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STRUCTURAL BOTTLENECKS IN MAINSTREAMING QUALITY IN **THE EXISTING EDUCATION SYSTEM IN PAKISTAN**



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ACRONYMS

ABPPSA	All Balochistan Progressive Private Schools Association
ACR	Annual Confidential Report
ADEO	Assistant District Education Officer
AEO	Assistant Education Officer
AEPAM	Academy of Education Planning & Management
AIP	Annual Implementation Plan
AJK	Azad Jammu & Kashmir
AJKPSRA	AJK Private School Regulatory Authority
AJKTBB	AJK Textbook Board
AKES	Aga Khan Education Services
AKF	Aga Khan Foundation
AKU	Aga Khan University
APPSF	All Pakistan Private School Foundation
ASDEO	Assistant Sub Divisional Education Officer
ASER	Annual Status of Education Report
ASI	Adam Smith International
B.Ed.	Bachelor of Education
BEAC	Balochistan Education Assessment Commission
BECS	Basic Education Community Schools
BEF	Balochistan Education Foundation
BESP	Balochistan Education Sector Plan
BISE	Board of Intermediate and Secondary Education
BOC	Bureau of Curriculum
BTBB	Balochistan Textbook Board
C&W	Construction and Works
CADD	Capital Administration and Development Division
CDRC	Curriculum Development Research Center GB
CNIC	Computerized National Identity Card
CPD	Continuous Professional Development
CSP	Community Support Process

CT	Certificate in Teaching
DCAR	Directorate of Curriculum Assessment and Research
DCMA	Data Collection and Monitoring Assistant
DCRD	Directorate of Curriculum Research and Development AJK
DCTE	Directorate of Curriculum and Teacher Education Khyber Pakhtunkhwa
DD	Deputy Director
DDU	District Delivery Unit Khyber Pakhtunkhwa
DEO	District Education Officer
DFID	Department for International Development UK
DG	Director General
DL&NFE	Directorate of Literacy & Non-Formal Education
DMO	District Monitoring Officer
DOE	Department of Education
DPIESE	Directorate of Public Instructions, Elementary and Secondary Education, AJK
DROC	District Reform Oversight Committee
DSD	Department of Staff Development
E&SED	Elementary & Secondary Education Department Khyber Pakhtunkhwa
ECD	Early Childhood Development
ECE	Early Childhood Education
ED	Executive Director
EDO	Executive District Officer Education
EFA	Education for All
EMIS	Education Management Information System
ESP	Education Sector Plan
ESRU	Education Sector Reform Unit Khyber Pakhtunkhwa
FATA	Federal Administered Tribal Areas
FDE	Federal Directorate of Education Islamabad
FGD	Focused Group Discussion
FTI	Fast Track Initiative
GB	Gilgit Baltistan
GBES	Gilgit Baltistan Education Strategy
GBECC	Gilgit Baltistan Education Coordination Council
GBLA	Gilgit Baltistan Legislative Assembly
GDP	Gross Domestic Product
GIZ	Gesellschaft für Internationale Zusammenarbeit-German Technical Cooperation
HIV/ AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
HRMS	Human Resource Management System
HT Primary	Head Teacher Primary School
HT Secondary	Head Teacher Secondary School
IBCC	Inter Board Committee of Chairmen
ICT	Islamabad Capital Territory/ Information and Communication Technology

IEA	International Association for the Evaluation of Educational Achievement
IMU	Independent Monitoring Unit Khyber Pakhtunkhwa
INGO	International Non-Governmental Organization
IPEMC	Inter Provincial Education Minister's Conference
IPWG	Inter Provincial Working Group
ITE	Initial Teacher Education
JEA	Joint Education Advisor
JICA	Japan International Cooperation Agency
KEAS	Kashmir Education Assessment System
KESP	Khyber Pakhtunkhwa Education Sector Programme (funded by DFID)
KPITB	Khyber Pakhtunkhwa Information Technology Board
KPPSRA	Khyber Pakhtunkhwa Private Schools Regulatory Authority
KPTBB	Khyber Pakhtunkhwa Textbook Board
LEG	Local Education Group Balochistan
LND	Literacy Numeracy Drive
M&E	Monitoring and Evaluation
MEA	Monitoring & Evaluation Assistant
MER	Monitoring Evaluation and Research
MoFEPT	Ministry of Federal Education and Professional Training
MoPD&R	Ministry of Planning Development and Reform
MSQE	Minimum Standards for Quality Education
NCC	National Curriculum Council
NCF	National Curriculum Framework
NCHD	National Commission for Human Development
NEAS	National Education Assessment System
NEF	National Education Foundation
NEMIS	National Education Management Information System
NEP	National Education Policy
NFBE	Non-Formal Basic Education
NFE	Non-Formal Education
NGO	Non-Governmental Organization
NHDR	National Human Development Report
NSB	Non-Salary Budget
NTI	National Training Institute
NTS	National Testing Service
PBS	Pakistan Bureau of Statistics
PCTB	Punjab Curriculum and Textbook Board
PDB	Planning and Development Board Punjab
PDCN	Professional Development Center North
PEAS	Punjab Education Assessment Commission
PEC	Punjab Examination Commission

PEELI	Punjab Education and English Language Initiatives
PEIRA	Private Educational Institutions Regulatory Authority
PESDA	Punjab Education Standards Development Authority
PESP	Punjab Education Sector Program
PESRP	Punjab Education Sector Reform Programme
PITE	Provincial Institute for Teacher Education
PMES	Project Monitoring and Education System
PMIU	Programme Monitoring and Implementation Unit Punjab
PPIU	Policy Planning and Implementation Unit
PSDP	Public Sector Development Programme
PSLM	Pakistan Social and Living Standards Measurement
PSTE	Punjab Strategy for Teachers Education
PTBB	Punjab Textbook Board
PTC	Parent Teacher Council Khyber Pakhtunkhwa
QA	Quality Assurance
QAED	Quaid-e-Azam Academy for Educational Development
RITE	Regional Institute for Teachers Education
RSDU	Regional School Development Unit GB
RSU	Reform Support Unit Sindh
RTSMS	Real Time School Monitoring System Balochistan
SCDP	Sindh Capacity Development Project
SCR	Student Classroom Ratio
SDGs	Sustainable Development Goals
SEC	Sindh Examination Commission
SED	Secondary Education Department Balochistan/ School Education Department Punjab
SEF	Sindh Education Foundation
SELD	Sindh Education and Literacy Department
SEMIS	Sindh Education Management Information System
SERP	Sindh Education Reform Programme
SESLOF	Sindh Education Students Learning Outcomes Framework
SESP	Sindh Education Sector Plan
SIP	School Improvement Plan
SLO	Student Learning Outcome
SMC	School Management Committee
SOP	Standard Operating Procedure
SQMI	School Quality Management Initiative
SSB	School Specific Budget
SSMS	Sindh School Monitoring System
STBB	Sindh Textbook Board
STEDA	Sindh Teacher Education Development Authority
STR	Student Teacher Ratio

SWD	Social Welfare Department
TA	Technical Assistance
TIMSS	Trends in International Mathematics and Science Study
TLM	Teaching Learning Material
TOR	Terms of Reference
TWG	Technical Working Group
UIS	UNESCO Institute of Statistics
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Education Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development

Symbols

% The symbol refers to percent.

0 Zero means that the amount is nil or negligible.

– The symbol signifies that the data is not available or is not separately reported.

Notes

- i. The terms 'budget estimates' and 'allocations' are used interchangeably.
- ii. The terms 'utilization', 'spending' and 'expenditure' are used interchangeably.
- iii. The terms 'current budget' and 'recurrent budget' are used interchangeably.

EXECUTIVE SUMMARY

Education is a fundamental human right enshrined under Article 26 of the United Nations Declaration of Human Rights 1948 as well as Right to Education (Article 25-A) of the Constitution of Pakistan. The Article 25-A inserted in the constitution in 2010, binds the Government of Pakistan “to provide free and compulsory education to all children of the age five to sixteen years in such manner as may be determined by law”.¹ The international covenants like Sustainable Development Goals (SDGs) agreed by the United Nations member states on September 25, 2015, goes a step further by emphasizing on the quality aspect of education. The SDG-4 dealing exclusively with education also binds the signatory countries to “ensure inclusive, equitable and quality education for all by 2030 and promote lifelong learning”. Therefore, making education accessible and delivery of quality education are key responsibilities of the state.

The challenges faced by Pakistan on the education front are enormous. Years of lack of attention to the education sector in the form of inadequate financing, poor governance as well as lack of capacity, has translated into insufficient number of schools, low enrolment, poor facilities in schools, high dropout rate, shortage and incompetent teachers, etc. Pakistan is faced with the challenge of 39 million out of school children in the age group of 5 to 16 years and around 2 million children are estimated to be added every year. As a developing country with 6th largest population in the world and 60% of its population comprising youth, Pakistan critically requires a widely accessible quality and equitable education system.²

Pakistan is currently spending around 2.2 percent of its Gross Domestic Product (GDP) on education against the required minimum target of 4 percent, although the National Education Policy 2009 recommended 7 percent of GDP to be spent on education. After several years of devolution post-18th amendment, provincial governments are still struggling to make any notable progress in the education sector. One of the main reasons for the slow progress in improving the state of education in Pakistan has been the disconnect between its educational policies, data and budgetary allocations. As long as these three pillars of educational change remain disconnected, a successful and sustainable educational development will not be possible.³

The dismal situation is also retracting Pakistan’s progress in meeting international commitments towards equitable and quality education. The country’s sedate progress towards achieving the SDG-4 targets by 2030 warrants some urgent course correction measures. The research study titled “Exploring Structural Bottlenecks for Inculcating/Mainstreaming Quality in the Existing

1. <https://pakistanconstitutionlaw.com/article-25a-right-to-education/>

2. Report of the Committee on Education Sector Reforms in Pakistan, Federal Ombudsman’s Secretariat, Islamabad

3. Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences

Public/Private Education System in Pakistan” commissioned jointly by the Ministry of Planning Development & Reform and United Nations Development Programme (UNDP), attempts to identify the gaps and suggest measures for mainstreaming Minimum Standards for Quality Education (MSQE) and achieve quality in the education system.

As part of the consultancy assignment, review and analysis of available literature including recent education policies, provincial education sector plans and relevant research publications was carried out to determine the gaps in achieving quality education. A significant component of the study included interviews with key education stakeholders in all federating units. For this purpose, semi-structured questionnaires were used to collect qualitative information from the respondents. The questionnaires, covered:

- Respondents department/ section/ organization’s mandate
- Familiarity or knowledge of respondents about MSQE
- Parameters of quality which fell under their mandate
- The extent to which the MSQE or related quality standards were mainstreamed in their respective department/ section/ organization
- Probing factors which are responsible for low performance with respect to teachers, physical facilities and school environment
- Implementation of MSQE or related quality education standards in the province/ area
- Bottlenecks in the implementation of standards with respect to plans, finances, coordination, communication and processes
- Impact of education departments internal systems on implementation of quality standards
- Budgetary expenditure on education from 2013-2017 with details of sub heads where possible

For the research study, a sample of 82 government education department officials, education managers, head teachers, representatives of private schools/ associations as well as education staff of donor funded programmes were interviewed. In addition, three focused group discussions (FGDs) were carried out with teachers, one in Khyber Pakhtunkhwa and two in Gilgit Baltistan covering 22 teachers (13 male and 9 female). To incorporate the feedbacks of learners, five FGDs were conducted, one in Khyber Pakhtunkhwa and four in Gilgit Baltistan. These five FGDs covered 50 learners (30 boys and 20 girls from grade 5, 8 and 10). Thus, the report draws on the feedback from total 154 study participants.

The results of the research study have been compiled as per themes and sub-themes derived from the scope of work of the consultancy. The key findings have been arranged province wise so that some comparison can be drawn against achievements and bottlenecks for implementing MSQE and quality education parameters.

The major findings of the study are as under:

- Most respondents from the public and private education sector at the provincial/ area level were found to have little knowledge of the education quality standards spelled out in the MSQE document. It was mainly due to the fact that most of them had neither seen nor read the document.
- No significant efforts have been undertaken by the provincial area/ governments for training and orientation of the education staff on MSQE and its implementation.
- There is no dedicated body available at national or provincial level to implement and monitor the quality standards. As suggested in National Education Policy (NEP) 2009, the National Authority for Standards of Education has still not been established.
- The provinces/ areas have not made any noteworthy progress in developing quality benchmarks for learners, teachers, curriculum and textbooks, assessment and school environment. In the absence of any benchmarks, it is difficult to assess the existing work of education department and allied institutions, meeting any minimum standards.
- The provincial TWGs responsible for implementing MSQE are either dormant or no practical progress on drafting implementation priorities, plans, procedures and monitoring mechanisms for implementation of MSQE has been carried out.
- While prioritizing the three factors i.e. teachers, physical facilities and school environment causing low performance at school level, more than 70% respondents thought that teachers were primarily responsible for good or bad performance at school level. 10-15% respondents thought physical facilities were responsible for low performance, particularly in girls’ schools while remaining thought that school environment (comprising teachers, physical facilities, teaching methodologies and parents’ role combined) had an impact on low performance.
- It was observed that some of the provincial education departments and allied institutions directly dealing with quality aspect of education, lacked adequate and trained staff which was affecting the efficiency and quality of service delivery.

- The study also found out that there is a significant shortage of teachers in at least two provinces, which is proving to be an impediment in providing quality education at school level.
- Another bottleneck in achieving quality education at school level is the presence of thousands of unqualified and incapable teachers, recruited on political grounds. Such teachers are finding it hard to cope with the changes in Student Learning Outcomes (SLOs) and curriculum and this is directly affecting the quality of teaching and learning in their respective schools.
- The study observed weak and ad hoc inter departmental coordination at provincial/ area level between education departments/ allied institutions.
- It was observed that generally, instructions are generated from the provincial level Secretariat or Directorate and directed downwards. This mechanism works well for furnishing quantitative figures but where policy implementation is required, it becomes difficult for the subordinate staff to use their own judgments and understanding in the absence of clear guidelines from the top.
- Horizontal coordination among assessment, examination, textbook and curriculum bodies responsible for quality related functions is neither frequent nor objective. It happens mainly to collect information to satisfy the inquiries of higher authorities or is triggered by the donor agencies especially those working on quality uplift.
- The Education Management Information System (EMIS) sections in the provincial/ area education departments are mostly capturing the quantitative data at school level. The qualitative aspects are not captured adequately and regularly, mainly due to the weak capacity of EMIS/ monitoring staff to conduct such assessments.
- The study observed that assessment of private schools is often ignored by EMIS section in its annual school census or other data collection exercise. By doing so, 38 percent of students enrolled and 49 percent of teachers⁴ who work in these schools are excluded from the system. The data on the standards for private teachers, learners, curriculum, textbooks, learning environment thus remains undocumented.
- While analyzing the education budgets from 2013-2017, it was observed that some of the federating units (for example Sindh, Punjab and Khyber Pakhtunkhwa) were not able to consume the entire education budgets. This trend of unspent budget was reflected consecutively for a couple of years, pointing to either weak capacity of education staff in realistic planning and budgeting or time delays in funds releases and utilization.
- A positive trend has been witnessed with increase in volume of funds available for education at federal level and all federating units. It would be unjust to say that quality of education including curriculum, textbooks, assessment, teachers training and school environment has not improved despite increase in investment in these areas. Although, the change may not be drastic but it is gradual and happening.

To mainstream MSQE and put the country on road to achieving quality education as per SDG-4 targets, the following immediate, short term and long term measures are proposed:

Immediate Measures (within 1 year)

- The Technical Working Groups (TWG) should be reactivated and tasked to develop detailed standards and implementation guidelines (as recommended under MSQE) for teachers, learners, curriculum, textbooks, examination and assessment and school environment in their respective province/ areas.
- A set of uniform quality standards and implementation guidelines applicable throughout the country should be derived from these standards (developed by provinces/areas) and agreed upon by all federating units. A series of capacity building trainings of all key education stakeholders (public and private) in each federating unit on commonly agreed education standards should be arranged by the federal and provincial governments.
- The trainings should be followed by development of detailed Action Plans for implementing the uniform standards by education departments in their respective provinces/ areas.
- The shortage of teachers must be met on urgent basis through accelerated induction of teachers through National Testing Service (NTS) and training for improved learning outcomes.

4. Alif Ailaan Factsheet, Private and Government schooling in Pakistan

Short Term Measures (1-3 years)

- A baseline study should be conducted in each province/ area (covering public and private schools) according to the uniform quality standards developed, in order to have some data available for measuring the future progress on quality indicators. The EMIS sections and teachers should be trained and involved in such exercise.
- A quarterly review of progress on implementation of standards should be carried out on rotation basis in each province/ area. The progress and obstacles should also be discussed in the Inter-Provincial Education Minister's Conference (IPEMC) meetings.
- For enrolling 25 million out of school children, enrollment campaigns should be intensified by involving parents, community elders, prayer leaders etc. National Commission for Human Development (NCHD) and Basic Education Community School (BECS) can also be involved for promoting literacy and enrolling out of school children.
- The Government should bind private schools to rationalize the fee structure and to enroll at least 10% children belonging to poor families. Some financial incentive should also be offered to poor for enrolling their children.
- Frequent capacity building trainings should be organized for the staff of education department, particularly planning and budgeting, at the provincial/ area and district level for accurate and realistic planning and budgeting. Similarly, the EMIS and Monitoring & Evaluation (M&E) staff should also undergo regular trainings to keep them abreast about the latest tools and approaches used in data collection (quantitative and qualitative) and its analysis.
- Any cumbersome procedures for release of payments and utilization of education budgets need to be eased out so that the education departments are able to utilize the entire budget amounts and funds are not lapsed or allocated to other sectors.
- New formal schools need to be constructed to improve access, particularly for girls. However, for optimum utilization of available infrastructure, double shifts should also be introduced in all schools where sufficient number of students are available. Additional teachers and staff should be recruited with corresponding budget allocation.
- Additional classrooms need to be constructed in schools where pupil-classroom ratio (PCR) is high.
- A mechanism for regular interaction between various units/ sections of the education department focusing on improving quality, needs to be devised.
- The assessment & examination related organizations (which vary in each province/area) should carry out assessment for grade 4/5 and 8 and develop analytical reports that should depict geographical and subject wise assessment reports to inform policy, curricula, textbooks, and training & education programs in the province.
- The Government should revitalize the School Management Committees (SMCs) in each school and arrange frequent trainings on school management for its members. Besides, school management and parents, members of civil society should also be made part of the SMC, for improved advocacy and connectivity with the donors.
- The government communication system needs to be eased out through Information and Communication Technology (ICT)/ emails and mobile applications for quick sharing of information and decision making.

Long Term Measures (3-7 years)

- Substantial increase in education sector budget is required from present 2.2% of GDP to minimum 4% of GDP at national level and minimum allocation of 25% total budget of provinces/areas, if Pakistan is to achieve SDG-4 targets.
- The Government should establish a dedicated body i.e. 'National Authority for Standards of Education' for developing and implementing uniform education quality standards across the country. Such body was also suggested in the NEP 2009. The Ministry of Federal Education & Professional Training (MOFEPT) should take a lead for its formulation in consultation with the provincial/ area education departments. The provincial/area chapters should also be established for concerted efforts in standards implementation.
- To make the teaching and learning process more interesting and discourage rote learning, the use of Information and Communication Technology (ICT) should be promoted. For this purpose, smartboards/ interactive screens with internet should be made available on a larger scale in all

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- To make the teaching and learning process more interesting and discourage rote learning, the use of Information and Communication Technology (ICT) should be promoted. For this purpose, smartboards/ interactive screens with internet should be made available on a larger scale in all government and private schools. Similarly, video lectures and exercises based on uniform single curriculum currently being focused by the government should be developed so that the dependence on books only for seeking knowledge is reduced and students can also turn to other digital sources. As per Pakistan Telecommunication Authority⁵ (PTA) there are 162 Million cellular subscribers and 71 Million 3G/4G subscribers in the country. Use of smart phones and tablets to access such lectures should also be promoted.
- The Government should develop and implement a Teacher certification and licensing system that rewards excellent practice, innovation, attracts high achievers to the profession and sustains motivated teachers. Some rudimentary work on such system has already been carried out in Punjab and Sindh which can be further streamlined and replicated in other federating units.

Conclusion

Quality education is a very vast subject which needs to be defined clearly in accordance with local conditions and understood by all education stakeholders. The standards defined in the MSQE booklet for Learners, Teachers, Curriculum and Textbooks, Assessment and School Environment needs to be further elaborated by each federating unit along with guidelines for its application, measurement and reporting. This would require both MoFEPT and IPEMC to continue playing an anchoring role in steering the federating units towards common derived standards under each parameter. Most of

the provinces/ areas are already doing some excellent work under the realm of quality education, however there is a need to build synergies within and among provinces/ areas under each quality parameter. Without concerted efforts, achievement of the targets under SDG-4 would remain an uphill task. At the same time, some of the thought-provoking recommendations emanating from the policy dialogue needs to be taken to the next level by MoPD&R, MoFEPT and UNDP, as one study alone cannot provide remedies for all gaps and put the country on road to quality education.

5. <https://www.pta.gov.pk/en/telecom-indicators>

INTRODUCTION

1. INTRODUCTION

1.1 General Background

Education is essential for a developed and progressive society as it empowers and creates ability among the individuals and the societies to utilize their productive capabilities. It boosts socio-economic development, reduces poverty and inequalities in the society thus contributes to democracy, harmony, tolerance, peace and stability.⁶ The progress towards achievement of compulsory and quality education is slow.

Pakistan faces severe challenges with regards to achieving SDG-4. Over 22.6 million children aged 5–16 years are out of school and the adult literacy rate stands at 57 per cent. There are severe inequities in access and quality, with substantial disparities by gender, socioeconomic status and location, and the supply, training and qualifications of teachers are inadequate. School environments are poor, and early childhood education (ECE) is not uniformly available. In addition, education is hampered by budgetary constraints, weak governance, poverty, insecurity and frequent natural disasters.⁷

Absence of clearly defined and agreed upon minimum national standards for quality education at national level in the past left the education system without a basic framework for setting targets and for evaluating attempts at improvements in education quality. To fill this void, work on development of Minimum Standards for Quality Education (MSQE) was started in February 2013 in consultation with the provincial stakeholders. In February 2016, these standards were finalized and approved by the Ministry of Federal Education and Professional Training, Islamabad (MOFEPT) for implementation across Pakistan.

Devolution of the education functions to the provincial/area level after the 18th Amendment 2010 has placed the imperative of ensuring the quality of education on the provincial and area governments. Although adaptation and implementation of MSQE at the national and provincial level might pose some challenges but it also offers an opportunity to the federal, provincial and area governments to ensure uniformity in the access to quality education and meet international commitments like Sustainable Development Goal 4 (SDG-4). To further support Government of Pakistan's efforts in achieving the national education targets set under SDG-4, UNDP Pakistan in coordination with Ministry of Planning Development and Reform (MoPD&R-SDG Section), Government of Pakistan commissioned a research study aimed at exploring structural bottlenecks in implementing and mainstreaming minimum standards

6. Report of the Committee on Education Sector Reforms in Pakistan, Federal Ombudsman's Secretariat, Islamabad

7. UNESCO (2017), Sustainable Development Goal 4- Gap Analysis

for quality education in Pakistan at the federal, provincial and area/regional level.

The research study report is expected to serve as a guiding document for the education departments

under federal and provincial governments to comprehend and address the implementation bottlenecks on course of achieving the quality education targets under SDG-4.

1.2 Definition of Quality Education

The Dakar Framework for Action in 2000 declared that access to quality education was the right of every child. Quality in education entailed desirable characteristics of learners (healthy, motivated students), processes (competent teachers using active pedagogies), content (relevant curricula) and systems (good governance and equitable resource allocation).⁸

According to United Nations International Children's Emergency Fund (UNICEF)⁹, quality education includes:

- Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
- Environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities;
- Content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome (HIV/AIDS) prevention and peace;
- Processes through which trained teachers use child-centered teaching approaches in well-managed classrooms and schools and skillful assessment to facilitate learning and reduce disparities;
- Outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society.

1.3 Education after the 18th Amendment

In 2008, a political consensus on re-allocating several federal-level functions to the provinces emerged. Encapsulated in the 18th Amendment to the Constitution, this consensus resulted in the abolition of the Concurrent List – which delineated subjects on which both the federal and provincial governments could legislate. Seventeen federal ministries including education were devolved in three phases between December 2010 and June 2011. The functions of these ministries were either assigned to various provincial governments or reallocated within the federal government.¹⁰

While devolution and the abolition of the Concurrent Legislative List resulted in the transfer of federal ministries and their mandates to provincial govern-

ments; capacity constraints in human resource, financial resource and infrastructure resource hampered the effective take-up of devolved functions at the provincial level.

After devolution, the MOFEPT retains some limited mandates, mainly in curriculum development, accreditation and the financing of research and development.¹¹ The Academy of Educational Planning and Management (AEPAM) is being administratively controlled by MOFEPT and performing the functions of collation of education data collected through provincial/ regional EMIS's (Education Management Information System) and maintains linkages with provincial and district organization and education institutions.¹²

8. UNESCO (2015), Understanding Education Quality

9. UNICEF (June 2000), Defining Quality in Education

10. Devolution: Provincial Autonomy and the 18 Amendment, 2014, Jinnah Institute: page. 06 <http://www.jinnah-institute.org/>

11. <https://www.globalpartnership.org/country/pakistan>

12. Report of the Committee on Education Sector Reforms in Pakistan, 2018

1.4 Minimum National Standards for Quality Education

The first dedicated effort towards a standards-based education system in Pakistan was made in 1976 with the promulgation of the 'Federal Supervision of Curricula and Maintenance of Education Standards' Act. Under this Act, the Ministry of Education had assumed a supervisory role in the development of a national curriculum. However, a structured consultative process to formulate minimum quality standards was overlooked at that point. The National Education Policy (2009) came as the first national level document in recent education history which clearly articulated the need for a standards-based education system and recommends that, "the quality of education provided in government-owned institutions must be raised through setting standards for educational inputs, processes and outputs and institutionalizing the process of monitoring and evaluation from the lowest to the highest levels".¹³

The Minimum Standards for Quality Education (MSQE)¹⁴ have been developed by the Ministry of Federal Education and Professional Training through a

highly participatory interprovincial process and formally adopted in the 7th Inter Provincial Education Minister's Conference (IPEMC) held in Islamabad in February, 2016. The MSQE includes:

- (i) Standards for Learners
- (ii) Standards for Teachers
- (iii) Standards for Curriculum and Textbooks
- (iv) Standards for Assessment
- (v) Standards for School Environment.

The framework and guidelines for implementation of MSQE (included in the MSQE document) emphasizes on development and implementation of strategic roadmaps and detailed action plans at the provincial/area level by the respective Technical Working Groups (TWGs).

1.5 Terms of Reference (ToRs) of the Consultancy

The overall objective of the consultancy was to explore broad contours of "quality education" by analyzing the structural bottlenecks in the overall organization of education service delivery functions. The specific ToRs of the consultancy were as follows:

- 1) Review and analysis of the extent to which the "Minimum Standards for Quality Education" have been defined/ formulated at primary and secondary level in both public and private schools with particular reference to the:
 - a. Learning environment
 - b. Content
 - c. Processes
 - d. Outcomes
 - e. Learners
- 2) In-depth study of factors causing low performance in public and private primary schools related to three elements of quality i.e.
 - a. Teachers
 - b. Physical facilities
 - c. Learning environment
- 3) Review and analysis of the mechanism adopted by the provincial, federal and area governments for implementing "Minimum Standards for Quality Education in Pakistan" at the primary and secondary level in both public and private stream of education.
- 4) Identify bottlenecks in the implementation of "Minimum Standards for Quality Education" at federal, provincial and district level at primary and secondary level.
- 5) Explore the impact (good/ bad) of coordination, communication and decision-making mechanisms on implementation of quality education at federal and provincial level.

13. National Education Policy 2009: page. 39

14. MSQE 2016

- 6) Analyze the role of education department's internal systems such as performance, human resource, and information management on implementation mechanism of quality education.
- 7) Analyze the monitoring mechanism (strengths and weaknesses) of federal/provinces/area to track progress of quality education standards implementation in both public and private schools.
- 8) Analyze federal and provincial budget expenditure on education from 2013 to 2017 with a break up share on implementation of quality education areas. Make recommendation measures for effective budget utilization for ensuring quality.
- 9) Identify the bottlenecks in plans, finances, communication, administration, coordination and processes at federal and provincial level and suggest measures to achieve the required quality standards.

The outputs of the consultancy were as follows:

Output 1: Inception report having detailed data collection plan.

Output 2: First draft of research report and recommendations to be submitted to the technical team

Output 3: Final report after incorporating feedback of technical team with recommendation and corrective measures, presentation and action framework and all raw data (hard and soft with the analysis tools used and the results).

Output 4: Participate in policy dialogue with UNDP, MoPD&R and other stakeholders to share findings and recommendations of the study.

1.6 Structure of the Report

Chapter one provides information on the general background, objectives and expected outputs of the consultancy, Chapter two covers the literature review highlighting the link between policy environment and quality education and key gaps in implementation, Chapter three gives an overview of the methodological approaches that were applied to collect and analyze all relevant information and data. Moreover, the chapter also includes a section where the key stakeholders

interviewed at federal, provincial and area level are listed. Furthermore, major methodological challenges/limitations that the Consultants faced during their work are also included. Chapter four presents the major findings and results/bottlenecks. Building on that, Chapter five presents the recommendations for addressing the bottlenecks including recommendations of the policy dialogue.

REVIEW OF
**LITERATURE/
MATERIAL**

2. REVIEW OF LITERATURE/ MATERIAL

The education system in Pakistan is faced with myriad challenges, which have been addressed in the education policies and plans formulated and implemented in the last few decades. The literature review section aims to examine some of these policies and plans in terms of elements of quality education and identify key gaps in achieving quality education.

2.1 The Road to Quality Education

Quality education has been the common goal reflected in all national education policies and provincial/ area education sector plans (ESPs). All provincial and area ESPs take as their primary focuses, access, quality and governance, with varying emphases within these. Punjab, Sindh and Balochistan ESPs are generally well-aligned with SDG-4, including strategies related to areas such as access, quality and governance. Gilgit Baltistan (GB), Federal Administered Tribal Areas (FATA) and Islamabad Capital Territory (ICT) ESPs show a fair degree of alignment (UNESCO, 2017).

The NEP (2009) clearly articulates the need for a standards-based education system and recommends that, “the quality of education provided in government-owned institutions must be raised through setting standards for educational inputs, processes and outputs and institutionalizing the process of monitoring and evaluation from the lowest to the highest levels”.¹⁵

In the NEP (2009) Quality Assurance in Education has been given high consideration allocating separate chapter on quality and its constituents in education sector. The policy highlights six basic pillars that have the major contribution. These are curriculum, textbooks, assessments, teachers, the learning environment in an institution and relevance of education to practical life/ labour market. The most significant action is required in improving teaching resources and pedagogical approaches that teachers employ. The reform of teaching quality is of the highest priority¹⁶ (Ahmed & Hussain, 2014).

According to (Ahmed& Hussain, 2014) Early Childhood Education (ECE) has been addressed in NEP 2009. Historically, however, ECE has not been formally recognized by the public sector in Pakistan. The policy denotes that ECE age

15. National Education Policy 2009: page. 39

16. Ahmed, Imtiaz & Athar Hussain, Muhammad. (2014). National Education Policy (NEP-2009-2015) in Pakistan: Critical analysis and a way forward. *Journal of Social Sciences and Humanities*. 53-II. 53-60.

group shall be recognized as comprising 3 to 5 years. At least one-year pre-primary education shall be provided by the State and universal access to ECE shall be ensured within the next ten years.

The NEP 2009 also includes a target for the Government to increase educational spending to 7 percent of the GDP by the year 2015. Additionally, the policy sets itself a few notable milestones-i.e., provision of free primary education by 2015, provision of free education up to matric by 2025, increase in adult literacy rates to 86 percent by 2015, increase in higher education enrolment from 4.7 percent to 10 percent in 2015 and 15 percent in 2020 (Ejaz, 2009).

The NEP (2009) also states that “National Standards for educational inputs, processes and outputs shall be determined. National Authority for Standards of Education shall be established. The standards shall not debar a provincial and area government/organization from having its own standards higher than the minimum prescribed standards.” Further, the Provincial Governments and district authorities shall establish monitoring and inspection systems to ensure quality education and service delivery in all institutions. The policy also emphasizes on providing education which enhances employability and innovation in the economy.

The NEP (2017) (Draft) also emphasizes on provision of quality education by introducing reforms of new initiatives in curriculum formulation, textbook and instructional materials development, teacher training, examination and assessment and monitoring and supervision. It envisions recruitment of competent, capable and committed scholar-teachers, development and implementation of National Curriculum Framework and National Standards for each subject from Grade 1-12. It also envisages increasing investment in education to 4% of GDP.

The National Educational Policy Framework 2018 launched by the Ministry of Federal Education and Professional Training in November 2018 focuses on four key areas i.e. enrolment of 25 million out of school children, provision of quality education, skill development, and uniform syllabus.¹⁷ As a first step, the Ministry would bring 27,000 out of school children in Islamabad Capital Territory (ICT) into formal and non-formal educational institutions in next two years with the public-private partnership. The policy also aims to end the three parallel systems i.e. public schooling, madrassah schooling and English-medium or private schooling. The new policy also emphasizes on providing market-oriented education so that students can find jobs easily. To overcome the shortfall of middle schools in the country, middle-school classes will be held in primary schools after the school timings. To tackle the growing need for teachers, Smart Schools

System will be launched under which online lectures will be delivered in schools facing a lack of teaching staff. Educational Volunteer Programme would also be initiated to fulfill the need of teachers; under this programme the educated youth would extend their services voluntarily to teach the children in schools of their areas. National Curriculum Council (NCC) will be established in which educational experts will be included to develop a consensus for uniform syllabus.

The KPK Education Sector Plan 2010-2015¹⁸ has a dedicated chapter on improving quality. It acknowledges the fact that the quality of education provided in the public-school system is not up to the mark, with little focus on actual learning achievements of children or assessment of the core competencies of teachers. The poor quality of the teaching and learning achievement, especially in the early classes of primary school, is one of the main reasons for the high dropout in primary schools.

In the Balochistan Education Sector Plan 2013-18, strategies for quality improvement have been built around the inputs, processes and outputs of the various quality related factors. These include teachers, curriculum, textbooks, examinations, school environment and school language policy. It further states that Annual Implementation Plans (AIP) will be developed at the district level as well as individual organizations like the Balochistan Textbook Board, the Bureau of Curriculum, Board of Intermediate and Secondary Education (BISE), Directorate of Education and Directorate of Higher Education. Policy Planning and Implementation Unit (PPIU) will collate the plans at the provincial level, which will be used for monitoring by the technical and high-level committees.

According to United Nations Education Scientific and Cultural Organization (UNESCO) (2017), the Balochistan ESP (2013–2018) places a high value on governance and management, as part of its strategic move towards decentralization in a province with small settlements scattered over a vast area. This geography informs many of its access related strategies, such as upgrading existing schools to offer higher levels of education, and community-based schooling models.

The Punjab School Education Sector Plan 2013-17 envisages that standards need to be developed and notified for all education inputs, processes and outputs with SLOs as the main indicator for quality. Standards for school infrastructure need to be reviewed keeping local environment and learning needs in mind.

The GB Education Strategy (2015–2030) is a long-term strategy to guide education. It states that minimum standards for educational institutions will be developed. Subsequently, schools will be constructed,

17. The News <https://www.thenews.com.pk/print/415623-ministry-initiates-several-projects-for-uplift-of-education-sector>

18. KP Education Sector Plan 2010-2015, pp. 44-58

rehabilitated and/or upgraded (in terms of additional classes and teachers) according to standards of physical quality, including resistance to seismic activity, and teaching–learning resources to be defined by government, incorporating indigenous designs which protect the local environment and making use of expertise within local communities.

The Sindh Education Sector Plan 2014-2018 focuses on quality aspects. The most notable programmes proposed under the SESP are as follows: (i) an initiative to progressively transform daycare-style Katchi classes into dynamic, child-centred ECE classes promoting school readiness and equity; (ii) the introduction of ‘double shifting’ across districts to increase enrolment capacity; (iii) school consolidation, i.e. reduce the number of small schools; (iv) an induction plan for new teachers and continuous professional development (CPD) for all teachers focused on learning outcomes in general and reading in particular; (v) the creation of a new management cadre to enhance governance; (vi) re-grouping of middle schools with primary schools and higher secondary classes with secondary classes to achieve cost savings and improve transition rates and equity; (vii) re-designing literacy and non-formal basic education to be taken to scale through reduced reliance on tradi-

tional classroom contexts and greater use of mass media and social media opportunities; (viii) design and implementation of an Human Resources Management System (HRMS); (ix) improved monitoring system through hiring of monitors; and (x) establishment of an effective Information and Communications Technology (ICT) system.

Azad Jammu & Kashmir (AJK) has drafted an ESP (2016–2021) but it is yet to be finalized or approved. However, this also offers an opportunity to align the ESP with Education 2030 well before the plan’s original expiry date in 2021. The draft ESP as it stands is almost entirely focused on access to education. For most quality-related factors national-level policies and strategies are used, with no systematic localization. This is indicative of a need to advocate for increased political ownership of education in AJK (UNESCO, 2017).

The standards for learners, teachers, curriculum and textbooks, assessment and school environment, specified in the document “Minimum Standards for Quality Education in Pakistan (MSQE)”¹⁹ aims to ensure uniformity in the standards for provision of access to quality education.

2.2 Some International Best Practices in Effective Teaching and Learning

Some of the international best practices for effective teaching and learning are mentioned below:

a) Video-based Reflections

Using video to reflect upon teaching practice has been shown by several studies to improve teaching practice or student achievement.²⁰ For example, MyTeachingPartner–Secondary²¹ (MTP-S) which is a professional development program used in the United States that aims to increase student learning and development through improved teacher–student interactions. Through the program, middle and high school teachers access a video library featuring examples of high-quality interactions and receive individualized, web-based coaching approximately twice per month during the school year. MTP-S uses the secondary school version of the Classroom Assessment Scoring System®–Secondary (CLASS-S) to define and observe effective teaching practices. MTP-S has two components:

- **A video library of annotated examples of best practice:** The online video library contains more than 400 one- to two-minute video clips of teachers interacting with students. A description accompanying each video clip explains the behavior shown and why the interaction is effective. The videos feature examples of a variety of instructional activities in different content areas with students from diverse socioeconomic backgrounds.
- **Web-based individualized coaching:** Each teacher participating in the MTP-S coaching program receives web-based support from a trained consultant throughout the school year. Twice a month, teachers submit videotaped sessions of their own instruction to a consultant, who identifies segments of the session for review and provides feedback linked to effective practices from the video library. Teachers review the identified segments for their own behaviors and for student reactions and then confer with the consultant, who recommends strategies to enhance teacher–student interactions.

19. Minimum Standards for Quality Education in Pakistan 2016

20. <https://www.edutopia.org/teacher-development-research-keys-success>

21. https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_mtp_061615.pdf

b) Lesson Study

Lesson study is a form of Japanese professional development that engages teachers in collaborative analysis of lessons. It has grown rapidly in the United States since being introduced in 1999. One purpose of lesson study is to continually improve the experiences that teachers provide for their students. Teachers come together to work on three main activities: (1) identifying a lesson study goal, (2) conducting a small number of study lessons that explore this goal, and (3) reflecting about the process (including producing written reports).

c) Real-World Learning

Infusing real-world experiences into the instructions makes teaching moments fresh, and enrich classroom learning. Relating and demonstrating through real-life situations makes the material easy to understand and easy to learn. It also sparks the interest of students and makes them excited and involved.²²

d) Role Play

Teaching through role-playing is a great way to make children step out of their comfort zone and develop their interpersonal skills. This method comes in handy, especially when teaching literature, history or current events. The role-playing approach helps a student understand how the academic material will be relevant to his/ her everyday tasks.

e) Storyboard Teaching

Rudyard Kipling, a well know English poet, story teller and Nobel Laureate in 1907 rightly said, "If history were taught in the form of stories, it would never be forgotten." Storyboarding is a great way to teach any subject which requires step-by-step memorization or visualization highly-conceptual ideas. History teachers can use a storyboard to recreate a famous event. Such visually stimulating activity will ensure that even

complex ideas are easily put across to students. Teachers can also encourage the use of storyboards as a form of communication and let the students tell a story in pictures using their imagination.

f) Technology in the Classroom

Incorporating technology into teaching is a great way to actively engage students, especially as digital media surrounds young people in the 21st century. Interactive whiteboards/ smart boards or mobile devices can be used to display images and videos, which helps students visualize new academic concepts. Learning can become more interactive when technology is used as students can physically engage during lessons as well as instantly research their ideas, which develops autonomy. Mobile devices, such as tablets, can be used in the classroom for students to record results, take photos/videos or simply as a behaviour management technique.²³

g) Peer Tutoring

Peer tutoring is a term that's been used to describe a wide array of tutoring arrangements, but most of the research on its success refers to students working in pairs to help one another learn material or practice an academic task. Peer tutoring works best when students of different ability levels work together. Since explaining a concept to another student helps extend one's own learning, this practice gives students the opportunity to understand better the material being studied.

