reported that they are practicing alternate day schooling. ▶ COVID-19 SOPs Posters: 70% of the government and 81% of the surveyed private schools reported that they have COVID-19 SOPs awareness posters on the school walls. ▶ Mask Wearing Practices: 70% of the government and 87% of the private schools reported that they ensure that students and teachers wear masks while in school. ▶ Temperature Check at Entrance: Only 46% of the government schools and 55% of the private schools reported that they ensure temperature check at school entrance. ▶ Social Distancing in Classrooms: 61% of the government schools and 56% of the private schools reported that students are seated at least 3 feet distance. ▶ Isolation Rooms Availability: Only 28% of the government schools and 46% of the private schools reported to have designated a separate room as isolation/quarantine room to isolate a suspected student of COVID-19 case.
<p>Conclusion: Lack of strict enforcement of COVID-19 SOPs in schools (more government) demands urgent government and decision makers' attention at the highest level; there is an urgency to improve non-pharmaceutical interventions (NPIs) and hold emergency preparedness drills for behavior change.</p>

Conclusion

The COVID-19 pandemic has not only created a health crisis in the country but also adversely affected other sectors including education sector. In order to mitigate the learning losses of students during the closure of educational institutes, the government has launched initiatives like Tele School and Radio School to provide distance learning and addressed provision of education to the children of far flung and remote areas during the pandemic.

Pakistan's literacy and enrolment have been improving over the last couple of years. The present government is focusing to improve both the quality and coverage of education through effective policy interventions and enhancing allocation of resources, but the required reforms in education sector cannot be achieved without active participation of private sector.