
Chapter 10

Education

Education is one of the key factors for changing the existing state of a nation into a distinguished position in the community of nations. The educational advancements which have taken place so far and the skills which have been acquired in due course of time are not only benefiting Pakistan but also the surrounding regions. For a country like Pakistan, it becomes even more indispensable for its socio-economic development through effective transition of its huge proportion of population i.e youth. Transformation of 63 percent youth into a real wealth requires optimum capitalization through establishing a high-quality and market demand driven basic, secondary and higher Education.

Pakistan is committed to transform its education system into a high-quality global market demand driven system in accordance with the Goal 4 of Sustainable Development Goals (SDGs) which pertains to quality of education. The progress achieved by Pakistan so far on Goal 4 of SDGs is as under:

- ⦿ Primary, Lower and Upper Secondary Education Completion Rate stood at 67 percent, 47 percent and 23 percent, respectively, depicting higher Primary attendance than Lower and Upper Secondary levels.
- ⦿ Parity Indices at Literacy, Youth Literacy, Primary and Secondary are 0.71, 0.82, 0.88 and 0.89, respectively.
- ⦿ Participation rate in organized learning (one year before the official primary entry age), by sex is 19 percent showing a low level of consideration of Pre-Primary Education.
- ⦿ Percentage of population in a given age group achieving at least affixed level of proficiency in functional; (a) literacy and (b) numeracy skills is 60 percent.

Various initiatives have been taken at federal and provincial levels to raise the standards of education in terms of quality education as part of our commitment to accomplish Goal 4 of SDGs. These initiatives include: i) enhancing access to education by establishing new schools, ii) upgrading the existing schools, iii) improving learning environment by providing basic educational facilities, iv) digitization of educational institutions, v) enhancing resilience of educational institutions to cater for unforeseen situations, vi) promoting distance learning, capacity building of teacher, and vii) improving hiring of teachers, particularly hiring of science teachers to address the issues of science education, etc.

Box-I: Single National Curriculum

- Single National Curriculum (SNC) has been introduced to minimize disparity in country's education system where three main education systems are in place, i.e. Public schools, Private schools and Deeni madaris. These systems are poles apart and often result in different mind-sets thus fractured psyche of the nation. SNC is aimed at providing equal learning opportunities to all segments of society and will provide equal opportunity of learning, help the students and parents in case of inter provincial mobility.
- Development of SNC is driven by key considerations like teachings of Quran and Sunnah, Constitutional Framework, National Policies, Aspirations and National Standards, Alignment with the SDG-4 goals and targets, vision of Quaid and Iqbal, focus on values, Life Skills Based and Inclusive Education, respect & appreciation for different cultures & religions in local and global context, focus on project, inquiry and activity-based learning, development of 21st century skills including analytical, critical and creative thinking.
- Single National Curriculum is being implemented in three phases:
 - Phase I: SNC and textbooks **Pre I-V** (Academic Year 2021-22)
 - Phase II: SNC and textbooks **VI-VIII** (Academic Year 2022-23)
 - Phase III: SNC and textbooks **IX-XII** (Academic Year 2023-24)
- In first phase, quality textbooks, teachers training, modules and assessment frameworks for Grade Pre I-V have been developed on the basis of SNC which have already been shared with all federating units.
- SNC has been implemented in all streams of education for the students from Grades Pre I-V from academic year 2021-22.
- Implementation has already been started in Islamabad, Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan from Academic year 2021. In Balochistan and Azad Jammu & Kashmir, implementation will start from the academic year 2022.
- Sindh was an active part of the development of the SNC. However, for implementation, discussions are going on with Sindh government.

Key Features

- English has always been taught as a subject in public schools. Now English will be taught as a language with focus on skills. Islamiyat used to be started from Grade 3 onwards. At Grade 1 & 2 Islamiyat was a part of General Knowledge. Now Islamiyat be taught as a separate subject from Grade 1. In Islamiyat curriculum, a complete framework of Seerat un Nabi (PBUH) is ensured focusing on practical aspects of the blessed life of Rasulullah (PBUH).
- For students from minorities, a separate curriculum with the title Religious Education has been developed for seven religions, i.e Christianity, Hinduism, Sikhism, Baha'i, Kalasha, Zoroastrianism and Buddhism. Social Studies is developed to encourage patriotism and global citizenship. Human rights and peace education are important areas focused in the curriculum and textbooks. Mathematics and Science are updated as per modern trends in teaching and learning.
- Teacher Training modules and Assessment framework, based on SNC, are developed for Grades Pre I-V to ensure proper implementation of SNC.

Challenges

Since the SNC is a major reform in the country, there are a few challenges in order to implement it in true letter and spirit. These challenges include:

- Capacity building of the existing teachers
- Induction of new teachers as per the requirements
- Uplifting of the educational facilities in the far-flung areas of Pakistan

Source: Ministry of Federal Education and Professional Training

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, a rise of 6.1 percent in pre-primary enrolment (13.5 million) in 2019-20 over 2018-19 (12.7 million) has been observed and it is further estimated to increase by 6.4 percent to 14.4 million in 2020-21 (Table 10.1).

ii) Primary Education (Classes I-V)

In 2019-20, there were a total of 183.9 thousand functional primary schools with 507.6 thousand corresponding teachers recorded in the country. An increase of 4.2 percent in primary enrolment is witnessed as the total enrolled students increased to 24.6 million in 2019-20 against 23.6 million in 2018-19. However, it is projected to further increase to 25.7 million in 2020-21 (4.4 percent).

iii) Middle Education (Classes VI-VIII)

During 2019-20, total number of middle institutes stood at 48.3 thousand with 466.4 thousand employed teachers in the country. An increase of 3.9 percent in middle enrolment is observed. The total enrolled students reached to 7.9 million in 2019-20 against 7.6 million in 2018-19 and it is projected to increase by 4.0 percent (from 7.9 million to 8.3 million) in 2020-21.

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

During the 2019-20, a total of 32.0 thousand secondary schools were functional, with a total number of 582.3 thousand teachers recorded in the country. An increase of 6.2 percent in secondary school enrolment is observed at the national level as the total enrolment increased to 4.2 million in 2019-20 against 4.0 million in 2018-19. However, it is estimated to further increase by 6.5 percent (i.e., from 4.2 million to 4.5 million) during 2020-21.