Some benefits of peer tutoring for students include higher academic achievement, improved relationships with peers, improved personal and social development as well as increased motivation. In turn, the teacher benefits from this model of instruction by an increased opportunity to individualize instruction, increased facilitation of inclusion/mainstreaming, and opportunities to reduce inappropriate behaviors.²⁴

2.3 Local Best Practices- Quality Standards by READ Foundation

Rural Education and Development (READ) Foundation is one of the major private sector education providers in the country. Established in 1994, it is currently running several schools and colleges across eight districts of Pakistan.²⁵

To ensure quality teaching and learning in its schools, it has developed a "Standardization" document covering two main broad areas:

22. Innovative Ideas to Make Your Teaching Methods More Effective <https://www.edsys.in/16-innovative-ideas-make-teaching-methods-effective/>

23. <https://www.quizalize.com/blog/2018/02/23/teaching-strategies/>

24. <http://www.nea.org/tools/35542.htm>

25. <http://www.readfoundation.org/>

- 1) Physical facilities: which includes standards for new school construction, standards for science laboratory, computer laboratory, library
- 2) Teaching and Learning: which includes standards for learning outcomes and teaching aids

Standards for New School Construction

- Site Inspections together with advice on topography, orientation, drainage, size and shape, development cost and potential for future expansion, and also to recommend engineering studies if deemed necessary
- Analysis of educational specifications
- Site Development plan/Master Plan
- Preliminary, Schematic drawings
- Preliminary, probable Cost Estimates – the floor area unit method
- Final Drawings and Specifications (site plan, floor plans, building elevations, sections, structural system, electrical, plumbing, heating and ventilation systems etc.)
- Engineer's Estimates, Final Cost Estimates
- Contracts and Bidding (in case of outsourcing, turnkey projects)
- Implementation (for projects directly implemented by Construction Division)
- Supervision, Administration of projects, contracts
- Compliance with the Pakistan Building Code and other related regulations

Minimum Standards for Instructional and Administrative Spaces

- Classroom 9.6 ft² per place
- Science Laboratory 12 ft² per place
- The Computer Room/Laboratory 12 ft² per place
- Library/Learning Resource Center (LRC) – 12 ft² per place. Library/LRC shall have a capacity of 12% of the enrolment at 12 ft² per place, provided that the total area is not less than that of a standard classroom.

Standards for Instructional devices/Items

Instructional devices comprise the wide range and

variety of educational media and technology such as visual aids, audiovisual aids, teaching aids and devices, and the like, which are indispensable tools for effective teaching and learning. These instructional devices provide the child with various experiences, which makes learning more stimulating, meaningful and permanent.

Researches also show that the modern educational media especially movies, television shows, video programs, etc. are instrumental in shaping desirable attitudes, beliefs, and values of learners.

Instructional Devices

The common types of instructional devices, traditionally known as teaching aids and devices, are: objects and specimens (or realia), models and mock-ups, (globes, dolls, etc.) dioramas, pictures (drawings, sketches, illustrations, photographs, paintings), posters, graphs, charts and diagrams (maps), flashcards, cartoons, comic strips, chalkboard, bulletin board, sand table, tack board, flannel board, magnetic board, electric board, aquarium, terrarium, etc.

a. Audio Visual Equipment

The latest types of instructional materials are creations of modern technology, which are utilized as audio visual aids in teaching. Audiovisual aids consist of the machines (or hardware) and their corresponding materials (or software)

b. Multi-Media Materials/Equipment

The following guidelines shall be observed when showing projected materials using multi-media equipment or other audio visual aids.

- The screen shall be so placed that its bottom edge is approximately at the eye-level of the seated pupils/students to provide the best vision.
- The seats shall be arranged within the recommended viewing area, which is a 60-degree angle from the center of the screen.
- The distance of the front seats from the screen shall be less than twice the width of the screen; that of the last or back row of seats shall not exceed a maximum distance equivalent to six times the width of the screen.
- Light control, or room darkening, is necessary in the projection of movie films, slides, and filmstrips.
- The projector shall be placed at such a level that it would project over the heads of the class.
- The speaker shall be placed near the screen at ear-level of the seated pupils/students and directed at the center of the class.

Whiteboard size and location in the classroom

Class	Location	Size in ft.
Pre-nursery to prep	In middle of the front wall and 2.5ft from the floor	3 x 4
Primary classes	In middle of the front wall and 3ft from the floor	3 x 5
Middle classes	In middle of the front wall and 3.5ft from the floor	3 x 5
High classes	In middle of the front wall and 3.5ft from the floor	3 x 6

Soft boards

Soft board is a place where people can leave public messages, for example, school newspaper, announce events or provide information.

It will hold pins or tags almost suitable. Simple device placed either indoor or outdoor. Items generally displayed are photograph, publications posters and newspaper cut out.

Soft board place, size and location

Place	Location	Size in ft.
Principal office	Side wall of the room	3 x 6
Each classroom	Right side wall of the room and congruent with whiteboard	3 x 5
Accountants office	Side wall of the room	3 x 5
Main corridors in each section	Side wall of the room near to the main door	3 x 5
Reception	Front wall of the room	3 x 5

Standards for Libraries

For school libraries, it has a prepared a detailed list of books in English and Urdu (350+ books for primary and 600+ books for middle schools). These books have been produced by some of the leading developers/publishers/ printers like Alif Laila Book Bus Society, Maqbool Books, Caravan Book House, Sangemeel Publications, Feroz Sons, the Book Group, Oxford University Press, Kalam Publications, National Book Foundation, Paramount Publishers etc.

Teaching and Learning

Teaching and learning remain the core activities of any school, with the student as the main focus. The Principal is responsible for formulating the aims and objectives of the school and adopting appropriate pedagogical strategies. It is expected from schools to set their own internal targets and to develop and implement appropriate strategies towards attaining these. In this regard all the stakeholders have specific roles to play in the proper and efficient implementation of the curriculum as well as in raising student attainment and school performance.

CCE Schools

Continuous and Comprehensive Evaluation (CCE) refers to a system of school-based evaluation of students that covers all aspects of students' development. It is a developmental process of assessment which emphasizes on two-fold objectives. These objectives are continuity in evaluation and assessment of broad-based learning and behavioral outcomes on the other.

In order to ensure an efficient implementation of the curriculum resulting in effective learning on the part of the students, all teaching and learning activities have to be carefully planned.

Syllabus breakup

Syllabus makes an impression on the students, it is one of the first materials students will have about the course, design and breakup of the syllabus is the opportunity to make a good first impression on your students.

Quarter-wise breakup will be provided by READ Foundation's Academic Support Services Division (AcSSD), while teacher will break up the syllabus day-wise.

Timetable

The timetable is a necessary tool for the efficient working of a school. It is really a mirror that reflects the entire educational program of the school.

- Timetable should be devised keeping in view one

teacher one subject.

- Number of total periods in a day (6).
- Free periods of a teacher (1)
- Free periods of vice principal (2)
- Timings of break (20 – 30)
- Free periods of principal/section head (6)
- One class one teacher (Play to Prep)
- Subject wise teacher (I to 5th)

Scheme of Work (Day-wise breakup)

Islamiyat:

1. Explanation of concept. 2. Reading. 3. Comprehension. 4. Practical activities

Science:

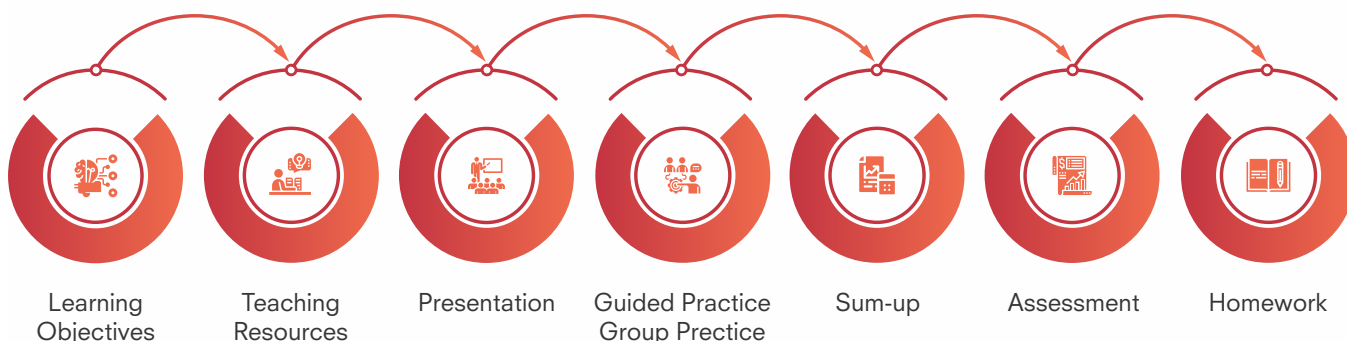
1. Explanation of concept. 2. Reading. 3. Comprehension. 4. Practical activities and projects

Mathematics:

1. New concept. 2. Comprehension (Materialization, Symbolization and Association). 3. Practice (Controlled and independent) 4. Assignment

b) Sequence of Detailed Lesson Plan (DLP)

Sequence of Detailed Lesson Plan (DLP)



According to the quarter breakup by AcSSD, teachers will divide the content day wise on prescribed format for CCE schools.

Lesson Planning

Lesson planning is a significant element of teaching-learning system. It is important because it helps the teacher in maintaining a standard teaching pattern and does not let the class deviate from the topic.

a) Sequence of Subject

Each subject will be taught through following sequence, mentioned subject wise;

Urdu:

1. New words (Words, meanings & Examples). 2. Reading (Sample reading, reading aloud, reading in group, silent study). 3. Dictation 4. Comprehension. 5. Sentence making and rules. 6. Creative writing.

Classroom observation:

Classroom observations are to get more insights into what is happening in a specific classroom and to provide information for teachers to take action to improve their own teaching and their students' learning

Principal will observe the teachers as per schedule using prescribed format for CCE schools.

Assessment:

Traditional testing situations restricts the types of questions one can ask; the majority of questions is procedural and encourages rote and superficial learning. These types of questions send the message to students that if you do not know the answer immediately, you cannot solve the problem. These problems in the traditional assessment system are addressed by using alternative assessment methods, which will not only gauge the knowledge of the students but will also be helpful in assessing skills and attitudes of the students. This is helpful in the holistic development of the child.

READ Foundation's teaching standards are based on National professional standards for teachers in

Following rubrics will be used to measure teacher's performance.

Standard 1: Subject matter knowledge

	Level 1	Level 2	Level 3	Level 4
1.1 Source of the lesson content	Teaches content using the textbook for the sole source of subject matter knowledge in the classroom.	Teaches content using the national curriculum as a guide along with the textbook. In addition, uses own experience, and understanding to enhance lesson.	Teaches content using the national curriculum as a guide along with the textbook. In addition uses own knowledge, experience and understanding and seeks other readily available sources of information for teaching and learning of subject matter	Teaches content using the national curriculum as a guide along with the textbook. In addition uses own knowledge, experience and understanding and seeks other readily available sources of information for teaching and learning of subject. Is aware of new emerging concepts, theories, research and latest trends in the subject material, at the national and international level.
1.2 Understanding of the subject matter knowledge/curriculum	Displays a basic knowledge of the subject matter taught. Might make occasional errors.	Displays a good knowledge of the basic concepts and theories of the subject matter taught. Understands connections between the content and its application to practical life.	Displays excellent knowledge of subject matter taught and the connections between the content and its application to practical life. Understands the sequencing of learning topics and processes and uses these for planning instruction.	Displays excellent knowledge of subject matter taught and the connections between the content and its application to practical life. Understands the sequencing of learning topics and processes and uses these for planning instruction. Understands the relationship between the subject matter and other content areas.
1.3 Teaching Strategies/Pedagogy employed	Teaches content using generic teaching methods without planning for misconceptions by children within the subject matter.	Teaches content and thinks about subject specific teaching techniques. Is developing a general idea of possible types of misconceptions that children may have about the subject and has started to reflect on how to plan lessons differently to correct these misconceptions	Teaches content using a variety of subject specific techniques. Uses strategies to deal with misconceptions that children may have within the subject. Provides opportunities for children to apply the subject matter knowledge to their practical lives. Works with children to develop their self confidence in the subject matter.	Plans lessons using new emerging subject specific techniques, planning for misconceptions, application of material to children's lives and implements specific strategies to help children to reflect on, check and correct their own work/learning. Promotes meta-cognition, self confidence, and self assessment. Challenges all children to achieve at their highest level.
1.4 Activating child's knowledge	Teaches content without specifically building on, or seeking out children's prior knowledge of the new content.	Teaches content with the knowledge that children might have knowledge about the topic and includes questions to connect to their prior knowledge and experience.	Teaches content by building on the prior knowledge and experience of the range of children in the classroom, in order for children to understand the new concepts.	Teaches content by building on different children's prior knowledge and helps the range of diverse children to connect their own prior knowledge and experience to what is being taught. Understands the diverse learner's talents and finds engaging ways to connect the content to a variety of learner's interests.

Standard 2: Human growth and development

	Level 1	Level 2	Level 3	Level 4
2.1 Accommodating learning styles and abilities	Teaches and plans using one or two various teaching methods to develop children's habits of learning. Accommodates children who have similar learning styles and abilities.	Teaches and plans using a variety of teaching methods to accommodate children of this age who have diverse abilities and who learn differently.	Teaches and plans applying specific knowledge of how children learn, acquire skills, and develop dispositions. Specifically develops lessons that indicate knowledge of the range of children' developmental, physical, socio-economic, emotional, talented and gifted exceptionalities.	Teaches and plans applying specific knowledge of how a range of children learn, acquire skills, construct knowledge, and have multiple ways of knowing. Is able to apply learning theories to accommodate different children's intelligences and cognitive abilities. Lessons foster collaboration for collective problem solving, and conveys high expectations of every child.
2.2 Engaging a range of children	Teaches in a way that engages most children in an equal manner. No planned differentiation for a range of children.	Teaches in a way that seeks to engage a range of children by using age appropriate learning material and connecting the material to their different interests and prior learning.	Teaches in a way that seeks to engage a range of children by using age appropriate learning material and connecting the material to their interests, their individual experiences, talents and prior learning. Treats children in an equitable manner. (Understands that not all children should receive the same – but each needs something different.)	Teaches in a way that seeks to engage all the children using age appropriate learning material. Lessons and teaching indicate that the teacher understands that children's learning is influenced by individual experiences, talents and prior learning as well as their culture, family and community they live in. Develops lessons that encourage children to bring their strengths and talents to the learning situation.
2.3 Higher order and critical thinking skills	Teaches using mostly lower order thinking skills for all children.	Teaches using mostly lower order thinking strategies with occasional opportunities to practice higher order and/or critical thinking skills. Lessons indicate that the teacher understands that children can learn at a higher level.	Teaches using a good variety of lower order and higher order thinking strategies, and encourages children to practice critical thinking and problem solving skills.	Plans for and consistently provides a range of higher order and/or critical thinking skills strategies as an integral part of teaching and learning. Encourages children to use methods of enquiry to solve problems and explore and learn.

Standard 3: Knowledge of Islamic ethical values/social life skills

	Level 1	Level 2	Level 3	Level 4
3.1	Describes ways in which Islamic and universal ethical values are demonstrated in good teaching and learning	Designs lessons and activities that help create a classroom environment in which Islamic and universal ethical values are demonstrated	Creates a classroom environment in which Islamic and universal ethical values are demonstrated	Involves children in teaching and learning ways that build their understanding of Islamic and universal ethical values

Standard 4: Instructional planning and strategies

	Level 1	Level 2	Level 3	Level 4
4.1 Long term planning	Plans lessons on a day-to-day basis following the textbook as a guide. Has some idea of what to plan for the next day and can share general goals for child's learning.	Evidence of ability to prepare long term plans: which include goals and objectives for each lesson, within the overall goals and objectives of the National Curriculum (NC).	Evidence of ability to prepare long term plans: which include goals and objectives for each lesson, within the overall goals and objectives of the NC. Incorporates goals and objectives of education in general as well as those of the curriculum for the specific subject matter.	Evidence of ability to prepare long term plans: which include goals and objectives for each lesson, within the overall goals and objectives of the NC, includes objectives of education in general as well as those of the curriculum for the specific subject matter. Modifies plans based on assessment of child's learning.
4.2 Lesson planning	Develops lesson plans that include instructional activities, materials, individual learning outcomes (ILO'S). These are not necessarily clearly aligned with the assessment strategies.	Develops lesson plans that include instructional activities, materials, individual learning outcomes (ILO'S) and assessment strategies. There is a clear alignment between the ILO's, the instructional activities and the assessment strategies.	Develops effective lesson plans where instructional activities, ILO's, and assessment strategies are clearly aligned. Lesson plans include formal and informal methods of assessment, as well as a wide range of community and technology resources to promote achievement of lesson objectives. Includes reading and writing strategies appropriate for this age.	Develops effective lesson plans which include well aligned instructional activities, ILO's, formal and informal assessment strategies. Community and technology resources are also incorporated. Includes pedagogical knowledge and research on teaching and learning as sources for active reflection, evaluation and revision of practice.
4.3 Using instructional resources	Uses some instructional resources with each lesson, not necessarily matched to achieving planned learning outcomes.	Uses instructional resources in ways that are matched to achieving planned learning outcomes but use is still teacher centered. Children benefit from using the materials.	Uses a variety of available instructional resources in ways that are well matched to achieving planned learning outcomes and promote higher order thinking and understanding. The instructional resources accommodate different learning styles.	Use a variety of available instructional resources in ways that are well matched to achieving planned learning outcomes, and children are actively engaged in, create and make choices about using instructional resources. Teacher is able to evaluate the resources for their comprehensiveness, accuracy and usefulness for representing particular ideas and concepts
4.4 Differentiated instruction	Teaching and learning is done in a manner that presumes all children learn in the same way.	Teaching and learning activities are occasionally differentiated so that a range of children is accommodated and the children can work at their own pace.	Teaching and learning activities are planned based on the knowledge of the classroom, the school, the community and the culture. Teaching strategies are planned based on child's needs, developmental progress and prior knowledge.	Plans for and systematically creates a variety of developmentally appropriate teaching and learning opportunities for all children to work at their own pace and level, taking into account the classroom, the school, the community, and the culture of the children. Techniques for developing/modifying instructional methods, materials and the environment to help children learn are evident.

Standard 4: Instructional planning and strategies

	Level 1	Level 2	Level 3	Level 4
4.5 Learner centeredness	Instruction features teacher centered strategies, such as lecture, presentation or blackboard work	Instruction includes strategies that place children at the center of the learning, such as teamwork and collaborative learning.	Teacher identifies and designs instruction appropriate to the child's stage of development, learning styles, strengths and needs. Strategies are identified that make the subject material meaningful to children on an individual basis.	Teacher designs instruction appropriate to the child's stage of development, learning styles, strengths and needs. Strategies are effectively used that make the subject material meaningful to children on an individual basis, and that address a variety of learning styles, and encourage children to pursue their interests. Children are encouraged to connect their learning to their personal goals.

Assessment practices

There are two types of assessment:

1. Formative Assessment

Ongoing during quarters, Assessment sheets, Presentations, Projects, Subject Skills, Concepts

2. Summative Assessment

At the end of the quarter, Paper pencil test + Oral, Knowledge/information, Concepts

In addition to specified formats of CCE, following rubric from National Professional Standards for Teachers in Pakistan (NPSTP) will also be used:

Standard 5: Assessment

	Level 1	Level 2	Level 3	Level 4
5.1 Linked to learning outcomes	Formal and informal assessment is conducted in a general way not clearly linked to learning outcomes or instruction	Formal assessment is linked to planned learning outcomes and a variety of appropriate assessment strategy (ies) are used. Informal assessment is still general in nature.	Formal and informal assessment is clearly linked to planned learning outcomes using a variety of assessment strategies. Assessment is fully integrated into teaching and learning planning and classroom activities to achieve ILO's.	Assessment is linked to planned learning outcomes and a range of strategies are used effectively to assess learning; assessment is integrated into teaching and learning and there is a belief that children's learning outcomes are the basis for growth and development and opportunities for learning for the children and the teacher.
5.2 Formative Assessment	Occasionally checks for understanding of the whole class in general, but does not use this to change teaching or reinforce learning.	Conducts formative assessment through continuous checking for understanding throughout the lesson. Uses standard assessment tools for the whole group to ensure that all children are learning progressively and attempts to modify teaching as a result.	Plans and conducts formative assessment through continuous checking for understanding. Uses a variety of teaching strategies to assess how children are learning, what they know, what they are able to do, and what kinds of learning experiences will support further growth and development. Modifies teaching based on assessment data.	Plans and conducts a variety of formative assessment measures using teaching strategies that provide opportunities for continuous checking for understanding and uses these to change teaching and reinforce learning during the lesson. Sets and modifies appropriate teaching and learning objectives.

Standard 5: Assessment

	Level 1	Level 2	Level 3	Level 4
5.3 Summative Assessment	Assessment of child's learning is conducted in traditional 'test taking' manner with very little variety and opportunity for children to display a variety of strengths and learning.	Assessment of child's learning /progress includes a variety of fair and objective assessment tools, which provide an opportunity for children to display a variety of strengths and learning.	Assessment of child's learning /progress includes a variety of fair and objective assessment tools including self-made tools (based on theoretical knowledge and experience in the classroom) which provide an opportunity for children to showcase a variety of strengths and learning.	Assessment of child's learning /progress includes a variety of fair and objective assessment tools including self-made tools (based on theoretical knowledge and experience in the classroom) which provide an opportunity for children to display a variety of strengths and learning. Accurately documents, reports assessment data, and ongoing child's achievement, to parents and professional staff.
5.4 Providing feedback	Provides basic feedback to children in a general way within class and on written work.	Provides feedback to children, which is sometimes specific and constructive in class. Written feedback is starting to become constructive and specific.	Provides feedback to children within class and on written work, which is consistently specific and constructive.	Provides feedback to children, which is consistently specific and constructive. Coaches children to engage in objective self-assessment and monitor their progress towards achieving their personal goals.

Standard 7: Effective communication and proficient use of information communication technologies

	Level 1	Level 2	Level 3	Level 4
7.1 Communication skills	Uses verbal and written communication to explain tasks and communicate with children. The communication is for the most part reasonably clear and is always teacher led.	Uses verbal, non-verbal and written communication in the teaching process. The communication is clear and concise and is mostly teacher led.	Uses verbal, non-verbal and written communication in the teaching process. The communication is clear and concise. Responds appropriately to child's enquiry and fosters culturally sensitive communication with and between the children.	Communicates clearly, in a variety of ways, and actively encourages child led communication and discussion. Models effective communication strategies and questioning techniques, and encourages children to use questions to simulate critical thinking
7.2 Language proficiency	Is fluent in both Urdu and the local language and can communicate simple ideas in English	Is fluent in both Urdu and the local language and can converse in English	Is fluent in both Urdu and the local language, and can teach in English	Is fluent in both Urdu and the local language, and teach English. Can communicate in writing, reading, and speaking at least two languages.
7.2 Language proficiency For Sind Only	Is fluent in both Sindhi and Urdu and can communicate simple ideas in English	Is fluent in both Urdu and Sindhi and can converse in English	Is fluent in both Urdu and Sindhi, and can teach in English	Is fluent in both Urdu and Sindhi, and can teach English. Can communicate in writing, reading, and speaking in at least two languages.

Standard 7: Effective communication and proficient use of information communication technologies

	Level 1	Level 2	Level 3	Level 4
7.3 ICT (Information and Communication Technology)	Has computer skills and can use common ICT resources and equipment	Implements pre-designed activities with children that involve common ICT resources and equipment	Selects ICT resources and equipment; designs and implements activities that use them to enrich child's learning	Generates ICT resources; uses them to design and implement activities in different subjects that enrich child's learning

Standard 8: Collaborations and partnerships

	Level 1	Level 2	Level 3	Level 4
8.1 Parent involvement	Knows the role of parents in their children's education and understands the importance of school/home communications.	Attempts to make opportunities to meet with parents to discuss children's learning. If possible, attends parent/teacher meetings. Recognizes role that parents play in children education and engages them through homework activities or written communication to and from parents	Has routine meetings with parents to discuss children's learning achievements and difficulties. Uses different approaches to collaborate effectively with parents, professionals and community members	Regularly creates and support opportunities for parents to visit school and to engage them in their children's learning. Is concerned about all aspects of children well being – and willing to work with family to improve learning environment for the children
8.2 Greater community involvement	Is starting to become aware of resources within the school and the greater community that can be used to improve and enrich child's learning.	Can identify a variety of resources within the school and the wider community to enhance lessons and project and occasionally uses them to enhance learning	Can identify a variety of resources within the school and the wider community to enhance lessons and project and is able to explain how they could be used to improve and enrich child's learning. Knows how to utilize partnerships in the community to contribute to child's learning	Regularly uses resources in the wider community appropriately to improve and enrich child's learning. Establishes a respectful and productive relationship to develop partnerships with diverse families, educators and others in the community to support child's wellbeing

Standards 9: Continuous professional development and code of conduct

	Level 1	Level 2	Level 3	Level 4
9.1 Self reflection	Uses standard reflection opportunities and responds to questions about own teaching.	Reflects on teaching and learning with supervisor, and is willing to try out ideas and advice provided. Understands that teaching and learning is an ongoing process.	Leads discussions/prompts discussion on own teaching and learning in a reflective way and is committed to refining practice to address the needs of the children.	Is committed to self identifying own teaching and learning practice that needs refining to address the needs of ALL of the children. Considers education research and methods of enquiry as a means for continuous assessment, self assessment and development.
9.2 Professional development	Has started to develop a portfolio to illustrate on-going learning and development as a teacher. Collaborates with colleagues to improve teaching practice and is committed to demonstrating professional ethics	Portfolio development is used illustrate ability to meet the National Professional Standards for Teachers in Pakistan (NPSTP). Identifies types of opportunities that teachers have for professional development.	Portfolio development is used illustrate ability to meet the NPSTP and to describe and set own goals for professional development and give examples of how s/he is meeting them. Identifies types of opportunities such as professional educational organizations that teachers have for professional development.	Is able to extract evidence to develop a Professional portfolio that describes goals for professional development, provides examples of what s/he has done to achieve those goals, and continuous reflection on impact of teaching and learning. Conducts action research to improve practice and supports professional development of colleagues.

Roles and Responsibilities (CCE Schools)

Role of Teachers

The teachers will:

- Prepare day wise break up using standard format
- Maintain files
- Implement lesson plans
- Manage formative assessment
- Ensure implementation of monthly themes
- Mark papers and submit along-with award list within two/ three days.

Role of Principal

The Principal will:

- Maintain principal file
- Visit classroom to monitor implementation according to scheme
- Check that whether teachers are going according to scheme or not, and will help out teachers

- Visit classroom observations of teachers, planned and unplanned (Every teacher in a quarter)
- Provide educational calendar to teachers
- Prepare timetable and date sheets of quarters
- Administer exams as per standards
- Ensure result preparation on due dates
- Provide feedback to teachers and students
- Send Quarter wise result summary to region
- Manage staff meeting
- Manage Parent Teacher Meetings

Learning standards

Schools staff is following learning standards mentioned in "Minimum Standards for Quality Education" developed by MoFEPT, Islamabad.

The aim of quality education is to prepare students to:

01

1. Be creative, constructive, communicative and reflective individuals

Follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real-world connection for using this process in everyday life.

02

2. Inquire, think critically, and gain knowledge

Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.
Develop and refine a range of questions to frame the search for new understanding.

03

3. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge

Use prior and background knowledge as context for new learning.
Maintain a critical stance by questioning the validity and accuracy of all information.
Continue an inquiry-based research process by applying critical-thinking skills (analysis, synthesis, evaluation, organisation) to information and knowledge in order to construct new understandings, to draw conclusions, and to create new knowledge.
Maintain openness to new ideas by considering divergent opinions, changing opinions or conclusions when evidence supports the change, and seeking information about new ideas encountered through academic or personal experiences.

04

4. Be capable of effectively participating in the highly competitive global knowledge-based Economy

Read, view, and listen to information presented in any format (e.g. textual, visual, media, digital) in order to make well-supported inferences and to create meaning.

- Demonstrate mastery of information technology tools for accessing information and to pursue self-directed inquiry.
- Display emotional resilience in information and knowledge acquisition despite challenges.
- Use the writing process, media and visual literacy, and information technology skills to create products that clearly and succinctly express new understandings.

05

5. Pursue personal growth

Seek information for personal learning in a variety of formats and genres.

- Demonstrate confidence and self-direction by making independent choices in the selection of learning resources and information.
- Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary

06

6. Share knowledge and participate ethically and productively as members of a democratic society

Openly collaborate with others to broaden and deepen understanding.

- Contribute to the exchange of ideas within a learning community.

Use information and knowledge effectively in the s of democratic patriotic values.
Use valid information and reasoned conclusions to ethical decisions.

07

7. Practice healthy living

Adopt clean hygiene habits.
Participate in sports and physical activities

2.4 Gaps in Policies and Plans to Impart Quality Education

According to Ahmad, Rauf, Imdadullah & Zeb (2012),²⁶ lack of continuity in successive government policies, corruption, inadequate financial allocations, lack of training for human resource, lack of visionary leadership, lack of political will on the part of successive governments, poor follow ups, poor monitoring system, poor policy evaluations, centralized approach in implementation, lack of political stability and decaying institutional disciplines are the main causes that have plagued the process of educational policy implementation in Pakistan. It further reiterates that policy goals in Pakistani education are sublime and ideal, yet, due to the above identified reasons coupled by weak institutional structures and frequent political interventions, the policies remain unfulfilled and do not achieve the desired results. The NEP 2009 recognizes two major weaknesses in the current system 1) low access and quality of education and 2) dearth and misappropriation of funds (Ejaz, 2009).

a) Governance and Management Issues

For proper implementation of policies, effective implementation agencies are important. Various initiatives for policy implementation failed due to weak administrative machinery at the grassroots level. The agencies at this level did not own the policies (UNESCO & Government of Pakistan, 2003). The poor management capacity of the directorates of education at policy formulation levels, school heads at implementation level is one of the many factors which also responsible for this mess. (Ahmad, Rauf, Imdadullah & Zeb, 2012).

The KP Education Sector Plan 2015-20 highlights some fundamental shortcomings like weak data and information management which is affecting planning. Many District Education Officers and their teams lack both the necessary information and management skills to develop high quality budgets on the basis required by the Elementary & Secondary Education and Finance Departments. The Punjab School Education Sector Plan 2013-17 also states that the capacity development of the Curriculum Authority is needed to develop and manage standards of education.

b) Absence of Clear Roles and Responsibilities in Policies and Plans

Each national education policy while proposing measures for achieving quality education also took into account the prospective challenges faced within the system. It accepts that the national curriculum is in

dire need of reform and understands the need for greater provincial autonomy when it comes to administration. It also understands that lack of proper training and pay-scales correlates directly to a reduction in the quality of education. The NEP thus outlines what is to be done. The NEP does not deal with who will do what, how will something be done and when is something done (Ejaz, 2009).²⁷

Similarly, it was observed that the MSQE (2016) emphasizes more on the qualitative aspect of standards while throwing less light on the quantitative side. Measuring quality in the absence of quantitative figures might prove a challenge in its uniform application across the country. A much greater challenge in achieving quality seems to be the implementation and adoption of MSQE by provinces, particularly after the 18th amendment, since each province is independent to pursue its own education targets as per available budget. The document also acknowledges this fact but fails to elaborate on the system for implementing the standards. The last chapter on framework and guidelines for implementation of MSQE (page 50) suggests that the provincial Technical Working Group (TWG) on education quality comprising Curriculum Authority, the Textbook Board, the teacher training organizations, and the assessment bodies should come together to develop and periodically monitor the implementation of standards in quality education. The same framework also suggests that based on the MSQE, each province and area will develop its own implementation priorities, plans, procedures and monitoring mechanisms (page 51). This loose ended implementation system and monitoring at the federal level seems to be a major impediment in widespread adoption of MSQE and delivery of uniform quality education.

c) Ambitious Targets with No Clear Roadmap

According to (Ejaz, 2009), the NEP 2009 also includes some very ambitious targets for educational spending, provision of free education and adult literacy. These seem to have been plucked out of thin air, with no data provided to show any projections that might have been carried out. In the absence of any such projections, these numbers seem to be more of a wish-list than the result of any careful planning and deliberation.

As per KP Education Sector Plan 2010-15, Education Policies were not translated into Strategic Plans and Action Plans. The lack of policy initiatives to improve the quality of education and enhance learning achieve-

26. Ahmad, Rauf, Imdadullah & Zeb. (2012) Implementation Gaps in Educational Policies of Pakistan: Critical Analysis of Problems and Way Forward.

27. Ejaz, N. (2009) National Education Policy 2009 – A Critique

ment, has seriously affected education. One feature, illustrating this lack of policy initiatives is the complete lack of school supervision and guidance in Khyber Pakhtunkhwa.

Precise, accurate and clear policy directives produce creativity and adaptability which helps in the effective implementation as well. On the other hand, less precise directive does not leave room for the policy implementers to use their discretion and flexibility which is normally needed for better policy implementation. In the words, it must also be ensured that not just information rather a highly relevant and adequate information is provided on the implementation process. (Ahmad, Rauf, Imdadullah & Zeb, 2012).

d) Lack of Ownership and Political Will

Political will of the local implementers play a pivotal role in effective implementation process. In Pakistan, due to none or less participation of local implementer such as school principals, teachers and students, ownership factor of the policy becomes weak. The success of implementation of a policy depends largely on the political will of the policy makers and policy implementers alike. None of National Education Policies (NEP) was fully implemented which can be attributed to lack of ownership and political commitment, non-allocation of required resources and lack of capacity building to monitor and implement. Ownership is required at all the levels that are political, bureaucratic and community (KP Education Sector Plan 2010-15). Ownership by parents and community participation is also crucial for complementing governmental efforts (Report of the Committee on Education Sector Reforms in Pakistan, 2018).

e) Lack of Adequate Financial Resources

According to the National Human Development Report (NHDR) 2018, only 14 out of 195 countries spend less on education than Pakistan while nine of these have a lower HDI ranking than Pakistan. Saleemi (2010)²⁸ argues that financial resources in any system plays the role of a life blood. According to World Bank Report (2000) resource availability must be ensured by the implementers and the policy makers before developing a policy. The resources include adequate number of staff, enough financial support, quality and trained staff. Therefore, it is necessary that equipment's and buildings must be provided for better policy implementation.

KP Education Sector Plan 2010-2015²⁹ also acknowledges that additional financial allocation is required both for development and managerial purposes. In its report, UNESCO (2005) has found that inadequate financial resources for education in Pakistan have hindered the policy implementation.

f) Some Neglected Areas

According to UNESCO (2017), ESPs only cover public schooling, despite the significant proportion of Pakistani children in private education (37 per cent). Inclusive education, is another clear gap. Although its importance is acknowledged, the concept is rarely examined in any detail or understood to encompass more than children with disabilities. The lack of disaggregated data along various dimensions of vulnerability lies at the heart of this gap.

28. Saleemi, I. (2010). Pakistan Education: Problems And Solutions

29. Khyber Pakhtunkhwa Education Sector Plan 2010-15: p.30

METHODOLOGY

3.METHODOLOGY

This chapter provides detailed information on the research design, sampling method and research instruments, applied with regard to the aforementioned objectives and TORs of the consultancy (chapter 1).

a) Research Design:

The study was primarily qualitative, however, some quantitative data regarding the education budget and related expenditure was also collected. Therefore, the study is a combination of “mixed method design” that allows to collect both qualitative and quantitative data. This design is often used for collecting primary information from individual respondents. Moreover, Education researchers are using mixed method research design frequently to collect specific and verifiable data and analyze both quantitative and qualitative information to understand the research questions/problem.

b) Sampling:

Population

Population of the research study included departments of education in all provinces and areas across Pakistan. This implies that the research findings maybe generalized to all the departments of educations in Pakistan, whereas the sample size is representative.

Sample size and techniques

The sample of participants was selected by the Consultant according to their official mandate and relevance to the education sector. Effort was made to cover all key public and private stakeholders with a role in teaching, curriculum and textbook development, teachers training, school monitoring and data management, planning and management of education functions including some international organizations implementing education programmes in Pakistan. Therefore “purposive sampling technique” was adopted for the said study. This technique allowed the researcher to include the purposeful study subjects from all the units/ sections of all the departments of education in Pakistan.

Sample size

Provinces/ Areas	Size	Provinces/ Areas	Size
ICT/ Islamabad	12	Balochistan	9
Punjab	15	Gilgit Baltistan	12
Azad Jammu & Kashmir	11	Khyber Pakhtunkhwa	14
Sindh	9	Total	82

3.1 Study Instruments

a) Development of Instruments

Within the context of quality education assessment, semi-structured questionnaires were developed and used to collect information from various stakeholders at the (i) federal/ ICT level (ii) provincial level (Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan) and (iii) area level (GB & AJK). The questionnaires, covered:

- Respondents department/ section/ organization's mandate
- Familiarity or knowledge of respondents about MSQE. Whether read the document, received or seen any notification regarding these quality standards
- Parameters of quality which fell under their mandate
- The extent to which the MSQE or related quality standards were mainstreamed in their province at primary and secondary level
- Factors which are responsible for low performance w.r.t teachers, physical facilities and school environment

- Implementation of MSQE or related quality education standards in the province/ area
- Bottlenecks in the implementation of MSQE at federal and provincial/ area level
- Impact of education departments internal systems on implementation of quality standards
- Bottlenecks in plans, finances, communication, administration, coordination and processes
- Budgetary expenditure on education from 2013-2017 and key heads of allocation and expenditure

The instruments were specific to every section/ unit and the questions were accordingly framed.

b) Piloting of the Instruments

Research instruments were piloted in ICT and were improved further in consultation with research and education experts. The finalized instruments were subsequently used for data collection/ administration in the federating units.

3.2 Data and Information Collection

The procedure for all interviews followed a standardized sequence. As a first step, before the meeting took place, an official letter issued by the Ministry of Planning Development & Reform-SDG Section, Government of Pakistan, Islamabad was sent to the concern department or via email (by the Consultant) to the respondents. The consultant requested the appointment for an interview with the respondents/departments.

The interviews were conducted by the Consultant by visiting and meeting the respondents in the month of March 2019 and April 2019. In addition to using hard copies of the semi-structured questionnaires for note taking, some face-to-face interviews were also recorded on digital voice recorder (with prior permission of the respondents). The following key process were applied for data collection, verification and analysis:

a) Research situation: Information given to the participants beforehand:

In order to make sure that the study reflected spontaneous and unbiased information, none of the questionnaires were shared with the participants prior to the interviews. Only the purpose and objective of the study

was shared through email or through official letters (hard copies) sent to them directly by the Ministry of Planning Development & Reform (SDG Section) Islamabad or the provincial/ area SDG Support Units.

b) Transcription of interviews:

Prior permission of participants was sought before recording the interviews using a digital voice recorder. It was explained to them that the recording was meant to facilitate in note taking only and would not be used for purpose other than the study. However still many participants declined to have their interviews recorded. The interviews took more time to complete in such cases as more time was required for meaningful note taking. The recorded interviews were transcribed, and information put under the relevant interview questions.

c) Analysis:

No component of the study was based on intuitive interpretations. The information collected through interviews and focused group discussions completely reflects the on-ground situation. Themes and sub themes were developed for carrying out data analysis.

d) Verification:

A combination of notes and recorded interviews was used to document the findings. In case of some missing or ambiguous information, the respondents

were contacted again over telephone or email for verification of data. Some information was also verified through hard copies shared by participants or where possible through department website/ online reports.

3.3 Study Subjects/ Key Stakeholders Consulted during the Consultancy

The following tables list the key public and private sector stakeholders (departments, institutions/ organizations) that were consulted on national as well as on provincial/ area level during a six-week in-country

data collection exercise in March-April 2019. The stakeholders were selected by the Consultant according to their official mandate and relevance to the study objectives.

