



RIGHT TO EDUCATION



Financial Implications of Article 25-A:
Case Study of Khyber Pakhtunkhwa



Institute of
Social and Policy Sciences

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Financial Implications of Article 25-A: Case Study of Khyber Pakhtunkhwa

1. Introduction

Since inception, education has always been acknowledged as a basic right of citizens of Pakistan in all the constitutions. Later, different policy documents¹ also recognized the importance of universal education as a fundamental right. Nevertheless, it was not a legal right of the citizens as previous governments only accepted/documentated it as a basic right and did not provide for provision of free education to all. However, with passage of Eighteenth Constitutional Amendment, free and compulsory education for the children of 5-16 years of age group has been accepted as statutory fundamental right by inserting Article 25-A² in the Constitution.

As per Article 25-A “*The State shall provide free and compulsory education to all children of the age of five to sixteen years in such manner as may be determined by law*”.

Therefore, the rationale for 25-A is the provision of “quality education for free”. But still, it leaves a scope for debate as it has been made conditional to the manner determined by law. Therefore, inclusion of Article 25-A in the Constitution provides an opportunity for achievement of EFA and MDG goals while reflecting on implementation prospects of Article 25- A. For this purpose, the state needs to delve deep and come up with a workable plan on the basis of serious reflections on the financial, legal, and technical implications of the commitment meted out through Article 25-A.

In this context, present study attempts to calculate the financial resources required to implement the newly inserted Article 25-A in the Constitution of Pakistan 1973. For this, the case of Khyber Pakhtunkhwa (KPK) has been taken to generate estimates for the financial resources that are required to meet the constitutional obligation by the provincial government for provision of Free and Compulsory education to the children of 5-16 years age in the province.

¹ Since the First National Education Conference there have been a total of 10 policy documents on Education; 1) Report of the Pakistan National Educational Conference-1947, 2) Report of the Second Pakistan Educational Conference-1951, 3) Report of the National Commission on Education-1959, 4) Report of the Commission on Students Problems and Welfare-1966, 5) Proposals for New Education Policy-1969, 6) New Education Policy-1970, 7) Education Policy-1972-78, 8) National Education Policy-1979, 9) National Education Policy-1992, 10) National Education Policy-1998-2010, 11) National Education Policy 2009

² 25-A: Right to education: “*The State shall provide free and compulsory education to all children of the age of five to sixteen years in such manner as may be determined by law*”

2. Compliance With Article 25-A: Challenges Ahead

The total estimated population of the KPK province was 25.342 million in 2010-11, which is 14.07% of total population of Pakistan. Around 48.7 % (i.e. 12.361 millions) population of KPK province comprises females. The province has a total area of 74,521 Sq.Km, with the average population density of 340 persons per Sq.Km. According to PSLM, 2010-11 literacy rate of the province (10 years and above) is 50% (male 68% and female 33%). Currently, KPK is confronted with serious challenges in terms of enrolment in including NER and GER, number of teachers, teacher training, non-teaching staff, infrastructure including classrooms, schools, basic facilities, etc. A detailed description of educational situation of KPK is given hereafter:

2.1. Enrolment Rate (ER)

At present, the ER(5-16) of the province is 48%. Table 1 provides ER (5-16) by gender.

Table 1: Enrolment Rate (5-16) 2010-11³

Age-group	Population ⁴ (in number)	Enrolment ⁵ (in number)	ER ⁶ (in Percentage)
(5-16)			
Total	8,732,134	4,194,057	48
Male	4,597,402	2,633,504	57
Female	4,134,732	1,560,553	38

Data indicates that girls, when compared with boys, lag behind by 26% at primary level, and 46 % at secondary (VI-X) stage. The overall difference of GER from primary to secondary stage is 57%. These variations indicate that level-wise drop-out rate consistently increases to the next level and is required to be minimized through improving the quality of instruction and access to continuing education facilities.

2.2. Net Enrolment Rate (NER)

The NER is 51% in KPK , which is more for boys vis-à-vis girls at primary, middle, and secondary levels of education (Table 2).

³ KPK EMIS Data

⁴ Calculated from KPK EMIS 2010-11 Report

⁵ KPK EMIS Data 2010-11 (For Public, Private and Deeni Madaris)

⁶ Definition: Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school year.

Calculation Method: Divide the number of students enrolled in a given level of education regardless of age by the population of the age-group which officially correspond to the given level of education, and multiply the result by 100.

Table 2: Net Enrolment Rate (NER) 2010-11

	2010-11
NER	
Primary Stage	51%
Boys	57%
Girls	45%
Middle Stage	17%
Boys	20%
Girls	13%
Secondary Stage	7%
Boys	8%
Girls	6%

Source: PSLM, 2010-11

2.3. Out of School Children of 5-16 Year Age Group

Estimated population of 5-16 years age-group in 2010-11 by KPK EMIS was 8.732 million including 4.135 millions girls. On the basis of past trend of Enrollment Rate (ER) at school level, it has been found that 4.538 millions kids of 5-16 year age-group were out of school.

According to PSLM (2010-11) in KPK province, 53% population (71% male and 35% female) of 10+ age group attended school in 2010-11. This indicates that 47% of 10+ populations either dropped-out or never attended the school. When analyzed by gender, the population (10+ age group) that never attended school comes to 29% for male population and 65% for female population.