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

During 2019-20, 6.0 thousand higher secondary schools/inter colleges with 136.7 thousand teachers were functional at national level. The overall enrolment of students in higher secondary education witnessed an increase of 8.8 percent in 2019-20. The enrolment registered during 2019-20 was 2.33 million as compared to 2.14 million in 2018-19. For 2020-21, it is projected to reach at 2.55 million.

vi) Technical & Vocational Education

During 2019-20, 3.8 thousand technical and vocational institutes with 18.6 thousand teachers were functional at the national level. The enrolment increased to 0.46 million in 2019-20 from 0.43 million compared to 2018-19. However, it is estimated to increase by 7.7 percent (i.e., from 0.46 million to 0.50 million) in 2020-21.

¹According to Academy of Educational Planning & Management (AEPAM), the estimated data for enrolment, number of institutions and teachers for the year 2021-22 is not available. However, the said data will be available in July 2022 which will be incorporated in the Statistical Supplement of Pakistan Economic Survey, 2021-22. Therefore, the estimated data for the year 2019-20 and 2020-21 is considered for analysis.

vii) Degree Colleges (Classes XIII-XIV)

An enrolment of 0.76 million students is expected during 2020-21 in degree colleges as against the enrolment of 0.74 million in 2019-20. A total of 3,320 degree colleges with 64,293 teachers were functional during 2019-20.

viii) Universities

There are 218 universities with 58.0 thousand teachers in both public and private sectors functional in 2019-20. The overall enrolment of students in higher education institutions (universities) increased to 1.91 million in 2019-20 from 1.86 million in 2018-19. The enrolment is expected to increase from 1.91 million in 2019-20 to 1.96 million (i.e., 2.8 percent) in 2020-21.

Overall Assessment

The overall education situation based on the key indicators, such as enrolments, number of institutions and teachers have shown a significant improvement. The total number of enrolments during 2019-20 was recorded at 55.7 million as compared to 53.1 million during 2018-19, which shows an increase of 4.9 percent. It is estimated to increase to 58.5 million during 2020-21. The number of institutions recorded at 277.5 thousand during 2019-20 as compared to 271.8 thousand during 2018-19. However, the number of institutions are estimated to increase to 283.7 thousand in 2020-21.

Similarly, there were 1.83 million teachers in 2019-20 as compared to 1.79 million last year. The number of teachers is estimated to increase to 1.89 million during 2020-21.

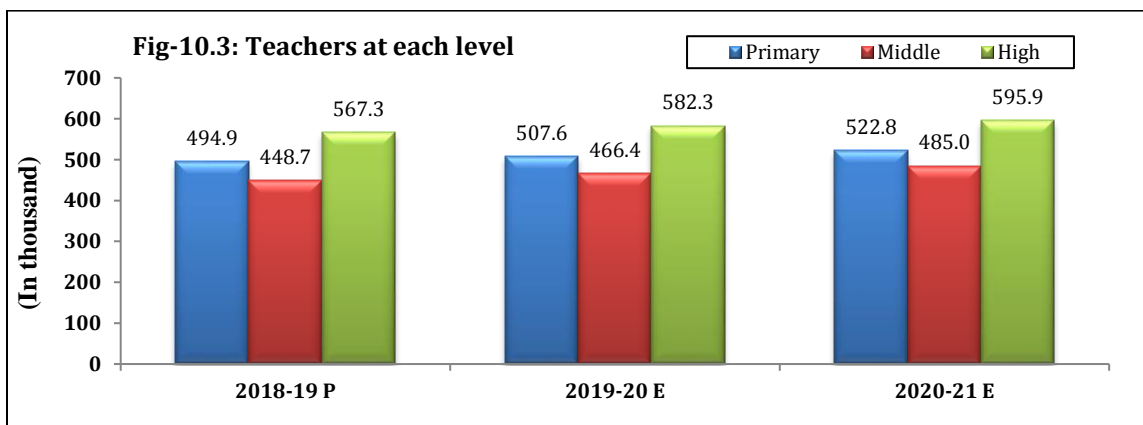
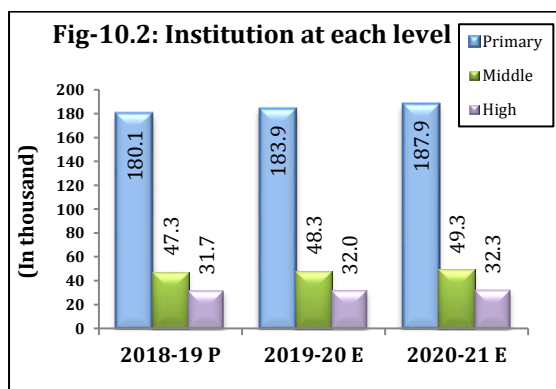
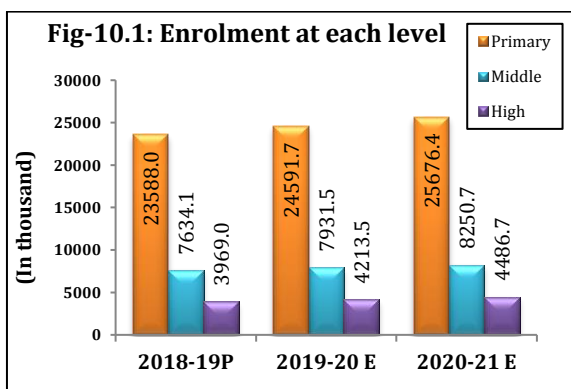


Table 10.1: Number of Mainstream Enrolment, Institutions and Teachers by Level (Thousands)