Table 1: Key Stakeholders Consulted during the Consultancy

S#	Name	Location
ICT/ Federal Capital Territory		
1	Joint Education Advisor (JEA), Ministry of Federal Education and Professional Training (MoFEPT)	Islamabad
2	Deputy Chief Development, Ministry of Federal Education and Professional Training (MoFEPT)	Islamabad
3	Deputy Director, Quality Enhancement Cell, Federal Directorate of Education (FDE)	Islamabad
4	Director, Academy of Educational Planning and Management (AEPAM)	Islamabad
5	Assistant Education Advisor, National Curriculum Council (NCC)	Islamabad
6	Admin & Accounts Officer, National Curriculum Council (NCC)	Islamabad
7	Director Education, National Commission for Human Development (NCHD)	Islamabad
8	Assistant Director, Education, National Commission for Human Development (NCHD)	Islamabad
9	National Project Officer, UNESCO	Islamabad
10	Chairman, Private Educational Institutions Regulatory Authority (PEIRA)	Islamabad
11	Chief Executive Officer, READ Foundation	Islamabad
12	National Coordinator, National Education Assessment System (NEAS)	Islamabad
Punjab		
1	Additional Secretary (Budget & Planning), School Education Department (SED)	Lahore
2	Additional Director General, Quaid-e-Azam Academy for Educational Development (QAED)	Lahore
3	Deputy Director (IT/ Coordination, Implementation and Communication), Punjab Examination Commission (PEC)	Lahore
4	Assessment Expert, Punjab Examination Commission (PEC)	Lahore
5	Deputy Director, Punjab Curriculum and Textbook Board (PCTB)	Lahore

S#	Name	Location
6	District Monitoring Officer (DMO) Lahore	Lahore
7	Additional Programme Director, Programme Monitoring and Implementation Unit (PMIU)-Punjab Education Sector Reform Programme (PESRP)	Lahore
8	Head of Research, Programme Monitoring and Implementation Unit (PMIU)-Punjab Education Sector Reform Programme (PESRP)	Lahore
9	M&E Specialist, Programme Monitoring and Implementation Unit (PMIU)-Punjab Education Sector Reform Programme (PESRP)	Lahore
10	President, All Pakistan Private Schools Federation (APPSF)	Lahore
11	Executive District Officer/CEO Education Lahore	Lahore
12	Section Officer, School Education Department (SED)	Lahore
13	Chief Education, Planning & Development Board, Government of Punjab	Lahore
14	Senior Head Mistress, Government Fatima Girls High School, 2 Fane Road	Lahore
15	Head Mistress, City District Government Primary School, Chowk Safanwala, Mozang	Lahore
Azad Jammu & Kashmir (AJ&K)		
1	Additional Secretary (Schools), Directorate of Public Instructions Elementary and Secondary Education, AJK	Muzaffarabad
2	Director EMIS	Muzaffarabad
3	Director Budget and Accounts	Muzaffarabad
4	Chairperson, AJK Textbook Board (AJKTBB)	Muzaffarabad
5	Director General, Directorate of Curriculum Research and Development (DCRD)	Muzaffarabad
6	DEO Education Male Muzaffarabad	Muzaffarabad
7	DEO Education Female, Muzaffarabad	Muzaffarabad
8	Coordinator, Kashmir Education Assessment System (KEAS)	Muzaffarabad
9	Chairman, AJK Private School Association (AJKPSA)	Muzaffarabad
10	Head Teacher, Govt. Boys Primary School, Naluchi, Muzaffarabad	Muzaffarabad
11	Head Teacher, Govt. Girls Higher Secondary School Lower Chatter Muzaffarabad	Muzaffarabad
12	Head Teacher, Govt. Boys Model High School Upper Chatter Muzaffarabad	Muzaffarabad
Sindh		
1	Director General, Provincial Institute for Teacher Education (PITE)	Nawabshah
2	Director, Curriculum Wing, SELD	Karachi
3	Sr. Programme Officer, Sindh Education Foundation (SEF)	Karachi
4	Executive Director, Sindh Teacher Education Development Authority (STEDA)	Karachi
5	Director, Directorate of Curriculum, Assessment & Research Sindh (DCAR)	Jamshoro
6	Chairman, Sindh Textbook Board (STBB)	Jamshoro
7	Director, Literacy & NFE	Karachi

S#	Name	Location
8	Chief of Party, USAID Sindh Capacity Development Project (SCDP)	Karachi
9	District Education Officer (DEO) Hyderabad	Hyderabad
Balochistan		
1	Deputy Director, Secondary Education Department (SED)	Quetta
2	In charge EMIS, Policy, Planning and Implementation Unit (PPIU)	Quetta
3	Focal Point, Policy, Planning and Implementation Unit (PPIU)	Quetta
4	Director, Bureau of Curriculum (BOC)	Quetta
5	Director, Provincial Institute of Teacher Education (PITE)	Quetta
6	CEO, Balochistan Education Assessment Commission (BEAC)	Quetta
7	Director, Literacy & NFE, Social Welfare Department	Quetta
8	Chairman, Balochistan Textbook Board (BTBB)	Quetta
9	President, All Balochistan Progressive Private Schools Association (ABPPSA)	Quetta
Gilgit Baltistan (GB)		
1	Additional Secretary Education, Directorate of Education	Gilgit
2	Director General Education, Directorate of Education	Gilgit
3	Deputy Director EMIS, Directorate of Education	Gilgit
4	Director Curriculum/ Training, Directorate of Education	Gilgit
5	Director, Basic Education Community Schools	Gilgit
6	Senior Manager, School Development, AKES, P	Gilgit
7	General Manager, NCHD	Gilgit
8	Head Teacher, Government Primary School Sarkoi	Gilgit
9	Head Teacher, Government Girls Secondary School	Gilgit
10	Head Teacher, Government Boys Secondary School Gilgit	Gilgit
11	Head Teacher, Shining Lights Academy	Gilgit
12	Head Teacher, Secondary Aga Khan DJ School, Danyore	Gilgit
Khyber Pakhtunkhwa		
1	Additional Secretary (Development), Elementary & Secondary Education Department (E&SED)	Peshawar
2	Sr. Planning Officer, Elementary & Secondary Education Department (E&SED)	Peshawar
3	Director EMIS, Elementary & Secondary Education Department (E&SED)	Peshawar
4	Deputy Director EMIS/ Project Manager IT, Elementary & Secondary Education Department (E&SED)	Peshawar
5	Chief Audit Officer, Directorate of Elementary & Secondary Education	Peshawar
6	Director, Provincial Institute for Teacher Education (PITE)	Peshawar
7	Member, Editorial and Publications, KP Textbook Board (KPTBB)	Peshawar

S#	Name	Location
8	Deputy Team Lead Teaching and Learning - Adam Smith International (ASI), Khyber Pakhtunkhwa Education Sector Programme (KESP) funded by DFID	Peshawar
9	Independent Monitoring Unit (IMU) Advisor- Adam Smith International (ASI), Khyber Pakhtunkhwa Education Sector Programme (KESP) funded by DFID	Peshawar
10	District Education Officer (DEO) Male, Peshawar, Elementary & Secondary Education Department (E&SED)	Peshawar
11	District Delivery Unit (DDU), Directorate of Elementary & Secondary Education	Peshawar
12	Additional Director Curriculum, Directorate of Curriculum and Teacher Education (DCTE)	Peshawar
13	Managing Director, Khyber Pakhtunkhwa Private Schools Regulatory Authority (KPPSRA)	Peshawar
14	Principal, Government Shaheed Hasnain Sharif Higher Secondary School for Boys	Peshawar

3.4 Methodological Challenges/ Study Limitations

During the assignment, the Consultant faced a few methodological challenges, which are briefly summarized in this section. One particular challenge arose from the fact that most of the respondents had not seen or read the MSQE document before; this made it difficult to fully cover all aspects of quality education listed in the semi-structured questionnaires. Consequently, not all stakeholders were able to provide sufficient answers to all questions, as some of them were beyond their personal expertise or knowledge. A second challenge arose due to the format of the semi-structured questionnaire itself. Taking almost 45-90 minutes to discuss all relevant aspects, some of the experts interviewed lost motivation to provide detailed information on all questions and in some cases providing insufficient data. These challenges were partly overcome by making use of alternative sources of information, comprising a review of literature and online sources and contacting the respondents again via e-mail and telephone in the days after the interviews. In addition:

- The government officials are difficult to track during office hours. Most of the time, either their telephone numbers are not responding or they are not available on their seats or they are busy in some indefinite meetings. The Consultant faced difficulty in binding them for interviews. Even when they made themselves available within their offices, interference and distraction due to official consultation by people from the same department or outsiders with no prior appointments, telephone calls were a regular feature. In a few instances, the interviewees left the Consultant in between the interview to attend some urgent meeting with the high ups. This intermittent response spoiled the momentum of the interview and made the interviewer and interviewee difficult to concentrate or stay on course of the discussion. Due to the unpredictable nature of appointments with government officials, the Consultant had to frequently reshuffle the daily interview schedule. Multiple visits were made to the offices of government education officials particularly those sitting in the main Secretariat or Directorate.
- The interviews of respondents in main Secretariat or Directorate where a lot of public dealing was involved was marred by frequent disruptions from internal and external people. The Consultant had to rush through questions as it was difficult for respondents to manage time with 5-7 visitors sitting in the same room. However, interviews with respondents with offices in secluded and independent buildings were handled in a much better way and thereby gave more time for the interview.
- Due to frequent transfers and postings in the education department, some of the respondents contacted earlier got transferred days before the Consultants' planned visits for interviews. The Consultant had to find the most suitable alternate candidates which took extra time and effort.
- Prior permission of participants was sought for recording the interviews on a digital voice recorder. It was explained to them that the recording was meant to facilitate in note taking only and would not

be used for purpose other than the study. However still many participants declined to have their interviews recorded. The interviews took more time to complete in such cases as more time was required for meaningful note taking.

RESULTS

4. RESULTS

For this particular assignment a sample of 82 respondents including education managers, head teachers, private school representatives/ associations, international organizations education staff from ICT, Punjab, Sindh, Balochistan, Khyber Pakhtunkhwa, Azad Jammu & Kashmir and Gilgit Baltistan were interviewed and their technical expertise and knowledge about MSQE and quality education was documented. In addition, three focused group discussions (FGDs) were carried out with teachers, one in Khyber Pakhtunkhwa and two in Gilgit Baltistan covering 22 teachers (13 male and 9 female). To incorporate the feedbacks of learners, five FGDs were conducted, one in Khyber Pakhtunkhwa and four in Gilgit Baltistan. These five FGDs covered 50 learners (30 boys and 20 girls from grade 5, 8 and 10). The report therefore draws upon the feedback from total 154 participants.

The results of the study have been categorized province wise according to the themes derived from the scope of work.

4.1 Federal/ICT level

Although primary and secondary education is now a provincial subject in Pakistan, the primary and secondary schools in Islamabad Capital Territory (ICT) fall under the jurisdiction of Federal Government. ICT has a total of 391 public sector schools out of which 49 percent are girls' schools. Out of these schools, majority are primary schools (49 percent) followed by 15 percent middle, 25 percent high and 11 percent higher secondary schools. Overall enrolment in government schools is 0.2 million out of which 48 percent are enrolled at primary level. The gender parity index of enrolment is 1.12 (112 girls for every 100 boys). The total number of out of school children in ICT is 38,529; 11 percent of the total population of 5-16 years' children. 43 percent of these out of school children are girls. The number of teachers working in schools of ICT is 6,463; 65 percent of whom are female. Survival rate to grade 5 in ICT is 92 percent while the transition rate from primary to middle is 100 percent.³⁰

30. Academy of Educational Planning and Management (2015). Pakistan Education Statistics 2014-15. Islamabad

THEMES

1) Mainstreaming of MSQE at primary and secondary level in ICT/ Federal level

a. Knowledge about MSQE in public and private education system/ departments

- One of the respondents who was also part of the development of MSQE commented on the background process of development of MSQE by sharing that “There were many quality initiatives undertaken by the education department but unfortunately, these were not integrated in any standard framework. Therefore, a need was felt to follow some minimum standards of quality in education. A vigorous exercise led by curriculum development, textbook development, teachers training and assessment experts was carried out to study education models of USA, UK, Germany, Australia, Singapore, Malaysia, Bangladesh and India and finally, seven areas were identified for developing minimum standards of our own. GIZ was providing both technical as well as financial support for the activity. After several rounds of discussions in various technical committees, a draft was prepared. It took a long time for the draft to be reviewed in previous ministry (Ministry of Education), Capital Administration and Development Division (CADD) and then the current ministry (MoFEPT) and then, finally, we got it approved. The draft was then presented in Inter-provincial Education Ministers Conference (IPEMC). All the provinces were asked to give their feedback within a month. After their feedback, the document was approved with full consensus of IPEMC. Its notification was issued and 500 MSQE copies were printed and shared with all provinces. Letters were written to every provincial education secretary to implement these standards; some letters were sent by MoFEPT and some by the Minister for Education”. Another respondent added that “I was member of the team that initiated this process. We visited all the provinces to consult all the stakeholders. We initiated its first draft from Karachi. Initially it was ‘Standards of Education’. The word ‘Minimum’ was added later on. Its mandate was derived from 1970’s Act of ‘Curriculum Development and Maintenance of Standards’”.
- 90% of respondents had seen or read the MSQE document and had some knowledge about various standards under MSQE. However, some respondents were not aware about any notification from MoFEPT regarding MSQE.

b. Extent of mainstreaming MSQE

- As per MoFEPT, various education related departments/ entities like National Education Assessment System (NEAS), Academy of Educational Planning and Management (AEPAM), National Commission for Human Development (NCHD) are completely

following MSQE. NCHD is using some of the quality indicators in MSQE in its non-formal schools. Besides it has also developed its own standards focusing on quality, retention, reducing dropout, increase in literacy rate and management.

- After 18th amendment provinces are free to allocate resources as per their priorities and MoFEPT has little say in forcing or binding them to adopt MSQE in their respective provinces. The MoFEPT is aware that the mainstreaming of MSQE is slow at provincial level. But one of the MoFEPT officials commented that “Implementation of MSQE should not be an issue neither before devolution nor after it. As a matter of fact, these standards were not made by us. These were finalized and approved by the provinces themselves. You can see that all the logos are there on the document. So, this is not a document of this ministry rather it is a document of Pakistan”.
- Although the current Chairman Private Educational Institutions Regulatory Authority (PEIRA) was also part of developing MSQE but no evidence could be gathered from PEIRA to know whether standards under MSQE have been adopted by private schools in ICT.
- MoFEPT shared that as per feedback received from the provinces in the IPEMC meetings, they are mostly referring to the MSQE document for learner’s assessment and class environment components.

2) Factors responsible for low performance

a. Teachers

- While prioritizing the factors responsible for low performance among teachers, physical facilities and school environment, 85% of the respondents were of the opinion that teachers play a key role in low performance at school. AEPAM also supported this stance as it has conducted three studies on student’s attainment in which teachers’ quality was identified as the primary factor in low attainment. Since most of the teachers have low qualification i.e. only matric so they do not have the capacity to teach effectively. Similarly, pedagogy and content knowledge go hand in hand for becoming a good teacher. If a teacher is not aware of pedagogy or child psychology, he cannot teach at all.
- Besides, qualification and training, another factor leading to low performance of teachers is their involvement by the Government in non-educational tasks such as surveys, election duties, polio campaigns etc. The number of days available to cover the syllabus in one academic year are already very short and pulling them out of schools during these days affects the pace of learning.

b. Physical facilities

- 10% respondents were of the view that physical facilities play a key role in low performance after teacher. However, most of them agreed that lack of facilities in case of girl's schools, were a main cause of low performance in such schools.

c. School environment

- 5% respondents thought that school environment can have some impact on low performance after teachers and physical facilities. By school environment they meant overall teaching and learning and the role of parents and school management.

3) Implementation of MSQE in ICT/ Federal Level**National Curriculum Council (NCC)**

- Establishment of National Curriculum Council (NCC) Secretariat was a major achievement of the federal government to steer the process of curriculum development on a national level. The NCC Secretariat was established in Islamabad in December 2014 with initial budget of Rs. 100 Million, later increased to 209 Million. The key functions of NCC Secretariat are:
 - ♦ To facilitate National Curriculum Council (NCC) to make coordination among various federating units in development of minimum National Education Standards up to Higher Secondary Level (ECE to Class-XII) and National Curriculum Framework.
 - ♦ To conduct seminars and workshops on curriculum development and to assist NCC to hold its quarterly meetings.
 - ♦ To conduct research studies to analyze the curriculum development across the country.
 - ♦ To provide professional and technical expertise

to the province/ regions in curriculum development up to higher secondary levels.

- ♦ Development of textbooks for ICT on the basis of revised Curriculum 2017.

- Based on the MSQE, MoFEPT has also developed the National Curriculum Framework in 2017. It was also approved and shared with the provinces for adoption.

National Education Assessment System (NEAS)

NEAS is the only organization at the federal level, responsible for educational assessment across the country. It was established in 2003 and is currently working under the administrative control of MoFEPT. Before devolution, it was supported by eight provincial and area assessment offices called PEACE (Provincial Educational Assessment Centers). However, after devolution in 2010-11, these were merged with the provincial assessment related organizations. Although the provincial assessment organizations still coordinate with NEAS for administration of sample assessment in their respective provinces. NEAS has adopted MSQE standards for carrying out its assessment related functions.

Key Activities of NEAS

- Development of assessment framework and test specifications
- Item writing and field test development
- Item review
- Test development
- Sample selection and its verification from schools
- Management of assessment materials (printing, distribution, collection)

Table 2: Progress of NCC against various objectives

S#	Objective	Physical Progress
1	To establish National Curriculum Council (NCC) Secretariat	90%
2	To facilitate National Curriculum Council (NCC) to make coordination among various federating units in development of minimum National Education Standards up to High Secondary Level (ECE) to Class-X-III) and National Curriculum Framework.	100%
3	To conduct seminars and workshop on curriculum development and to assist NCC to hold it quarterly meetings	40%
4	To conduct Research Studies to analyze the curriculum development across the country.	0 % (Activity Withdrawn)
5	To provide Professional and Technical expertise to the Provinces/ Regions in Curriculum Development up to Higher Secondary Levels	Ongoing activity
6	Development of textbooks for ICT on the basis of revised Curriculum 2017	30%

- National Pilot Testing
- National Achievement Test (Large Scale Test)
- Marking, coding and data entry
- Data analysis, data and item interpretation, report writing

NEAS Contribution in Promoting Quality Education

NEAS has been able to highlight student assessment as a key indicator of quality education. NEAS conducts periodic large-scale national assessment called 'National Achievement Test (NAT)'. The assessment is conducted for Grade 4 and Grade 8 in six subjects i.e. Mathematics, Science, Social Studies, Urdu (Reading and Writing), English (Reading & Writing) and Sindhi (Reading and Writing). Stratified random sampling on PPS (probability proportional to size) basis is used for conducting these assessments. NAT is based on curriculum and is correlated with the background variables i.e. factors like parent's role, teacher's role, impact of lack of facilities like electricity, water, toilets on the students, impact of accessibility issues to school etc. All these factors are analyzed in the test.

National Achievement Test 2017

Latest assessment conducted by NEAS³¹ was prepared in 2017 that included assessment of 4th and 8th graders. Data was gathered from 1,499 sample schools (20 students per school) with sample size of 30,000 students. Assessment was carried out before the annual examination.

- Subjects assessed in Grade 4: Mathematics, Urdu reading & Urdu Writing
- Subjects assessed in Grade 8: Science, English Reading & English Writing
- Test Language: English, Urdu and Sindhi
- Schools covered: public, private, Basic Education Community Schools (BECS), National Commission for Human Development (NCHD) schools, community model schools
- Districts covered: 155

Following are the key findings of this assessment study:

- In terms of student's achievement³² for 4th graders:
 - ♦ the highest score in Mathematics was in Punjab (548) and lowest in GB (459), the national average score was 484.
 - ♦ the highest score in Urdu Reading was in Punjab

(536) and lowest in GB (452), the national average score was 485.

- ♦ the highest score in Urdu Writing was in Punjab (543) and lowest in KP (453) and FATA (431), the national average score was 489.
- In terms of student's achievement for 8th graders:
 - ♦ the highest score in Science was in Punjab (566) and lowest in AJK (439), the national average score was 478.
 - ♦ the highest score in English Reading was in Punjab (555) and lowest in KP (459), the national average score was 488.
 - ♦ The highest score in English Writing was in ICT with 557 followed by Punjab (549) and lowest in KP (448) and FATA (454), the national average score was 496.
- Students attending school in urban areas did better in all subjects than those attending schools in rural areas. Thus, more focus is needed on improving the quality of school in rural areas.
- Students in school with less student absenteeism did better in all subjects.
- Students of such schools which have head teachers with higher years of experience performed better.
- Students in schools taking part in co-curricular activities performed better.
- Students scored worse when teachers used local language as medium of instruction/teaching at grade 8 level.
- Students in schools with boundary wall did better in all the subjects.
- Students in schools where teachers gave homework frequently, scored better. Similarly, students who had their homework checked by their teachers more frequently did better in all the subjects.
- Students from homes with more home possession items (i.e. calculator, computer, internet, dictionary, radio, mobile phone and landline phone) did significantly better in all subjects.
- Students whose parents were highly educated did better in all the subjects.
- Students who did not take paid tuition performed significantly better.

31. National Assessment Report 2016

32. The achievement scales are constructed so that a student achieving 50% correct marks receives a scaled score of 500

- Students with less travel distance to school outperformed their counterparts.

'Trends in International Mathematics and Science Study' (TIMSS)

In its pursuit to achieve quality education, Pakistan became the first country in the region and the first time in its history that it participated in an international assessment study namely 'Trends in International Mathematics and Science Study'³³ (TIMSS) in 2019. NEAS successfully administered the TIMSS assessment on 23-24 April 2019 across the country, involving a sample of 5,000 students of grade 4 (from public and private schools). Whilst the assessment results are under process at International Association for the Evaluation of Educational Achievement (IEA) i.e. parent organization of TIMSS, it was the first instance when Pakistani students attempted the same questions in Mathematics and Science, as attempted by students from 70 other countries around the world.

Moving towards Single National Curriculum

In line with Government's vision to develop and implement single national curriculum across public, private and madrassah schools in the country, MoFEPT with the support of its allied institutions like NCC, NEAS etc. and other educational stakeholders (including private schools and Madrassah representatives, NGO's etc.) has embarked upon the path of developing curriculum from Grade 1 to Grade 12 in three phases (Phase I: Katchi/Grade 1 to Grade 5, Phase II: Grade 6 to Grade 8 and Phase III Grade 9 to Grade 12). The focus of this single national curriculum is on critical thinking, Blooms Taxonomy and activity-based learning, confined to core subjects only. The deadline for development of single national curriculum from Katchi/Grade 1 to Grade 5 is 31st March 2020. The first draft for Katchi / Grade 1 to Grade 5 has been prepared on 23rd September 2019 and sent to provinces/areas for their feedback to be provided by 1st December 2019. Once the feedback is received, it will be further deliberated upon and finalized in early quarter of 2020. This would be followed by development and publishing of books while work on the curriculum development for remaining grades will also be carried out in parallel.

4) Bottlenecks in implementation of standards

- Respondents from MoFEPT identified four main bottlenecks in the implementation of these quality standards. First is the comprehension of MSQE

document, as mostly people cannot understand and derive the crux out of it. Secondly, there is a lack of implementation mechanism and a lot of weaknesses in our system in developing curriculum, textbooks, teacher capacity, learner standards etc. "Before MSQE no one had even heard about learner standards. Our standard was to just get 33% marks to pass and 66% is the 1st division. This is what we mean by learner standards". Third, is the absence of monitoring system and fourth is capacity like training of stakeholders on MSQE, which is the responsibility of provincial governments

- Respondents in the MoFEPT admitted that no follow up has been conducted by the federal ministry to know the extent of implementation of MSQE in provinces after these were disseminated. The only follow up or mechanism available to know this is the IPEMC meeting, wherein the provinces are asked to share the status of implementation. The Minutes of the IPEMC meeting are classified documents and not available for public sharing.
- As suggested in the National Education Policy 2009 (NEP), the National Authority for Standards of Education could not be established in Pakistan despite efforts by the MoFEPT. Its establishment could have improved the implementation and further monitoring.
- Coordination between MoFEPT and Inter-provincial working groups (IPWGs) is weak. IPWGs were established containing same provincial representatives who played vital role in the preparation of MSQE. The last meeting between IPWGs and MoFEPT was conducted some three years back.
- The MSQE document lacks adequate details. A few respondents said that the MSQE needs to be revised as it lacks coherence and clarity. As one respondent commented "The contents of MSQE lack the required details and any quantitative indicators." One of the respondents stated that "The standards under MSQE in its current form are not implementable. These should have been pilot tested before wider dissemination". These standards need to be revised and brought at par with previous standards developed such as Teachers Standards developed in 2008. Even the National Curriculum Framework (NCF) 2017 is a better document than MSQE, in terms of quality and detail.

33. TIMSS, the Trends in International Mathematics and Science Study, is a flagship study of the International Association for the Evaluation of Educational Achievement, more widely known as IEA. Directed by the TIMSS & PIRLS International Study Center at Boston College USA, TIMSS is an international assessment of student achievement in mathematics and science at fourth and eighth grades. Countries that participate in multiple cycles of TIMSS can monitor trends in student achievement while assessing changes that have occurred in curriculum, instruction, and other aspects of education that affect learning. Measuring trends in achievement since 1995, TIMSS data have enabled countries around the world to make evidence-based decisions to improve educational policies related to mathematics and science teaching and learning. <https://www.iea.nl/studies/iea/timss>

5) Impact of education departments internal systems and coordination on implementation of MSQE

- Implementation of MSQE is slow due to lack of coordination between federating units.
- UN agencies and INGO's are supporting Government of Pakistan to meet the quality standards. For example, UNESCO is supporting Government of Pakistan in mainstreaming SDG 4/ Education 2030 agenda into national education policies and education sector plans. UNESCO also supports federal and provincial education departments in monitoring of SDG-4 through engagement with NEMIS, AEPAM and NEAS.

6) Monitoring mechanism

- There is no monitoring mechanism available at the

federal level to monitor the implementation of MSQE at federal and provincial level. As far as the provinces are concerned, IPEMC is the only forum where updates are shared by provinces on MSQE.

- Most of the M&E functions under MOFEPT are performed using the 'Project Monitoring & Education System (PMES)' which is updated on monthly basis at federal level.

7) Analysis of education budget allocation and expenditure (2013-2018)

- As per Pakistan Economic Survey 2018-19, Pakistan's total education expenditure as percentage of GDP has varied between 2.1% and 2.4% during 2013-2018. Education expenditure by federal and provinces is as under:

Table 3: Total Expenditure on Education (Rs million)

Year	Provinces	Current Expenditure	Development Expenditure	Total Expenditure	As % of GDP
2013-14	Federal	65,497	21,554	87,051	2.1
	Punjab	187,556	30,485	218,038	
	Sindh	99,756	6,157	106,093	
	Khyber Pakhtunkhwa	70,948	18,756	89,704	
	Balochistan	29,978	6,911	36,889	
	Pakistan	453,735	83,863	537,775	
2014-15	Federal	73,729	28,293	102,022	2.2
	Punjab	201,882	25,208	227,090	
	Sindh	109,275	7,847	117,122	
	Khyber Pakhtunkhwa	83,205	28,506	111,711	
	Balochistan	32,299	8,803	41,102	
	Pakistan	500,390	98,657	599,047	
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	

Year	Provinces	Current Expenditure	Development Expenditure	Total Expenditure	As % of GDP
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 (Provisional)	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	101,277	829,152	

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise budget allocation under the current and development heads.

tion budget as compared to the recurrent budget.

- Unlike the provincial education budgets where salary budget receives major portion of the recurrent budget, the budget allocated for salary and

Table 4: ICT/ Federal Education Budget Allocation 2013-18

ICT/ Federal Education Budget Allocation (Rs. in Billion)					Total Federal Budget (Rs. in Billion)	Percentage of Total Federal Budget
Year	Current		Development	Total		
	Salary	Non-Salary				
2013-14	18 (23%)	41 (51%)	21 (26%)	80	3,985	2%
2014-15	17 (20%)	46 (55%)	21 (25%)	84	4,301	1.95%
2015-16	21 (22%)	54 (56%)	22 (23%)	97	4,451	2.2%
2016-17	23 (21%)	61 (56%)	25 (23%)	109	4,895	2.2%
2017-18	-	-	-	133	5,192	2.5%

- There has been a steady increase in the total education budget for ICT/ Federal area. The total education budget for ICT/ Federal was Rs. 80 billion in 2013-14 which increased to Rs. 133 billion in 2017-18, an increase of 66% in five years. The ICT/ Federal education budget as a percentage of the total budget remained around 2% throughout these five years.
- The total education budget is bifurcated under two heads i.e. current and development budget. The recurrent budget consists of salary and non-salary heads. Over the last five years, development budget received smaller proportion of the educa-

related expenses is relatively smaller in ICT/ Federal education budget. Between 2013-18, the development budget remained around 25% while the recurrent budget remained around 75% of the total ICT/ Federal education budget. A major bulk (>70%) of the recurrent budget went to the non-salary head.

- In the 2016-17 ICT/ Federal education budget, higher education received the highest share of the education budget followed by secondary education and primary education. Higher education has been allocated 79% of the total education budget i.e. Rs. 86 billion, followed by secondary education

with 10% share (Rs. 11 billion) and primary education having 8% of the education budget.

- For teacher education, a budget of Rs. 70.65 million was earmarked for Federal College of Education in 2016-17. The allocation for 2016-17 showed an increase of 6% over the previous year's allocated budget of Rs. 66.64 million.
- A budget of Rs. 28.50 million was apportioned for National Education Assessment System (NEAS) in 2016-17 which showed an increase of 37% over the previous year allocated amount. It needs to be increased to ensure that we are assessing our students regularly and comprehensively.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise education expenditure under the current and development heads in ICT/ Federal area.

- Like increase in allocation, the expenditure on education in ICT/ Federal area also increased over the last five years. The total education expenditure for ICT/ Federal was Rs. 86 billion in 2013-14 which increased to Rs. 127 billion in 2017-18, an increase of 48% in five years.
- From 2013-14 to 2015-16, there was overspending in the ICT/ Federal education expenditure while 2016-17 and 2017-18 showed an underspending of Rs. 1 billion and Rs. 6 billion respectively.
- A major portion (around 50%) of the recurrent expenditure was on non-salary side. Under the development expenditure, more than 90% of the funds were spent on higher education and less than 10% on school education.

Table 5: ICT/ Federal Education Budget Expenditure 2013-18

ICT/ Federal Education Budget Allocation (Rs. in Billion)					Overspending/ Underspending (Rs. In billion)
Year	Current		Development	Total	
	Salary	Non-Salary			
2013-14	20 (23%)	46 (53%)	20 (23%)	86	6
2014-15	23 (23%)	51 (50%)	27 (27%)	101	17
2015-16	24 (21%)	59 (50%)	34 (29%)	117	20
2016-17	-	-	33 (31%)	108	(-1)
2017-18	-	-	27 (21%)	127	(-6)

4.2 Khyber Pakhtunkhwa

Khyber Pakhtunkhwa has a total of 27,506 government schools out of which 39 percent are girls' schools.³⁴ 81 percent of these schools are at primary level. The total number of enrolled students in these government schools is 4.22 million. The gender parity index of enrolment is 0.76 (76 girls for every 100 boys). The total number of out of school children in Khyber Pakhtunkhwa is 2.5 million which constitutes 36 percent of the total population of 5-16 years' children in the province.³⁵ 69 percent of these out of school children are girls. The province has a teaching

workforce of 125,265 in government schools out of which 35 percent are female teachers. The literacy rate (ages 10 years and above) in Khyber Pakhtunkhwa is 53 percent; in favour of males with 71 percent literacy rate compared with 35 percent for females. Net enrolment rate at primary level (ages 6 to 10 years and including grades 1 to 5) is 78 percent for boys and 62 percent for girls.³⁶ The survival rate to grade 5 in the province is currently 69 percent while the effective transition rate from primary to lower secondary stands at 77 percent.³⁷

34. KP Annual Statistical Report of Government Schools 2015-16

35. Academy of Educational Planning and Management (2015). Pakistan Education Statistics 2014-15. Islamabad.

36. Pakistan Bureau of Statistics (2016). Pakistan Social and Living Standards Measurement Survey 2014-15. Islamabad

37. Academy of Educational Planning and Management (2015). Pakistan Education Statistics 2014-15. Islamabad

THEMES

1) Mainstreaming of MSQE at primary and secondary level in Khyber Pakhtunkhwa

a. Knowledge about MSQE in public and private education system/ departments

- Negligible knowledge about various standards under MSQE was observed among most respondents. This was in spite of the fact that the Elementary & Secondary Education Department (E&SED), Government of Khyber Pakhtunkhwa was the first education department in Pakistan to approve these standards.³⁸
- 80% of respondents had not seen or read the MSQE document. Only respondents from Provincial Institute for Teachers Education (PITE), Directorate of Curriculum and Teachers Education (DCTE) and Khyber Pakhtunkhwa Textbook Board (KPTBB) showed some proof and knowledge about the MSQE standards, relevant to their work.
- The regulatory body of private schools in KP i.e. Khyber Pakhtunkhwa Private Schools Regulatory Authority (KPPSRA) which was established in 2017 was neither part of the MSQE development nor is it aware about MSQE or its implementation in private schools of the province.
- Most respondents had no knowledge about Technical Working Group being established and responsible for steering the implementation of MSQE in the province as suggested in the MSQE framework.

b. Extent of mainstreaming MSQE

- PITE which has the mandate of training teachers in the province has adopted the MSQE standards to a significant extent, for designing training programmes for teachers (primary, middle and higher secondary level), teacher educators and developing different training manuals. It has also been using the 17 teacher competencies notified by Elementary & Secondary Education Department (E&SED), Govt. of Khyber Pakhtunkhwa in August 2014. PITE has also placed the copy of the MSQE on its website i.e.
- <http://www.pitekp.gov.pk/pite/images/TrgManuals/MSQE.pdf>
- Similarly, the MSQE standards for curriculum and textbooks have been adopted by KPTBB for developing new textbooks or revising existing text books from KG to grade 10.

- For addressing the missing facilities like additional classrooms, electricity, boundary wall, water and toilets (mostly related to the MSQE school learning environment standards), School Improvement Plans (SIPs) for all 27,500 schools in the province have been made by Elementary & Secondary Education Department (E&SED), Govt. of Khyber Pakhtunkhwa. Substantial funds have been spent by the government as per SIPs and improvement has been witnessed in addressing the missing facilities during the last five years. Priority for provision of missing facilities by the government has been the girl's schools.
- Although school-based improvement by addressing the missing facilities is being actively pursued by the Elementary & Secondary Education Department (E&SED), Govt. of Khyber Pakhtunkhwa but there is no research study or mechanism to determine whether these facilities or improvements are completely meeting the minimum standards for school learning environment as prescribed under MSQE.
- No evidence could be gathered from KPPSRA to know whether standards under MSQE have been adopted by private schools in the province. However, the discussion revealed that the bigger chain of private schools follow their own pre-defined standards and policies. Since the government has not made MSQE mandatory for private schools so they are not pushed to follow the same.

2) Factors responsible for low performance

d. Teachers

- While prioritizing the factors responsible for low performance among teachers, physical facilities and school environment, 80% of the respondents opined that teacher plays a key role in low performance. A good teacher can lift the standard of education and achieve required learning outcomes. On the contrary, an unqualified, demotivated and untrained teacher can wreak havoc with the learning process.
- Some respondents commented on challenges being faced by teachers in schools despite being qualified, motivated and trained. One respondent said that "Quality teaching cannot be expected in more than 50% schools where Student-Teacher Ratio is high. In most Government primary schools, there is one teacher for 60-100 students. In such circumstances, one Teacher cannot control or provide attention to each student. Eventually, both teaching and learning suffers and students gradually drop out".

38. KP set to approve minimum standards of quality education <https://www.dawn.com/news/1228900/kp-set-to-approve-minimum-standards-of-quality-education>

- Similarly, under various enrollment drives, the E&SED has been emphasizing on increasing enrollment in schools without increasing the number of teachers proportionately, which means that the same single teacher is now being asked to handle even more students after increased enrollment in a multi-grade teaching environment. According to a few teachers and head teachers, retention of students becomes a key issue in such environment and teacher also loses interest. Under the multi-grade teaching environment, teachers are overloaded with work and they hardly go beyond a few chapters in a book. Moreover, it is very difficult for them to assess all students so learning outcomes are compromised, causing low performance.
- According to some respondents, shortage of teachers was a key factor for low performance in schools. According to PITE despite the fact that 42,000 school teachers have been inducted and trained since 2014 in Khyber Pakhtunkhwa and the process is ongoing, there is still a shortage of 7,500³⁹ school teachers which are yet to be inducted. According to E&SED, on the average 6,000 teachers are also retiring every year, so a recurring gap is being faced by the Elementary & Secondary Education Department (E&SED), Govt. of Khyber Pakhtunkhwa on this front.
- As per E&SED official website, education is the biggest government department of the province with approx. 188,000 employees.⁴⁰ Over the years, the department has seen frequent political interference related to appointment of unqualified teachers, postings, transfers etc. which has negatively affected the sacred profession of teaching. The system still has thousands of unqualified and incapable teachers which are causing low performance and affecting the overall learning outcomes. According to one respondent "After 2006, the curriculum has been revised drastically, textbooks and SLO's have become difficult and activity-based learning is being promoted. Similarly training of teachers has also become a key focus area. Due to these changes, some of the old teachers are not used to or keep up pace with the new developments which has deteriorated teaching standards and is causing low performance".
- Another respondent commented that "the government policy of automatic promotion in primary schools practiced to improve the drop out indicators at national level has led to demotivation among teachers and has been one of the causes of low performance". The teachers have stopped to take assessments or terminal exams or putting in extra effort for improving students' performance, knowing well that even without their effort, the student will still be promoted to the next class.
- One respondent commented on the negative impact of abrupt changes in government policies. For three years (from 2015-2018), all grade 5 students in the province had to appear in board exam which was kind of an assessment with no pass/ fail ranking but a grading system with A, B, C, D grades were used. The quality of question papers and marking in all eight boards of the province was also the same. This assessment was based on SLO's but questions were not from the book. These unseen questions were meant to assess the understanding level of the students and application of knowledge. The preparation of students increased every year and teachers also started taking the assessment seriously. However, from 2019, the E&SED suddenly decided to discontinue this assessment on the pretext that a lot of money was being spent on this exercise so instead of asking all Grade 5 students to appear in the assessment, a 10% sample of schools will participate in the assessment. This year (2019) assessment was held from 3-10 April 2019 and those schools not included in the 10% sample automatically got relaxed. The hard work of three years to mentally prepare students for appearing in exams and assessing their learning and motivating the teachers to put in extra effort for better results of their school, got a severe dent.
- One of the respondents tried to make a comparison of public and private sector school by saying that "When inducted the public-school teacher gets the status of a civil servant with much better perks and privileges as compared to a private school teacher. Government teacher has more freedom and is less accountable so he automatically gets into a comfort zone. Has lots of benefits like increment, bonuses, gets five earned leaves for every one month of service. On the other hand, the private teacher is not paid well, has no job security and is not entitled to many leaves, but still has to put in the same effort or even more to produce result". That is the main reason that teachers prefer government job over private teaching.

e. Physical facilities

- Only 13% respondents were of the view that physical facilities play a key role in low performance. However, mostly agreed that only in case of girl's schools, it does have some impact on low performance.

39. <https://tribune.com.pk/story/1950206/1-k-p-cm-orders-hiring-7500-teachers/>

40. Elementary & Secondary Education Department (E&SED), Govt. of Khyber Pakhtunkhwa <http://www.kpese.gov.pk/>

f. School environment

- Only 7% respondents thought that school environment can have some impact on low performance. Teachers were particularly critical of the lack of interest of parents in education of their children and putting the entire burden of education of their children on teachers. According to some teachers and head teachers, the lack of support at home where the students spend most of the time or follow up on their education at Government schools was also causing low performance.

3) Implementation of MSQE by Government of Khyber Pakhtunkhwa

- Among the five standards specified in the MSQE document, the Government of Khyber Pakhtunkhwa has implemented standards for teachers through PITE, standards for textbooks through KPTBB, standards for curriculum and assessment through DCTE and standards for school learning environment through Elementary & Secondary Education Department (E&SED) conditional grants to meet the basic missing facilities. The focus from 2013-2018 was on missing facilities but the new five-year education sector plan 2018-2023 (still with the provincial cabinet for approval) focuses on quality. This plan also includes revamping of ESRU and EMIS for producing better results.
- Some aspects of quality education are also covered under Khyber Pakhtunkhwa Education Sector Programme (KESP) (2012-2020). KESP is funded by the UK's Department for International Development (DFID) and implemented through Adam Smith International (ASI) to help the Government of Khyber Pakhtunkhwa realize the objectives of its Education Sector Plan.⁴¹ The programme focuses on increasing the number of girls and boys enrolling in and successfully completing school as well as improving the quality of primary and secondary education, improving teachers training and induction programmes, enhancing the institutional and human resource capacity of various departments, and supporting improvements to assessments and textbooks for all children across the province. One of the biggest achievements of KESP is establishment of an Independent Data Collection and Monitoring Unit (IMU) in March 2014 to collect credible data every month from each of the 27,500 schools in the province. If the schools of newly merged districts (i.e. FATA schools) are also included, the total reaches to almost 35,000 schools. IMU has extended its school monitoring to these 7,500 schools of newly merged districts as well.

a. Implementation of learner's standards

- According to E&SED, although the 2018-23 education sector plan summary is with the cabinet for approval, the ground work has already been started on that plan e.g. for early childhood education, an agreement has been signed with UNICEF which will develop a model school on early childhood education in one district and replicate it in other schools across the province. Drop out normally starts at early age. When kids are facilitated at early age of 3-8 years, dropouts automatically start declining.
- To expose students to the latest ICT equipment for learning, E&SED has provided interactive boards/smart boards to all 600+ higher secondary schools (one per school since it is a costly item) in the province. The smart boards are used to show video tutorials related to the lessons for further conceptual clarity and also downloading information relevant to the lesson from the internet. The teachers can write and erase electronically. Each higher secondary school has a dedicated smart room where this interactive electronic board is installed and connected to the internet. Equal access to the smart room is provided to students from grade 9 to 12.
- To develop inquisitive skills among students and explore the topics further, KPTBB has started including relevant weblinks in the textbooks (such as grade 10 chemistry text book) so that students can visit those weblinks at home and develop a habit of accessing information beyond textbooks.
- During the FGD with grade 10 learners of a Government High School in Peshawar, it was observed that students were confident and expressive. According to one student "the teachers are very friendly and they can ask questions without any fear". Another student commented that "The maximum students in one class should not be more than 14 so that teacher can provide individual support". Majority demanded an interactive screen in each classroom, as available in the elite private schools in the city, so that concepts are cleared through videos instantly without waiting for their turn to use the smart room. The students further shared that group work and group presentations are encouraged by teachers in all subjects specially physics, chemistry, English and Urdu. A few students shared that "they have to study physics, chemistry, biology from class 9 and onwards and appear in board exam in class 10 while private schools students are taught these subjects from class 8, so they have more exposure and perform better in these subjects as compared to those in government schools".

41. Improving access to quality education in northwest Pakistan

<https://www.adamsmithinternational.com/explore-our-work/west/pakistan/khyber-pakhtunkhwa-education-sector-programme>

b. Implementation of teacher's standards

- Implementation of teachers' standards in Khyber Pakhtunkhwa is being actively carried out through PITE which has the mandate for teachers training in the province. Even before MSQE, National Professional Standards for Teachers 2009 (10 standards) were implemented vigorously in the province. PITE has followed the standards for teachers (as mentioned in MSQE) for designing trainings for teachers and has even developed standards for Teachers Education with German Technical Cooperation (GIZ's) technical assistance in 2018, based on those standards. These standards have been approved by the Government of KP as well.
- KESP has been providing technical assistance to PITE in developing contents, manuals, modules for teachers by following National Professional Standards for Teachers 2009 (10 standards) as well as those in MSQE. KESP has also assisted PITE in designing the Continuous Professional Development (CPD) Programme for teachers including training manuals and modules.
- CPD also includes one Professional Day in every month for teachers, where teachers are trained on the difficult topics in different subjects. The most recent one was observed on April 13, 2019 in which 53,000 teachers were trained on the same day in 16 districts at 2000 venues. For this purpose, Master Trainers from the same district were identified by District Officers Education and selected jointly by PITE and KESP (after test, interview, demo). The selected Master Trainers were selected and trained by PITE in line with the teacher educator standards. So, both teacher educator training and teachers training are conducted as per available standards.
- Teachers education like the pre-service service training for teachers applicable previously has been discontinued by Government of KP and replaced by an alternate mechanism called teachers induction programme, spread over six months (now upgraded to nine months) and covering content and pedagogy both.
- The Government of KP has also done away with the condition of relevant professional qualification like Diploma, Bachelor of Education-B.Ed. Certificate in Teaching-CT etc. For teacher's recruitment and now all teachers are hired through NTS irrespective of the subject studied at Master's level. Since 2014, 55,000-60,000 teachers have been hired through NTS. Hence, merit and transparency in hiring of new teachers is being observed.
- The first batch of teachers having prior professional qualification, under the induction program has been trained for six months since they possessed some prior professional qualification diploma, B.Ed. CT etc. In the first batch 13,000 teachers (male &

female both) (primary, secondary, elementary cadres) have been trained under this since July 2018. The Master Trainers trained by PITE and KESP provided training to a group of 30-35 teachers in Regional Institute for Teacher Education (RITEs) by forming local clusters of trainees within each district. Each teacher has been given a tablet with pre-loaded android application and material. The teachers study the material, implement it for 15 days and then appear in an online assessment conducted by DCTE. Only those teachers who score 80% in the post training assessment are regularized in the Government service. The second batch of 17,000 teachers will undergo nine months training (since these teachers do not possess any prior professional qualification) as per scheme of studies approved by DCTE.

- During the focused group discussion (FGD) with teachers in Peshawar, it was observed that teachers are aware about the qualities or traits of a good teacher like subject knowledge, effective and clear communication, lesson plans and classroom management, proficiency in the use of audio-visual aids.

c. Implementation of textbook standards

- KPTBB has the mandate for development of new textbooks or revision of existing textbooks in the province. It has developed 236 titles (210 text books and 26 work books) so far. Before 2016, textbooks were developed by KPTBB on the basis of 2006-07 curriculum. However, in September 2016 a road map was developed with KESP and DCTE support for revision of all text books from KG to Grade 12 in phases and in accordance with the standards defined for textbooks in MSQE.
- Acting on the road map, KPTBB, KESP and DCTE have collectively revised three textbooks from grade 1 to 5 in 2016-17, 14 textbooks from grade 6 to 9 in 2017-18 and 5 textbooks for grade 10 in 2018-19. In 2020 text books for grade 11 are planned to be revised through collaboration of DCTE and KPTBB.

d. Implementation of curriculum and assessment standards

- DCTE has the mandate for development of curriculum and assessment in the province. KESP has provided technical assistance to DCTE including its restructuring and formation of an assessment wing which was missing previously.
- KESP has also supported DCTE for assessment of teachers for three years i.e. 2015-2018. The DCTE staff has been trained in sampling, assessment tool development, item bank development, SLO's, data entry and analysis etc. as per assessment standards under MSQE.
- DCTE and KESP have continued to assess primary

teachers for content knowledge and pedagogy during these three years as per assessment standards derived from MSQE. From 2019, DCTE is doing the assessment of teachers independently for the first time. The grey areas highlighted in these assessments are shared with PITE for designing and delivery of relevant trainings for the teachers. All assessment reports are compiled and shared with relevant stakeholders and placed on the PITE website as well.

e. Implementation of school learning environment standards

- Significant amount is being spent by Elementary & Secondary Education Department (E&SED) on provision of missing facilities in existing schools. However, it is following its own pre-defined standards for the civil works which they claim to have improved overtime. Exact relevance with school environment standards as mentioned under MSQE could not be established.
- As per policy of the KP government, 70% of schools upgraded are girls schools. For identifying the basic missing facilities like electricity, water, toilets, boundary wall, additional classrooms, School Improvement Plans (SIPs) have been developed for all 27,500 schools (primary, middle, high and higher secondary) in the province.
- The missing facilities like electricity are met through installation of solar systems or electricity connection, whichever is feasible. For water connection, construction of additional classrooms and toilets, boundary wall, predefined standards and specifications by the E&SED are used. For greater transparency, the school level civil works are closely supervised by the respective Parent Teacher Council (PTC). Funds are transferred for this purpose to the respective PTC bank account. The capacity of PTC members to monitor physical improvement in schools and financial management has been built by the Government through 5 days financial management training (5-7 members from each PTC). One training having 3-4 school PTCs. A proper guide book has also been prepared and distributed among PTC's with detailed guidelines for school management.

- From the Government side, the M&E department and Internal Audit Cell of the E&SED monitors the physical work/ construction as per specifications/ quality and, financial verification as well. In addition, the IMU Data Collection and Monitoring Assistants (DCMAs) also monitors the facilities including bank statement of PTCs to know how much funds have been transferred and utilized or if unutilized the reasons for same.
- For the implementation of SIP's, KP Government provided Rs 9 Billion as conditional grants in 2017-18 whereas approx. Rs. 21 billion have been spent in this category since 2014. Standard rates of various missing facilities are already defined and vary as per enrollment and topography e.g. the average rates are Rs. 800,000 for additional classroom, Rs. 160,000 for one washroom, Rs. 160,000 - 200,000 for water supply Rs. 120,000 for electricity connection, Rs. 200,000 - 400,000 for solar system etc. IMU is also monitoring the physical progress and financial spending on each school receiving conditional grant.
- Since retention of students and enrollment depends on conducive learning environment, Government of KP has been successful to a great extent, in providing the missing facilities, particularly for girls' schools. The table below shows a comparison of basic facilities in total number of schools in March 2014 and March 2019 (source: IMU's website

<http://175.107.63.45/NewIMUSite/index.aspx>). As per available figures, improvement has been witnessed in all basic facilities, particularly electricity.

- However, owing to huge number of schools (approx. 27,500) in the province, there are still many gaps on this front. Despite spending over Rs. 21 Billion on providing missing facilities in schools during the last five years, there are 8% (2,203) government schools without boundary wall, 18% (5,047) are without water, 26% (7,182) are without electricity and 8% (2,229) are without toilets.⁴²

Table 6: Basic Facilities in Schools in KP

Basic Facilities in Schools	March 2014	March 2019	Improvement
Water availability	74%	91%	17%
Toilet availability	83%	96%	13%
Boundary wall	80%	95%	15%
Electricity connection	62%	86%	24%

42. Annual Statistical Report of Government Schools 2017-18, Department of Elementary and Secondary Education, Government of Khyber Pakhtunkhwa

- As part of the 2018-23 education sector plan, Government of KP has announced that all new primary schools to be constructed in future will have six rooms (one ECE room and 5 classrooms from Grade 1-5).
- Play is an important part of a child's early development. Government of KP has constructed 10,000 play areas (comprising four facilities i.e. slide, monkey bar, swing, see saw) in 10,000 primary schools during the last 5 years. However, these have been constructed only in those schools having at least 10 marla open space available. In future, 2,900 more play areas are under construction.

4) Bottlenecks in implementation of standards

The Government of Khyber Pakhtunkhwa is doing all it can to provide quality education to the learners. However, there are many bottlenecks to implement the MSQE and provide quality education to all students across the province. These are summarized under the following heads:

a. Plans

- Sudden and frequent changes in education policies are affecting the implementation of standards. For example, the government policy of automatic promotion in primary schools practiced to improve the drop out indicators at national level has led to demotivation among teachers and has been one of the causes of low performance. The teachers have stopped to take assessments or terminal exams or putting in extra effort for improving students' performance, knowing well that even without their effort, the student will still be promoted to next class.
- Similarly, from 2015-2018, it was mandatory for all grade 5 students in the province to appear in board exam which was kind of an assessment with no pass/ fail ranking but a grading system with A, B, C, D grades was used. The quality of question papers and marking in all eight boards of the province was the same. This assessment was based on SLO's but questions were not from the book. These unseen questions were meant to assess the understanding level of the students and application of knowledge. The preparation of students increased every year and teachers also started taking the assessment seriously and a healthy competition among schools was established. However, in 2019, the E&SED suddenly decided to discontinue the Grade 5 assessment on the pretext that a lot of money was being spent on this exercise so instead of making all Grade 5 students appear in the assessment, a 10% sample of schools will participate in the assessment. Hence, in 2019, assessment was held from 3-10 April 2019 in only 10% sample schools while the remaining schools and teachers automatically got relaxed. In other words, the hard work of three years to mentally prepare students for appearing in exams and assessing their learning got a severe dent.
- EMIS section is the backbone for effective school level planning and needs adequate HR and capacity building support to perform its functions judiciously. The section did not have a head until recently and the position of Director EMIS was created only in June, 2018.
- KPTBB is a key entity where there is shortage of human resource for development and distribution of quality textbooks as per MSQE standards. Against the sanctioned 140 posts, 50 positions in KPTBB are vacant. Even among the 90 available staff, 25% of the staff is busy in the KPTBB warehouse for around 3-5 months of the year receiving, arranging and dispatching textbooks to all 26 districts, which is a time-consuming process. The printing of textbooks starts in October every year and the printed books are received from January to March next year. With low human resource, KPTBB struggles to dispatch around 75 million textbooks to all districts before the start of academic year in April.
- Addressing missing facilities in schools and inducting required number of teachers seems to be the two biggest challenges faced by the Government of Khyber Pakhtunkhwa. Without basic facilities and required number of teachers, the process of teaching and learning cannot continue effectively and improvement in learning outcomes cannot be expected. The plans for both need significant allocation of financial resources on priority basis.
- The data collected by IMU/ EMIS is not used productively. It is a common phenomenon that different sections within the education department are asked for inputs while designing some new intervention but the suggestions are never implemented.
- The planning is not need or evidence based rather it caters to the wishes and whims of a few high officials/ political representatives not undergoing the due deliberation process. The impact of such decisions is often short-lived and results in wastage of resources and time.
- Assessment of private schools is not included by EMIS/ IMU and there is no training of private schools' teachers, so it is not known whether they are following the required standards. By doing so, 38 percent of teachers and students are automatically excluded from the system.
- Some of the multilateral agencies felt that due to government policies and procedures, timely support is not extended to its ongoing projects. For instance, UNESCO is focusing on bringing out of

school children into schools, however there is also need for the additional teachers, rooms, provision of missing facilities etc. that are usually not addressed in time.

b. Finances

- The capacity of education staff to plan realistically and spend the entire budget amount seems weak. Frequent capacity building trainings of finance and budget staff are required, particularly at the district level.
- More finances are required for hiring, training and sustaining of almost 7,500 additional teachers. Similarly, resources are needed for meeting the missing facilities and construction of new schools.

c. Coordination

- There is a disconnect between various units/ sections within the education department and with federal government. It was observed that each unit/ section within the E&SED is working in its own shell. In one instance, a severe bias was also observed on the functions assigned to some other unit/ section.
- There were divergent views about the technical and financial support provided by donors to the education department. Some respondents were critical about their role as they felt constrained to perform with too much interference and dependency. Some preferred to work with them as it contributed to their capacity building and improving their performance.
- The urge or responsibility to work individually and collectively to achieve SDG-4 in general and quality education in particular is missing. Departments like to work in their own comfort zone oblivious of missing SDG targets.

d. Communication

- The notification issued by the federal government (MoFEPT) to the Secretary Education, Government of Khyber Pakhtunkhwa along with copies of the MSQE document did not trickle down to the lower level within the education department.
- No evidence like copy of notification/ memo regarding MSQE could be produced by the respondents when requested. The EMIS section shared that it has no knowledge about MSQE as these were not communicated to them. KPPSRA was established in 2017, so it is not aware about any such notification regarding MSQE either.

e. Processes

- The TWG at provincial level seems dysfunctional. Nobody knows who its members are and how many times it has met and where.
- High staff turnover in the education department is a major bottleneck for continuity of plans. Most

respondents interviewed were found to be working on their existing position since the last 3-12 months, therefore their institutional memory of developments that had taken place prior to 2018 was missing.

- According to one respondent, "the control of some key institutions like eight KP Boards for Intermediate and Secondary Education lies with the Chief Minister of the province. It has been a standard practice to appoint near and dear ones in these boards on key positions. Such decisions negatively affect the examination and assessment system and also results in other risks like examination paper leakages".
- A few respondents highlighted that there are several grey areas in the system of paper checking. For example, the paper checker on an average is paid Rs. 25 for each paper. Therefore, his/her focus is to earn more by checking maximum number of papers. Eventually, the students are the end sufferers and many hard-working students fail to produce the desired results.
- Similarly, the textbook authors charge Rs. 9,000/ day but are oblivious about the level of understanding of users (students and teachers). The language and vocabulary used in text books is copied from other sources due to which the contents are difficult to comprehend by the students and becomes equally challenging for teachers. The teachers also showed their disappointment at no formal mechanism for teachers to provide feedback/ suggestions on textbooks (to KPTBB) and curriculum (to DCTE). They pointed to some glaring mistakes, related to grammar found in grade 8 and 10 English textbooks, grade 9 physics, grade 9 and 10 chemistry text books. They said that these books have weak authorship with conceptual deficiencies. Most of the mistakes have been corrected by teachers on their own. Their voice never reaches to the relevant authorities
- The FGDs with teachers revealed that the students of class 6-9 have to study English, Urdu, Arabic and Pashto language. Of these Arabic and Pashto are compulsory subjects. Computer is also compulsory from class 6-8. With multiple languages, the focus of students is lost.
- The teachers further shared that they cannot control students as corporal punishment and abusive language is strictly prohibited in schools by E&SED. Students do not complete their copies and teacher cannot do anything about it. The students take leaves as per their sweet will and pay fine against it which is just Rs. 1 per day. The text books are free and the school fee is around Rs. 150 per month. There is hardly any financial pressure on students or their parents for breaking the discipline at school or disobeying the teachers. The teachers

stated that parents are also taking least interest in the education of their children and there are hardly any parent teacher meetings.

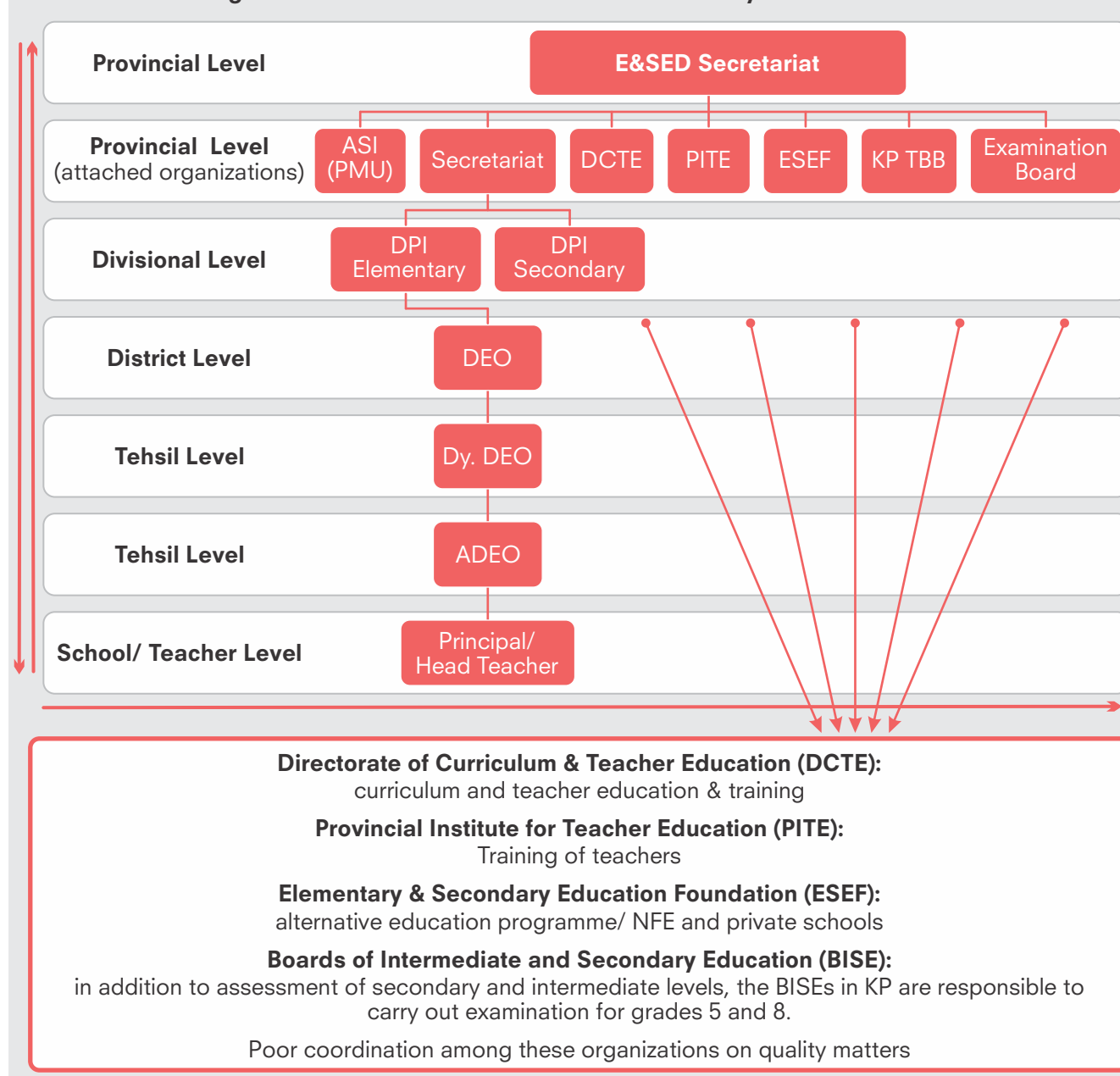
- The trainings imparted to staff of E&SED for implementing quality standards within their respective sections/ departments are not yielding much results. For example, one of the respondents attended four workshops spread over two months on data quality standards, organized with the technical and financial assistance of GIZ but could not gather much when asked about its details.
- There is absence of any accurate baseline data for measuring quality under various parameters. For example, if student learning outcomes are known for a particular grade, only then can an intervention be planned. If the SLO's are weak in a particular subject then it would mean that teachers require training support to improve their teaching.

- The initial idea of establishing ESRU (Education Sector Reform Unit) was to provide research-based ideas and vision to the education sector, identify weak areas, provide solutions. However, the wing did not perform as per expectations mainly due to high staff turn-over.
- The politicization of E&SED workforce and teachers in particular, is a pervasive and complex phenomenon which has profound effects on employees' willingness and capacity to prioritize the core business of delivering high quality education to all children in the province.

f. Structural Bottlenecks

In KP, the structural bottlenecks are analyzed in the light of the vertical and horizontal structures of the Elementary & Secondary Education Department (E&SED), Government of KP.

Figure 1: Communication and Coordination in Khyber Pakhtunkhwa



Vertical communication (Information flow)

Vertical communication is primarily discussed in two ways; 1) downward flow of instructions / information and 2) upward flow of feedback / information.

Downward flow of instructions

Generally, instructions are generated from the provincial level and directed down to the division and then to the districts, where district level officers implement the same through their Tehsil and lower/ field level staff. In most of the situations, such directives do not cover quality side of education and only demand statistical information that is needed to be supplied to the higher authorities.

Upward flow of feedback

Upward flow generally happens in response to the directives/ orders/ circulars coming from the Secretariat or any other superior office. Through discussions, it was concluded that the trend to inform higher authorities with any information that would result in quality enhancement is rare. The sub-ordinate offices simply comply with the orders and directives received from the top.

Horizontal Flow

In KP, horizontal coordination occurs among the affiliated organizations responsible for quality related functions. DCTE is responsible for curriculum and teacher education. Under teacher education, the DCTE manages operations about pre-service and in-service education and training. The pre-service education matters are dealt through PITE and RITEs (regional institutes for teacher education) where teacher education courses such as B.Ed, M.Ed and others of similar nature are offered. Under in-service training, PITE offers in-service trainings to the teachers. However, there is no classroom-based mentoring and coaching as are offered in Punjab under QAED. It is pertinent to discuss that PEACE (provincial education assessment commission) operates under the DCTE but appears to be operating with very limited scope. The examination related activities are initiated technically by the DCTE with BISEs jointly with district education departments.

On the basis of grade 5 and grade 8 student assessments, feedback system to enhance the quality of teaching & learning is not very effective. Similarly, coordination among DCTE, KPTBB, BISEs and administrative sections of the education secretariat is neither frequent nor objective, which is an obvious bottleneck in promoting quality education.

The E&SED should formulate quality enhancement mechanism by improving objective coordination under DCTE, which is operating with limited scope and staff.

Analysis of Education Department's Internal Systems

An analysis of internal systems (performance, human resource and information management) of KP education department on implementation of quality education reveal some critical gaps. The organizations/ departments responsible to ensure quality in education tend to communicate with each other only when there is some special task assigned by the office of the Secretary E&SED. Besides that these organizations hardly contact each other.

There is no mechanism to hold the teachers accountable for their performance and the HR working in administrative sections of the E&SED have conventional ACR (annual confidential reports) for promotions. There is no performance-based system that allows the department to appraise their performance and award promotions and special awards for outstanding performances. The discussions with the respondents revealed that it was very difficult to apply a performance-based system of promotions and demotions. While discussing further, it was agreed that there must be standards for teachers and HR and that these standards must apply in recruitments, training of the staff before and during the jobs and performance-based promotions etc.

5) Impact of education departments internal systems and coordination on implementation of MSQE

- On a positive note, coordination among some entities within the education department is also producing positive results. For example, PITE frequently coordinates with Director, E&SE for nomination of teachers, with EMIS and M&E for planning and data sharing. PITE achievements are a testament to this. During 2017-18, PITE has trained 1195 (92%) teachers (708 male, 487 female) in Early Childhood Care and Education (ECCE) against a target of 1304; as part of CPD 2033 teachers (96%) trained as Training Facilitators against a target of 2108; 8198 (90%) teachers trained in assessment of grade 5 against a target of 9100; 807 Secondary School Teacher SST Science teachers (90%) trained against a target of 900; 2025 Head Masters/ Principals of High Schools (135%) trained in Leader and Management against a target of 1500 and 370 Assistant Sub Divisional Education Officers ASDEO's (100%) trained in School Quality Management Initiatives (SQMI) against a target of 370.
- There is strong coordination between PITE and DCTE. Assessment and analysis of Grade 2,5, and 8 students is carried out by DCTE. Through analysis, the hard teaching areas are identified and PITE is handed over those areas for designing appropriate

training modules for teachers

- Similarly, KPTBB also coordinates regularly with the Director, E&SE. For technical support the services of KPITB (KP IT Board) are acquired on need basis.
- Capacity of the E&SED, Government of Khyber Pakhtunkhwa has been strengthened with the establishment of IMU under KESP. Decision making within the department has improved on the basis of availability of real-time data for each school. Education Managers can now benefit from regular and reliable data on issues such as teacher and student attendance and available facilities.

(PSLM). UNESCO also supports federal and provincial education departments in monitoring of SDG-4 through engagement with National Education Management Information System (NEMIS), AEPAM and NEAS.

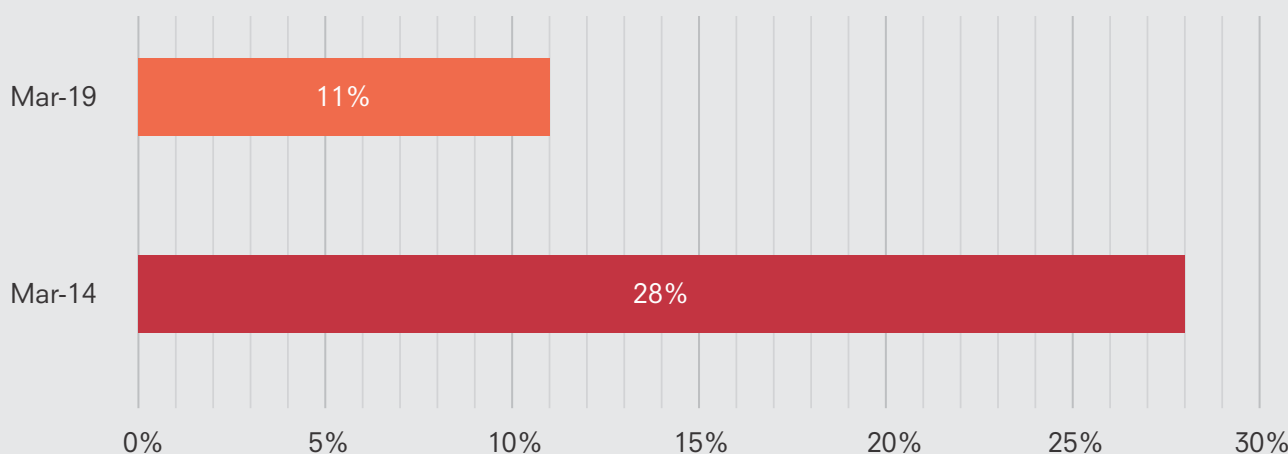
6) Monitoring mechanism

a. Available mechanism

- A very robust mechanism through IMU is being managed by E&SED, Government of Khyber Pakhtunkhwa for monitoring school learning environment on a monthly basis. For monitoring 27,500 schools in 26 districts of the province, 550

Figure 2: Teacher Absenteeism in KP

Teacher Absenteeism



- With rigorous monitoring by DCMA's at school level, teachers are also feeling pressure to be present in schools at all time and resultantly absenteeism has decreased from 28% in March 2014 to 11% in March 2019, as evident in the figure above.
- For improving school learning environment E&SED has conducted close coordination with the respective PTCs. With their involvement the cost has reduced by almost 50% while quality of construction has improved as well. For example, the cost of one classroom constructed by Construction & Works Department (C&W), Government of Khyber Pakhtunkhwa was Rs. 1.8 Million – 2 Million while the one which is presently constructed under PTC's supervision is Rs. 0.8 Million.
- Coordination with international development agencies has improved the capacity of E&SED. UNESCO is supporting Government of Pakistan in mainstreaming SDG 4/ Education 2030 agenda into national education policies and education sector plan. For monitoring of SDG-4, UNESCO has provided technical inputs to Pakistan Bureau of Statistics (PBS) on data collection instruments of Pakistan Social and Living Standards Measurement

male and female Data Collection and Monitoring Assistants (DCMAs) belonging to the same districts have been hired through NTS. The DCMAs have been trained by IMU in data collection and reporting on an exclusively developed android application.

- Each DCMA is assigned a monthly roster by IMU for schools to be visited in that particular month. Once the roster is assigned, the details (names and CNICs) of all teachers in the particular schools to be monitored are transferred onto their smart phones. On an average each DCMA has to visit 50-60 schools every month in the same District. In hard areas (Chitral etc.) these number are 40-45 due to mobility issues. These DCMA's have been provided motorbikes (for male) and transportation allowance (for female) as well as smart phones for recording and sharing real time data with the IMU headquarter, Peshawar.
- The DCMAs collect and physically verify various school-based indicators after due consultation with head teachers of each school. This information is then uploaded real time to the IMU database by DCMAs using the smart phones. The DCMAs carry

out surprise visits to the assigned schools. However, it was observed that sometimes school management relaxes after DCMA's visit so from 2015 onwards revisits by DCMA's have been introduced.

- For quality assessment of teachers and learners at school level, E&SED has launched SQMI (School Quality Management Initiative). Previously, IMU was only handling the quantitative data but since the start of 2019 it has been tasked to capture qualitative data about each school as well (like grade 2 and 4 assessment on similar pattern as conducted by PMIU in Punjab). The SQMI is implemented through ASDEO's (Assistant Sub Divisional Education Officers). Since the DCMA's are already collecting data which the ASDEO's previously used to do. Therefore ASDEO's, each having 60-100 schools (depending on the circle)

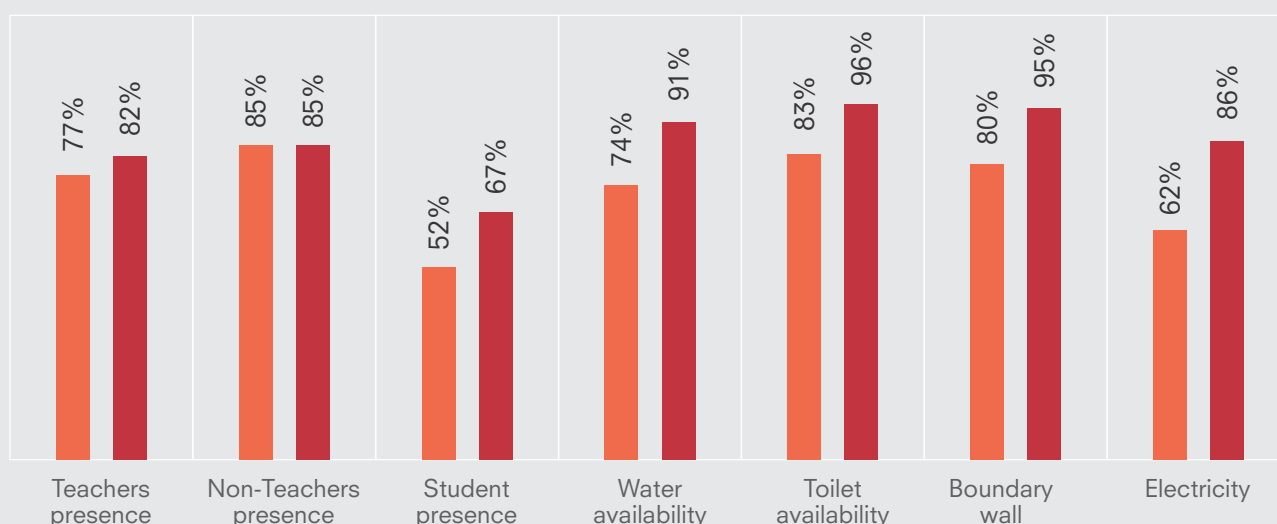
b. Strengths

- For monitoring, a single questionnaire has been designed keeping in view the needs of various units of E&SED and fed into a web-based android application. This application has inbuilt consistency checks and filtering techniques to ensure the reliability and accuracy of data. The data is further analyzed by IMU's IT support team and EMIS section of E&SED using various statistical tools as the second layer of data validation. It ensures high quality data for decision making in the education sector.
- Monitoring through IMU has improved school learning environment and school level indicators. The table below (taken from IMU's website) shows comparison of March 2014 and March 2019 indicators for around 27,500 schools in the province.

Figure 3: School Level Indicators in KP

School Level Indicators

Mar-14 Mar-19



have been trained for technical mentoring of teachers and collecting qualitative data for each school per quarter (using android application). For this purpose, Item Bank for grade 2 and 4 has been developed by IMU which includes questions on the topics taught to these two classes in the previous month. The ASDEO's asks those questions from students of grade 2 and 4 and any deficiency/ areas of improvement are discussed by them with teachers at the spot. The ASDEO's enter the results of the assessment in the application on their smart phones and answers, mean score, how school is performing in a particular subject are all calculated by the android application. All the data collected and compiled by IMU is further shared with EMIS and ESRU section.

As seen in the graph above, significant improvement has been made under all basic facilities as well as student and teachers' presence during the last five years.

- As compared to the process of data collection and printing for Annual School Census, the IMU process is much more efficient. Previously, the data collection and publishing of Annual School Census report used to take almost six months. Now real time school data is available online on IMU's website for necessary action and decision making by the education managers.

c. Weaknesses

- There are no monitoring plans or tangible indicators defined for tracking the progress on implementation of standards under MSQE.

- There is no mechanism available to monitor the DCMA's work in the field and crosschecking the details collected by DCMA's. Any bias by DCMA's cannot be overruled.

7) Analysis of education budget allocation and expenditure (2013-2018)

- The overall budget allocation for the education sector in Khyber Pakhtunkhwa has been increasing every year during the last five years. Although a major chunk of the education budget is allocated to current expenditures like salaries, the non-salary and development budget has also received uniform allocation as compared to previous years, which is an indication that government wants to continue its focus on teachers training, improving assessment, curriculum and text books development and providing missing facilities, all contributing to quality education.
- The budgetary allocation for education in KP has two heads, i.e. current and development. The recurrent education budget entails the budget allocated for ongoing expenses that occur on a daily basis. Also called the operational budget, this budget includes two types of expenses, i.e. salary and non-salary

give decision making power to the Principal/ Head Mistress. He/ she can spend the entire amount and even hire additional teaching staff on contract basis @ Rs. 15,000 per month with this fund.

- Development budget: The development head is mainly used for provision of basic missing facilities like electricity, drinking water, toilets, boundary wall and additional classrooms, furniture, playgrounds etc. Expenses on community managed girls' schools and stipends for students are also included in this head.
- Before 2014, there was no budgetary allocation for teachers' training in Khyber Pakhtunkhwa and it was primarily supported through donors funding. However, in 2014-15 for the first time, funds were allocated for this important component of quality education in the education budget. Approx. Rs. 3-4 billion have been spent on teachers training during the last 5 years by the provincial government.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise budget allocation under the current and development heads.

Table 7: Khyber Pakhtunkhwa Education Budget Allocation 2013-18

Khyber Pakhtunkhwa Education Budget Allocation (Rs. in Billion)					Total Provincial Budget (Rs. in Billion)	Percentage of Total Provincial Budget
Year	Current		Development	Total		
	Salary	Non-Salary				
2013-14	62 (64%)	5 (5%)	30 (31%)	97	344	28%
2014-15	72 (67%)	9 (8%)	26 (24%)	107	405	26%
2015-16	88 (74%)	9 (8%)	22 (18%)	119	488	25%
2016-17	91 (74%)	8 (7%)	24 (20%)	123	505	24%
2017-18	-	-	-	128	603	21%

- Non-salary disbursements entail operation, maintenance for routine activities of the department and its subordinate offices. At the school level, the non-salary budget includes allocations for items like classroom consumables, repair of furniture and other petty repairs in schools. Sometimes this budget is routed through school-based governance platforms such as PTC's etc.
- Non-salary head also includes another component called 'Autonomy Budget'. This budget is exclusively for higher secondary schools and over and above the conditional grant, each school is provided Rs. 950,000 grant per year. This amount is at the disposal of Principal/ Head Mistress to spend on anything like classroom consumables, repairs, for running the facilities. This was initiated mainly to
- There has been a steady increase in the total education budget for Khyber Pakhtunkhwa. The total education budget for Khyber Pakhtunkhwa was Rs. 97 billion in 2013-14 which increased to Rs. 128 billion in 2017-18, an increase of 32% in five years. The Khyber Pakhtunkhwa education budget as a percentage of the total budget remained between 21-28 % throughout these five years, the highest being 28% in 2013-14 and lowest being 21% in 2017-18.
- Major portion of the recurrent budget is absorbed in salaries and related expenditure. The salary budget for education has increased by 47% during the five years. The non-salary budget has received substantial increase as it has gone up by 60% during the five years In the Khyber Pakhtunkhwa education

budget.

- Over the last five years, non-salary budget received the lowest proportion of the education budget as compared to the development and salary budget.
- Secondary education was allocated 46 percent of the total education in 2016-17, i.e., Rs. 56 billion. Secondary education was followed by primary education with 32 percent share (Rs. 40 billion) while higher education received 19 percent of the education budget, i.e., Rs. 24 billion. Secondary

quality textbooks every year, provided free of cost to the students. For provision of free textbooks, Rs. 2.5 billion was kept in the provincial ADP of 2016-17. The same amount was earmarked under this scheme in 2015-16.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise education expenditure under the current and development heads in Khyber Pakhtunkhwa.

Table 8: Khyber Pakhtunkhwa Education Budget Expenditure 2013-18

Khyber Pakhtunkhwa Education Budget Expenditure (Rs. in Billion)					Overspending/ Underspending (Rs. In billion)
Year	Current		Development	Total	
	Salary	Non-Salary			
2013-14	63 (79%)	2 (3%)	15 (19%)	80	(-16)
2014-15	70 (69%)	7 (7%)	25 (25%)	102	(-5)
2015-16	71 (69%)	12 (12%)	20 (19%)	103	(-16)
2016-17	-	-	27 (20%)	136	13
2017-18	-	-	17 (12%)	143	15

education had also received the highest share of recurrent education budget during 2015-16 while in 2013-14 primary education received higher share of the education budget compared with secondary education.

- For teachers training, a total budget of Rs. 1.1 billion was apportioned for teacher training in 2016-17. It showed a decrease of 2% as compared with the allocated budget in 2015-16. Out of the total teachers training budget, Rs. 752 million (67%) was earmarked for in-service teacher training while 33% of the budget (Rs. 373 million) was allocated for pre-service teacher training in 2016-17.
- As per government policy free textbooks are provided to all students in government schools. Initially the free textbooks were from grade 1 to 10 but recently it has been extended to grade 12. Government of KP is printing around 75 million

- Like increase in allocation, the expenditure on education in Khyber Pakhtunkhwa also increased over the last five years. The total education expenditure for Khyber Pakhtunkhwa was Rs. 80 billion in 2013-14 which increased to Rs. 143 billion in 2017-18, an increase of 79% in five years.
- From 2013-14 to 2015-16, there was underspending in the Khyber Pakhtunkhwa education expenditure while 2016-17 and 2017-18 showed an overspending of Rs. 13 billion and Rs. 15 billion respectively.
- Throughout these five years, a major portion (around 70-75%) of the recurrent expenditure was on salary side.
- From 2013-2017, the development expenditure was around 20% of the total education expenditure. However, it dropped significantly to around 12% in 2017-18.

4.3 Balochistan

Balochistan has a total of 13,279 public sector schools out of which 29 percent are girls' schools.⁴³ 84 percent of these schools are at primary level. The total number of enrolled students in public sector schools are 1.04 million. The gender parity index of enrolment is 0.63 (63 girls for every 100 boys). The total number of out of school children in Balochistan stands at 1.8 million, 70 percent of the total population of 5-16 years' children.⁴⁴ 50 percent of these out of school children are girls. Balochistan has a teaching workforce of 45,881 out of which 33 percent are female teachers. The literacy rate (ages 10 years and above) in the province is 44 percent; in favour of males with 61 percent literacy rate compared with 25 percent for females.⁴⁵ Net enrolment rate at primary level (ages 6 to 10 years and including grades 1 to 5) is 67 percent for boys and 42 percent for girls. The survival rate to grade 5 is currently 34 percent in Balochistan while the effective transition rate from primary to lower secondary stands at 71 percent.