	Years	Pre-Primary	Primary [^]	Middle	High	Higher Sec./Inter	Degree Colleges	Technical & Vocational Institutes	Universities	Total
Enrolment	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	2139.9	725.6	433.2	1858.7	53055.6
	2019-20**	13487.9	24591.7	7931.5	4213.5	2328.3	741.5	464.5	1910.0	55668.9
	2020-21**	14360.2	25676.4	8250.7	4486.7	2548.9	758.0	500.2	1964.0	58545.1
Institutions	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*	-	180.1	47.3	31.7	5.9	2.9	3.7	0.202	271.8
	2019-20**	-	183.9	48.3	32.0	6.0	3.3	3.8	0.218	277.5
	2020-21**	-	187.9	49.3	32.3	6.2	3.9	3.9	0.233	283.7
Teachers	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*	-	494.9	448.7	567.3	136.0	61.6	18.2	60.3	1787.0
	2019-20**	-	507.6	466.4	582.3	136.7	64.3	18.6	58.0	1833.9
	2020-21**	-	522.8	485.0	595.9	138.6	77.9	19.0	56.0	1895.2

*: Provisional, **: Estimated, ^: Including Pre-Primary, Mosque Schools, BECS and NCHD

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

Literacy, Gross Enrolment Rate (GER) and Net Enrolment Rate (NER)

Literacy

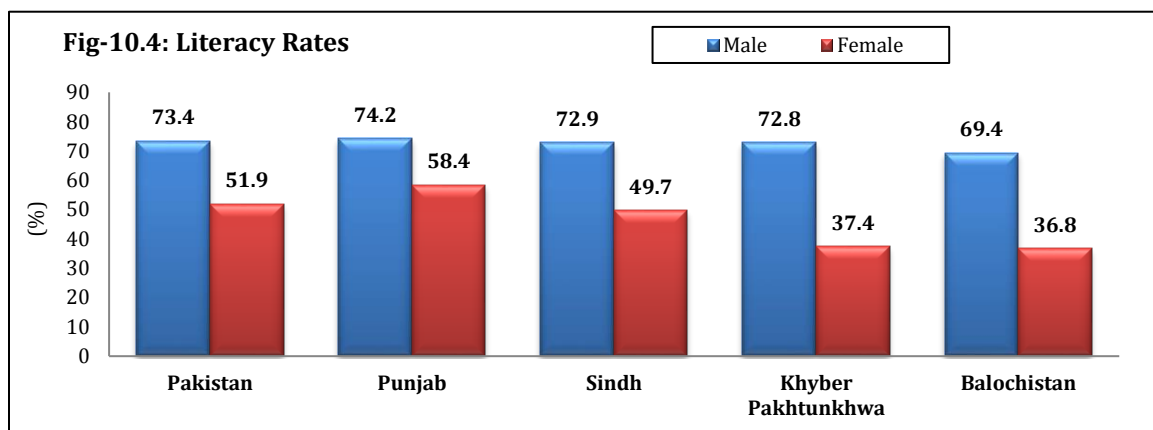
During 2021-22, PSLM Survey was not conducted due to upcoming Population and Housing Census 2022. Therefore, the figures for the latest available survey regarding GER and NER may be considered for the analysis. However, according to Labour Force Survey 2020-21, literacy rate trends shows 62.8 percent in 2020-21 (as compared to 62.4 percent in 2018-19), more in males (from 73.0 percent to 73.4 percent) than females (from 51.5 percent to 51.9 percent). Area-wise analysis suggest literacy increase in both rural (53.7 percent to 54.0 percent) and urban (76.1 percent to 77.3 percent). Male-female disparity seems to be narrowing down with time span. Literacy rate gone up in all provinces, Punjab (66.1 percent to 66.3 percent), Sindh (61.6 percent to 61.8 percent), Khyber Pakhtunkhwa (52.4 percent to 55.1 percent) and Balochistan (53.9 percent to 54.5 percent). [Table 10.2].

Table 10.2: Literacy Rate (10 Years and Above) (Percent)

Province/Area	2018-19			2020-21		
	Male	Female	Total	Male	Female	Total
Pakistan	73.0	51.5	62.4	73.4	51.9	62.8
Rural	67.1	40.4	53.7	67.2	40.8	54.0
Urban	82.2	69.7	76.1	83.5	70.8	77.3
Punjab	74.3	58.1	66.1	74.2	58.4	66.3

Province/Area	2018-19			2020-21		
	Male	Female	Total	Male	Female	Total
Rural	69.2	48.4	58.5	69.0	48.9	58.8
Urban	82.2	74.3	78.3	82.5	74.3	78.5
Sindh	72.5	49.5	61.6	72.9	49.7	61.8
Rural	60.0	26.5	44.4	58.8	26.8	43.3
Urban	82.8	67.7	75.6	85.2	69.9	77.9
Khyber Pakhtunkhwa	70.1	35.5	52.4	72.8	37.4	55.1
Rural	68.1	31.8	49.4	70.1	33.5	51.7
Urban	79.4	53.2	66.2	85.8	57.8	72.3
Balochistan	70.7	32.7	53.9	69.4	36.8	54.5
Rural	66.3	27.2	49.1	65.0	31.1	49.5
Urban	81.8	46.8	66.4	80.0	50.9	66.8

Source: Labour Force Survey, 2020-21, Pakistan Bureau of Statistics



During 2021-22, PSLM Survey was not conducted due to upcoming Population and Housing Census 2022. Therefore, the figures for the latest available survey are reported here.

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.

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

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

Province/Area	2014-15			2019-20		
	Male	Female	Total	Male	Female	Total
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 FY2021 remained at 1.77 percent of GDP (revised estimates). Expenditures on education-related expenditures during FY2021 witnessed an increase of 9.7 percent, reaching Rs 988 billion from Rs 901 billion. The education related expenditure details are given in Table 10.5 and Figure 10.5.