THEMES

1) Mainstreaming of MSQE at primary and secondary level in Balochistan

a. Knowledge about MSQE in public and private education system/ departments

- Around half of the respondents in Balochistan confirmed that they have seen MSQE in printed form that was published by the Ministry of Federal Education and Professional Training (MoFEPT), whereas remaining had no idea about the MSQE.
 - Most of the research participants confirmed that the MSQE document expects the provinces to use these standards as per their need.
 - During interviews, it was discovered that the Secondary Education Department (SED), Government of Balochistan has not taken any specific initiative regarding development of standards at its own. Similarly, it has not developed any implementation system for MSQE in Balochistan.
 - Most of the research participants were not sure whether MSQE were adopted by the SED Balochistan or not. However, representatives of Policy Planning and Implementation Unit (PPIU) and Provincial Institute for Teachers Education (PITE) shared that these standards have been adopted by the SED Balochistan
 - However, SED officials shared that they are extremely keen to address quality in Balochistan education through several means, and were able to discuss that standards' implementation system is in fact a proper way to address quality concerns in the education sector.
 - Private schools' representatives, expressed their disappointment at not sharing the MSQE with private schools, in spite of the fact that private schools have a huge share in promotion of education in Balochistan.
- #### b. Extent of mainstreaming MSQE
- Regarding mainstreaming of MSQE, it can be concluded that MSQE are not fully mainstreamed at the departmental level, however, directorates of education has used the MSQE partially and on need basis.
 - PITE shared that they have used MSQE (teachers' standards) in contextualizing and improving teachers' training system in Balochistan.
 - Directorate of Literacy & Non-Formal Education mentioned that they have referred school environment standards, teachers' standards and standards for learners while developing their non-formal basic education (NFBE) programme for out of school children in Balochistan. It is pertinent to note that the Directorate of Literacy & NFE operates under Social Welfare Department (SWD), Government of Balochistan.
 - EMIS section shared that they have referred to school learning environment standards, but only physical standards at school level could be used in their system.
 - SED Balochistan has also been positively using these standards and data collected through annual school census is being used to provide basic facilities to government schools in the province.
 - Similarly, standards for curriculum and textbooks were already developed by Bureau of Curriculum (BOC) and Balochistan Textbook Board (BTBB). However, they shared that MSQE for curriculum and textbooks are adhered in curriculum and textbook development in Balochistan.
 - Regarding mainstreaming of MSQE at schools' level, the teachers were not very confident in accepting that MSQE have been mainstreamed in

43. Balochistan Education Management Information System data 2015-16.

44. Academy of Educational Planning and Management (2015). Pakistan Education Statistics 2014-15. Islamabad

45. Pakistan Bureau of Statistics (2016). Pakistan Social and Living Standards Measurement Survey 2014-15. Islamabad

schools. Similarly, private schools denied any support in this connection.

2) Factors responsible for low performance

a. Teachers

- Almost 76% respondents prioritized “teachers” as the key factor for low performance.
- Respondents in Balochistan predominantly confirmed that teachers are central in school performance. All other factors including physical facilities and learning environment are dependent upon the teachers.
- It was heartening to see that Balochistan Government has been recruiting teachers on a regular basis and have substantially improved the student-teacher ratio at all levels, such as student-teacher ratio at primary is 23:1, at elementary is 16:1 and in secondary education is 18:1. The student-teacher ratio in Balochistan is probably the best in Pakistan. The respondents shared that after student-teacher ratio, they are keenly working on rationalization of teachers that will make sure that both rural and urban areas have nearly equal student-teacher ratios in Balochistan.
- Low teacher presence has remained a long-standing issue in Balochistan. Owing to hard to reach geographical areas, accessing remote rural schools becomes a challenge for both teachers and results mainly in frequent absenteeism. This factor is causing drop-out and also poor academic performance of learners in such schools.
- Fragile safety and security situation in Balochistan has also contributed to teachers' and learners' absence and confined opportunities for teachers to develop professionally.

- In addition, weak pre-service education of teachers, ad-hoc in-service training and less interest found among teachers in terms of learning new knowledge and skills have resulted in low performance of schools. During discussions, PPIU and PITE representatives confirmed that after realizing the fact that teachers are central in promoting quality of education, the SED has empowered PITE by allocating adequate amount of funds for enhanced professional development of teachers in Balochistan.

b. Physical facilities

- 12% respondents prioritized physical facilities as the most critical factor in low performance.
- Basic facilities have clear linkage with school learning environment standards. Those who prioritized physical facilities claimed that this factor is crucial not only for access and retention, but is also an essential part of quality as quality of facilities attracts and retains learners. Simi

c. School environment

- 12% respondents prioritized school learning environment as the most critical factor in low performance.
- Almost half of the respondents who prioritized school environment shared that school environment is a mix of teachers, physical facilities and academic support.

Priority analysis of these factors

Low performance factors were prioritized by at least 25 respondents in two ways; 1) single factor priority analysis, 2) multiple factors priority analysis. Results are given under:

Figure 4: Single factor priority analysis

Single factor role in school performance

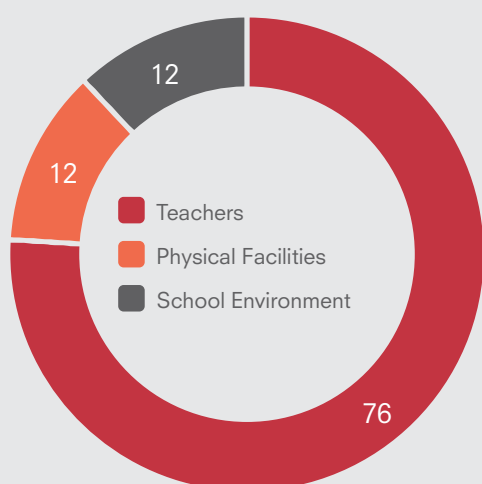
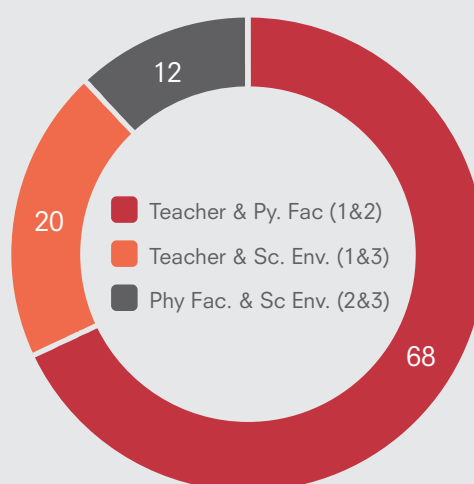


Figure 5: Multiple factor priority analysis

Multiple factor role in school performance



3) Implementation of MSQE by Government of Balochistan

Implementation MSQE and standards developed by the SED are interpreted as under:

Standards for Teachers:

PITE Balochistan has implemented standards for teachers in its existing teachers' professional development programme as in-service training option for teachers. Standards for teachers are also taught in general courses so that teachers have adequate knowledge about the standards.

The PPIU, BOC and other institutions shared that MSQE teachers' standards in existing form may not be very useful. Therefore, the standards for teachers must have standards implementation system for the users to adopt and implement properly.

Directorate of Literacy & NFE (under Social Welfare Department) shared that they have been using teachers and learning environment standards to contextualize the same and develop standards for NFBE programme in Balochistan.

Standards for Learners and Assessment:

The Bureau of Curriculum (BOC) and Balochistan Education Assessment Commission (BEAC) responded in detail about the standards for learners and assessment. The BOC staff shared that learners' standards are specifically given in the National Curriculum of 2006, which has been adopted by BOC in Balochistan fully. However, general standards developed for learner's act as guidelines for them to develop and review textbooks and also formulate assessment, contents' development and teaching strategies. The same are crucial in developing standards guidelines for assessment.

Similarly, BEAC, which is the only institution responsible for assessment in Balochistan, shared that the learning standards defined in the curriculum are standard guidelines for them, while assessment standards mentioned in the MSQE are also important for them to set up assessment and examination system in the province. The experts in BEAC conduct SLO based assessment for grade 5 and 8 in Balochistan.

Standards for School Learning Environment:

School learning environment standards were primarily discussed with EMIS, directorate of schools and directorate of literacy. The EMIS confirmed that most of the physical elements of the school learning environment are included in their prescribed tools/ questionnaires that are administered annually by EMIS through directorate of schools in the province. Psychosocial elements (peaceful & safe environments, teachers' irrational behavior, school policies and inclusive

environment) and service delivery (basic health services) are not included in any tool or questionnaire that is administered by the SED Balochistan. Therefore, SED Balochistan is partially using the school learning environment standards and are keen to include more having strong linkages with SDG-4 or any other international commitment such as indicators declared essential by the UNESCO Institute of Statistics (UIS). The EMIS head also appeared keen in improving their tools to accommodate additional variables having close connection with quality of education.

Standards for Curriculum

Standards for curriculum are well defined and that the Bureau of Curriculum (BOC) is custodian of these standards in Balochistan. The BOC claims that they have been carefully adhering to the curriculum standards, which they had already developed and that the ones developed under MSQE are quite close to what it has developed earlier. The Director BOC confirmed that these standards have been adhered and used while developing NFBE programme under Japan International Cooperation Agency (JICA's) technical assistance (TA) "Advancing Quality Alternative Learning (AQAL)".

Standards for Textbooks

For developing textbooks, Balochistan Textbook Board and BOC has official mandate to develop quality textbooks for learners of Balochistan. Standards for textbook development under MSQE and standards developed for textbooks earlier by the BTBB positively steer the process of textbook development in Balochistan. Representatives in Balochistan shared that they always use the standards and procedures for textbook development and review process. They have recently applied these standards in developing materials under NFBE programme of the literacy & NFBE directorate.

Bottlenecks in Implementation of Standards

Generally, the implementation of standards is carried out through a comprehensive "standards management/ implementation system" that opens up the standards, categorizes its levels such as inputs, processes and outputs. The system defines the institutions that are custodian of a particular set of standards, and how the standards should be implemented in true spirit. For example, the implementation system narrates that the standards for teachers must be used to develop rubrics, tools and guidelines, which will further be used to accredit / or award license to individual teachers. Similarly, this process should be repeated every three or five years to make sure that teachers' quality is up to the mark/ standards. At the same time, standards for teachers should also be used by the training institutions where they should make sure that the training modules translate each and every standard. Also, the pre-service education institutions

must also use the standards to develop curricula, contents and systems of teacher education programmes.

It was noted that standards have been partially implemented in Balochistan without any formal standards management system. Without a management system its systematic and planned implementation cannot be ensured.

The standards implementation is also discussed under certain themes:

a. Plans

- No plan was noticed in Balochistan that could prove any fact about the standards implementation. As said earlier, standards in Balochistan were implemented without any concrete plan.
- SED Balochistan has not yet appointed any person to manage standards or coordinate with relevant actors regarding implementation of standards.

b. Finances

- Plans to implement standards and quality parameters for school infrastructure and school facilities are well funded. However, standards management system lacked appropriate funding owing to non-existence of any designated position for standards management in Balochistan.
- The plans for professional development of teachers to improve teaching & learning in schools have also been funded initially and are waiting for results.

c. Coordination

- Attached/ allied institutions/ organizations have weak coordination with each other.
- Even the coordination among BOC, BTBB and PITE was observed to be poor, which are key institutions for curricula, textbooks, and training of teachers. In fact all these three elements and institutions are inter-connected and have huge reliance on each other in terms of building professional capacity of teachers.
- Coordination with international development partners was also ad-hoc. However, local education group (LEG) was found to be active in addition to some need-based meetings that are held occasionally.

- Coordination with MoFEPT was also non-productive and ad-hoc, especially after the meetings of the IPEMC forum.
- Coordination with formal and non-formal directorates appeared poor, owing to institutional / governance related challenges. The literacy directorate is managed by the Social Welfare Department, whereas it is mandated for literacy and out of school children. Coordination between these two entities with same objectives is weak.

d. Communication

- Like coordination, communication has also remained weak and could not yield better results.
- Official correspondence protocols appeared to be communication bottleneck, which needs to be eased out through ICT/ emails and mobile applications. There are many officers that still rely on postal correspondence from one room to the other room, which appears to be a wastage of time.
- Communication between directorate of literacy & secondary education department is continuously weak owing to management by different departments. It is pertinent to mention that the literacy directorate is being managed by Social Welfare Department (SWD).

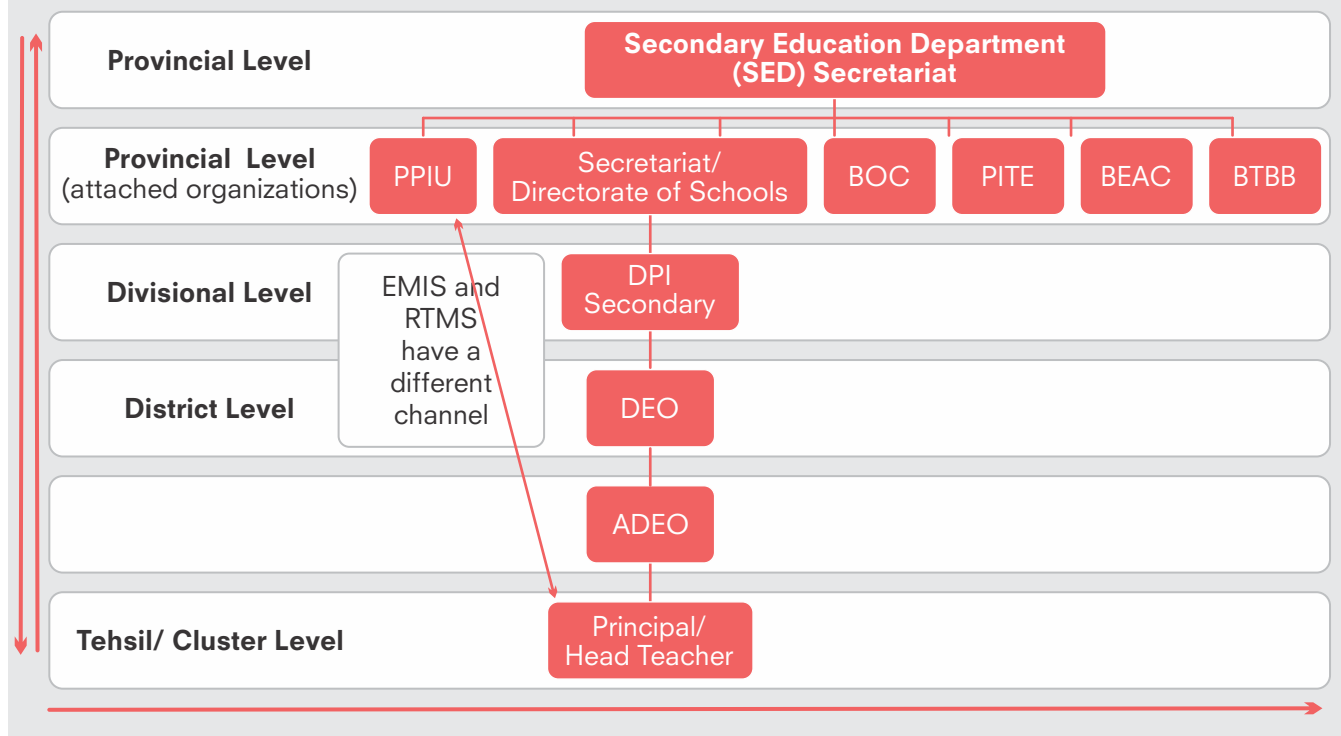
e. Processes

- Regarding MSQE standards and its implementation, processes are not known to everybody inside the education department.
- Process observed in implementation of standards in Balochistan are ad-hoc without any systematic approach to address the quality.

f. Structural Bottlenecks

In Balochistan, the structural bottlenecks are discussed and analyzed under vertical and horizontal structures of the Secondary Education Department (SED), Government of Balochistan. The vertical structure denotes provincial, divisional and district administration of the SED, while horizontal structures describes affiliated organizations working under SED.

Figure 6: Communication and Coordination in Balochistan



Vertical communication (Information flow)

Vertical communication is discussed as downward flow of instructions / information and upward flow of feedback / information.

Downward flow of instructions (Top to down)

The instructions of the top administrative tier are generated from the provincial level secretariat and are directed down to the districts through Directorate of Public Instructions (DPI). The district level education officers implement these instructions and directives through their Tehsil and field level education staff. Such information is either posted through regular post or through calling joint meetings where District education officers attend the DPI office or secretariat meetings.

Upward flow of feedback (Bottom up)

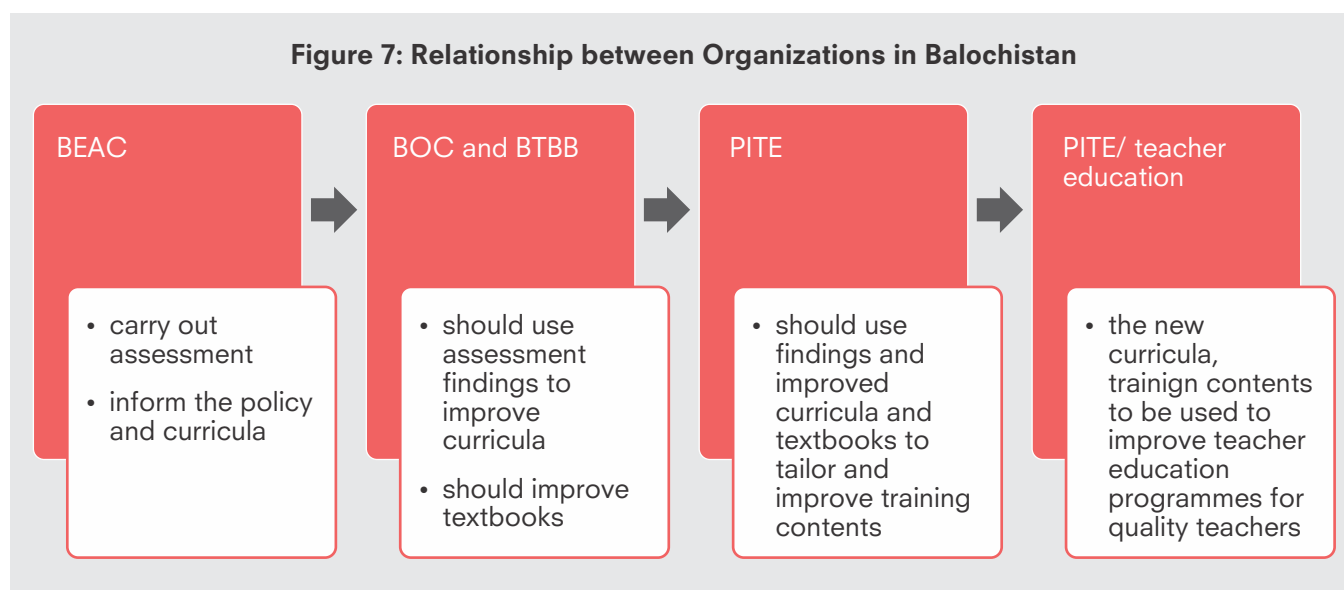
Upward feedback or information goes up to the highest administrative tier in response to the orders/ circulars issued by the superior offices; Divisional or provincial offices. The education department staff has confirmed that bottom up information flow is inquiry/ question based, whereas other information that aims to enhance the quality as feedback system is virtually non-existent.

Horizontal coordination/ information Flow

The coordination among the affiliated organizations such as BEAC, PITE, BOC and BTBB is not frequent. Coordination among these organizations, which are primarily responsible for quality enhancement are ad-hoc and need based; generally occurring in unusual circumstances to collect information to satisfy the inquiries of higher authorities or are triggered by the donor agencies especially those working on quality uplift.

Practically, the assessment findings should inform the curriculum and textbook board so as these organizations could develop quality and contextually appropriate curriculum and related teaching & learning materials. Similarly, these organizations such as BOC and BTBB should keep a constant liaison with PITE to develop quality materials for the training of teachers and eventually all such findings should help in improving the teacher education programmes in the province. But unfortunately, there is no such mechanism in place that could initiate a feedback system for quality improvement.

The following diagram explains the ideal relationship among these organizations:



The Policy, planning and implementation unit (PPIU) in Balochistan, as focal point for all policy affairs in education, must act as central entity to enhance objective coordination among these organizations to enhance the quality of education in the province. This may be initiated by setting standards for teachers, learning environment, learners, textbooks and curricula followed by a comprehensive standards management system, which would allow to set up an operational feedback system. This system will certainly improve the standards-based quality education.

Analysis of Education Department's Internal Systems

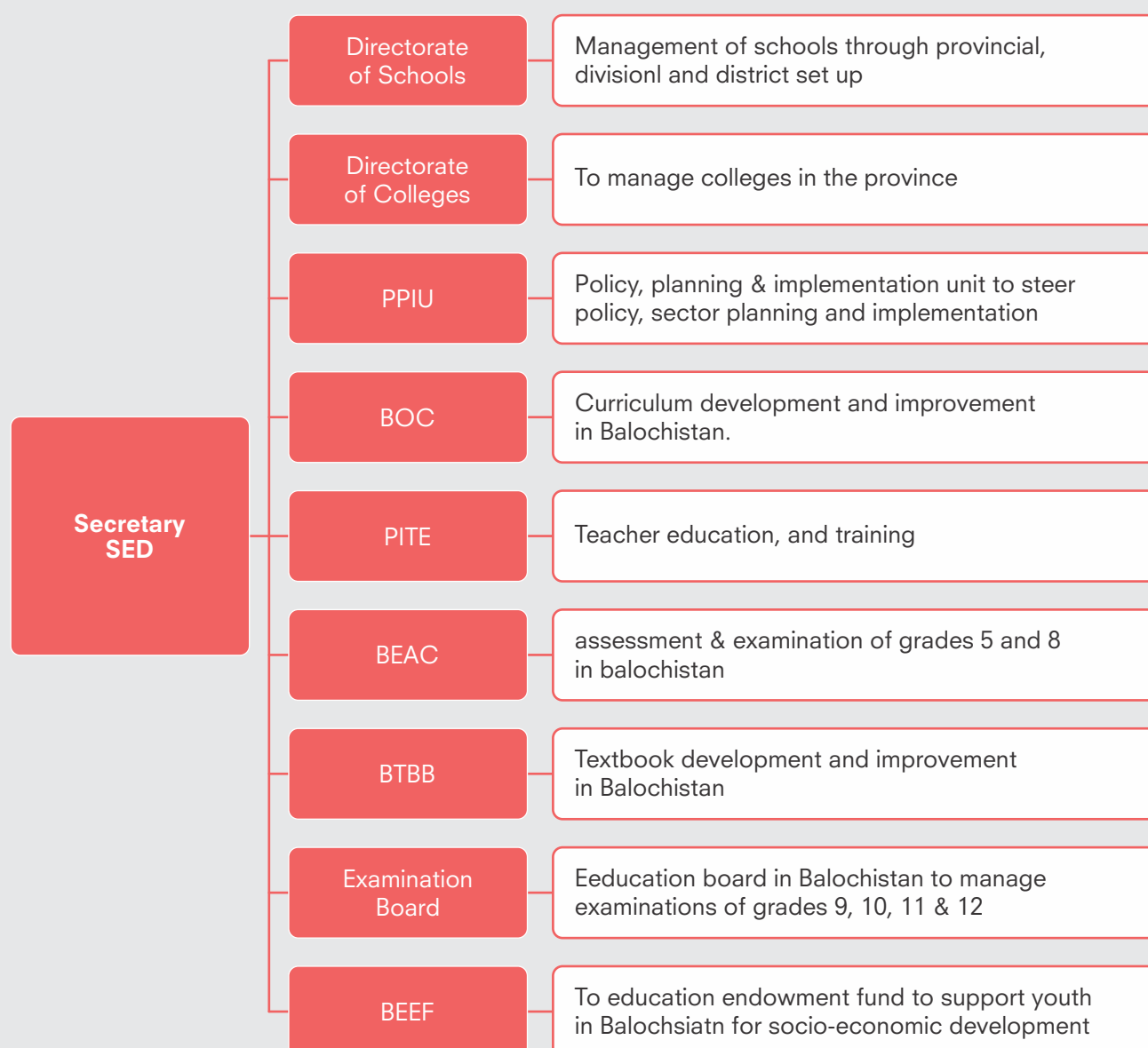
Analysis of internal systems (performance, human resource and information management) of Balochistan education department on implementation of quality education revealed that implementation of EMIS and RTSMS (real time school monitoring system) is sometime implemented without any proper training to the schools (head teachers/ principals and teachers) as well as field staff such as Assistant District Education Officers (ADEOs). Similarly, the upward flow of the information from teachers' right up to the secretary or any similar position is also very difficult owing to no mechanism available.

In Balochistan, the SED has started empowering the Provincial Institute for Teachers Education (PITE) to provide in-service training to the teachers. The mechanism is still under development, but the problem is that the PITE lead persons are not considering the standards and other quality parameters into account while developing the mechanism to improve the teachers' performance through CPD/ in-service training support. During discussion with the PITE, it was revealed that recruitment is underway and their training and further posting will be done later. Key issue is that the education management in Balochistan is not trying to connect essential entities with this system such as EMIS, RTMS, BOC, BEAC and PITE. It was observed that only PITE is taking lead without any adequate technical support from the administrative side.

4) Impact of education departments internal systems and coordination on implementation of MSQE

The administrative structure / organogram of the SED Balochistan shows several attached institutions/ organizations working to ensure quality and standards in Balochistan. Although there is no direct position or organization/ section within the SED that claims to work on standards.

Figure 8: Allied Institutions of the SED Balochistan



Out of total 10 attached institutions, five are primarily responsible for quality of education in the province. These include BOC, PITE, BTBB, BEAC and examination board. BOC through implementation of standards for learners, BEAC through standards for assessment, PITE through standards for teachers and BTBB through textbook standards are trying their level best to implement standards and raise the quality standards in Balochistan.

5) Monitoring Mechanism

a. Available Mechanism

The mechanism for school monitoring adopted in Balochistan is known as Real Time School Monitoring System (RTSMS). PPIU and EMIS are responsible entities for RTSMS, which monitors the following indicators:

- Students attendance
- Staff attendance
- School facilities
- School Infrastructure
- Teaching & learning
- Schools visited by EDO
- Professional development
- Funds utilized

Indicators relating to teaching & learning and professional development of teachers are directly related to quality. Although scores of these indicators are low,

yet it is useful and important to include these indicators in the RTSMS. These indicators have a clear connection with “teachers standards”, “textbook” and “learners’ standards”, while other indicators produce a strong linkage with “learners’ standards” and “school environment standards.”

b. Strengths

- The Real Time School Monitoring System (RTSMS) has been upgraded and includes some quality indicators as well.
- The monitoring system has impacted a lot and indicators about learners’ attendance, teachers’ attendance, physical facilities, and admin visits have shown dramatic improvements in the past few months.
- The ranking of districts has created a healthy competition among districts and infused thinking out of the box to improve their ranking.
- SED’s policy is being directed primarily by this monitoring system through online access to the district ranking and indicators used in it.

c. Weaknesses

- Quality of data that is received through independent monitors is being questioned in some areas. However, it is not more than 5 to 10 percent, which is acceptable.
- Only two indicators pertaining to quality are being captured and methods to collect data of these indicators appears to be somehow not very effective. Monitors are not well trained on measuring the teaching & learning and suggesting professional development to the teachers. Therefore, these two indicators may not obtain accurate data.
- Reporting of RTSMS and sharing of reports with relevant stakeholders is not frequent. However,

RTSMS is available online for everyone to access.

6) Analysis of education budget allocation and expenditure (2013-2018)

- The overall budget allocation for the education sector in Balochistan has been increasing every year during the last five years. Although a major chunk of the education budget is allocated to current expenditures like salaries, the non-salary and development budget has also received uniform allocation as compared to previous years, which is an indication that government wants to continue its focus on teachers training, improving assessment, curriculum and text books development and providing missing facilities, all contributing to quality education.
- The budgetary allocation for education in Balochistan has two heads, i.e. current and development. The recurrent education budget entails the budget allocated for ongoing expenses that occur on a daily basis. Also called the operational budget, this budget includes two types of expenses, i.e. salary and non-salary
- Non-salary disbursements entail operation, maintenance for routine activities of the department and its subordinate offices. At the school level, the non-salary budget includes allocations for items like classroom consumables, repair of furniture and other petty repairs in schools. Sometimes this budget is routed through school-based governance platforms such as School Management Committees (SMCs)/ Parent Teacher School Management Committees (PTSMCs) etc.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise budget allocation under the current and development heads.

Table 9: Balochistan Education Budget Allocation 2013-18

Balochistan Education Budget Allocation (Rs. in Billion)					Total Provincial Budget (Rs. in Billion)	Percentage of Total Provincial Budget
Year	Current		Development	Total		
	Salary	Non-Salary				
2013-14	21 (62%)	3 (9%)	10 (29%)	34	198	17%
2014-15	26 (64%)	3 (7%)	12 (29%)	41	215	19%
2015-16	33 (67%)	6 (12%)	10 (20%)	49	243	20%
2016-17	37 (77%)	5 (10%)	6 (13%)	48	289	17%
2017-18	-	-	-	52	328	16%

- There has been a steady increase in the total education budget for Balochistan. The total education budget for Balochistan was Rs. 34 billion in 2013-14 which increased to Rs. 52 billion in 2017-18, an increase of 51% in five years. The Balochistan education budget as a percentage of the total budget remained between 16-20% throughout these five years, the highest being 20% in 2015-16 and lowest being 16% in 2017-18.
 - Over the last five years, non-salary budget received the lowest proportion of the education budget as compared to the development and salary budget.
 - Major portion of the recurrent budget is absorbed in salaries and related expenditure. The salary budget for education has increased by 76% during the five years. The non-salary budget has increased by 67% during the five years. In the Balochistan education budget, million) was allocated for in-service teacher training.
 - For data management, Rs. 35 billion was earmarked for Balochistan Education Management Information System (BEMIS). This showed a significant increase of Rs. 9 million compared with the allocated budget in 2015-16.
 - The 2016-17 education budget of Balochistan included Rs. 1.5 billion for health and medical education. This showed an increase of Rs. 197 million (15 percent) compared with the allocated budget for this purpose in 2015-16.
- The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise education expenditure under the current and development heads in Balochistan.

Table 10: Balochistan Education Budget Expenditure 2013-18

Khyber Pakhtunkhwa Education Budget Expenditure (Rs. in Billion)					Overspending/ Underspending (Rs. In billion)
Year	Current		Development	Total	
	Salary	Non-Salary			
2013-14	63 (79%)	2 (3%)	15 (19%)	80	(-16)
2014-15	70 (69%)	7 (7%)	25 (25%)	102	(-5)
2015-16	71 (69%)	12 (12%)	20 (19%)	103	(-16)
2016-17	-	-	27 (20%)	136	13
2017-18	-	-	17 (12%)	143	15

- It is worth noting that the decline in percentage share of education has been significantly steep in case of development budget. The share of development budget for education has dropped from 29 percent of the total budget in 2013-14 to 6 percent in 2016-17.
- For teachers training, a budget of Rs. 953 million was allocated in 2016-17 which was 7% more than the previous fiscal year. Out of the total teacher training budget for 2016-17, Rs. 462 million (48 percent) was earmarked for pre-service teacher training while 52 percent of the budget (Rs. 491 million) was allocated for in-service teacher training.
- Like increase in allocation, the expenditure on education in Balochistan also increased over the last five years. The total education expenditure for Balochistan was Rs.34 billion in 2013-14 which increased to Rs. 53 billion in 2017-18, an increase of 56% in five years.
- Except year 2014-2016, the allocated budget was almost entirely utilized. A major portion (around 70%) of the recurrent expenditure was on salary side.

4.4 Azad Jammu & Kashmir (AJK)

THEMES

1) Mainstreaming of MSQE at primary and secondary level in AJK

The literacy rate of Azad Jammu & Kashmir (AJK) is 77% (88% for male and 65% for female).⁴⁶ There are 2,866 primary schools, 1047 middle schools, 805 high schools and 89 higher secondary schools in total 10 districts of AJK. There are 506,639 students enrolled in these schools. The Teacher-Student ratio is 20:1 for boys' schools and 16:1 for girls' schools.

a. Knowledge about MSQE in public and private education system/departments

- The staff of Directorate of Public Instructions Elementary and Secondary Education, AJK had very little knowledge about MSQE. As per officials of Directorate of Public Instructions Elementary and Secondary Education, AJK, it has developed its own standards for Learners, Teachers, Curriculum and Textbooks, Assessment, School Learning Environment with assistance from the federal government. The extent to which the locally developed standards meet the MSQE is not known.

b. Extent of mainstreaming MSQE

- Hard copies of the MSQE document were received by Directorate of Public Instructions Elementary and Secondary Education, AJK from MoFEPT and these were further shared with relevant education offices as well. However, the process of its further dissemination and adoption up to school level was stalled.
- AJK Private Schools Regulatory Authority (AJKPSRA) which was established in 2006 was neither consulted during the development of MSQE nor has it received any notification from the AJK Government or copies of the MSQE booklet to adopt or implement these standards in private schools.

2) Factors responsible for low performance

a. Teachers

- While prioritizing the factors responsible for low performance among teachers, physical facilities and school environment, 78% of respondents thought that teacher had a key role in low performance at school level. Teachers are not much aware about basic quality standards for teachers. Teaching methodologies are largely based on rote learning, rather than being interactive, activity-based and student centered.

- The teachers lack proper training. Even those who undergo some short-term trainings arranged by the education department or NGOs fail to make any difference as there is no assessment of teachers to measure the impact of trainings on improved teaching and learning of students.
- Postings and transfers of teachers on political basis negatively affects the motivation and quality of teaching.

b. Physical facilities

- 12% of respondents thought that most respondents did not think that physical facilities were a cause of low performance.

c. School environment

- 10% of respondents thought that school environment was a cause of low performance.

3) Implementation of MSQE in AJK

- There is no mechanism available within the Directorate of Public Instructions Elementary and Secondary Education, AJK to gauge the implementation of standards under MSQE.
- Private schools running under the ambit of AJK Private Schools Regulatory Authority (AJKPSRA) also do not have any quality standards to follow. AJKPSRA has not initiated any steps in this regard.
- The only department that seems to have adopted the standards is the AJK Text Book Board (AJKTBB) which was also involved in development of the standards. As per AJKTBB, it has fully complied with the textbook standards. Standard Operating Procedures (SOPs) have been drafted for implementation of the text book standards and all technical staff of AJKTBB has been oriented about those SOPs. Based on the SOPs two rounds of textbook development has also been completed.

4) Bottlenecks in implementation of standards

a. Plans

- No implementation guidelines on how to implement MSQE have been received by Directorate of Public Instructions Elementary and Secondary Education, AJK from the federal government. The Directorate has also not developed such guidelines on its own.
- There is no follow up by the federal government or AJK government after sharing of MSQE document with relevant stakeholders. Therefore, it is difficult to assess the progress.

46. AJK Statistical Year Book 2017

- The curriculum taught in schools is obsolete and needs to be updated as per modern day needs of learners.

b. Finances

- Due to financial constraints, 2006 curriculum is being followed. Directorate of Curriculum Research and Development (DCRD) is willing to revise the curriculum as per latest needs if this constraint is removed.

c. Coordination

- Every unit of the education department is working in isolation and does not have time and interest to go an extra mile for implementation of MSQE or other quality standards.
- There is no coordination at all among various sections/ departments of the education department to discuss and devise an action plan or framework for its implementation.
- District education officers (DEOs) and their subordinates find it hard to collect data from schools in time. Delays in collecting the required data sometimes affects planning.

d. Communication

- The teachers at school level have not been communicated standards under MSQE. Neither have they received any notification to implement any standards at school level.

e. Processes

- The teachers or education department staff did not receive any orientation or training about MSQE and its further implementation.

5) Impact of education departments internal systems and coordination on implementation of MSQE

Implementation of MSQE is non-existent due to factors covered under the bottlenecks above.

6) Monitoring mechanism

a. Available mechanism

- The EMIS section collects data on some quality indicators at the school level every year by involving

teachers.

- The data entry is carried out at district level and compiled at the headquarter level. It roughly takes two months to complete the exercise covering some 3,300 schools (primary, middle, high, higher secondary) in AJK.
- The EMIS section generates about eight statistical reports for sharing with internal and external stakeholders.

b. Strengths

- Mostly quantitative data is collected and available for planning.

c. Weaknesses

- No qualitative indicators are collected to measure quality learning.

7) Budget expenditure (2013-2018) on quality

- The overall budget allocation for the education sector in AJK has been increasing every year during the last five years. Although a major chunk of the education budget is allocated to salaries, the non-salary budget has also received uniform allocation as compared to previous years, which is an indication that government wants to continue its focus on teachers training, improving assessment, curriculum and text books development and providing missing facilities, all contributing to quality education.
- The budgetary allocation for education in AJK has two main heads, i.e. salaries and non-salaries. The non-salary budget is used for maintenance of schools and allowances of education staff. The table below shows the year wise budget from 2013 to 2018. The allocation for education as a percentage of total provincial budget has remained static at around 22%.

Table 11: Education Budget of AJK 2013-2018

Year		Salary	Non-Salary	Total	Total Budget (Rs. in Billion)	Percentage of Total AJK Budget
2013-14	Female	5,633.593	53.161	5,686.754	13,184.394	23.67 %
	Male	7,438.216	59.424	7,497.640	13,992.255	
2014-15	Female	6,042.367	59.388	6,101.755	15,044.865	22.57 %
	Male	7,822.800	67.700	7,890.500	16,548.176	
2015-16	Female	6,598.396	57.069	6,655.465	18,030.132	22.12 %
	Male	8,331.048	58.352	8,389.400	19,500.000	
2016-17	Female	7,704.046	55.111	7,759.157	22.51 %	22.51 %
	Male	8,728.921	60.098	8,789.019		
2017-18	Female	7,925.098	56.902	7,982.000	21.21 %	21.21 %
	Male	9,988.154	59.978	10,048.132		
2018-19	Female	-	-	-	18.02 %	18.02 %
	Male	-	-	-		

4.5 Gilgit Baltistan (GB)

THEMES

1) Mainstreaming of MSQE at primary and secondary level in Gilgit Baltistan

a. Knowledge about MSQE in public and private education system/departments

- Some 4-5 staff members of Directorate of Education, GB (including curriculum and textbooks) were involved in the development of MSQE so they have the knowledge and understanding of MSQE. The EMIS section was unfamiliar with these standards while the curriculum and textbook section confirmed to have received the MSQE books along with a notification from Secretary Education GB for further dissemination to each section and each school.
- Not much knowledge about MSQE available with private schools particularly run under the umbrella of Aga Khan Education Service, Pakistan (AKES, P).
- Serious effort to disseminate the standards to the school level was not made. There are around 1400 Government schools in GB and the Directorate requested the federal government to provide these

many copies to ensure that each school receives its copy. However, only 150 copies were received. The Directorate did not have funds to print the remaining 1250 copies so asked schools to make their own arrangements for photocopies of the same document.

b. Extent of mainstreaming MSQE

- The MSQE document was received by the Directorate of Education, GB from the federal government. As per Directorate of Education, the copies of MSQE were disseminated to all relevant sections and schools without developing any implementation guidelines. There is no feedback or monitoring system with the Directorate to know as to what extent these have been mainstreamed within the sections and at primary and secondary level.
- These standards were not shared by the Directorate of Education with private schools.
- Before MSQE, the standards defined in Gilgit Baltistan Education Strategy 2015-30 were followed by the Directorate of Education, GB. The Gilgit Baltistan Education Strategy 2015-30⁴⁷

47. GB Education Strategy 2015-2030 <http://gbdoe.edu.pk/wp-content/uploads/2017/12/Gilgit-Baltistan-Education-Strategy-2015-30.pdf>

developed in May 2008 and revised in 2014 jointly by Directorate of Education, Aga Khan Foundation (AKF) and AKES, P revolves around three main components i.e. access and equity, governance and management, quality and relevance. The

document also specifies standards for a learner, a teacher, a head teacher, a classroom, an institution, a community and an education system to be achieved by 2025.

Access and Equity	Governance and Management
<ul style="list-style-type: none"> • Gender equity throughout the whole education system at all levels • Inclusive education wherever possible; special centres for those learners who cannot be integrated into mainstream education • Access to Early Childhood Education for all 3–5 year old • Free and compulsory Universal Elementary Education • Access to free education up to matriculation • Access to education beyond matriculation for all who wish, through establishment of colleges and provision of scholarships and other financial incentives for needy families • Distance learning opportunities available for all – education considered to be a lifelong process 	<ul style="list-style-type: none"> • Status of teachers raised through analysing salary levels by comparison with other professions where applicable. Salaries and promotion for teachers will be linked to both level of qualifications and classroom performance • Quality of teaching improved through strengthened pre-service and in-service training programmes, with additional teacher training colleges established • Incentives provided to attract teachers where there is a shortage, and for teachers in remote and difficult areas • Heads and teachers appointed on merit; head teachers required to be and recognized as professional leaders • Professional support to teachers from both training providers and DEOs • Schools and colleges managed with participation of communities
Quality and Relevance	
<ul style="list-style-type: none"> • Medium of instruction for the first three years of the learner's education to be the mother tongue wherever possible; thereafter Urdu or English according to local decision • Teaching methodologies based on principles of active, student-centred learning with a focus not just on knowledge, but also on skills, problem solving, creative thinking and analytical thinking • Curriculum, learning materials and assessment systems at all levels revised according to the requirements of Gilgit-Baltistan • Computers with internet connection an integral part of schools, colleges and classrooms 	<ul style="list-style-type: none"> • Public–Private Partnerships strongly encouraged • Private schools available for those who wish • A review of the GB Education Department roles and responsibilities in the wake of the 18th Amendment

- Although both Gilgit Baltistan Education Strategy and MSQE focus on quality education but since implementation guidelines are available for the former so the Directorate is pursuing the strategy on a priority basis. It has further disseminated the strategy and guidelines at the school level.