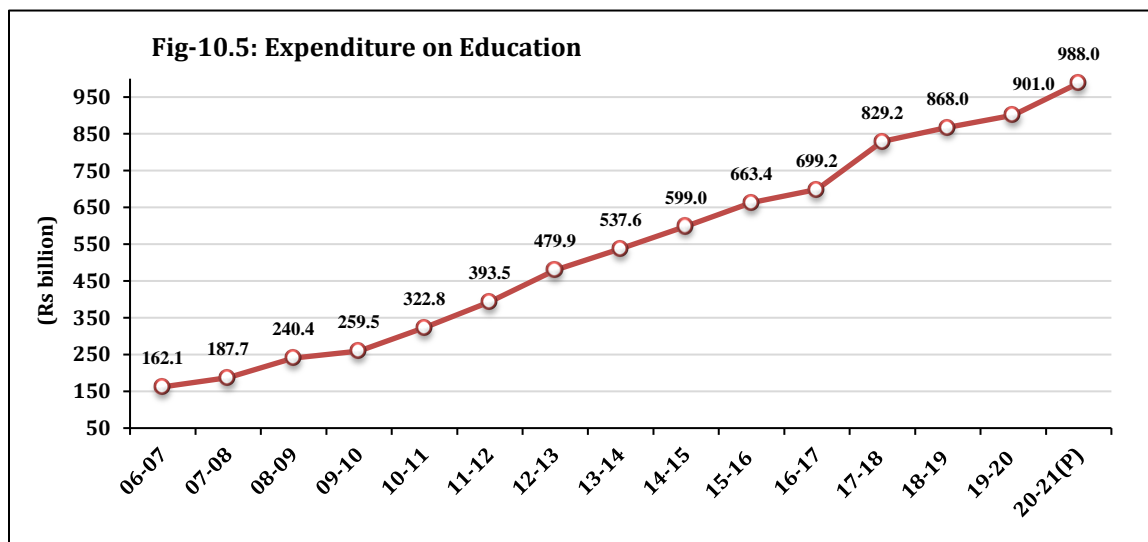
Table 10.5: Expenditure on Education (Rs million)

Years		Current Expenditure	Development Expenditure	Total Expenditure	As percent of GDP
2015-16	Federal	84,496	34,665	119,161	2.02
	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	1.97
	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	2.12
	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	1.98
	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	

Years		Current Expenditure	Development Expenditure	Total Expenditure	As percent of GDP
2019-20	Federal	83,266	31,300	114,566	1.90
	Punjab	337,562	35,378	372,940	
	Sindh	165,028	5,427	170,455	
	Khyber Pakhtunkhwa	162,778	18,523	181,301	
	Balochistan	53,640	8,111	61,751	
	Pakistan	802,274	98,739	901,013	
2020-21 (P)	Federal	90,974	34,305	125,279	1.77
	Punjab	352,278	32,964	385,242	
	Sindh	183,718	11,310	195,028	
	Khyber Pakhtunkhwa	188,246	28,377	216,623	
	Balochistan	55,924	9,936	65,860	
	Pakistan	871,140	116,892	988,032	

P: Provisional

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



Development Programmes FY2022

Federal Public Sector Development Programme (PSDP) FY2022

An amount of Rs 9.7 billion was allocated in PSDP FY2022 for 24 on-going and 4 new development projects of the Ministry of Federal Education and Professional Training. While, an amount of Rs 2.8 billion was also allocated for 6 on-going and 3 new education related development projects sponsored by Finance, Defence, Housing & Works and Kashmir Affairs & Gilgit Baltistan Divisions.

Provincial Annual Development Programmes (ADPs) FY2022

The provincial governments have prioritized education sector and intervened to provide 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.

Punjab

During FY2022, an amount of Rs 54.3 billion was allocated by Government of Punjab for 110 on-going and 405 new development projects of education sector. Out of which Rs 35.5 billion was allocated for school education, Rs 15.1 billion for higher education, Rs 0.8 billion for special education and Rs 2.9 billion for literacy and non-formal education.

Sindh

During FY2022, the Sindh government dedicated Rs 30.3 billion for 225 on-going and 283 new development projects of education sector. Out of which an amount of Rs 18.3 billion was allocated for school education, Rs 4.0 billion for college education, Rs 0.8 billion for Empowerment of Persons with Disabilities, Rs 1.2 billion for Sindh TEVTA and Rs 6.0 billion for Universities & Boards.

Khyber Pakhtunkhwa

The government of Khyber Pakhtunkhwa has allocated Rs 24.6 billion in FY2022 for 172 on-going and 39 new development projects. Out of which, an amount of Rs 4.3 billion was allocated for primary education, Rs 12.1 billion for secondary education, Rs 1.2 billion for elementary & secondary education and Rs 7.0 billion for higher education. This amount is 94 percent higher than the last year allocation.

Balochistan

The Balochistan government allocated Rs 31.4 billion for FY2022 for 510 on-going and 380 new development projects. Out of the total allocation, an amount of Rs 2.3 billion was allocated for primary education, Rs 1.9 billion for middle education, Rs 8.6 billion for secondary education, Rs 8.5 billion for college education, Rs 9.5 billion for university education, Rs 0.2 billion for general education and 0.4 billion for technical education.

Technical and Vocational Education

National Vocational & Technical Training Commission (NAVTTTC)

NAVTTTC executed nation-wide targeted skill development programme which is focused on preparing skilled human resource for local & international labour market and primarily for national mega projects, like CPEC and other energy-related projects.

NAVTTTC's prime focus is to engage youth in the economic development of the country by imparting the most demanded marketable skills. Socio-economic progress of youth through skill development & infrastructure upgradation in Human Resource Development, especially youth through skill development in Technical and Vocational Education and Training (TVET) sector is included in Vision 2025 and the globally approved 17 SDGs. Federal TVET/Skill Building Strategy has strong provisions for recommended activities/National Skill for All Strategy, based on recommendations of Task Force on Education.

Skill development is the quickest and most effective method of youth empowerment and channelizing their energies for socio-economic development of the country. NAVTTC under the umbrella of Ministry of Federal Education and Professional Training, promoting linkages among various stakeholders; improving TVET image; uplift TVET sector; and improves employability. NAVTTC accords a high priority to address the issues being faced by neglected geographical areas, marginalized segments of the society; and uplift TVET sector in the country. A comprehensive skill development programme, i.e., Prime Minister's Special Package to implement "Skills for All" Strategy as a catalyst for TVET Sector Development, is being implemented by NAVTTC. NAVTTC with the vision of "Skills for Employability, Skills for All" is imparting the youth of country with employable technical and vocational hands-on skills to prepare them for decent employment and self-employment in the shortest possible time.

The TVET landscape of Pakistan has taken its shape as a result of consequent policies, measures and interventions taken by the government, which are highlighted as under:

National Skills for All Strategy

Implementation of Prime Minister's "Skills for All Strategy"-Hunarmand Pakistan Programme under Kamyab Jawan Initiative

Government of Pakistan constituted a Task Force under the Ministry of Federal Education and Professional Training to devise a comprehensive strategy for skill development in the country. NAVTTC spearheaded the proceedings of this initiative and developed the National Skill Strategy, which is aligned with the National agenda and National TVET Policy. The strategy has been developed under a framework that aims to revamp and uplift the entire TVET sector by identifying key issues and taking qualitative and quantitative measures to address them, for skill development in the country. Based on the notified terms of reference, the Task Force identified (08) key areas that required immediate Government interventions for proceeding towards a vibrant, responsive and productive TVET system. These eight areas are mentioned below:

- ⦿ Improving Governance to remove fragmentation/duplications leading to systemic wastages
- ⦿ Exploring Multi-Source Funding to pursue a broad-based reform agenda
- ⦿ Capacity Enhancement to create more and more training opportunities
- ⦿ Quality Assurance to bring quality of skills at par with national-international requirements
- ⦿ Access and Equity for providing equal opportunities to such marginalized segments of society as females, orphans, special people, youth from less developed areas, etc.
- ⦿ Industry Ownership to enhance both relevance of training and youth employability
- ⦿ Skill Development for international market for increasing foreign remittances
- ⦿ TVET Communication Plan to increase image of skill sector

On-going TVET interventions in TVET Sector through "Skill for All" Programme (PSDP) in the light of National Skills Strategy 2018

Subsequent to National Education Policy 2017 and National Skills for All Strategy 2018, the government is executing the "Skill for All Programme" in 14 areas of interventions, which is aimed at total transformation of Pakistan TVET landscape on the international standards under the PSDP project Prime Minister's "Skills for All Strategy"-Hunarmand Pakistan Programme under Kamyab Jawan Initiative, a comprehensive skill development programme is prepared and being implemented by NAVTTC to implement the above recommendations of the Task Force. Fourteen (14) components/areas of interventions covered under this programme include:

- ⦿ Development & Standardization of 200 TVET Qualifications
- ⦿ International Accreditation of 50 Pakistani TVET Institutes and Initiation of Joint Degree Programmes in TVET
- ⦿ Extension of NAVTTC's Job Portal into National Employment Exchange (NEX) Portal and refurbishing & connecting all existing job placement facilities across the country to NEX
- ⦿ Establishing 75 Smart Tech Labs for virtual skill development programmes including distant learning programmes in the TVET sector
- ⦿ Establishing 10 countries of destination-specific facilitation centers in 10 major manpower exporting cities across Pakistan
- ⦿ Establishing 70 labs/workshop in madrassa(s) to introduce skill development and TVET activities across Pakistan
- ⦿ The skill development programme for 50,000 youth belonging to less developed areas of the country, especially Balochistan, GB, AJK and newly merged districts of Khyber Pakhtunkhwa (Ex-FATA), Southern Punjab & Rural Sindh
- ⦿ Skill development training of 50,000 youth in High-End technologies in reputed Universities of Pakistan and TVET Institutes
- ⦿ Apprenticeship training of 20,000 youth in the industry under Apprenticeship Act-2018 (formal & informal apprenticeship)
- ⦿ Recognition of Prior Learning (RPL) of 50,000 youth to certify informally acquired skills inside the country and abroad and training of 4,000 Assessors
- ⦿ Establishing the National Accreditation Council, placed at ICT
- ⦿ Accreditation of 2,000 TVET Institutes across the country
- ⦿ Transfer of Technology through collaboration with technologically advanced countries for bringing the TVET system in Pakistan at par with international standards and Master Training of 500 TVET Teachers in Technology
- ⦿ Establishment of 50 Business Incubation Centers to promote self-employment and entrepreneurship in skilled youth

NAVTTTC has made major contribution to national human resource development and has generated a large number of employment for the skilled youth, overseas and nationally, benefitting the individuals as well as the national economy. Some key achievements of NAVTTTC are;

- 379,350 youth trained as certified skilled professionals
- 170,000 trained in year 2021, in 720 institutes, with 71 percent employed
- 40,361 trained in High-Tech skills including Artificial Intelligence, Robotics, Cyber Security & IT and other 104 trades
- Developed National Skills Information System (NSIS) and established NEXT Skilled Youth & Job Portal with Databank of 311,734 certified skilled youth available in real time;
- 18,627 personnel certified and mainstreamed through RPL (Recognition of Prior Learning)
- Developed National Vocational Qualifications Framework (NVQF)
- Competency Based Training & Assessment (CBT&A)/outcome based Curriculum has been developed in 102 demand driven trades in accordance with international and national job market. Designing of TVET Curriculum to Cater Attitude and Personality Grooming of Skilled Work Force to cater technical skills, professional/work ethics, confidence building, practical tasking, Introduction of CBT&A in TVET sector, i.e. (80 percent practical and 20 percent theory) in all TVET institutes
- Matric-Tech Programme has been launched in 15 schools of ICT, GB & AJK in 08 discipline to mainstream TVET in formal education
- 50 Smart Labs and 500 Class Rooms set up with the Chinese CPEC support;
- 577 national institutes accredited; International Accreditation, etc
- 10 TVET institute Internationally Accredited by International accreditation agencies
- Saudi Takamol Skills Verification Programme (SVP) system has been established for Pakistani Skilled workforce to seek employment in KSA

Higher Education Commission (HEC)

HEC is not only plays a central role for the promotion of quality education and development of the higher educational institutions in Pakistan but also promote universities to become world-class centers of education, and produce quality research in the field of science and technology.

HEC has prepared and launched its Vision 2025, presenting a broader landscape of Higher Education Sector and future strategic frameworks.

HEC Vision Plan 2025 focuses on improving quality education, faculty development, and maximizing the research and development opportunities in higher education sector. Major areas of higher education have restructured to enhance the reach and effectiveness by prioritizing equitable access, improved learning and increased

assurance of the attainment regardless of background. Only the gains in education results in increased and sustained socio-economic development

To enhance the equitable access to quality higher education, the total number of universities in the country both in Public Sector & Private Sector has been increased to 233 (Public Sector: 141 & Private Sector: 92). Similarly, the number of sub-campus of these universities has also been expanded to 115 (Public Sector: 82 & Private Sector: 33). Ultimately, the total enrolment has also been increased to around 2.0 million.