- Aga Khan Education Service, Pakistan (AKES,P)⁴⁸ is a key stakeholder in education sector in GB. It currently operates 152 schools in GBC (Gilgit Baltistan and Chitral), providing quality educational access to over 32,800 students, of which almost 50 percent are female. AKES,P has developed its own

48. AKES,P <https://www.agakhanschools.org/pakistan>

quality standards for learners, teachers, curriculum and textbooks, assessment, school learning environment. It has implemented these standards in all its schools through its Regional School Development Units (RSDUs). These standards were developed in consultation with Aga Khan University Professional Development Centre Gilgit, Directorate of Education, GB, Aga Khan Education Service, Pakistan and communities. Since the respondents had not seen MSQE document so they were not sure to what extent the locally developed standards were meeting MSQE. AKES,P has also developed a framework for implementation of these standards.

- Similarly, the Ministry of Federal Education & Professional Training, Government of Pakistan through Directorate General of Basic Education Community Schools (BECS) Islamabad has developed its own standards for teachers, assessment and school environment in 2007 for its non-formal primary schools and shared with their respective offices in GB. Orientation sessions for BECS staff to implement these standards have been conducted in GB.
- National Commission for Human Development (NCHD) has also developed its standards for learners, teachers and school environment. An implementation framework or system is developed by National Training Institute (NTI) for NCHD to implement these standards.

2) Factors responsible for low performance

a. Teachers

- While prioritizing the factors responsible for low performance among teachers, physical facilities and school environment, 68% of the respondents thought teachers were responsible for good or bad performance at school level. However, they attributed the low performance of teachers to many factors, discussed as below:
- The teacher training curriculum is outdated. Teachers need better training both subject specific and in more modern teaching-learning methodologies with increased emphasis on well-supervised classroom-based practice during training
- There is no follow-up to training to assess the changes in classroom teaching-learning practices. The support mechanism from district education offices focuses on administration rather than professional support to teachers.
- Merit in teacher's recruitment has often been ignored therefore the profession is often seen as the career of 'last resort'.
- Teaching is based almost entirely on textbooks – there is an absence of supplementary teaching

materials.

- Teachers and other officers are frequently transferred through political and religious influence, thereby creating instability in the system. Job insecurity negatively affects the quality of teaching.
- Teaching methodologies are largely based on rote learning, rather than being interactive, activity-based and student centred.

b. Physical facilities

- 22% of the respondents thought that physical facilities were responsible for low performance. The physical environment in schools is often unattractive, with uninspiring teaching methodologies and teacher punishments, leading to non-attendance and dropout.
- Lack of good water and sanitation facilities is a disincentive, especially for girls. Many schools lack facilities like libraries, laboratories, furniture and sports facilities.
- Schools are not up-to-date with new technologies, particularly computers.

c. School Environment

- 10% of the respondents thought that physical facilities were responsible for low performance.
- Overcrowded classrooms are a further disincentive to learning, and make it difficult or impossible for teachers to practise active, student-centred learning in a multi-grade environment. Government will therefore define the maximum number of learners there should be in a class, and gradually recruit and deploy teachers so that these numbers are attained.

3) Implementation of MSQE in Gilgit Baltistan

There is no mechanism available within the Directorate of Education, GB to gauge the implementation of standards under MSQE in GB. It has simply followed the Secretary Education's instructions of dissemination of MSQE document up to school level.

Since long, the textbooks taught in government schools of GB are developed by Punjab Textbook Board, which have been developed in the light of textbooks standards, so GB is also indirectly adhering to the same curriculum and textbook standards.

4) Bottlenecks in implementation of standards

a. Plans

- No implementation guidelines or plans on how to implement MSQE have been received by Directorate of Education GB from the federal government. The Directorate has also not developed any guidelines on its own.

- GB Education Strategy included establishment of Curriculum Development and Research Centre (CDRC) for Gilgit-Baltistan to adapt or develop textbooks and/or other teaching-learning materials according to local needs. Not much progress has taken place on this front.
 - The school curriculum is federally administered and is sometimes not relevant to Gilgit-Baltistan. The curriculum documents are frequently not available in schools. Learning objectives are not clear. There is an imbalance across subjects, with creative subjects neglected.
 - Retention of good teachers for implementation of quality education standards is a must. Currently, AKES,P is finding it difficult to retain teachers.
 - Although government has M&E systems in place, including EMIS, they are not effective in identifying gaps and generating information for effective decision making, e.g. ensuring schools have an equitable allocation of teachers.
- 5) Impact of education departments internal systems and coordination on implementation of MSQE**

b. Finances

- Training of EMIS staff has been planned but not carried out due to budgetary constraints
- No dedicated finances with the Directorate of Education GB for implementation of standards by carrying out orientation sessions for education managers and teachers. A dedicated unit needs to be established for this purpose.

c. Coordination

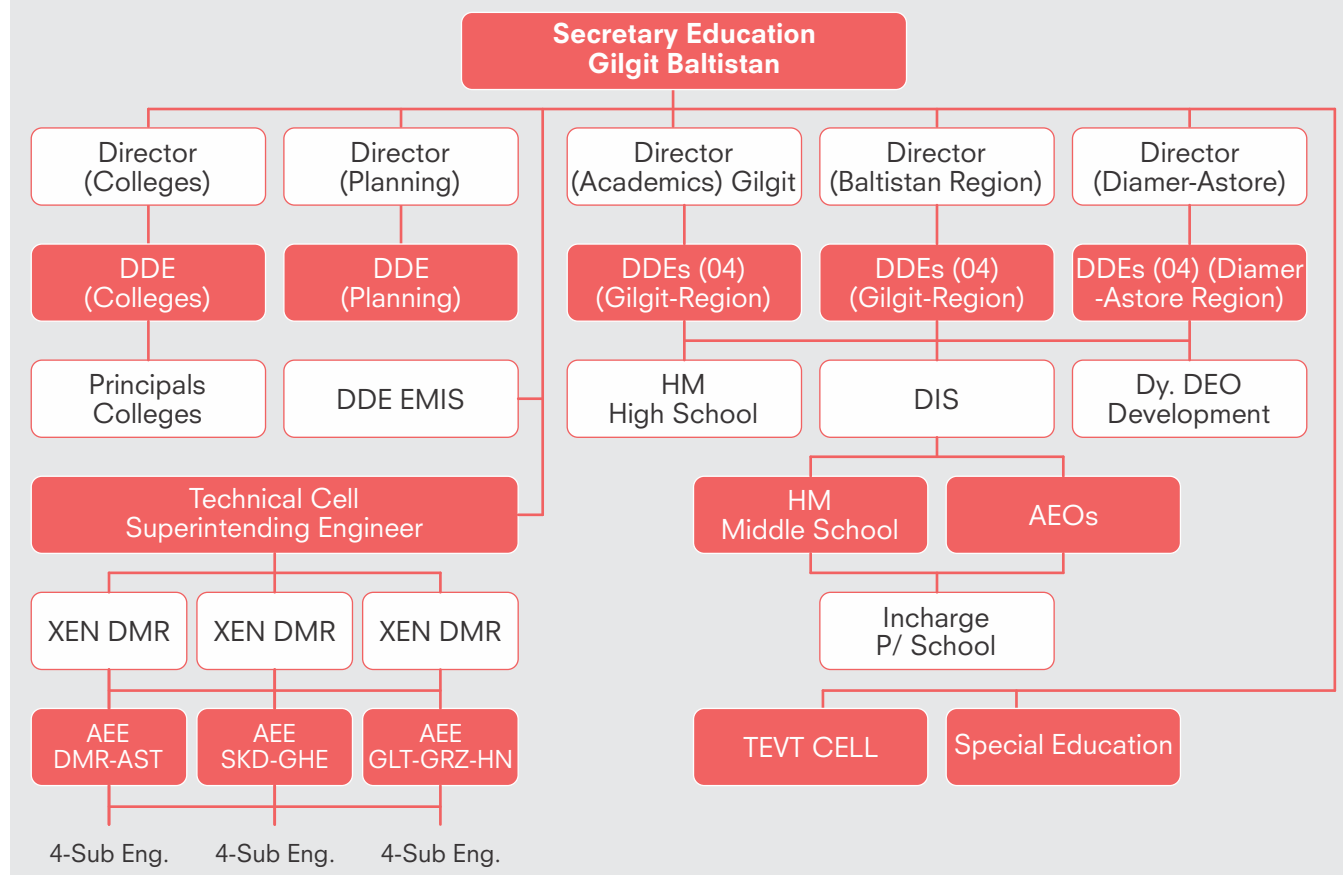
- Due to the absence of a dedicated M&E section in Directorate of Education, GB, various analytical data and reports cannot be generated.
- EMIS and other sections cannot coordinate effectively with M&E.
- Weak coordination between EMIS and Curriculum and text book section

d. Processes

- The teachers or education department staff did not receive any orientation or training on how to implement the standards under MSQE.
- No mechanism has been developed to monitor the implementation of MSQE.

- There is shortage of HR and finances for implementing various standards under MSQE in various sections of the Directorate. Many officers are holding multiple posts due to similar constraints. For example, curriculum and teachers training is being handled by one Director, similarly a Deputy Director EMIS is also holding additional charge of M&E.
- There is no appraisal system of staff linked to promotion and remuneration. There are no incentives for those who perform well, or sanctions against those who perform badly.
- Directorate of Education GB has weak capacity to implement and monitor the standards. A dedicated unit is needed for this purpose.
- To enhance the quality of professional development for teachers in GB, Aga Khan University's Professional Development Centre for Northern Areas (PDCN) was established in 1999, which is the primary teachers training center in GB.
- GB does not have its own curriculum and text book board so it is entirely dependent on National Curriculum Council (NCC) at federal level for curriculum and Punjab Text Book Board for text books. Close coordination is carried out with both.

Figure 9: Organogram of Education Department Gilgit-Baltistan



6) Monitoring mechanism

a. Available mechanism

- There is no dedicated M&E unit/ section within the Directorate of Education, GB. An officer (Deputy Director) has been given the additional charge of M&E.
- The Gilgit Baltistan Education Strategy states that “at an early stage, government will establish a Monitoring Evaluation and Research (MER) Unit in Department of Education (DoE) to ensure the strengthening of existing monitoring and evaluation systems. At the DoE level quality assurance will be carried out by the establishment of a MER unit to carry out whole-school monitoring and inspection, including monitoring of student achievement, to ensure high standards of education provision. In addition, inspection, supervision and monitoring will be extended to provision of ongoing professional support and mentoring for teachers.
- For data gathering purposes, as a solid basis for effective decision making, EMIS and other existing MER systems will be strengthened as a priority. The MER unit will also gather and commission research into education matters as they pertain to Gilgit-Baltistan”. No practical steps on ground have been taken to establish the MER unit as stated in the education strategy

- The EMIS section is capturing school related data, both quantitative and qualitative. It has all school data available from 2010 onwards. The captured data includes student’s enrollment, attendance, teacher’s attendance, class room observation, lesson planning, assessment results sheet of each school, facilities and equipment available in each school.

b. Strengths

- Mostly quantitative and some qualitative data at school level is captured by EMIS.

c. Weaknesses

- The data collection is held once a year so a positive or negative change at school level cannot be documented until the next year.
- No analytical reports are generated through the EMIS data for improving planning and decision making.

7) Analysis of education budget allocation and expenditure (2013-2018)

- The budgetary allocation for education in GB as a percentage of total GB budget is lowest among all provinces, at around 13% as compared to 19-24% in other provinces

Table 12: Summary of Education Indicators for Gilgit-Baltistan

		National			Gilgit Baltistan		
Population	Total population (in thousands)	154,794			154,794		
Literacy	Population annual growth rate	2.3%			2.56%		
Enrolment and Completion	Adult literacy rate	49 (total)	49 (male)	49 (female)	53 (total)	64 (male)	41 (female)
	Primary school net enrolment/attendance ratio	49 (total)	49 (male)	49 (female)	59.1 (total)	58 (male)	60.3 (female)
	Middle school net enrolment/attendance ratio				60.8%	65.4%	56.2%
	High school net enrolment/attendance ratio				47.0%	49.2%	44.9%
	% of primary school entrants reaching class 5	58%			75%		
	Female students as % of males –primary school	71 (gross)		74 (net)	80.2(gross)		57.4 (net)
	Female students as % of males –secondary school	73 (gross)			Middle 83.5 (gross) High 91.4 (gross)		
Pupil: Teacher Ratio		Primary 34 Middle 24 High 27			Primary 31.8 Middle 24.0 High 21.0		
Expenditure on Education as a Percentage of Total		12% of federal budget (2005/06) 2.43% of GDP, possibly increasing to 4% by 2010–11			377.540m (2005/06) 11.1% of Gilgit Baltistan budget Rs 623.922m (2007/08) 13.7% (2007/08)		

Table 13: Estimated Budget for Implementation of GB Education Strategy (2015-2030)

	Up to 2010-11	2011-2016	2016-2021	2021-2030	Total
Estimated Total Expenditure (Rs. In Million)	10,179	20,165	30,310	35,349	96,002
Estimated GB Allocation (Rs. In Million)	10,021	17,013	23,862	29,971	80,867
Funding Gap (Rs. In Million)	158	3,152	6,448	5,378	15,135
Funding Gap (US\$)	\$-2.41(m)	\$-48.36(m)	\$-98.89(m)	\$-82.47(m)	\$-232.13(m)

8) Focused Group Discussions (FGDs):

Focused group discussions were conducted with 16 teachers (from two government schools) as well as five Head Teachers (from 5 schools including three government and two private schools) in two government schools. The list of participants of these FGDs is attached as Annexure and key findings are as under:

Teachers

- There is no follow up process initiated at the federal or local level to know whether MSQE have been implemented in GB and if not, what the real challenges are?
- AKES,P run schools are following their own standards for learners, teachers and school environment.
- Teachers are aware about some basic standards for learners, teachers and school environment. Some of the government teachers acknowledged to have received a hard copy of MSQE by their school while most downloaded the copy from internet and have it on their computers/ smart phones.
- Teachers refer to the MSQE document on need basis. Classroom observation, teaching methodology and student's assessment are the sections that they refer to the most in the document. By using the standards mentioned in the MSQE document, some teachers have contributed in the development of School Development Plans for their schools.
- For better planning, school census is conducted every year and government school teachers are actively involved in the process. They are required to provide data for their school as per EMIS and M&E template/ questionnaire shared with them. The questionnaire includes data on student's enrollment, teachers' attendance, monthly classroom observation checklist, teachers' performance, Annual Confidential Report of teachers, students' assessment reports, inventory of school assets.
- Bottlenecks in low performance

The factors identified by teachers/ head teachers for low performance are as under:

- ♦ Opportunities for teachers training are limited.

Teachers do not have adequate number of in-service trainings. Although, Aga Khan University / Professional Development Centre (AKU, PDCN) conducts different trainings for teachers from time to time but these are inadequate.

- ♦ Both public and private schools find it difficult to retain good teachers.
- ♦ Most government primary schools lack Early Childhood Development (ECD) centers and trained teachers to run such centers.
- ♦ Inadequate physical facilities at both private and public schools, especially open areas for sports activities, inadequate laboratories in schools to cater to the student needs and lack of internet connection and libraries are also contributing to low performance.
- The quality of learners in government schools is poor. Most of them are slow learners. Entry test for admission in government schools need to be enforced to have quality intake of learners.
- Continuous assessment (every week) of students is needed across all schools to further improve learning outcomes.
- Parents do not take interest in the education of their children due to illiteracy, their pre-occupation in earning livelihood or doing household chores etc.
- Since GB does not have its own Textbook Board so books developed by the Punjab Textbook Board are being taught in government schools of GB which at times does not fit into the local context and culture.

Students

- Number of teachers in school are sufficient
- Students are satisfied with the teaching methods and behavior of teachers in the class
- Majority said that corporal punishment was not practiced at their school
- Most of them said the facilities were adequate but a few suggested some addition/ improvements particularly play areas.
- Most of them enjoyed cordial relations with their classmate and could interact with teachers easily.

4.6 Punjab

The Punjab province has a total of 52,314 public sector schools out of which 52 percentage girls' schools.⁴⁹ 69 percent of these schools are at primary level. The total number of enrolled students in public sector schools is 10.8 million. The gender parity index of enrolment is 0.91 (91 girls for every 100 boys). The total number of out of schoolchildren in Punjab stands at 11.4 million; 44 percent of the total population of 5-16 years 'children'.⁵⁰ 51 percent of these out of school children are girls. Punjab has a teaching workforce of 336,628 out of which 50 percent are female teachers. The literacy rate (ages 10 years and above) in the province is 63 percent; in favor of males with 71 percent literacy rate compared with 55 percent for females.⁵¹ Net enrolment rate at primary level (ages 6 to 10 years and including grades 1 to 5) is 73 percent for boys and 67 percent for girls. The survival rate to grade 5 is currently 77 percent in Punjab while the effective transition rate from primary to lower secondary stands at 87 percent.

1) Mainstreaming of MSQE at primary and secondary level in Punjab

a. Knowledge about MSQE in public and private education system/departments

- 60% of respondents had not seen or read the MSQE document while 40% respondents including Punjab Curriculum and Textbook Board (PCTB), Punjab Examination Commission (PEC), Planning and Development Board (PDB) showed some evidence and knowledge about the MSQE standards and other standards that they have developed or been following in their work.
- Teachers had absolutely no knowledge about various standards under MSQE.
- The representative body of private schools of Pakistan based in Lahore i.e. All Pakistan Private School Federation (APPPSF) representing more than 200,000 private schools in the country was neither consulted in drafting the standards, nor was the MSQE booklet shared with them. It had no clue about MSQE and quality areas covered by the document.
- None of the respondents had any knowledge about Technical Working Group being established and responsible for steering the implementation of MSQE in the province as suggested in the MSQE framework.

b. Extent of mainstreaming MSQE

- Quaid-e-Azam Academy for Educational Development (QAED) which has the mandate of training teachers in the province has developed its own standards for teachers training and has been following the same in its working. The MSQE standards were not shared with QAED by MOFEPT or SED.
- MSQE Standards for curriculum are being followed by PCTB and for assessment by PEC to a significant extent.
- No evidence could be gathered from APPPSF to know whether standards under MSQE have been adopted by private schools in the province. However, the discussion revealed that the bigger chain of schools follow their own pre-defined standards where curriculum, textbooks, teachers training and school learning environment, all areas of quality are focused
- A new initiative with the title "The New Deal 2018-2023" has been introduced by the Government of Punjab which is still with the provincial cabinet for approval. As per SED, it focuses on quality aspect of education.

2) Factors responsible for low performance

a. Teachers

- While prioritizing the factors responsible for low performance among teachers, physical facilities and school environment, 70% of the respondents were of the opinion that teacher has a major role in low performing schools.
- Key issues related to the quality of existing teachers stem from systemic gaps such as a politicized system of recruitment and deployment; irrational teacher educators' deployment in teacher education institutions; insufficient resources and continuous professional development (CPD) opportunities, and the absence of a robust quality assurance (QA) mechanism. Moreover, more than 50% primary schools have single teachers and they are not trained in multi-grade teaching.

b. Physical facilities

- 20% of the respondents thought that physical facilities played a key role in enrollment and retention and were the main cause of low performance.

49. Punjab Annual Schools Census 2015-16

50. Academy of Educational Planning and Management (2015). Pakistan Education Statistics 2014-15. Islamabad.

51. Pakistan Bureau of Statistics (2016). Pakistan Social and Living Standards Measurement Survey 2014-15. Islamabad

c. School environment

- 10% of the respondents thought the learning environment as a whole including parents were responsible for low performance.

3) Implementation of MSQE by Government of Punjab

a. Implementation of learner's standards

- The focus of learner's standards is on provision of basic missing facilities only.

b. Implementation of teacher's standards

- Merit in teacher's recruitment is being enforced through NTS recruitment.

- School Education Department, Punjab (SED) has taken a crucial step towards teacher certification and licensing directly related to quality education. Punjab Education Standards Development Authority (PESDA) bill has been sent to the provincial cabinet. The rationale behind this policy initiative was to formulate a system that rewards excellent practice, innovation, attracts high achievers to the profession and sustains motivated teachers.

- QAED previously called DSD (Directorate of Staff Development) is an apex institution for in-service and pre-service training of public school's teachers in Punjab. It is furthering the National Education Policy by focusing on the professional development of public sector's teacher and equipping them with modern and innovative teaching techniques and methodologies.

- QAED has developed its own standards for teachers training and has been following those. It trains on an average 210-240 teachers per annum nominated by SED. It delivers training relevant to promotions, Punjab Education and English Language Initiative (PEELI) trainings in collaboration with British Council,

c. Implementation of curriculum and textbook standards

- PCTB is the main body in Punjab responsible for curriculum development, publication of textbooks for primary education, secondary, education, intermediate education and teacher's training courses. It is also responsible for development of supplementary material relating to the textbooks.
- PCTB has been following the MSQE to a significant extent. Previously, it was following the curriculum standards' set in 2006. PCTB has introduced provincial scheme of studies in 2017 covering all subjects from primary to intermediate level based on the standards defined under MSQE.

d. Implementation of assessment standards

- PEC is another key entity in Punjab with reference to implementation of assessment standards. It has referred to MSQE while drafting assessment standards. The main functions of PEC are to design, develop, implement, maintain, monitor and evaluate a system of examination for elementary education. In addition, formulate policies and programs for conducting examinations, collect data from research in order to improve curricula and teaching methodology, identify the areas where improvement in training of the teachers or educationists is required.

- PEC's assessment wing has assessment experts, psychometricians and subject specialists and they regularly refer to these standards while preparing material for assessment.

- All subject specialists are hired on merit and then trained on item writing. The best item writers are placed in a pool and their services utilized from time to time.

- Each item is field tested on 350 students, which is a standard being followed by PEC. Statistical analysis of each item is also carried out before its finalization. Similarly, 100,000 papers are tested for marking as a standard.

e. Implementation of school learning environment standards

- In 52,000 schools (around 95%) SED has provided missing facilities like boundary wall, class rooms, furniture, and drinking water at primary and secondary level, as per their pre-defined standards for civil works. Punjab still lacks 45,000 teachers (10%)⁵², 171,000 rooms at primary and secondary level.

4) Bottlenecks in implementation of standards

a. Plans

- No follow up by MOFEPT to see whether the standards have been followed in the province.

- In formulating any plans, mostly non-technical people are representing the Punjab province on behalf of the technical bodies.

- The TWG at provincial level seems dysfunctional. Nobody knows who its members are and how many times it has met and where.

- No data on standards followed in private schools is being collected. SED is also monitoring the private schools but in the absence of relevant laws it cannot interfere much in their operations. The

52. Annual School Census 2017-18, PMIU-PESRP, Government of Punjab

'Private Education Regularity Authority Act' has been prepared and it is with the provincial assembly for further legislation.

b. Finances

- None of the respondents pointed out to any funding gap/ constraint. However, the budget analysis revealed significant underspending in consecutive years, which points to weak capacity of finance and budget officers in planning and budgeting.

c. Coordination

- Coordination between MoFEPT and key entities under the provincial education department is very weak. One respondent commented that "Before devolution, the coordination between federal and provincial departments/ entities was strong and more frequent"
- A few respondents commented that "Even in rare cases where there are coordination meetings between federal and provincial stakeholders, the province is represented by non-technical people which does not produce any results"
- Coordination between provincial level entities like PCTB, SED, PEC and QAED is need based only and very rare.
- QAED only trains teachers of public schools and has never asked APPPSF for nominating private teachers for training.

d. Processes

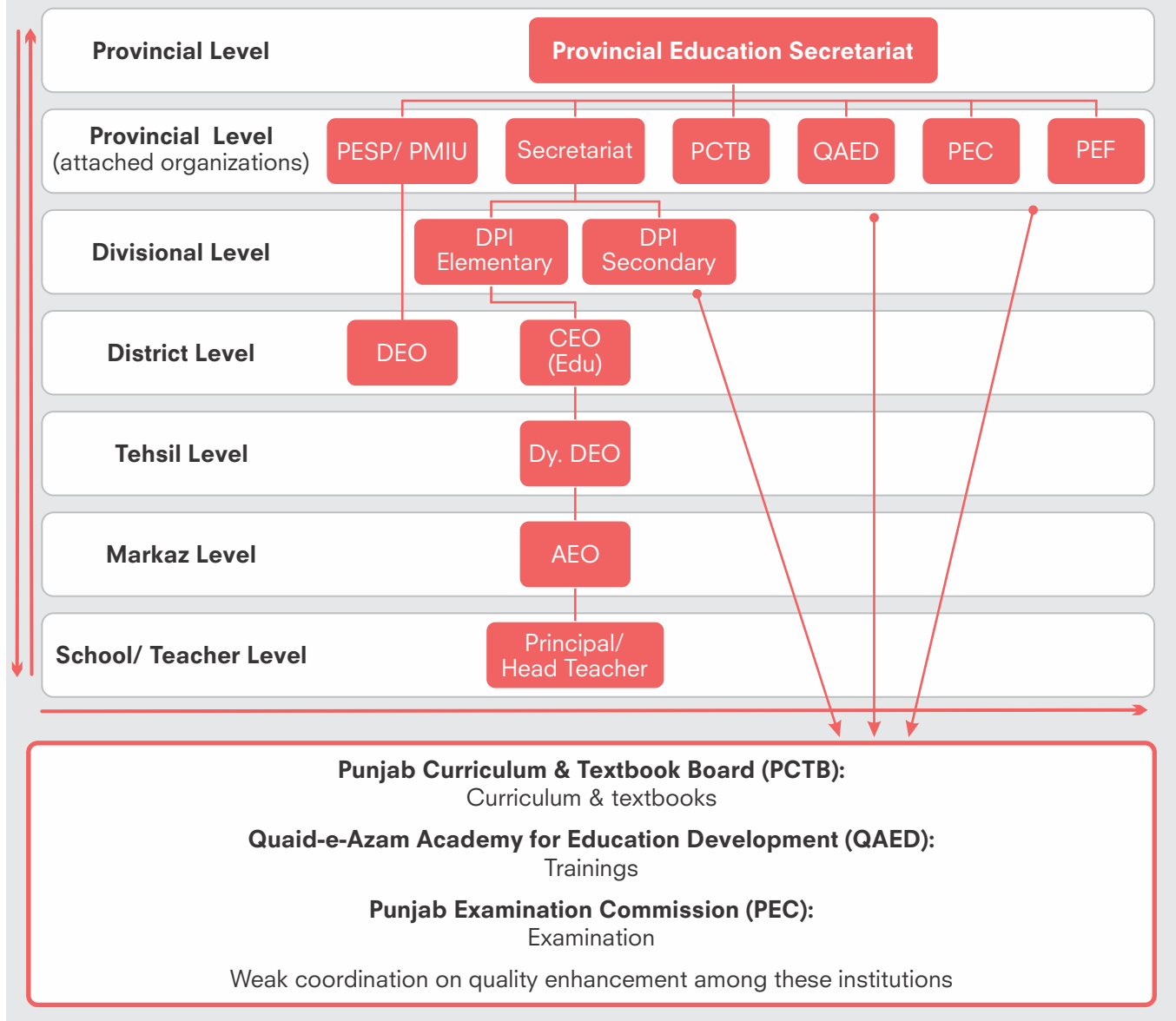
- After dissemination of standards, MoFEPT should have carried out orientation sessions or trainings of key stakeholders in the provinces. This did not happen and resultantly, the implementation has been slack.
- There is staff shortage in key departments of the province. For example, in PCTB the sanctioned posts are 414 while 170 are vacant.⁵³ This shortage is hindering the process of curriculum and textbook development, in accordance with the standards.
- High staff turnover in the education department is a major bottleneck for continuity of plans. Most respondents interviewed were found to be working on their existing position since the last 3-12 months, therefore their institutional memory of developments that had taken place prior to 2018 was missing.

e. Structural Bottlenecks

Structural bottlenecks are analyzed in the light of the organizational structures operating within the school education department, Government of Punjab. It is important to mention that organizations affiliated with school education department have an important role to play with particular reference to enhancing the quality of education. Therefore, it is useful to discuss their role within the overall structure of the school education in connection to quality of education.

53. <https://pctb.punjab.gov.pk/system/files/Detail%20of%20Posts.pdf>

Figure 10: Communication and Coordination in Punjab



Vertical communication (Information flow)

Vertical communication is primarily discussed in two ways; 1) downward flow of instructions / information and 2) upward flow of feedback / information.

Downward flow of instructions

Generally, instructions are generated from the provincial level and directed down to the division and then to the districts, where district level officers implement the same through their Tehsil and Markaz level staff. Normally such information is passed as it is and that no necessary explanation is annexed to that. Therefore, sometimes, the lower structures find it difficult to implement the same and obtain desired results. Further, the implementation takes place to obey the orders instead of getting the real idea and improve things.

Upward flow of feedback

Upward flow generally happens in response to the orders/ circulars coming from the secretariat or the office of the DPs. It has been observed and confirmed through discussions that there is no trend of informing the higher authorities with necessary information, success or failure stories.

Horizontal Flow

Horizontal flow generally happens within the affiliated organizations responsible for various functions especially those related to quality. For instance, Quaid-e-Azam Academy for Educational Development (QAED), an organization responsible for quality through capacity building/ trainings) never coordinates with the PEC, which is responsible for assessment/ examination for grades 5 and 8. In fact, these two organizations must build a functional liaison that is

supposed to provide assessment findings of all regions and all subjects so as the trainers and module designers could develop training modules accordingly. For example, if southern Punjab districts have performed poor in mathematics of grade 5, and central Punjab grade 5 students have shown poor results in English subject; these regions must receive trainings in the subjects they were unable to produce better results.

Similarly, QAED's instructions are passed to their district staff who have weak coordination with the district education administration. In addition, organizational reforms in QAED has also hampered quality delivery and coordination challenges.

At the same time, Monitoring and Evaluation Assistants (MEAs) designated by PMIU/ office of the DMO to obtain quantitative information have never been in coordination with district administration and QAED's district staff for exchange of views that may help in making good decisions for quality.

In addition, Punjab Curriculum & Textbook Board (PCTB), which is responsible for curriculum and textbooks, have hardly coordinated to conduct research and obtain feedback through QAED or through any other organization. They should carry out research on regular basis through these organizations to obtain feedback on improving the quality of textbooks and adapt the curriculum as per needs.

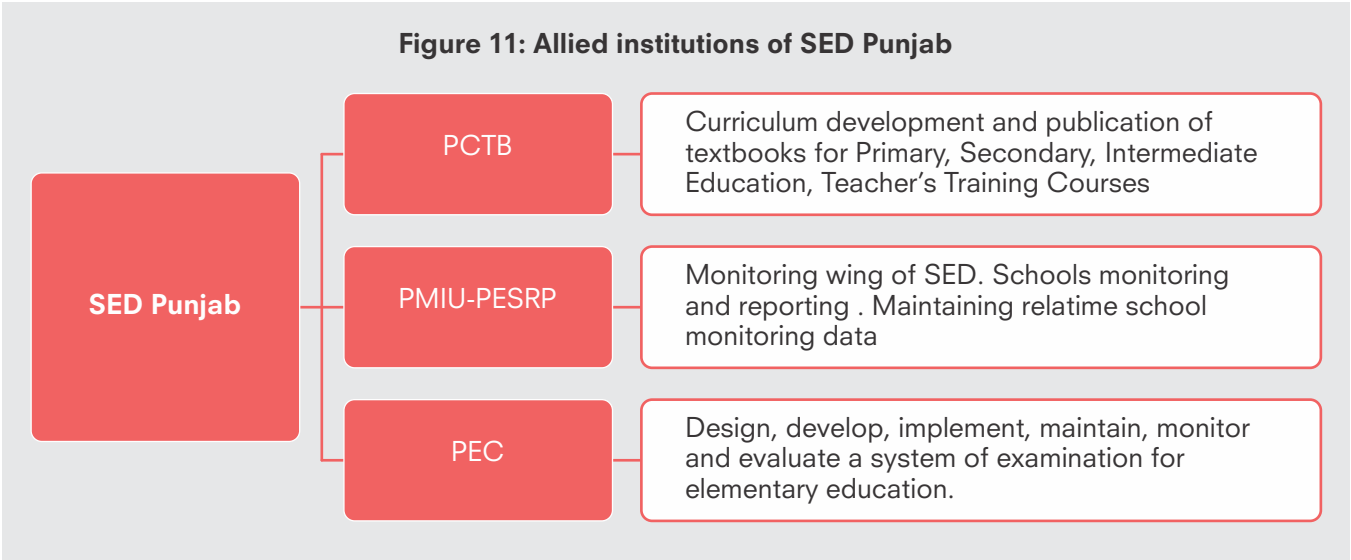
Analysis of Education Department's

education revealed that currently school's EMIS, District monitoring system for districts ranking and PEC's data bases are operating. The key challenge is that all these data banks are operating in isolation and effort to triangulate the data and conclude useful recommendations for policy action is missing. Sometimes, the Punjab Education Sector Reform Programme (PESRP) conducts third party validations for triangulation and cross-checks, but the results are hardly conveyed to the decision makers especially those involved in implementation. Therefore, the integration of all such data bases to improve human resource (HR) management and teachers' performance is required.

Although district ranking system in Punjab is being used to hold teachers accountable for their performance, but it is used to punish teachers by reducing their salaries. Instead, weak performing teachers in specific subjects need to be provided extensive training to overcome the shortcomings. Further, use of standards for teachers and learners are not being used as reference point in assessments and creating benchmarks for teachers.

5) Impact of education departments internal systems and coordination on implementation of MSQE

The coordination between SED, PCTB, PEC and PMIU has improved the education statistics in the province, some of them directly related to quality.



Internal Systems

Analysis of internal systems (performance, human resource and information management) of Punjab education department on implementation of quality

- Between 2013-2018, availability of water, clean drinking water, toilet, electricity, and boundary walls, were some of the areas in which an over 90% improvement was observed in all primary and middle schools.⁵⁴

54. Alif Ailan Report

- The number of children enrolled in primary schools has jumped from 4.96 million in 2013 to 5.46 million in 2017 with recent data indicating the number to 6 million
- Students' attendance has increased from 80% to 92%.
- A similar pattern was seen in the attendance of teachers, which increased to an overall 95%.

6) Monitoring mechanism

a. Available mechanism

- Program Monitoring and Implementation Unit (PMIU) acts as the monitoring wing of SED. The following monitoring indicators have been introduced by SED in all schools from 1st January 2019:

1. Attendance of students
 2. Retention of students
 3. Attendance of teachers
 4. Existence of boundary wall (height of wall shall be 8 ft. on all sides including 2 ft. razor wire)
 5. Availability of toilets as per enrollment figures (criteria of 2 toilets per 100 students, 4 toilets for 101-250 students, 6 toilets for 250-500 students, functionality of washrooms to be checked,
 6. Availability of clean drinking water
 7. Availability of adequate number of furniture
 8. Health and hygiene (focusing on school cleanliness, toilet cleanliness, availability of soap, cleanliness of classrooms, building, ground)
 9. Literacy Numeracy Drive-LND test (10 students of class 3 will be tested in English, Urdu and Maths)
 10. Redressal of complaints registered on hotline
 11. Utilization of funds received by school under NSB
 12. Data health (verification by PMIU of data collected by MEAs with school entered data)
- These indicators are being monitored through 942 MEAs/ school monitors in 36 districts which act as the eyes and ears of SED and PMIU. The MEAs are mostly retired army personnel.

- The MEAs collect all their data through tabs provided by SED along with pictures and transmit the data online to PMIU.

b. Strengths

- Realtime data on all indicators and all schools is available on the PMIU website for quick and efficient decision making
<https://open.punjab.gov.pk/schools/>
- The reports submitted by MEAs for each school and the LND results are available online at <http://sedinfo.net/check-lnd-test-results-online/>

c. Weaknesses

- The bias of MEAs against a particular school/ staff can affect the data collected.
- There is no check on the MEA's in the field.

7) Analysis of education budget allocation and expenditure (2013-2018)

- The overall budget allocation for the education sector in Punjab has been increasing every year during the last five years. Although a major chunk of the education budget is allocated to current expenditures like salaries, the non-salary and development budget has also seen proportionate increase over the years, which is an indication that government wants to continue its focus on teachers training, improving assessment, curriculum and text books development and providing missing facilities, all contributing to quality education.
- The budgetary allocation for education in Punjab has two heads, i.e. current and development. The recurrent education budget entails the budget allocated for ongoing expenses that occur on a daily basis. Also called the operational budget, this budget includes two types of expenses, i.e. salary and non-salary
- Non-salary disbursements entail operation, maintenance for routine activities of the department and its subordinate offices. At the school level, the non-salary budget includes allocations for items like classroom consumables, repair of furniture and other petty repairs in schools. Sometimes this budget is routed through school-based governance platforms such as PTC's, SMCs, PTSMCs etc.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise budget allocation under the current and development heads.

Table 14: Punjab Education Budget Allocation 2013-18

Punjab Education Budget Allocation (Rs. in Billion)					Total Provincial Budget (Rs. in Billion)	Percentage of Total Provincial Budget
Year	Current		Development	Total		
	Salary	Non-Salary				
2013-14	182 (78%)	18 (8%)	32 (14%)	232	897	26%
2014-15	199 (77%)	22 (8%)	39 (15%)	260	1,095	24%
2015-16	210 (74%)	33 (11%)	44 (15%)	287	1,447	20%
2016-17	211 (72%)	22 (7%)	63 (21%)	296	1,681	18%
2017-18	-	-	-	345	1,971	18%

- There has been a steady increase in the total education budget for Punjab. The total education budget for Punjab was Rs. 232 billion in 2013-14 which increased to Rs. 345 billion in 2017-18, an increase of 49% in five years. The Punjab education budget as a percentage of the total budget remained between 18-26% throughout these five years, the highest being 26% in 2013-14 and lowest being 18% in 2016-17 and 2017-18.
- Over the last five years, non-salary budget received the lowest proportion of the education budget as compared to the development and salary budget.
- Major portion of the recurrent budget is absorbed in salaries and related expenditure. The salary budget for education has increased by 16% during the five years, however as a percentage of total education budget it has been on a decline. The non-salary budget has increased by 22% during the five years. In the Punjab education budget.
- It is worth noting that the increase in percentage share of education has been significantly steep in case of development budget. The share of development budget for education has increased from 14 percent of the total budget in 2013-14 to 21 percent in 2016-17.
- For teachers training, a total budget of Rs. 4.8 billion was apportioned in the education budget in 2016-17. Out of the total teacher training budget, Rs. 3.6

billion (75 percent) was earmarked for in-service teacher training while 25 percent of the budget (Rs. 1.2 billion) was allocated for pre-service teacher training in 2016-17.

- A total budget of Rs. 20 billion was earmarked for Programme Monitoring and Implementation Unit (PMIU). This showed a decline of Rs. 125 million compared with the allocated budget for PMIU in the previous year. The salary budget of PMIU decreased from Rs. 365 million in 2015-16 to Rs. 240 million in 2016-17.
- To assess and examine learning achievements of students in the province, particularly grade 5 and grade 8 students, a budget of Rs. 1 billion was allocated for Punjab Examination Commission (PEC) in 2016-17; highlighting an increase of 10 percent compared with the allocated budget of Rs. 908 million in 2015-16.
- A budget of Rs. 8 billion was earmarked in 2016-17 for reconstruction of dangerous school buildings. This budget slightly declined from the allocated budget of Rs. 8.5 billion in 2015-16.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise education expenditure under the current and development heads in Punjab.

Table 15: Punjab Education Budget Expenditure 2013-18

Punjab Education Budget Expenditure (Rs. in Billion)					Overspending/ Underspending (Rs. In billion)
Year	Current		Development	Total	
	Salary	Non-Salary			
2013-14	168 (79%)	15 (7%)	29 (14%)	212	(-20)
2014-15	174 (82%)	21 (10%)	18 (8%)	213	(-47)
2015-16	192 (78%)	28 (11%)	25 (11%)	245	(-42)
2016-17	-	-	-	261	(-35)
2017-18	-	-	-	341	(-4)

- Like increase in allocation, the expenditure on education in Punjab also increased over the last five years. The total education expenditure for Punjab was Rs.212 billion in 2013-14 which increased to Rs. 341 billion in 2017-18, an increase of 61% in five years.
- For all five years the education budget was under-utilized.
- A major portion (around 78%) of the recurrent expenditure was on salary side.

4.7 Sindh

Sindh has a total of 45,447 public sector schools out of which 15 percent are girls' schools while 62 percent are mixed schools.⁵⁵ 91 percent of these schools are at primary level. The total number of enrolled students in public sector schools is 4.1 million. The gender parity index of enrolment is 0.65 (65 girls for every 100 boys). The total number of out of school children in Sindh stands at 6.7 million; 56 percent of the total population of 5-16 years' children.⁵⁶ 52 percent of these out of school children are girls. Sindh has a teaching workforce of 156,216 out of which 32 percent are female teachers. The literacy rate (ages 10 years and above) in the province is 60 percent; in favour of males with 70 percent literacy rate compared with 49 percent for females.⁵⁷ Net enrolment rate at primary level (ages 6 to 10 years and including grades 1 to 5) is 67 percent for boys and 54 percent for girls. The survival rate to grade 5 is currently 59 percent in Sindh while the effective transition rate from primary to lower secondary stands at 66 percent.

THEMES

1) Mainstreaming of MSQE at primary and secondary level in Sindh

a. Knowledge about MSQE in public and private education system/departments

- Most of the persons interviewed in Sindh had knowledge about the MSQE and they shared that they participated in consultative sessions held for the development of these standards. They also shared that they had seen the MSQE in printed form.
- However, almost half of the participants were aware of the "Sindh School Education Standards and Curriculum Act 2014", which was initiated by the Sindh Education and Literacy Department (SELD) as part of their reforms' efforts for quality enhancement in Sindh school education. It is appraised that the Government of Sindh enacted "Sindh School Education Standards and Curriculum Act 2014" in 2014 and are on way to implement the same.
- Curriculum Wing, Directorate of Curriculum Assessment and Research (DCAR) and Sindh Teacher Education and Development Authority (STEDA) are among the allied institutions of the SELD which showed significant knowledge about the MSQE and "Sindh School Education Standards and Curriculum Act 2014".
- On the other hand, it is important to note that the "Sindh School Education Standards and Curriculum Act 2014" defines "curriculum" and related initiatives thoroughly, whereas "standards" could not capture adequate attention in the Act.
- During an interview with SCDP (Sindh Capacity Development Project) of the USAID, it was noted that a Consultant has been hired to develop standards for Sindh quality education. In this connection, a few meetings have already been held in which MSQE was reviewed thoroughly and suggestions were received to contextualize the same for Sindh.
- Private schools' representatives were virtually unaware of the standards and other quality initiatives that have been initiated by the SELD in Sindh. Private schools' representatives also had very little idea about SDG-4.

b. Extent of mainstreaming MSQE

- STEDA has developed standards and rubrics at their own for the accreditation of Initial Teacher Education (ITE) that is termed as early childhood education. STEDA has completed one cycle of accreditation of ITE institutions, which indicates that at least one institution in Sindh has implemented education standards in true spirit.
- DCAR has adopted the MSQE, especially those relating to standards for curriculum, textbooks and learners. The DCAR and Provincial Institute of Teacher Education (PITE) representatives were able to categorically link the MSQE and the standards (standard operating procedures) that they had already developed for curriculum, textbook and learners. Regarding standards for learners, the DCAR and curriculum wing respondents were confident in saying that "Since they had adopted the national curriculum 2006, therefore the defined learning standards have also been adhered to by them".
- In a bid to implement the curriculum and standards, the SELD through its curriculum wing, Sindh Textbook Board, PITE and DCAR, are developing state of the art textbooks that meets 21st century targets through learner friendly interactive teaching & learning materials. It is evident that SELD is heading fast to achieve the quality standards in Sindh.

55. Sindh Education Management Information System data 2015-16

56. Academy of Educational Planning and Management (2015). Pakistan Education Statistics 2014-15

57. Pakistan Bureau of Statistics (2016). Pakistan Social and Living Standards Measurement Survey 2014-15

- SELD is also keen in addressing the issue of missing facilities by adhering to the standards mentioned under physical facilities. It is important to note that basic facilities such as electricity, boundary wall, drinking water, toilets, furniture and additional classrooms are being targeted on priority basis as part of their efforts to enhance enrollment and retention. Although most of the persons interviewed were not able to connect this effort directly with quality aspect.
- School Specific Budget (SSB) is an initiative that is implemented by the SELD to primary, elementary, high and higher secondary schools. This is a non-salary budget to run schools in an efficient manner and is based on level, size and enrollment of school. The SSB is given under the heads of stationery, co-curricular activities (sports items), instructional materials; library/laboratory items, furniture and travelling allowance. According to the SELD statistics spending rates are as under:

tives of the allied institutions of SELD, pointed out a few initiatives that SELD has taken to address teacher quality:

- DG M&E is regularly monitoring attendance of the teacher to ensure that teacher is present in the school and classroom
- School specific budget is another initiative that empowers teachers and connect him/ her with school more closely
- New recruitment policy and decision to provide extensive in-service training after recruitment exhibits positive intention of the department to address the issues of the teachers.
- Adequate increase in salary is also a motivating factor
- Continuous professional development (CPD)

Table 16: Utilization of Budget in Sindh

Financial Year	Total SSB (Rs. Million)	Release to Schools (Rs. Million)	Utilization
2013-14	3,764.0	3,764.0	35.22
2014-15	4,000.0	4,000.0	Nil
2015-16	4,684.0	4,684.0	1,019.0
2016-17	4,684.0	2,342.0	145.0
2017-18	4,488.0	554.557.0 (Re-appropriation to R&M)	112.412
		1st quarter	Under processes

- Regardless of some challenges with releases and utilization, it was positive to note that school-based empowerment initiative was made in SELD.
- Establishment of Directorate General for M&E in SELD to ensure transparency and accountability is yet another positive initiative by the SELD to ensure implementation of standards at school level. So far two indicators are being prioritized and monitored through designated staff members under the M&E directorate, i.e. teachers' and learners' attendance. The Director General (DG) M&E is also taking care of the complaints mechanism that is effective since a couple of years.

2) Factors responsible for low performance

a. Teachers

- While prioritizing the factors responsible for low performance among teachers, physical facilities and school environment, almost 75% of respondents interviewed shared that teacher is the most critical factor in school performance. The curriculum wing in particular with a few other representa-

model developed and approved by the SELD will also empower teachers professionally

- Although Sindh Government has tried its best to come close to the standard STR (Student Teacher Ratio) yet, teachers are a constant challenge in terms of their capacity to manage students and teach them in an enabling environment. STR is fairly good at all levels; 29:1 primary, 25:1 elementary and 25:1 secondary. Nevertheless, teachers' presence has been an alarming challenge that SELD is trying to deal with.
- Despite a good STR, there are many schools in urban and semi-urban areas where STR is not good. In such schools one teacher is managing a class of more than 50 learners, which restricts the quality of teaching & learning in the classrooms. "Teachers can only discipline these learners, teaching is a far cry", said one of the respondents. Even, one of the teachers commented that, "How can I teach and give individual attention to over 50 children in 30 minutes class".

- In addition, teachers' ability to master the content knowledge and their ability to teach well through interactive and enabling teaching techniques is a primary cause of low performance in schools in Sindh. Most of the respondents accepted a fact that teachers' mastery of content is poor and they are keen to build professional capacities of the teachers
- Another respondent commented that "the system has been captured by insiders and other special interest groups that prefer the status quo". During discussion, it was revealed that the insiders may also be teachers who are part of the teachers' unions and are not ready to accept additional work that requires them to address quality in the classrooms. This special interest group has captured the system and are continuously damaging the children's future.

b. Physical facilities

- Nearly 15% of the respondents agreed to the fact that physical facilities are a cause of low performance. During discussions with the respondents, the term performance was discussed thoroughly, and they claimed that the performance of the school is not just learning outcomes, the performance also denotes higher enrollment, lesser drop out and performance of the teachers as well. They maintained that physical facilities have a crucial connection with enrollment, retention and drop-out of the learners. Schools with better physical facilities manage to attract both parents and

learners, whereas schools with few physical facilities are unable to convince parents to send their children to these schools.

- The respondents discussed that the term basic facilities should be redefined and the standards relating to basic facilities for both government and private schools must be reviewed as well.
- Teachers in particular were of the view that physical facilities are important for school performance and helps in mobilizing the community for higher enrollment targets.

c. School environment

- School environment as a whole and classroom environment as a specific entity were discussed during the interviews. High level officials and school teachers confirmed that school/ class environment is critical in school performance.
- 10% of the respondents, especially those who were of the view that school environment is crucial, shared that it is a combination of teachers, parents and physical facilities.

Priority analysis of these factors

Low performance factors were prioritized by respondents in two ways; 1) single factor priority analysis, 2) multiple factors priority analysis. Results are given under:

Figure 12: Single factor priority analysis

Single factor role in school performance

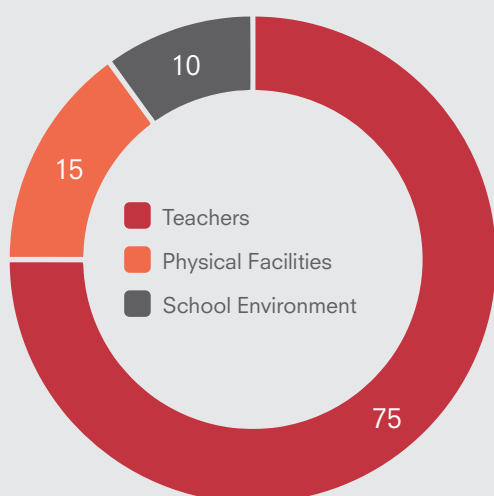
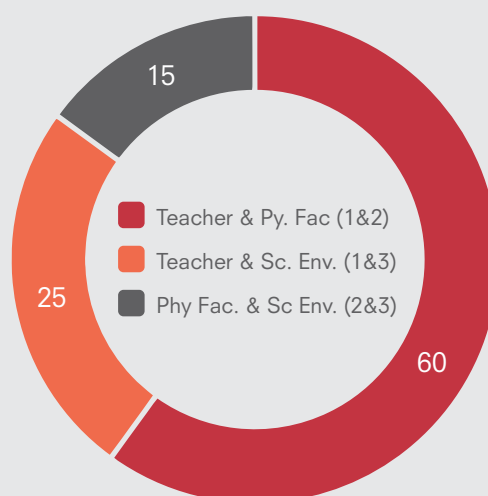


Figure 13: Multiple factor priority analysis

Multiple factor role in school performance



3) Implementation of MSQE by Government of Sindh

Implementation of MSQE and standards developed by the SELD is interpreted as under:

Standards for Teachers

The respondents shared that the standards for teachers were in fact developed back in 2007 by the then Ministry of Education (MoE), Policy and Planning Wing, Islamabad. PITE Sindh and STEDA representatives categorically confirmed that they have adopted the MSQE standards in different ways. PITE has referred these standards and have updated their training manual and developed CPD model. A respondent from the Directorate of Literacy & NFE, verified that it has used these standards in developing standards for NFE facilitators. The standards for NFE facilitators are seven in number and have been contextualized for Sindh. These standards were approved by STEDA.

Furthermore, the STEDA representative shared that they have developed standards for Initial Teacher Education (ITE) accreditation by using the standards for teachers. Now STEDA is accrediting ITE institutes by using tools and guidelines derived from these standards.

Although these institutions have implemented these standards, but there is no standards management/implementation system. They have just referred these standards to develop their own standards or indicators. STEDA is also keen to use these standards in developing licensing system for teachers in Sindh.

Standards for Learners and Assessment

Standards for learners were implemented by DCAR in assessment and examination of grade 5 and grade 8. The DCAR representative responded that the national curriculum 2006 was adopted as it is by the Sindh Government and that learning standards defined in the national curriculum act as standards for learners. During discussion, it was revealed that the standards for learners were not being implemented in full as textbooks are also a source to develop bank of test items and question papers. At the same time, it is equally important to discuss that how examination boards are implementing the standards for learners. The examinations boards in Sindh have not declared precisely that they are using student learning outcomes (SLOs) to develop test item bank and question papers, as they are still using textbooks to develop test items and question papers.

It is also important to note that the Sindh Government has not institutionalized its assessment and examination system as Punjab and Balochistan did through Punjab Examination Commission (PEC) and Balochistan Education Assessment Commission (BEAC). Although Sindh has developed its "Policy for

Assessment and Examination" and also has a "Sindh Education Students Learning Outcomes Framework (SESLOAF)", but both are merely pieces of paper and there is no institution to implement both of these policies and framework. The Sindh Examination Commission (SEC) was discussed to be institutionalized, but there is no progress so far in this connection.

At the same time, the Directorate of Literacy & NFE (SELD) has positively used the accelerated education curriculum for primary level and has developed Framework for Assessment & Examination for NFE in Sindh.

Therefore, it can be safely concluded that implementation of standards for learners and assessment are partially implemented in Sindh. Formative assessment practices were never found anywhere in the province except in Sindh Education Foundation (SEF), which claims to implement the same in SEF schools partially. The SEF has also designated staff members for assessment who are expert in this field and implements the formative assessment.

Standards for School Learning Environment

School learning environment standards were primarily discussed with EMIS, M&E and schools. The EMIS and M&E verified that most of the physical elements of the school learning environment are included in their tools/questionnaires that are administered annually and on monthly basis respectively by EMIS and M&E directorate. However, psychosocial elements such as peaceful & safe environments, teachers' irrational behavior, school policies and inclusive environment as well as service delivery that deals with basic health services are not implemented in true spirit. The DG M&E appears to be keen in including a few elements of psychosocial and service delivery aspects in their tools in future. The CPD model also elaborates a few elements of these aspects are also mentioned, but that too, is awaited to be implemented in true spirit.

Standards for Curriculum

Standards for curriculum are well defined and DCAR is custodian of these standards. The DCAR claims that they have been carefully adhering to the curriculum standards. The DCAR Director verified that they implemented these standards while developing accelerated education curriculum for primary level, which was developed by the Directorate of Literacy & NFE with technical assistance of JICA.

Standards for Textbooks

In developing textbooks, Sindh Textbook Board and DCAR have the leading role with extensive support from PITE. Standards for textbook development under MSQE and SOPs developed by the Sindh Textbook Board (STBB) earlier, steer the textbook development process. The curriculum wing, which is responsible for

quality education in Sindh, also claims to adhere to these standards while developing new textbooks in Sindh. The STBB and other institutions shared that they have recently developed textbooks and guides for teachers under Accelerated Education Programme and that all these standards were adhered to in developing, reviewing, improving and approving the textbooks. Engagement of subject specialists, processes and principles to follow were derived directly from these standards.

Bottlenecks in Implementation of Standards

Generally, the implementation of standards is carried out through a comprehensive “standards management/ implementation system” that opens up the standards, categorizes its levels such as inputs, processes and outputs. The system defines the institutions that are custodian of a particular set of standards, and that how the standards should be implemented in true spirit. For example, the implementation system narrates that the standards for teachers must be used to develop rubrics, tools and guidelines, which will further be used to accredit / or award license to individual teachers. Similarly, this process should be repeated every three or five years to make sure that teachers’ quality is up to the mark/ standards. At the same time, standards for teachers should also be used by the training institutions where they would make sure that the training modules translate each and every standard. Also, the pre-service education institutions must also use the standards to develop curricula, contents and systems of teacher education programmes.

Although, evidences show that most of the standards were found to be partially implemented in Sindh, however, there was no standards management/ implementation system behind that. Therefore, the implementation of standards in Sindh may be categorized as ad-hoc.

The standards implementation is also discussed under certain themes:

a. Plans

- There was no plan found or witnessed in any department/ section or unit that described the implementation of any set of standards.
- There was not a single post found in the SELD that was designated fully or partially for standards implementation.
- However, there were plans to improve physical infrastructure as part of the provision of missing facilities, upgrading school infrastructure and teachers’ recruitment.

a. Finances

- As there was no position, person or plan found directly that was held responsible to implement the

standards, therefore, it is assumed that the standards implementation in Sindh could not get adequate funds.

- However, finances were available for plans developed for physical infrastructure, teachers’ recruitment, training and M&E.

b. Coordination

- Serious disconnect was observed among various allied institutions of the SELD.
- Sometimes, within one institution of the SELD, different positions had different information about the same matter. For example, knowledge about adoption of MSQE varied from person to person. Some informed that MSQE were officially adopted and some responded in negative. However, there was no official declaration in this connection.
- Relatively weak coordination was observed among DCAR, Textbook Board and PITE, which are key institutions for curricula, textbooks, and training of teachers. In fact all these three elements are interconnected, but there was no any systematic way of coordination among these three institutions.
- Coordination with federal education ministry was also ad-hoc and extremely weak. It was on need basis and always required a funded meeting.
- After 18th amendment, Sindh province could have exhibited a good spirit of sharing learning by coordinating with federal and provincial institutions, but it has lacked in this area.

c. Communication

- Communication with various institutions of the SELD was found to be weak and non-systematic.
- Official correspondence protocols appeared to be the communication bottleneck, which needs to be eased out through ICT/ emails and mobile applications. There are many officers that still rely on postal correspondence from one room to the other room, which appears to be a waste of time.
- Communication from top tiers to the lowest tiers is also cumbersome and takes time to reach down to the school level.
- Communication to the relevant actors is also inadequate and sometime misses an institution that has specialized capacity in a particular field. This happens with both public and private/ development sector entities.
- Communication with federal education ministry is also extremely slow. Most of the circulars or notifications are not well elaborated such as the circular with MSQE was unclear. It expected provinces to do most of the things at their own,

without defining even the basic things.

d. Processes

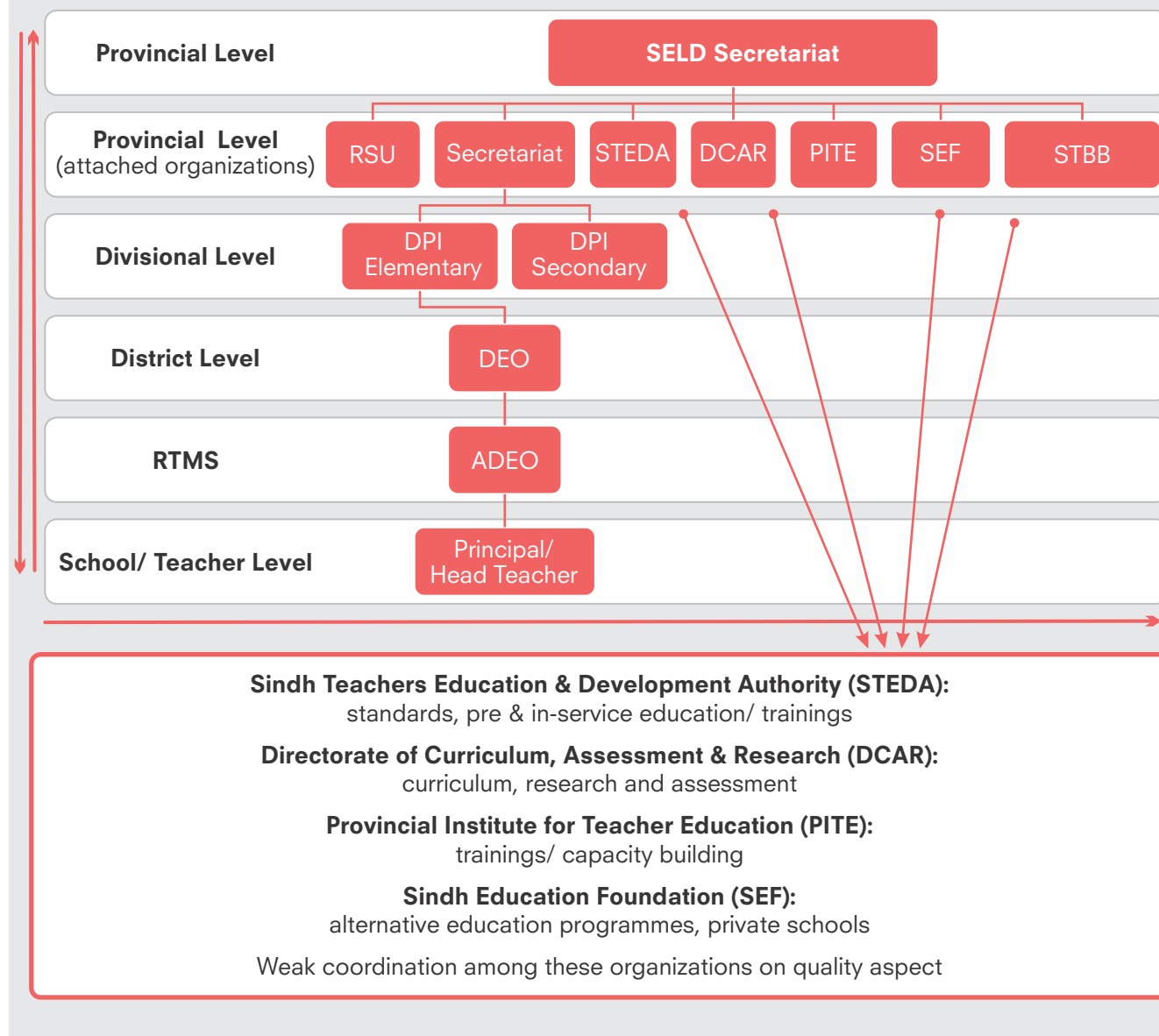
- Process that defines a smooth transition from planning, to execution and then using the same for improvement is missing in standards implementation and quality parameters of education.
- There was virtually no process observed in implementation of standards in Sindh as the standards management/ implementation system was absent. However, standards such as teachers, physical infrastructure, curriculum and textbooks were implemented as they had clear linkage with quality. The processes were ad-hoc and non-scientific and always required a person to push things for implementation.

- The processes for quality implementation were also not very reliable as all the relevant institutions were not part of the process of any particular quality initiative. For example, school monitoring does not capture enough indicators, hence it is unable to communicate to the relevant institution. In fact, ongoing school monitoring processes must inform the PITE, DCAR and textbook board to incorporate feedback in curricula, textbooks and training system.

e. Structural Bottlenecks

In Sindh, the structural bottlenecks are analyzed in the light of the vertical and horizontal structures of the School Education and Literacy Department (SELD), Government of Sindh.

Figure 14: Communication and Coordination in Sindh



Vertical communication

Vertical communication is primarily discussed in two ways; 1) downward flow of instructions / information and 2) upward flow of feedback / information.

Downward flow of instructions

Generally, instructions are generated from the provincial level and directed down to the division and then to the districts, where district education officers implement the same through their Taluka and field level staff. All types of directives/ circulars are sent by the secretariat to the district offices copying divisional offices for implementation.

Upward flow of feedback

In response to the directives/ circulars coming from the top are responded immediately by the lower offices. There is no trend of providing any information other than required or asked by the superior office. On the other hand, the lower level offices must have their own system to collect feedback and provide to the main office or relevant organization responsible for quality or standards.

Horizontal Flow

Analysis of the horizontal flow or coordination among affiliated organizations is extremely important to see the initiatives taken for quality enhancement. In Sindh, the only occasion where all these organizations are gathered is when there is extraordinary situation or some donor agency organizes a meeting on some specific agenda. Otherwise, these organizations hardly gather and share their views that help in improving the quality of education.

During interviews, it was revealed that even STEDA and PITE, which are responsible for a similar kind of work have no mechanism to share their views and improve things.

Similarly, there is no assessment & examination system for grades 5 and 8 as in Punjab, so the assessment findings are not officially shared with any other organization. However, the district level administration conducts examination for grades 5 and 8 with the technical supervision of DCAR. STEDA and PITE have never consulted with such assessment results nor has the DCAR disseminated such findings with STEDA or PITE.

In Sindh, there is no quality education clusters and staff designated for this purpose, so the routine monitoring is not robust as in Punjab. However, field officers and monitoring officers may take some responsibility to measure quality indicators and provide the feedback to STEDA, DCAR and PITE as well as STBB.

Analysis of Education Departments Internal Systems

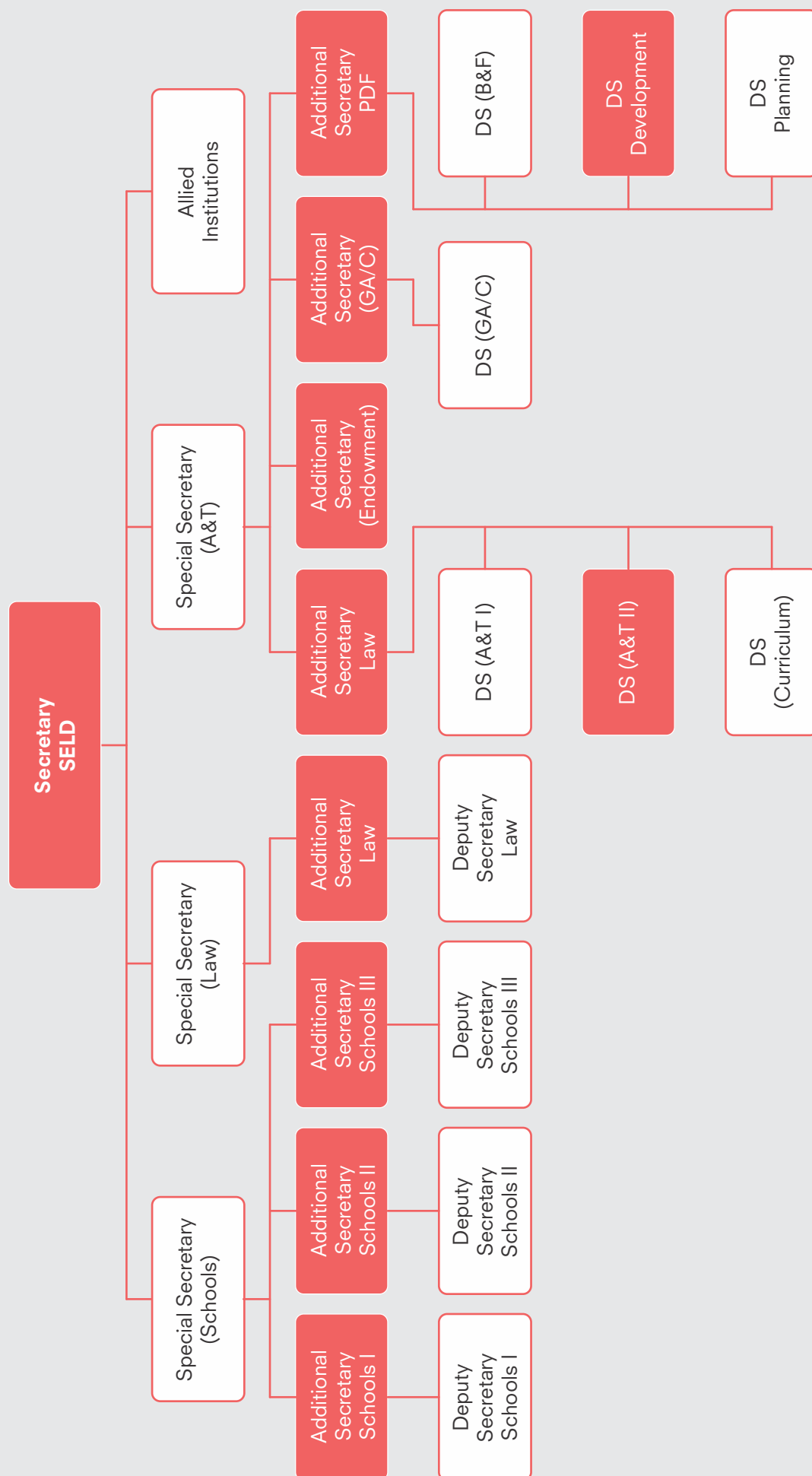
Analysis of internal systems (performance, human resource and information management) of Sindh education department on implementation of quality education revealed some gaps in implementation of the Real Time Monitoring/ Sindh School Monitoring System (SSMS), which is channeled through Reform Support Unit (RSU) and the Directorate of M&E. The existing administrative layer is normally bypassed in implantation of the M&E system, especially with reference to sharing feedback and recommendations for teachers and field staff, which seems non-existent. At least, the M&E Directorate and the RSU should inform field staff and teachers about the results of the regular monitoring and evaluation. These teachers should also be given orientation on the process and significance of the M&E in education so as they could use the same in their routine teaching and learning process.

Further, there are multiple data banks in Sindh and all are operating under different sections/ units. All of them generate periodic reports or need based reports but effective use of these reports to guide the decision makers is lacking. It was felt that there is an urgent need to integrate all the data banks and use it for improvement of the teachers' performance and to rationalize the staff in both administration and teaching cadre.

4) Impact of education departments internal systems and coordination on implementation of MSQE

Impact of education department's internal system is discussed by analyzing the SELD's organogram / administrative structure in the light of the discussion held with respondents:

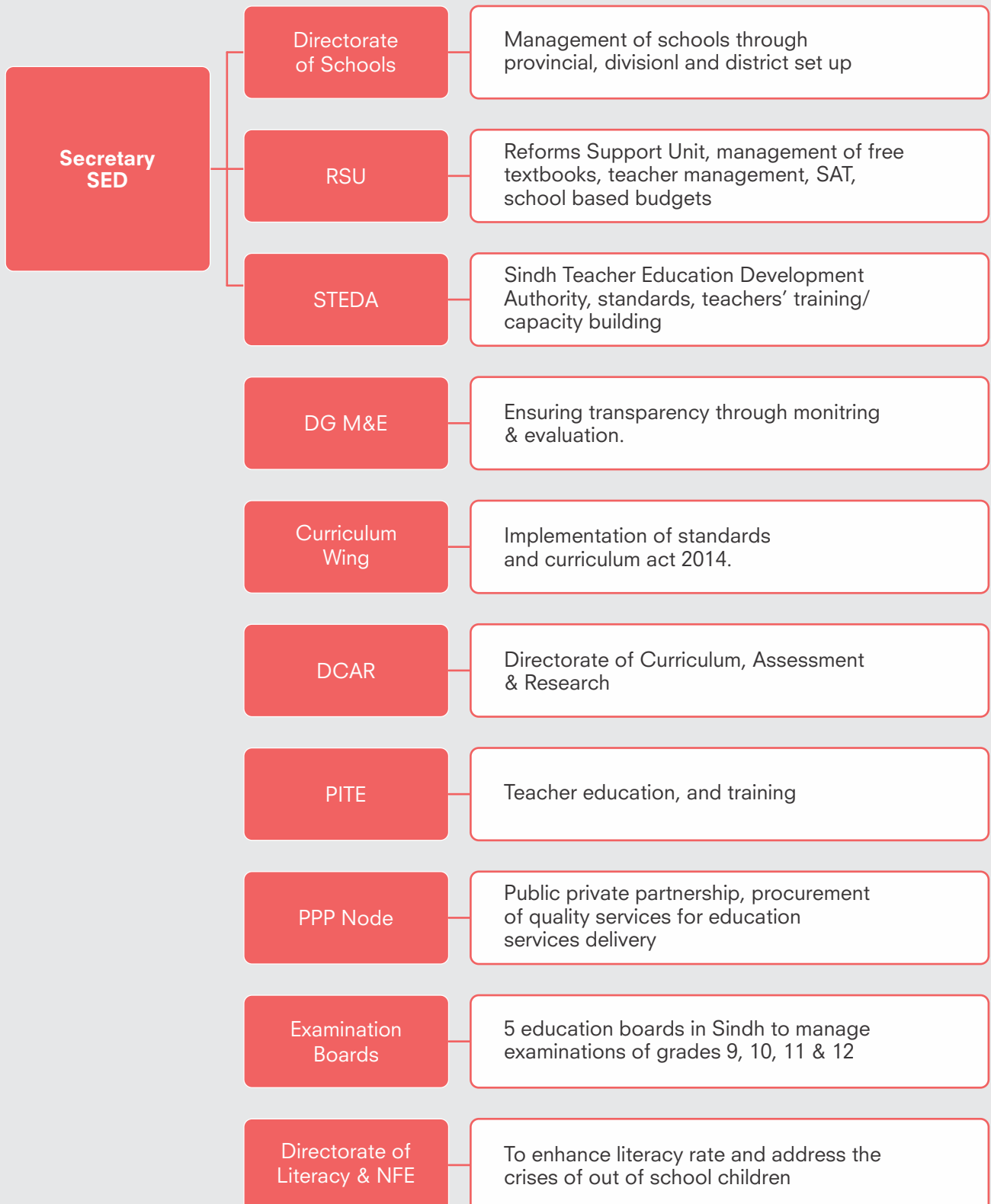
Figure 15: Organogram of SELD



The organogram of the SELD is heavily administrative in nature and there is no position at these levels that manages standards or quality. The only position found is that of the Deputy Secretary Curriculum that deals with one of the allied institutions that is “Curriculum Wing” established under “Sindh School Education

Curriculum and Standards Act 2014”. In response to a question about the technical positions pertaining to quality and/ or standards, the respondents shared that the quality and standards area is managed through allied institutions that operate under the Secretary SELD.

Figure 16: Allied Institutions of SELD¹¹⁹



In allied institutions, there are several institutions that manage the quality functions in Sindh Education. STEDA, Curriculum Wing, DCAR, PITE and examination boards are among the 10 institutions that manage educational quality function varyingly. The Curriculum wing that was established under the act has initiated certain reforms about the curriculum and textbooks jointly with RSU. Similarly, DCAR that required to be restructured and operated under the curriculum wing as per the act, awaits adequate financial and technical support under institutional strengthening. The DCAR, though, has been restructured, but it lacks adequate staff with specialize expertise on assessment, research and curricula. The DCAR could not initiate a proper research on textbook development or standards for textbooks or curricula.

Similarly, PITE has started to dysfunction to an extent after the establishment of STEDA owing to clear demarcation of functions of both institutions. Furthermore, Sindh Government's policy decision to recruit teachers without pre-service education has put a question mark on PITE, whereas CPD model is yet to be unpacked and connected to PITE as an additional or primary responsibility.

In addition, examinations for grade 5 and 8 are still under the directorate of schools whereas district education department is primarily responsible for holding these examinations. Such an arrangement has already raised numerous questions on the quality of the examinations itself, while Sindh Examination Commission (SEC) is yet to be operationalized or institutionalized. The existing examination system has never provided feedback to PITE or DCAR for teachers' professional development.

Although the administrative system in SELD adequately addresses the education quality through various positions and designated functions, but the weak coordination and lack of expert staff and financial resources, the SELD is unable to fully control and manage the educational quality aspect in Sindh. Prevailing disconnects, weak staff capacity and lack of innovative initiatives has restricted the efforts in addressing the quality of education in Sindh.

5) Monitoring Mechanism

a. Available Mechanism

Available mechanism for monitoring in Sindh (SELD) was established in January 2015 under World Bank's Technical Assistance. A full-fledged Directorate for M&E under the leadership of a senior Director General (DG) was established with modern technology-based monitoring system of school teachers' attendance and overall school system. It covers basic profiling of schools, evidence-based information about school HR and infrastructure to prioritize the issues and upgrade

school infrastructure. The M&E Directorate claims that it has controlled teachers' absenteeism and has involved local stakeholders by establishing the District Reforms Oversight Committees (DROC) at district levels. Through Sindh School Monitoring System (SSMS), indicators pertaining to teachers' performance primarily through their attendance, teachers' attendance have increased in Sindh.

In addition, conventional district level education department under District Education Officer (DEO) operates to monitor the schools on regular basis. The Assistant District Education Officers (ADEOs) regularly visit the schools and report accordingly to the DEO.

At the same time, SEMIS (Sindh Education Management Information System) collects basic school information, teachers' profiles and infrastructure and community members related information on annual basis. This data helps in developing annual statistical reports which are used to make policy decisions of allocating school specific budgets and other decisions such as upgradation of schools and rationalization of teachers.

b. Strengths

- The Sindh School Monitoring System (SSMS) has now been upgraded as real time school monitoring that is an android based application to monitor school services especially attendance of learners and teachers. The SSMS has the capacity to operate with more indicators which are being included gradually.
- The monitoring system also has complaints mechanism that allows users to make complaints against the schools. Complaints receiving, analysis and reports are being generated swiftly and decision makers are making policy and operational decisions on the basis of such complaints.

c. Weaknesses

- Indicators that are being monitored are less in number, whereas using the same system, many more indicators relating to school performance can be included, monitored and improved. The system has to be used to its optimum capacity.
- Reporting of SSMS appears to be weak at the moment. However, the M&E directorate is keen to disseminate the reports more widely.
- The SSMS is operating under technical assistance (TA) and requires to be scaled up under regular budget. The SSMS may also be linked closely with district education department to address efficiency issues and economy factor.

6) Analysis of education budget allocation and expenditure (2013-2018)

- The overall budget allocation for the education sector in Sindh has been increasing every year during the last five years. Although a major chunk of the education budget is allocated to current expenditures like salaries, the non-salary and development budget has also seen proportionate increase over the years, which is an indication that government wants to continue its focus on teachers training, improving assessment, curriculum and text books development and providing missing facilities, all contributing to quality education.
- The budgetary allocation for education in Sindh has two heads, i.e. current and development. The recurrent education budget entails the budget allocated for ongoing expenses that occur on a daily basis. Also called the operational budget, this budget includes two types of expenses, i.e. salary and non-salary
- Non-salary disbursements entail operation, maintenance for routine activities of the department and its subordinate offices. At the school level, the non-salary budget includes allocations for items like classroom consumables, repair of furniture and other petty repairs in schools. Sometimes this budget is routed through school-based governance platforms such as PTC's, SMCs, PTSMCs etc.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise budget allocation under the current and development heads.

remained between 19-22% throughout these five years, the highest being 22% in 2013-14 and lowest being 19% in 2017-18.

- Over the last five years, non-salary budget received the lowest proportion of the education budget as compared to the development and salary budget.
- Major portion of the recurrent budget is absorbed in salaries and related expenditure. The salary budget for education has increased by 21% during the five years, however as a percentage of total education budget it has been on a decline. The non-salary budget has increased by 83% during the five years. In the Punjab education budget.
- The share of development budget for education has remained steady at around 10% of the total education budget during the five years.
- The Government of Sindh earmarked a budget of Rs. 1.72 billion for teacher training in 2016-17, registering a decrease of 3 percent compared with the allocated budget in 2015-16. Out of the total teacher training budget for 2016-17, Rs. 919 million (53 percent) was earmarked for pre-service teacher training while 47 percent of the budget (Rs. 799 million) was allocated for in-service teacher training.
- A budget of Rs. 200 million was earmarked for Standardized Assessment Test (SAT) in 2016-17, showing no increase compared with previous year's allocation. For learning assessments under Provincial Education Assessment Centre (PEACE), a budget of Rs. 66 million was earmarked in 2016-17. The same budget was apportioned for PEACE in 2015-16.

Table 17: Sindh Education Budget Allocation 2013-18

Sindh Education Budget Allocation (Rs. in Billion)					Total Provincial Budget (Rs. in Billion)	Percentage of Total Provincial Budget
Year	Current		Development	Total		
	Salary	Non-Salary				
2013-14	94 (70%)	24 (18%)	17 (12%)	135	617	22%
2014-15	99 (72%)	28 (20%)	11 (8%)	138	686	20%
2015-16	104 (70%)	31 (21%)	13 (9%)	148	739	20%
2016-17	114 (65%)	44 (25%)	18 (10%)	176	869	20%
2017-18	-	-	-	202	1,043	19%

- There has been a steady increase in the total education budget for Sindh. The total education budget for Sindh was Rs. 135 billion in 2013-14 which increased to Rs. 202 billion in 2017-18, an increase of 50% in five years. The Sindh education budget as a percentage of the total budget
- In 2016-17, a budget of Rs. 2 billion was allocated for provision of free textbooks to students. This showed an increase of 15 percent (Rs. 260 million) compared with the apportioned budget for free textbooks in 2015-16.

The table below (source: Public Financing of Education in Pakistan 2010-11 to 2016-17, Institute of Social and Policy Sciences and Pakistan Economic Survey 2018-19) shows the year wise education expenditure under the current and development heads in Sindh.

- For all five years the education budget was under-utilized. The average underutilized amount comes to Rs. 27 billion per year. This reflects systemic weaknesses in budget estimation, delayed releases against budget allocations and capacity issues

Table 18: Sindh Education Budget Expenditure 2013-18

Sindh Education Budget Expenditure (Rs. in Billion)					Overspending/ Underspending (Rs. In billion)
Year	Current		Development	Total	
	Salary	Non-Salary			
2013-14	87 (83%)	12 (11%)	6 (6%)	105	(-30)
2014-15	90 (83%)	12 (11%)	7 (6%)	109	(-29)
2015-16	102 (76%)	23 (17%)	10 (7%)	135	(-13)
2016-17	-	-	-	147	(-29)
2017-18	-	-	-	166	(-36)

- Like increase in allocation, the expenditure on education in Sindh also increased over the last five years. The total education expenditure for Sindh was Rs.105 billion in 2013-14 which increased to Rs. 166 billion in 2017-18, an increase of 58% in five years.

within the Department of Education.

- A major portion (around 80%) of the recurrent expenditure was on salary side.