Quality of Higher Education

HEC through its Ordinance, has established Quality Assurance Agency (QAA) in 2005. The agency is a policymaking and monitoring body for enhancement and assurance of quality in Higher Education Institutions. It is involved in the systematic implementation of quality enhancement procedures/criteria to attain improved levels of international compatibility and competitiveness at the institutional and programme level.

Internal Quality Assurance [IQA]

The objective of IQA processes is to enhance and institutionalize the quality culture in institutions of higher learning. For this purpose, the IQA processes relate to the activities with respect to establishing new QEC and strengthening the implementation of QA parameters. To reinforce its objective, IQA holds periodic progress review meetings, capacity building workshops and performs monitoring visits. The quality of the IQA mechanism in an HEI is measured quantitatively, on annual basis, by means of a scorecard. The major outcome of the IQA mechanism is to prepare an HEI for external evaluations.

Currently, 227 QEC are functional in the HEIs across the country. The establishment of QEC is a requirement for every new university established in public as well as private sector HEIs. During FY2022, new QECs have been established in 21 HEIs across Pakistan. Also progress review meetings and capacity building workshops of 227 QECs are conducted in all regions, across the country, i.e. Lahore, Peshawar, Karachi, Islamabad, Bahawalpur, Hyderabad, Quetta and Swat.

External Quality Assurance (EQA)

Institution Level [Institution Performance Evaluation (IPE)]

This is an umbrella activity that evaluates the performance of an HEI through a peer review process from all aspects, i.e. quality of teaching & learning, research, the effectiveness of leadership and governance. The main objective is to evaluate the overall performance of an HEI. For this purpose, the QAA plans are administers the activities of IPE against eleven defined standards. The standards are namely, Mission Statement and Goals, Planning and Evaluation, Organization and Governance, Integrity, Faculty, Students, Institutional Resources, Academic Programmes and Curricula, Public Disclosure and Transparency, Assessment & Quality Assurance, and Student Support Service.

So far, 140 HEIs are reviewed across the country, which includes 22 HEIs in the FY2022. Also, capacity building and consultative sessions were held with the 227 HEIs across Pakistan.

Undergraduate-Level Programme

HEC has established five Accreditation Councils in the areas of Agriculture, Business, Computing, Teacher and Technology Education in addition to already existing nine professional Councils, i.e., Pakistan Council for Architects and Town Planners (PCATP), Pakistan Bar Council (PBC), Pakistan Engineering Council (PEC), Pakistan Medical and Dental Council (PM&DC), Pakistan Nursing Council (PNC), Pakistan Veterinary Medical Council (PVMC), National Council for Tibb (NCT), Pharmacy Council of Pakistan (PCP) and National Council for Homeopathy (NCH).

These Councils worked with universities for accreditation of undergraduate programme in the relevant fields and continuously engaged in improving the quality of programmes offered by them. HEC closely work with these Councils in improving their accreditation standards and processes, capacity building of programme evaluators through training workshops, etc.

So far 1800 professional programmes, across Pakistan, are accredited by the councils established by QAA-HEC.

Postgraduate-Level (Ph.D. & MS/MPhil) Programme

The review of MS/M.Phil./Ph.D. or equivalent Programme is one of the key initiatives of QAA. Under this programme, the Postgraduate programmes (i.e. levels 07 and 08) are reviewed through expert committees to assure the compliance of HEC's minimum criteria/guidelines.

For this purpose, QAA reviews the MS/MPhil and Ph.D. Programmes of HEIs through expert committees to make them internationally compatible. So far, programmes of 121 universities have been reviewed covering more than 2500 MS/MPhil and Ph.D. programmes. Capacity building of reviewers is a regular feature of the programme. So far around 130 reviewers have benefited from QAA Programme Review training workshops.

International Liaison:

HEC Pakistan is experiencing a paradigm shift in terms of QAA aiming at excellence in teaching, learning and research. In order to incorporate international best practices in the context of quality assurance, a liaison has been developed with QAA-UK, international Networks on QA. Membership of the Asia Pacific Quality Network (APQN), CHEA, International Network of Quality Assurance in Higher Education (INQAAHE) and Quality Assurance Agencies of the Islamic World has been earned.

HEC's officials have been participating in the annual conferences organized by International QA Networks from time to time. The learning outcomes of participation in these networks and exchange of ideas have been incorporated in the QA system of HE sector of Pakistan.

Human Resource Development

The HEC is investing a handsome amount on different Scholarship Schemes as well as teaching faculty to meet their aspirations of obtaining highest qualifications through development and recurring projects/programmes of scholarships.

Overseas Scholarships: A total number of **623** scholars proceeded abroad for their PhD, MS and Under-Graduate studies and 146 has completed their studies during FY2022 (Jul-Apr).

In addition, **292** scholars have been awarded whereas **230 scholars** completed 6-month PhD research fellowship abroad under International Research Support Initiative Programme (IRSIP) during the said period. HEC of Pakistan is offering six-month research fellowship abroad to full time PhD students enrolled in Pakistan to enhance their research capabilities.

Indigenous Scholarships: A total number of **977** indigenous scholarships were awarded for Under-Graduate, Post-Graduate and PhD studies under various schemes and **327** scholars completed their studies during FY2022 (Jul-Apr).

Foreign Students in Pakistan: Government of Pakistan has offered scholarships to students of Afghanistan, Sri Lanka and least developed countries of OIC. During FY2022 (Jul-Apr) a total 469 scholarships awarded to nationals of these countries, whereas 10 scholars completed their studies.

Need-Based Scholarships: A total number of **2,878** needs-based scholarships were awarded during FY2022 (Jul-Apr) under different need-based programmes, whereas **2,899** scholars completed their studies. It includes:

- i. HEC Need-based scholarships
- ii. USAID-funded Merit & Need-based Scholarship Programme

Research & Development

HEC aims motivating and facilitating the 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 reassures relevant research to address the significant societal issues as well as internationally compatible research for sustainable and progressive research ecosystem in the county.

HEC focused on research activities those have direct impact on community wellbeing and economy of the country. These are:

- a. The performance evaluation of HEC recognized 75 ORICs was carried out by the RFI Section, through which 06 ORICs were categorized in the “X” category.
- b. HEC R&D Division recognized 04 ORICs who fulfilled the minimum criteria in accordance with the HEC ORIC Policy. These include Karachi Institute of Economics and Technology, Karachi, Muhammad Nawaz Shareef University of Agriculture, Multan, University of Balochistan, Quetta and University of Central Punjab, Lahore – taking the total number of recognized ORICs to 76. (information till March 2022)

- c. HEC in collaboration with the British Council conducted 03 training workshops for ORIC Management in Karachi, Islamabad, and Faisalabad in which Director ORICs of different HEIs of Pakistan participated
- d. HEC initiated the call for proposals from interested HEIs for Establishment of Business Incubation Centers (BICs). In response to the call, 23 HEIs submitted their proposals out of which 08 HEIs have been shortlisted for physical evaluation and final award (information till March 2022)
- e. HEC in collaboration with SMEDA initiated the Establishment of National Idea Labs at HEC established BICs. 05 BICs (NUST, NED, NTU, IMSciences, BUIITEMS) have been shortlisted for the pilot phase and NIL Agreement Signing Ceremony will be held in March 2022. The NIL will provide facilitation service to final year students to convert their ideas into sustainable businesses (information till March 2022)
- f. Innovator Seed Fund Pre-Launch Webinars were organized for the facilitation and wider outreach of information of different stakeholders. 09 Webinars were held in total targeting different thematic areas.
- g. A one-day rigorous training of BIC Managers was organized in December 2021 on Innovator Seed Fund. BIC Managers of 29 BICs across Pakistan participated in the training.
- h. HEC announced call for Concept Notes against HEDP funded Innovator Seed Fund Programme. The deadline for submission of concept notes was 31st January 2022. HEC has finally received 186 applications, endorsed by the partnering BICs for further evaluation process (information till March 2022)
- i. Under Innovation Seed Fund Programme of HEDP, Mapping and Needs Assessment Exercise for ORICs and BICs was carried out. The final report has been approved and disseminated with ORICs and BICs virtually.
- j. HEC held a series of consultative virtual meetings with Chambers of Commerce and Industries to improve the university-industry linkages. 10 consultative online meetings were held and 04 round table sessions were held for active coordination between industry and academia.
- k. HEC relaunched its Access to Scientific Instrumentations Programmes for the facilitation and support of Research Students to have analytical facilities from scientific instruments/laboratories not available in their HEIs. Against first call for applications, HEC R&D Division has received 129 applications so far for grant of Rs 200,000/- per applications as sample analysis funding. The applications are in process of final award and around 150 more applications are anticipated to be awarded by close of FY2022.
- l. Key achievements of National Centers' are given as under:
 - a. National Centre on Cyber-Security won Erasmus+ Collaborative Project (worth of € 1 million)
 - b. Beta versions of products started deploying at key strategic partners for validation includes FIA, Military, PTA, MoST, MoIT and others

- c. NCCS completed Cyber Security audit of federal ministries and departments
- d. Delivered Smart City Project brief for PSDP to MoST through HEC P&D
- e. Nations' 1st Bachelor and Master levels curriculum of Cyber Security and Artificial Intelligence
- f. National Center for Robotics and Automation (NCRA) was approached by Prime Minister of Pakistan through MoST to develop Pakistan's 1st National Drone Policy and Civil Drone Regulatory Authority
- g. On PM's instruction, NCRA developed PC-I for "Development of Indigenous UAV Technology in Pakistan"
- h. 1st time, in Pakistan these National Centers started holding international IEEE and other conferences on themes of these centers
- i. All National Centers further funded 38 (each worth of Rs 15 million) specialized R&D projects to develop products with industry partners other than their PC-I domain to cover wider areas under these centers
- j. National Center for Big Data and Cloud Computing established Pakistan's first Big Data Open Portal and integrated with national needs of the different departments
- k. National Center for GIS and Space Application hold the annual conference and was attended by President of Pakistan as a chief guest
- l. National Center for GIS and Space application awarded further 12 projects on competitive basis from its research fund
- m. Two new national centers, established through PSDP, were operationalized
- n. Centers, NCs and USPCASs were bi-annually evaluated through progress reports
- o. Standard Operating Procedures (SOP) for the different statutory functions of the centers enshrined and procedures for reporting and evaluation, were worked out
- p. Proposal for "Establish a Center of Excellence on Digital Learning to enhance productivity in Higher Education" was submitted to Asian Productivity Organization, Japan in collaboration with National Productivity Organization, Pakistan, Virtual University and National Academy of Higher Education, HEC
- q. Concepts for establishment of Endowment Fund Framework of the National Center for Livestock Breeding Genetics and Genomics were worked out.
- r. Area Study Centers (6) have been successfully connected with the Strategic Policy Planning Cell, National Security Division for Policy inputs on quarterly basis for the consideration in National/ Regional Foreign Policy of the country.

National Academy of Higher Education (NAHE)

NAHE is the academic arm of HEC, envisioned to establish itself as an apex learning institution that will institute and lead broader national discourse around the purpose, perspectives and policy in Higher Education and help develop high quality human capital to achieve excellence in the academic milieu.

NAHE works as centre of excellence for capacity building, skills development, and promotion of academic research, governance, and leadership competencies. NAHE was established with the mandate to offer generic as well as needs-based capacity building programmes for HEC employees and HEIs.

- The NAHE conducted three cohorts of its flagship National Faculty Development Programme (200+ contact hours), providing intensive training to 498 Interim Placement for Fresh PhDs (IPFP) fellows.
- NAHE also conducted a series of consultative and capacity building workshops, awareness sessions, and top-up trainings engaging a total of 3,370 participants from faculty and HEC employees during FY2022 (July-April) in 10 training areas.

So far, NAHE trained total 3,868 participants in above mentioned training programme during FY2022 (July-March).

Planning & Development of Higher Education

HEC plans continue reforms that are in line with GoP Vision 2025 mainly to implement a process of developing human capital and to take higher education opportunities at the district level throughout the country.