MAJOR BOTTLENECKS IN MAINSTREAMING QUALITY (CONSOLIDATED)

5. MAJOR BOTTLENECKS IN MAINSTREAMING QUALITY (CONSOLIDATED)

The major bottlenecks in mainstreaming quality with respect to MSQE in the education system are as under:

- The study noticed that majority of the respondents from the public and private education sector at the provincial/ area level were having little knowledge of the education quality standards spelled out in the MSQE document. It was mainly due to the fact that most of them had neither seen nor read the document.
- It was observed that the MSQE document disseminated by MOFEPT to provinces/ areas did not trickle down to the lower level like education staff at divisional or district level or teachers at school level. No significant effort has been undertaken by the provincial area/ governments for training and orientation of the education staff on MSQE and its implementation.
- The representatives of the private education providers were also ignorant about MSQE and showed apprehension towards lack of consultation and coordination during its development and implementation phase.
- Due to absence of any implementation framework/ system and subsequent monitoring mechanism by MOFEPT, mainstreaming of MSQE at the provincial/ area level is slow. The study also observed that there is no dedicated body available at national or provincial level to implement and monitor the quality standards. As suggested in NEP 2009, the National Authority for Standards of Education has still not been established.
- The provinces/ areas have not made any significant progress in develop quality benchmarks for learners, teachers, curriculum and textbooks, assessment and school environment. In the absence of any benchmarks, it is difficult to assess the existing work or progress of education department and allied institutions, meeting any minimum standards, despite their claim of following MSQE partially or in entirety.
- As per MSQE document, the responsibility of MSQE implementation in provinces/ areas was entrusted to its respective TWGs, which were also part of the development process. However, during the study, it was observed that the TWGs were dormant in almost all provinces/ areas. Resultantly, no practical progress on drafting implementation priorities, plans, procedures and monitoring mechanisms for implementation of MSQE was carried out.
- While prioritizing the three factors i.e. teachers, physical facilities and school environment causing low performance at school level, 85% federal respondents, 80% KP respondents, 76% Balochistan respondents, 78% AJK respondents, 68% GB respondents, 70% Punjab respondents and

75% Sindh respondents thought that teachers were primarily responsible for good or bad performance at school level. A few quoted the studies conducted by AEPAM which also establishes the same fact that student's attainment is dependent upon quality teachers. A good teacher can lift the standard of education and achieve required learning outcomes. On the contrary, an unqualified, demotivated and untrained teacher can wreak havoc with the learning process. Teachers low qualification, lack of training in pedagogy and content knowledge were cited as main reasons for low performing teachers. 10% federal respondents, 13% KP respondents, 12% Balochistan respondents, 12% AJK respondents, 22% GB respondents, 20% Punjab respondents and 15% Sindh respondents thought physical facilities were responsible for low performance, particularly in girls' schools. Similarly, 5% federal, 7% KP respondent's, 12% Balochistan respondents, 10% AJK respondents, 10% GB respondents, 10% Punjab respondents and 10% Sindh respondents thought that school environment (comprising teachers, physical facilities, teaching methodologies and parents' role combined) had an impact on low performance.

- It was observed that some of the provincial education departments and allied institutions directly dealing with quality aspect of education, lacked adequate and trained staff which is affecting efficiency and quality service delivery. For example, against the sanctioned 140 posts in KPTBB, 50 (36%) are lying vacant whereas against the sanctioned 414 post in PCTB, 170 (41%) are lying vacant. Similarly, in GB, the curriculum and teachers training is being handled by one Director, similarly a Deputy Director EMIS is also holding additional charge of M&E. Trainings of M&E and EMIS staff in AJK and GB has not been prioritized due to lack of financial resources.
- The study also found out that there is a significant shortage of teachers in at least two provinces, which is proving to be an impediment in providing quality education at school level. Punjab has a shortage of 45,795 teachers (10% of sanctioned posts) while 7,500 teachers (5% of sanctioned posts) are needed in KP. More than 50% primary schools in Sindh and Balochistan have single teachers and they are not trained in multi-grade teaching; therefore, recruitment and training of teachers have to go hand in hand. Most of the provincial education departments are aware about these critical gaps and have initiated recruitment of additional teachers through NTS and conducting relevant trainings (6-9 months) in pedagogy and content knowledge. However, since both processes are time-consuming, the gap is likely to continue. Another factor contributing to this gap is the number of teachers retiring every year. For example, in KP, on an average 6,000 teachers are also retiring every year.
- One of the bottlenecks in achieving quality education at school level is the presence of thousands of unqualified and incapable teachers, recruited on political grounds. Many respondents shared that political interference during successive governments has affected the performance of the education department in each province/ area. Being the largest government department, it is relatively easy for elected members to give political favors and adjust people in this department. Over the years, curriculum has been revised drastically, textbooks and SLO's have become difficult and activity-based learning is being promoted. Unqualified teachers hired on political grounds are finding it hard to cope with the changes and this is directly affecting the quality of teaching and learning in their respective schools.
- The study observed weak and ad hoc inter departmental coordination at provincial/ area level between education departments/ allied institutions. In the absence of a functional TWG, there is no other coordination forum/ mechanism available for regular meetings and sharing progress. Most of these departments/ institutions are pursuing their own individual plans and goals as per their mandate and in accordance with provisional government vision and directions, without feeling the need to make combined efforts for achieving quality education.
- While analyzing the vertical and horizontal flow of communication and information flow within the education department, it was observed that generally, instructions are generated from the provincial level Secretariat or Directorate and directed downwards to the division and then to the district, where district level officers implement the same through their Tehsil and lower/ field level staff. This mechanism works well for furnishing quantitative figures but where policy implementation is required, it becomes difficult for the subordinate staff to use their own judgments and understanding in the absence of clear guidelines from the top. Upward flow of information generally happens in response to directives/ orders/ circulars only concerning some quantitative data. The trend to inform higher authorities with any information that would result in quality enhancement is rare. Horizontal coordination among assessment, examination, textbook and curriculum bodies responsible for quality related functions is neither frequent nor objective. It happens mainly to collect information to satisfy the inquiries of higher authorities or is triggered by the donor agencies especially those working on quality uplift.
- The EMIS sections in the provincial/ area education departments are mostly capturing the quantitative data at school level with respect to physical facilities, teachers and student's attendance. The qualitative aspects like grade 2 and 4 assessment,

teachers' pedagogical skills and content knowledge etc. are not captured adequately and regularly. This is mainly due to the weak capacity of EMIS/ school monitoring staff to conduct such assessments or lack of future planning on how to use the qualitative data. The study observed that the EMIS and M&E staff in almost all federating units require regular capacity building trainings, since the entire education planning is based on the authentic quantitative and qualitative data collected by them.

- The study observed that assessment of private schools is often ignored by EMIS section/ department in its annual school census or other informal data collection exercises. By doing so, 38 percent of students enrolled and 49 percent of teachers⁵⁸ who work in these schools are excluded from the system. The data on the standards for private teachers, learners, curriculum, textbooks, learning environment thus remains undocumented.
- While analyzing the education budgets from 2013-2017, it was observed that some of the federating units (for example Sindh, Punjab and KP) were not able to consume the entire education budgets. This trend of unspent budget was reflected consecutively for a couple of years, pointing to either weak capacity of education staff in realistic planning and budgeting or time delays in funds releases and utilization.
- Although the funds allocated for education sector at the national level has remained stationary at around 2 percent of GDP during 2013-2017, a positive trend has been witnessed with increase in volume of funds available for education, with growing size of the economy. At federal level, it has increased by 66% with increased allocation for assessment and teachers training bodies. Likewise, the expenditure on education in ICT/ Federal area has also increased over the last five years. The total education expenditure for ICT/ Federal was Rs. 86 billion in 2013-14 which increased to Rs. 127 billion in 2017-18, an increase of 48% in five years. It would be unjust to say that quality of education has not improved despite increase in allocation and expenditure. Although, the change may not be drastic but it is gradual and happening.
- The total education budget of Khyber Pakhtunkhwa was Rs. 97 billion in 2013-14 which increased to Rs. 128 billion in 2017-18, an increase of 32% in five years. The Khyber Pakhtunkhwa education budget as a percentage of the total provincial budget remained between 21-28 % throughout these five years. The salary budget for education has increased by 47% during the five years. The non-salary budget has received substantial increase as

it has gone up by 60% during the five years. The development budget fell from Rs. 30 billion in 2013-14 to Rs. 24 billion in 2016-17. For teachers training, a total budget of Rs. 1.1 billion was apportioned in 2016-17. It showed a decrease of 2% as compared with the allocated budget in 2015-16. For provision of free textbooks, Rs. 2.5 billion was kept in the provincial ADP of 2016-17. Like increase in allocation, the expenditure on education in Khyber Pakhtunkhwa also increased over the last five years. The total education expenditure for Khyber Pakhtunkhwa was Rs. 80 billion in 2013-14 which increased to Rs. 143 billion in 2017-18, an increase of 79% in five years. From 2013-2017, the development expenditure was around 20% of the total education expenditure. However, it dropped significantly to around 12% in 2017-18.

- The total education budget of Balochistan was Rs. 34 billion in 2013-14 which increased to Rs. 52 billion in 2017-18, an increase of 51% in five years. The Balochistan education budget as a percentage of the total provincial budget remained between 16-20% throughout these five years. Major portion of the recurrent budget is absorbed in salaries and related expenditure. The share of development budget has dropped from 29 percent of the total budget in 2013-14 to 6 percent in 2016-17. For teachers training, a budget of Rs. 953 million was allocated in 2016-17 which was 7% more than the previous fiscal year. For data management, Rs. 35 billion was earmarked for Balochistan Education Management Information System (BEMIS). This showed a significant increase of Rs. 9 million compared with the allocated budget in 2015-16. The 2016-17 education budget of Balochistan included Rs. 1.5 billion for health and medical education. This showed an increase of Rs. 197 million (15 percent) compared with the allocated budget for this purpose in 2015-16. Like increase in allocation, the expenditure on education in Balochistan also increased over the last five years. The total education expenditure for Balochistan was Rs.34 billion in 2013-14 which increased to Rs. 53 billion in 2017-18, an increase of 56% in five years. Except from year 2014-2016, the allocated budget was almost entirely utilized.
- The total education budget of AJK was Rs. 13 billion in 2013-14 which increased to Rs. 18 billion in 2017-18, an increase of 38% in five years. The AJK, education budget as a percentage of the total AJK budget remained between 21-23% throughout these five years.
- The budgetary allocation for education in GB as a percentage of total GB budget is lowest among all provinces, at around 13% as compared to 19-24% in other provinces. As per GB Education Strategy

58. Alif Ailaan Factsheet, Private and Government schooling in Pakistan

2015-2030, the allocation for education increased from Rs. 17 billion (2011-16) to Rs. 23 billion (2016-21).

- The total education budget of Punjab was Rs. 232 billion in 2013-14 which increased to Rs. 345 billion in 2017-18, an increase of 49% in five years. The Punjab education budget as a percentage of the total provincial budget remained between 18-26% throughout these five years. The share of development budget for education has increased from 14 percent of the total budget in 2013-14 to 21 percent in 2016-17. For teachers training, a total budget of Rs. 4.8 billion was apportioned and Rs. 20 billion was earmarked for Programme Monitoring and Implementation Unit (PMIU), in the education budget of 2016-17. To assess and examine learning achievements of students in the province, particularly grade 5 and grade 8 students, a budget of Rs. 1 billion was allocated for Punjab Examination Commission (PEC) in 2016-17; highlighting an increase of 10 percent compared with the allocated budget of Rs. 908 million in 2015-16. A budget of Rs. 8 billion was earmarked in 2016-17 for reconstruction of dangerous school buildings. This budget slightly declined from the allocated budget of Rs. 8.5 billion in 2015-16. The total education expenditure for Punjab was Rs. 212 billion in 2013-14 which increased to Rs. 341 billion in 2017-18, an increase of 61% in five years. For all five years the education budget remained under-utilized.
- The total education budget of Sindh was Rs. 135 billion in 2013-14 which increased to Rs. 202 billion in 2017-18, an increase of 50% in five years. The Sindh education budget as a percentage of the total provincial budget remained between 19-22% throughout these five years. The share of development budget for education has remained steady at around 10% of the total education budget during the five years. The Government of Sindh earmarked a budget of Rs. 1.72 billion for teacher training in 2016-17, registering a decrease of 3 percent compared with the allocated budget in 2015-16. For learning assessments under Provincial Education Assessment Centre (PEACE), a budget of Rs. 66 million was earmarked in 2016-17. The same budget was apportioned for PEACE in 2015-16. In 2016-17, a budget of Rs. 2 billion was allocated for provision of free textbooks to students. This showed an increase of 15 percent (Rs. 260 million) compared with the apportioned budget for free textbooks in 2015-16. The expenditure on education in Sindh also increased over the last five years. The total education expenditure for Sindh was Rs. 105 billion in 2013-14 which increased to Rs. 166 billion in 2017-18, an increase of 58% in five years. For all five years the education budget was under-utilized. The average underutilized amount comes to Rs. 27 billion per year. This reflects systemic weaknesses in budget estimation, delayed releases against budget allocations and capacity issues within the

Department of Education.

o **Curriculum and Textbook Development**

- At federal level, NCC has been established by MOFEPT in 2014 to steer the process of curriculum development on a national level. It is providing professional and technical expertise to the provinces/ regions in curriculum development up to higher secondary levels. National Curriculum Framework has been developed in 2017 and disseminated by MOFEPT among provinces for adoption.
- In KP, MSQE standards for curriculum and textbooks have been adopted by KPTBB for developing new textbooks or revising existing text books. KPTBB has developed 236 titles (210 text books and 26 work books) so far. Before 2016, textbooks were developed by KPTBB on the basis of 2006-07 curriculum. However, in September 2016 a road map was developed with KESP and DCTE support for revision of all text books from KG to Grade 12 in phases and in accordance with the standards defined for textbooks in MSQE. KPTBB has successfully revised textbooks from grade 1-10. KP Government is spending around Rs. 3.5 Billion annually for printing of around 75 million quality textbooks, provided free of cost to the students.
- In Balochistan, standards for curriculum and textbooks have been developed by BOC and BTBB. The curriculum and textbook standards included in MSQE are adhered in the standards already developed by them.
- In AJK, the AJK Text Book Board. (AJKTBB) which was also involved in development of the standards has fully complied with the textbook standards. Standard Operating Procedures (SOPs) have been drafted for implementation of the text book standards and all technical staff of AJKTBB has been oriented about those SOPs. Based on the SOPs two rounds of textbook development has also been completed. DCRD is using the 2006 curriculum and could not revise the curriculum due to financial constraints.
- There is no dedicated curriculum body at GB. All government schools of GB are using textbooks developed by Punjab Textbook Board. Therefore, the standards adopted by Punjab Textbook Board are indirectly followed by GB. GB Education Strategy includes establishment of Curriculum Development and Research Centre (CDRC) for Gilgit-Baltistan to adapt or develop textbooks and/or other teaching-learning materials according to local needs. However, not much progress has taken place on this front.

- ♦ In Punjab, PCTB has been following the MSQE to a significant extent. Previously, it was following the curriculum standards' set in 2006. PCTB has introduced provincial scheme of studies in 2017 covering all subjects from primary to intermediate level based on the standards defined under MSQE.
- ♦ In Sindh, DCAR has adopted the MSQE, especially those relating to standards for curriculum, textbooks and learners. DCAR has implemented these standards while developing accelerated education curriculum for primary level, which was developed by the Directorate of Literacy & NFE with technical assistance of JICA. STBB has recently developed textbooks and guides for teachers under Accelerated Education Programme and all these standards were adhered to in developing, reviewing, improving and approving the textbooks. Engagement of subject specialists, processes and principles to follow were derived directly from these standards.
- **Assessment and Examination**
 - ♦ At federal level, AEPAM, NEAS, NCHD are following the MSQE to a significant extent in performing their functions. At federal level, NEAS with support from provincial assessment centers has been conducting assessments for grade 4 and grade 8 students in Mathematics, Urdu, English, Science and Social Studies. After conducting each assessment, NEAS shares the findings with relevant stakeholders for key decisions making.
 - ♦ In KP, some aspects of quality education are also covered under Khyber Pakhtunkhwa Education Sector Programme (KESP) (2012-2020). KESP is funded by DFID and implemented through Adam Smith International (ASI) to help the Government of Khyber Pakhtunkhwa realize the objectives of its Education Sector Plan. KESP has provided technical assistance to DCTE including its restructuring and formation of an assessment wing which was missing previously. KESP has also supported DCTE for assessment of teachers for three years i.e. 2015-2018. From 2019, DCTE is doing the assessment of teachers independently for the first time. The DCTE staff has been trained in sampling, assessment tool development, item bank development, SLO's, data entry and analysis etc. as per assessment standards under MSQE.
 - ♦ In Balochistan, BEAC has conducted SLO based assessment for grade 5 and 8 using the learner standards.
 - ♦ In Punjab, standards for assessment are being followed by PEC to a significant extent. PEC's assessment wing has assessment experts, psychometricians and subject specialists and they regularly refer to these standards while preparing material for assessment. Each item is field tested on 350 students, which is a standard being followed by PEC. Statistical analysis of each item is also carried out before its finalization. Similarly, 100,000 papers are tested for marking as a standard.
- **Teachers Training**
 - ♦ In Khyber Pakhtunkhwa, PITE was found to have strong understanding of teacher's standards spelled out in MSQE and have embedded the same in designing training programmes for teachers (primary, middle and higher secondary level), teacher educators and developing different training manuals. PITE has also placed the copy of MSQE on its website. Even before MSQE, National Professional Standards for Teachers 2009 (10 standards) were implemented vigorously in the province. PITE has also developed standards for Teachers Education with GLZ's technical assistance in 2018. KESP has been providing technical assistance to PITE in developing contents, manuals, modules for teachers by following National Professional Standards for Teachers 2009 (10 standards) as well as those in MSQE. KESP has also assisted PITE in designing the Continuous Professional Development (CPD) Programme for teachers including training manuals and modules. To overcome, the teacher's shortage, 55,000 - 60,000 teachers have been hired by KP government through NTS since 2014.
 - ♦ In Balochistan, PITE has used MSQE (teachers' standards) in contextualizing and improving teachers' training system. It was heartening to note that Balochistan Government has been recruiting teachers on regular basis and have substantially improved the student-teacher ratio at all levels, such as student-teacher ratio at primary is 23:1, at elementary is 16:1 and in secondary education is 18:1. The student-teacher ratio in Balochistan is probably the best in Pakistan.
 - ♦ In GB, the standards defined in Gilgit Baltistan Education Strategy 2015-30 for teachers under the broader category of quality and relevance and governance and management are being followed by the Directorate of Education, GB.

- ♦ In Punjab, QAED which has the mandate of training teachers in the province has developed its own standards for teachers training and has been following that. It trains on an average 210-240 teachers per annum nominated by SED. The SED has taken a crucial step towards teacher certification and licensing directly related to quality education. Punjab Education Standards Development Authority (PESDA) bill has been drafted and sent to the provincial cabinet for approval. The rationale behind this policy initiative is to formulate a system that rewards excellent practice, innovation, attracts high achievers to the profession and sustains motivated teachers.
 - ♦ In Sindh, STEDA has developed standards and rubrics at their own for the accreditation of Initial Teacher Education (ITE) that is termed as early childhood education. STEDA has completed one cycle of accreditation of ITE institutions. PITE has referred to MSQE for updating the training manuals. It has also referred to these standards for developing the CPD model.
- o **School Environment**
- ♦ In Khyber Pakhtunkhwa, missing facilities are being provided by E&SED in line with SIPs developed for each school. Priority for provision of missing facilities has been the girl's schools. For the implementation of SIP's, KP Government provided Rs 9 Billion as conditional grants in 2017-18 whereas approx. Rs. 21 billion have been spent in this category since 2014. As per available statistics, 96% schools now have toilet facility. 95% have boundary wall and 91% have water availability. 10,000 play areas (comprising four facilities i.e. slide, monkey bar, swing, see saw) have been constructed in 10,000 primary schools during the last 5 years. To expose students to the latest ICT equipment for learning, E&SED has provided interactive boards/ smart boards to all 600+ higher secondary schools in the province. For greater transparency, the school level civil works are closely supervised by the respective Parent Teacher Council (PTC). Funds are transferred for this purpose to the respective PTC bank account. The capacity of PTC members to monitor physical improvement in schools and financial management has been built by the provincial government.
 - ♦ In Balochistan PPPIU is partially implementing the MSQE standards. EMIS section also refers to the MSQE school learning environment standards, but only physical standards at school level can be used in their system.
 - ♦ In Punjab, SED has provided missing facilities like boundary wall, class rooms, furniture, and drinking water to 95% schools.
- ♦ In Sindh, most of the physical elements of the school learning environment are included in the tools/ questionnaires that are administered annually and on monthly basis respectively by EMIS and M&E directorate.
- o **School Monitoring**
- ♦ Most of the monitoring functions under MOFEPT are performed using the 'Project Monitoring & Education System (PMES)' which is updated on monthly basis at federal level.
 - ♦ In KP, one of the biggest achievements of KESP has been establishment of an Independent Monitoring Unit (IMU) in March 2014 to collect quantitative data about each school every month. It mostly collects quantitative data but from next year qualitative data will also be captured.
 - ♦ In Balochistan, the system of schools monitoring is known as Real Time School Monitoring System (RTSMS). PPIU and EMIS are responsible entities for RTSMS, which captures both quantitative and some qualitative data about schools.
 - ♦ In AJK, the EMIS section performs the school monitoring to collect mostly quantitative data. Various statistical reports are generated and shared with stakeholders every year.
 - ♦ In GB, EMIS section performs the school monitoring to collect quantitative and qualitative data. The captured data includes student's enrollment, attendance, teacher's attendance, class room observation, lesson planning, assessment results sheet of each school, facilities and equipment available in each school.
 - ♦ In Punjab, Program Monitoring and Implementation Unit (PMIU) acts as the monitoring wing of SED. It monitors 12 indicators at school level, most of them are quantitative. The MEAs collect all their data through tabs provided by SED along with pictures and transmit the data online to PMIU. Realtime data on all indicators and all schools is available on the PMIU website for quick and efficient decision making. Due to improved monitoring students' attendance has increased from 80% to 92% which teachers attendance has improved to 95%.
 - ♦ In Sindh, Directorate General M&E office has been established within SELD for school monitoring. The robust monitoring system is used which covers basic profiling of schools,

evidence-based information about school HR and infrastructure to prioritize the issues and upgrade school infrastructure. A per M&E, it has controlled teachers' absenteeism and has involved local stakeholders by establishing the District Reforms Oversight Committees (DROC) at district levels. Through Sindh School Monitoring System (SSMS), teachers' attendance has also improved. The Sindh School Monitoring System (SSMS) has now been upgraded as real time school monitoring that is an android based application to monitor school services especially attendee of learners and

teachers. The SSMS has the capacity to operate with more indicators which are being included gradually. At the same time, SEMIS (Sindh Education Management Information System) collects basic school information, teachers' profiles and infrastructure and community members related information on annual basis. This data helps in developing annual statistical reports which are used to make policy decisions of allocating school specific budgets and other decisions such as upgradation of schools and rationalization of teachers.

RECOMMENDATIONS

6. RECOMMENDATIONS

To mainstream MSQE and achieve quality education as per SDG-4, the following immediate, short term and long term measures/ actions are proposed:

6.1 Immediate Measures (within 1 year)

- The Technical Working Groups (TWG) should be reactivated and tasked to develop detailed standards and implementation guidelines (as recommended under MSQE) for teachers, learners, curriculum, textbooks, examination and assessment and school environment in their respective province/ area, by involving experts from public and private sector and technical support from MoFEPT.
- A set of uniform quality standards and implementation guidelines applicable throughout the country should be derived from these standards (developed by provinces/areas) and agreed upon by all federating units in the IPEMC meetings. For wider comprehension, these common quality standards and associated guidelines should also be translated into Urdu and regional languages.
- A series of capacity building trainings of all key education stakeholders (public and private) in each federating unit on commonly agreed education standards should be arranged by the federal and provincial governments.
- The trainings should be followed by development of detailed Action Plans for implementing the uniform standards by education departments in their respective provinces/ areas. The professional organizations involved in curriculum development, textbooks development, teachers training, assessment should develop their own action plans.
- The Secretary Education should oversee the implementation of Action Plans in their respective provinces/ areas besides carrying out coordination with various departments/ organizations within the province as well as MoFEPT. Provinces/ areas should share quarterly progress with MoFEPT as well as in the IPEMC meetings.
- The shortage of teachers must be met on urgent basis through accelerated induction of teachers through NTS and training for improved learning outcomes. More teachers would improve the student-teacher ratio (STR) and students will have a better chance of interaction and hence have a

better teaching learning process. Currently, the average national STR for pre-primary level is 19, primary is 32, middle is 21 and upper secondary is

23. It needs to be brought down significantly to around 15.

6.2 Short Term Measures (1-3 years)

- A baseline study should be conducted in each province/ area (covering public and private schools) according to the uniform quality standards developed and agreed by provinces/ areas, in order to have some data available for measuring the future progress on quality indicators. The EMIS sections and teachers should be trained and involved in such exercise.
- A quarterly review of progress on implementation of standards should be carried out on rotation basis in each province/ area. The progress and obstacles should also be discussed in the IPEMC meetings.
- Federal and provincial education departments in collaboration with relevant teachers training institutions should make teacher guides and other open educational resources available on-line for teachers through a portal like <https://elearn.gov.pk/>
- Multi grade teaching is a reality, especially in rural area schools. More than 50% primary schools in Sindh and Balochistan have a single teacher. Teachers training institutions should train all newly hired teachers in multi-grade teaching.
- Enrollment campaigns should be intensified by involving parents, community elders, prayer leaders etc. The National Educational Policy Framework 2018 launched by the Ministry of Federal Education and Professional Training in November 2018 also prioritizes enrolment of 25 million out of school children.⁵⁹ National Commission for Human Development (NCHD) and Basic Education Community School (BECS) can also be involved for promoting literacy and enrolling out of school children.
- As per Pakistan Education Statistics 2016-17, private educational institutions are serving sizeable number of students (36%). While acknowledging the contribution of private schools in imparting education to large number of schools going children. However, the Government should bind private schools to enroll at least 10% children belonging to poor families. Some financial incentive should also be offered to poor for enrolling their children.
- Capacity building trainings should be regular feature for the staff of education department, particularly planning and budgeting, at the provincial/ area and district level for accurate and realistic planning and budgeting. Similarly, the EMIS and M&E staff should also impart regular trainings to keep them abreast about the latest tools and approaches used in data collection (quantitative and qualitative) and its analysis. The general monitoring / follow up tools (questionnaires) used by M&E and EMIS sections must be updated and aligned with MSQE by including both qualitative and quantitative data formats.
- The M&E and EMIS sections should collect data of public and private schools on a regular basis, followed by analysis and generation of various quantitative and qualitative reports. These reports should be shared with the concerned individuals/ offices for effective planning and decision making.
- Cumbersome procedures for release of payments and utilization of education budgets need to be eased out so that the education departments are able to utilize the entire budget amounts and funds are not lapsed or allocated to other sectors. This also entails close coordination among various government departments.
- New formal schools need to be constructed to improve access, particularly for girls. However, for optimum utilization of available infrastructure, double shifts should also be introduced in all schools where sufficient number of students are available. Additional teachers and staff should be recruited with corresponding budget allocation.
- Additional classrooms need to be constructed in schools where pupil-classroom ratio (PCR) is high. This means with more classrooms there would be lesser number of students in each classroom and teacher would be able to focus more on the needs of each student. The average national PCR for primary level is 38, middle is 33 and upper secondary is 43.
- A mechanism for regular interaction between various units/ sections of the education department focusing on improving quality, needs to be devised.

59. The News <https://www.thenews.com.pk/print/415623-ministry-initiates-several-projects-for-uplift-of-education-sector>

- The assessment & examination related organizations (which vary in each province/area) should carry out assessment for grade 4/5 and 8 and develop analytical reports that should depict geographical and subject wise assessment reports to inform policy, curricula, textbooks, and training & education programs in the province. At the same time organizations responsible for curricula, textbooks, in-service training and pre-service education must use the assessment findings and improve these areas. This can only happen through objective coordination among these organizations to enhance the quality of education in the provinces/ areas.
- The Government should revitalize the School Management Committees (SMCs) in each school and arrange frequent trainings on school management for its members. Besides, school management and parents, members of civil society should also be made part of the SMC, for improved advocacy and connectivity with the donors.
- The government communication system needs to be eased out through ICT/ emails and mobile applications for quick sharing of information and decision making.

6.3 Long term Measures (3-7 years)

- The budgetary allocation for education sector has remained static around 2% of GDP during the last five years, with a big chunk (>75%) being spent on recurrent heads mainly salaries, leaving a small amount (about 10-15%) as development budget for improving access i.e. construction of new education facilities and improvement of existing school infrastructure, both contributing towards enrollment and retention. Substantial increase in education sector budget is required from present 2.2% of GDP to minimum 4% of GDP at national level and minimum allocation of 25% total budget of provinces/areas, if Pakistan is to achieve SDG-4 targets.
- Establishment of a national standards authority: The Government should establish a dedicated body i.e. 'National Authority for Standards of Education' for developing and implementing uniform education quality standards across the country. Such body was also suggested in the NEP 2009. The MOFEPT should take a lead for its formulation in consultation with the provincial/ area education departments. The provincial/area chapters should also be established for concerted efforts in standards implementation.
- To make the teaching and learning process more interesting and discourage rote learning, the use of Information and Communication Technology (ICT) should be promoted. For this purpose, smartboards/ interactive screens with internet should be made available on a larger scale in all government and private schools. Similarly, video lectures and exercises based on uniform single curriculum currently being focused by the government should be developed so that the dependence on books only for seeking knowledge is reduced and students can also turn to other digital sources. As per Pakistan Telecommunication Authority⁶⁰ (PTA) there are 162 Million cellular subscribers and 71 Million 3G/4G subscribers in the country. Use of smart phones and tablets to access such lectures should also be promoted.
- Teacher certification and licensing system: Although induction of teachers in education department in most provinces is being carried out through NTS, a system like teacher certification and licensing that rewards excellent practice, innovation, attracts high achievers to the profession and sustains motivated teachers, needs to be developed and implemented in all provinces/ areas. Some rudimentary work on such system has already been carried out in Punjab and Sindh which can be further streamlined and replicated in other federating units.

6.4 Policy Dialogue-Comments from Participants

A policy dialogue was held on August 22, 2019 at MoPD&R Auditorium Islamabad to invite comments from participants on the findings and recommenda-

tions of the study. The event was attended by over 35 representatives (list attached as Annex-5) from public and private sector organizations working in the

60. <https://www.pta.gov.pk/en/telecom-indicators>

education sector. The event was presided over by Mr. Shahid Naeem (Chief SDGs, MoPD&R, Islamabad) while Mr. Rafique Tahir (Joint Education Advisor, MoFEPT, Islamabad) was the Chief Guest on the occasion. The event started with the recitation of Holy Quran followed by brief introduction of the objectives and TORs of the study by Mr. Nadeem Ahmed (Social Policy Advisor, Federal SDG Support Unit, MoPD&R, Islamabad). This was followed by a brief presentation on the findings and recommendations of the study by the Consultant. Subsequently, a healthy discussion ensued among the participants on the study findings and various aspects of quality education. Most of the suggestions for improvement of the report received from the participants were already addressed in the detailed report, which somehow could not be shared with the participants before the policy dialogue. At the same time, some very thought-provoking recommendations were received on overall improvement of education quality in the country which would require more research studies/ consultancy assignments to be undertaken with donor's technical and financial support. The comments are summarized as below:

- While appreciating the study findings, the representative of the KP Education Department disclosed that the vacant positions in key institutions responsible for implementation of MSQE and achieving quality education, like KPTBB were not filled mainly due to the fact that the KP Education Department had decided to produce 80% titles through private publishers. Under such situation, filling all positions including the Subject Specialists in KPTBB was not deemed necessary. He also shared that the Education Department is soon going to introduce the KPTBB Act under which the role of KPTBB would be further reduced by only facilitating the private textbook developers and publishers. Regarding shortage of teachers in KP, he shared that every year 17,000 teachers in KP and 5,000 teachers in KP Newly Merged Districts i.e. total 22,000 teachers are being recruited by the KP Government. He further contested that since the total number of teachers in KP currently are 178,000, therefore the percentage of teachers required to fill the deficiency gap is just 4% rather than 9% as reported in the study findings. He also showed his ignorance about any TWG in KP formed or responsible for implementing the MSQE in KP. He reiterated that MoFEPT should steer the process of developing quality benchmarks for provinces and assured his complete support of following the same in true letter and spirit in his province.
- The representative of Directorate of Special Education Islamabad showed his apprehension at the lack of coordination with the Directorate in formulating education policies and other initiatives, concerning special people. He lamented the fact that authentic data on the number of special people is still not available in the country due to which policy implementation is not very effective. He

further shared that the Directorate was facing problems in hiring and training of teachers for special children and requested the support of MOFEPT to also include their teacher's in the existing teachers training programmes.

- While commenting on the spending gaps in education, the representative of Federal Bureau of Statistics (FBS) agreed that most of the education budget is spent on salaries, leaving very few funds for improving school infrastructure and provision of basic/ modern facilities. She also shared that FBS is collecting mostly quantitative data through trained enumerators. FBS has data sets available for national and international reporting but none of the existing surveys are covering data related to quality. She further elaborated that qualitative data is being collected by ASER and NEAS, mainly through assessment of grade 1-5 students.
- The Idara-e-Taleemo-Aagahi (ITA) representative shared that Annual Status of Education Report (ASER) published by ITA every year assesses quality in terms of learning. Under the assessment, grade 2 questions are asked from grade 5 students to assess their learning level. The data sets and sampling methods are available in its reports.
- The UNESCO representative pointed out that teacher is the primary factor for ensuring quality at the school level. During the field experience it has been observed that absence of adequate qualification and training of teachers is a big bottleneck in effective teaching and learning. Moreover, the provinces are also struggling in developing standard curriculum.
- The Assistant Chief-Education while contributing to the debate on inadequate data collection stated that we are still relying on the Pakistan Social and Living Standards Measurement (PSLM) 2013-14 data which has become obsolete. It is high time to update the mechanism for data collection. While commenting on the findings of the study, school environment equally contributes to quality of education. He pointed out that as part of the study, FGDs were conducted only in KP and GB, however to get wider perspective these should have been conducted in all federating units. He also pointed out that it is not true that due to the policy of auto promotion of students across the country, the teachers were relaxed and did not put in the required efforts. In fact, they have been held accountable and their performance assessed against the achievements of all students.
- One of the participants commented that the study has not captured strengths of the education system. There are many positive steps undertaken by the Government which should have been included in the study. The biggest quality benchmark is the pass ratio of students. The assessment

or result of all pass students should also be included.

- The representative of Higher Education Commission (HEC) requested that whenever such policy dialogues are conducted, it would be better to circulate the report beforehand among the participants so that they can study it in detail and give specific and solid recommendations for improvement. She also pointed out that the presentation did not cover the study design and who were interviewed, as part of the study. She further stated that quality has to be defined in a perspective. Currently, there is ambiguity of defining quality at school level. In fact, quality has to be backed by processes and have to undergo continuous improvements. Since the higher education system is directly fed by primary and higher secondary education system, it is very important to maintain the connectivity between lower and higher education system. The lower education system has to ensure that quality students are produced and available for entering into colleges and universities which would eventually lead to quality graduates entering the job market after finishing their university education. She emphasized on providing the school students with the job market skills in addition to the regular curriculum being taught.
- According to the representative of Taleem Foundation, the sample size of 154 was very small as compared to the total population. He further stated that the study did not focus on 35 million out of school children in the country and how to bring them to schools. He also stressed the need to define quality, redefine what to teach and how to teach. According to him, giving free books and hiring of teachers is a good step by the government but more focus is needed on how to effectively deliver the contents to the students in an interesting and interactive manner. He suggested development of digitized content which can be deployed quickly in remote areas through offline or online systems. With 1-2 trained teachers, lessons can be delivered through smart boards and supported by a server. He also suggested that curriculum should be standardized and video tutorials covering 7-8 books in English, Urdu and even regional languages be made and delivered in a digital form for improving quality of learning and discourage rote learning. On behalf of Taleem Foundation, he offered his complete support to the MoFEPT and MoPD&R in experimenting this teaching-learning model. He further suggested that it would have added value to the study findings had it also included a comparative analysis of the education investment made on a child for 12 years of education and what was the real outcome in terms of learning.
- The Member Social Sector, MoPD&R accepted that one study cannot find solutions to all problems. She shared her experience of working at the

Ministry during which she has to review PC-1s for establishment of new schools on almost daily basis but none of them is backed by a standard quality checklist or benchmarks of construction. She reiterated that the devolution of education does not take away the responsibility of federal government, if there is some critical missing in the policy or actions at the provincial/ area level. For country level reporting, the Ministry has to report on all SDG indicators including SDG-4 so it needs to have standard and uniform data sets across the country, backed by a credible reporting mechanism under which data is collected from provinces and collated at the federal level. For operational data there are institutions at province level and that data can be collected and used by them for planning. She further commented on the study that the research studies have been telling us 'what to do' since long, now is the time that such studies should guide us 'how to do it'. She emphasized that there is no need to reinvent the wheel and wherever there are best practices available, the Ministry would be happy to adopt it and roll it out across the country.

- While commenting on MSQE, the representative of Read Foundation shared that the presentation did not elaborate which international standards and specific quality areas were consulted while developing the MSQE. He offered that Read Foundation has developed subject standards and school standards which they are willing to share with MoFEPT, if needed. He also pointed at lack of details in the presentation about the study design, questionnaires, students' feedback. He observed that the duration of the study seemed very less as each of the quality areas are comprehensive subjects in itself and requires considerable time for probing. He suggested that the study should also include details about best international approaches and practices used for teachers training, curriculum development and content delivery. He seconded the HEC suggestion that connectivity between lower and higher education system is needed. Universities have to guide colleges and schools about the type of education and skills needed. He also suggested that during such policy dialogues, institutions with best practices should also be invited.
- Another participant stressed the need for developing a comprehensive educational information system, with all education indicators, integrated HR, Procurement, Monitoring and automated Reporting functions as practiced by UNESCO and UNDP. She also emphasized on developing a national Geographic Information System (GIS) system having all indicators.
- To improve collection of reliable data at the field level, one participant suggested that to overcome the shortage of trained enumerators in remote areas, teachers can be assigned the same role

along with some monetary benefit. The teachers can collect village and Union Council level data during summer vacations. University students can also be involved on voluntary basis.

- One of the participants suggested that the recommendations of the study be divided into three categories i.e. small (requiring immediate action and to be undertaken within one year), medium term (1- 5 years) and long-term recommendations (5-10 years). Moreover, the ESPs for next five years are in development phase in each province. The recommendations should be shared with the respective provinces for inclusion in the ESP's.
- The Joint Education Advisor (JEA), MoFEPT shared that standards have been developed for various quality parameters. The dimensions and specifications of every school facility to be constructed is available, whether it is a classroom, staff room, washroom etc. He further supported his statement by saying that any new school established under FDE has to meet 22 indicators. Regarding the availability of data, he stated that NEMIS maintains all types of data for each school, which can be accessed online or through hard copies. The data is 100% credible as UNESCO institute of Statistics regularly vets the NEMIS data every year. The NEMIS data is collected from the provincial/ area EMIS's. Similarly, NEAS is collecting quality data and has assessment reports available online. He further disclosed that Pakistan is the first country in the region to have become part of Trends in International Mathematics and Science Study (TIMSS) in 2019. Regarding the country level reporting mechanism on SDG-4, he shared that immediately after signing the SDGs document by the Government, a national level seminar was

organized with UNESCO's assistance at Islamabad with all provincial education secretaries and other education stakeholders. In this seminar, a committee was formed to develop the progress reporting mechanism on SDG-4 and design the instrument for data collection. Both, the mechanism and instrument are its final stages of development and shall be used in the near future to collect quality related data on SDG-4. MOFEPT will be sharing both with the provinces/ areas for compliance.

- The JEA also shared that the MSQE standards have been followed 100% in developing curriculum for each subject from Grade 1-8. Similarly, all text books developed after 2016-17 have followed the textbook standards mentioned in the MSQE document. He further shared that the MSQE document meets international standards for teachers, learners, curriculum and textbooks, assessment and school environment. To validate the MSQE document, it was shared with the Cambridge University UK where a 13-member team evaluated the standards for two months and finally shared a 14 pages report stating that 87% standards in MSQE are compatible with regional and international standards. Recently, it has also authorized MOFEPT to include the statement in all MSQE booklets to be printed i.e. "this document has been endorsed by Cambridge University UK". The JEA disclosed that the MOFEPT has prepared a road map for uniform single national curriculum from Grade 1-5 to be completed by 31st March 2020. This uniform single curriculum will be followed by all public, private schools including elite schools, and madaris. NCC which has 42 members including five Wafaqul Madaris heads, private school owners, all provincial education Secretaries is taking a lead on this.

Conclusion

Quality education is a very vast subject which needs to be defined clearly in accordance with local conditions and understood by all education stakeholders. The standards defined in the MSQE booklet for Learners, Teachers, Curriculum and Textbooks, Assessment and School Environment needs to be further elaborated by each federating unit along with guidelines for its application, measurement and reporting. This would require both MoFEPT and IPEMC to continue playing an anchoring role in steering the federating units towards common derived standards under each parameter. Most of the provinces/ areas are already

doing some excellent work under the realm of quality education, however there is a need to build synergies within and among provinces/ areas under each quality parameter. Without concerted efforts, achievement of the targets under SDG-4 would remain an uphill task. At the same time, some of the thought-provoking recommendations emanating from the policy dialogue needs to be taken to the next level by MoPD&R, MoFEPT and UNDP, as one study alone cannot provide remedies for all gaps and put the country on road to quality education.

ANNEXES

7. ANNEXES

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4 QUALITY EDUCATION

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



Planning Commission of Pakistan

Ministry of Planning, Development and Reform
SDGs Section
P-Block, Pakistan Secretariat,
Islamabad, Pakistan
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