During FY2022, the government initially allocated Rs 42.450 billion to HEC for implementation of 168 development projects (128 ongoing & 40 new approved projects) of Public Sector Universities/HEIs. However, later on, the PSDP FY2022 was rationalized/curtailed by government to Rs 32.338 billion. During FY2022 (July-April), Rs 24.242 billion around 62 percent of the funds allocation) has been released to HEC/Public Sector Universities/HEIs for meeting expenditure against ongoing projects for various activities.

Annual Status of Education Report (ASER)

Annual Status of Education Report (ASER-Rural) 2021, is the largest citizen-led household-based learning survey across all provinces/areas: Sindh, Balochistan, Punjab, Khyber Pakhtunkhwa (KP), Gilgit Baltistan (GB), Islamabad Capital Territory (ICT) and Azad Jammu Kashmir (AJK). According to the ASER 2021, 10,000 trained volunteer/enumerators surveyed 87,415 households in 4,420 villages across 152 rural districts of Pakistan. Detailed information of 247,978 children aged 3-16 has been collected (57 percent male and 43 percent female), and of these, 212,105 children aged 5-16 years were assessed for language and arithmetic competencies. Moreover, 585 transgenders were also a part of the surveyed sample. Major findings of ASER 2021 and its comparison with 2019 is given in Box-II

Box-II: Summary of Key Findings of ASER 2021(National Rural)

Enrolment

In 2021, 81 percent of 6-16 year old children in rural Pakistan were enrolled in schools whereas 19 percent children were out-of-school. Amongst the enrolled, 81 percent of children were in government schools and 19 percent were in non-state institutions (18 percent private schools, 1 percent Madrassah, 0 percent others).

- In ASER 2021, amongst the 19 percent out-of- school children (age 6-16 years), 10 percent were males and 9 percent were females. This gap has narrowed compared to the last ASER cycle (7 percent males and 9 percent females). However, this time more boys are out of school as compared to girls.
- AJK, GB and Punjab all recorded fall in enrolment ranging between 2 percent to 5 percent. ASER rural results over the years illustrate a decline in the number of children going to non-state schools; 19 percent children of age 6-16 are enrolled in private sector in 2021, while in 2019 the percentage was 30 percent.
- Pre-school enrolment (3-5 years) in 2021 stands at 38 percent as compared to 39 percent in 2019.

Quality of Learning

- Learning levels in two competencies, i.e. Language (Urdu/Sindhi/Pashto) and Arithmetic have declined since 2019. However, English learning levels have improved marginally.
- In ASER 2021, 55 percent of Class 5 students were reported as being able to read a story in Urdu/Sindhi/Pashto. Similarly, 51 percent of Class 5 students were able to do 2-digit division. For English this year, 56 percent of class 5 students could read Class 2 level English sentences as compared to 55 percent of Class 5 students who could do so in 2019.
- The top scorers for Language: Urdu are AJK (72 percent), Punjab (68 percent), Islamabad-ICT, (74 percent), GB (52 percent), and Khyber Pakhtunkhwa (50 percent); English: AJK (86 percent), Punjab (73 percent), GB (65 percent) and Islamabad-ICT (62 percent), and for Arithmetic: Punjab (69 percent), AJK (72 percent), GB (61 percent), and Khyber Pakhtunkhwa (50 percent).
- ASER Rural Survey 2021 highlights as per past trends, children enrolled in private schools are performing better in literacy compared to government counterparts, whilst for numeracy they performed at par.
- Mothers' Education (National Rural): In 2021, the percentage of mothers' having completed primary education has declines (32 percent) as compared to 2019 (35 percent).

School Facilities & Other Indicators

- ASER 2021 surveyed 4,096 Government and 1,602 Private schools in 152 rural districts of Pakistan. Private sector still reports better school facilities but with progressive improvement in government schools.
- Overall teacher attendance in government schools was 90 percent compared to 92 percent in private schools. Overall student attendance in government schools was 80 percent compared to 87 percent in private schools.
- 32 percent teachers of government schools have done bachelors compared to 37 percent teachers of private schools. Whereas, 52 percent teachers of government schools have done Masters as compared to 38 percent teachers of private schools.
- 70 percent of the surveyed government primary schools have toilets in 2021 compared to 59 percent in 2019. Similarly, 71 percent surveyed private primary schools have toilet facility in 2021 compared to 89 percent in 2019.
- 57 percent of the surveyed government primary schools have drinking water facility in 2021 compared to 61 percent in 2019; 77 percent of the surveyed private primary schools have drinking water facility in 2021 as compared to 93 percent in 2019.
- Multi-grade Teaching: The trends in multi-grade teaching across schools are as follows. ASER 2021 National-Rural reveals that 40 percent of government and 23 percent of private schools have multi-grade teaching at Class II level; whilst at the Class VIII level, multi-grade teaching is stood at 6 percent in government schools and 19 percent in private sector schools.

ASER Findings on Technological Access and Learning Support Received During COVID-19

ASER 2021 also included a wide range of questions from the households on technological access, recipient of social safety nets, earning and psychological well-being affected during COVID-19, learning support received by children during COVID-19, etc. Few important findings are shared below:

- 77 percent of households across all rural districts of Pakistan have mobile phones and 62 percent have smart phones. Amongst mobile users, 89 percent use WhatsApp services, whilst 64 percent use SMS facility.
- 23 percent have internet connection and 18 percent have computer/laptops. 65 percent households have TV and 18 percent have radio.
- Only 16 percent of the households stated that they have received support from social safety nets (Categories: Ehsaas, BISP, PSPA, Akhuwat, etc.)
- 30 percent of the households stated that their psychological well-being was substantially affected during COVID-19.
- 16 percent of the households stated that their earning during COVID-19 got affected by more than 50 percent.
- From a high of 68 percent support from family members, 57 percent availed PTV TeleSchool sessions, 37 percent had access to smart phones, followed by 29 percent with access to computer, 27 percent to paid tuition, 14 percent digital learning resources and 6 percent accessed radio programmes for learning support.

Source: ASER 2021

Conclusion

Pakistan's literacy, enrolment and other educational indicators have been improving over last couple of years. Government is very much focusing on improving both the quality and coverage of education through effective policy interventions and enhancing allocation of resources, but the required reforms and improvement in education sector cannot be achieved without active participation of private sector.