According to PSLM (2010-11) in KPK province, 41% population (57% male and 26% female) of 10+ age group completed primary level or higher education in 2010-11. This indicates that 59% of 10+ populations dropped-out from the school before completion of primary level or higher education (43% male and 65% female).

2.4. Number of Schools

Statistics indicates a sharp decrease in number of public sector schools at middle, secondary, and higher secondary levels of education for both boys and girls. These are the areas which require particular attention of the government while gearing towards achieving the targets under the Article 25-A. A gender-disaggregated analysis highlights that more number of schools are available for boys than girls at primary and middle

levels of education. However, the number of girls' schools decreases at higher levels of education (Table 3).

Table 3: Number of Public Sector Schools by Level and Gender in 2010-11⁷

Gender	Primary ⁹ Schools	Middle ¹⁰ Schools	Secondary ¹¹ Schools	Higher ¹² Sec. Schools	Total Schools
Boys	14,770	1,527	1,229	201	31,580
Girls	7,838	1,013	530	99	28,582
Total	22,608	2,540	1,759	300	60,162

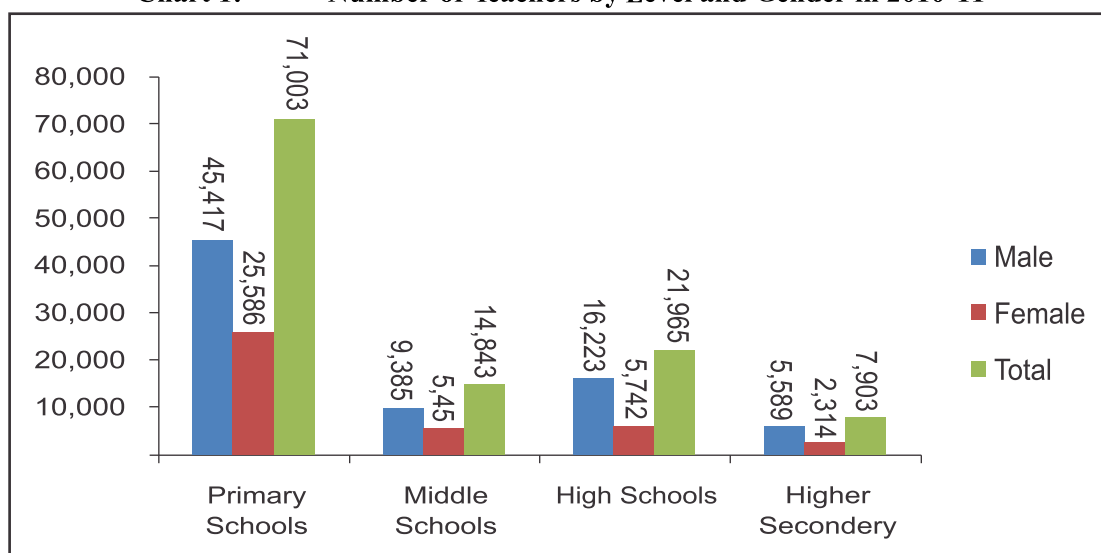
Source: KPK EMIS Data

It can be concluded from the table-3 above that for every boy's middle school there are 9.7 feeding primary schools and for girls this ratio is 1:7.7.

2.5. Number of Teachers

Data shows that number of teachers decreases at higher levels of education. A gender-disaggregated analysis indicates that there is more number of male teachers vis-à-vis female teachers at all levels of education (Chart 1).

Chart 1: Number of Teachers by Level and Gender in 2010-11¹³



⁷ KPK EMIS 2010-11

⁸ Mosque schools offer pre-primary and primary level education.

⁹ Primary schools offer pre-primary and primary level education.

¹⁰ Middle schools offer middle level education (some of the middle schools in the province of KPK have the pre-primary and primary sections as well)

¹¹ Secondary schools offer education from class VI to X (some of the secondary schools have the primary section also).

¹² Higher Secondary schools offer education from class VI to XII.

¹³ KPK EMIS 2010-11

Data also indicates that on average there are: 3 teachers in each primary school, and 6 in a middle school. Likewise, there are 12.5 teachers in a secondary school and 26 in a higher secondary school on the average.

2.6. Missing Facilities

In total, 1.4% schools are shelter-less, 23% schools have dangerous buildings, 20% schools are without boundary walls, 27% schools do not have water facility, 16.4% schools are without toilet blocks, and 38.7% schools are without electricity in KPK. Data presents serious challenges of physical infrastructure at primary level of education where higher numbers of schools do not have boundary walls, building, electricity, toilet blocks, and drinking water facility (Table 4).

Table 4: Missing Facilities 2010-11

Missing Facilities	Primary Schools	Middle Schools	Secondary Schools
Without Boundary wall	4,643 (20.5%)	544 (21%)	295 (14%)
Without Building	372 (1.6%)	0	0
Dangerous Building	4,839 (21%)	626 (25%)	708 (40%)
Electricity	9,516 (42%)	765 (30%)	237 (12%)
Toilet Block	3,984 (17.6%)	336 (13%)	138 (7%)
Drinking Water	6,543 (28.9%)	645 (25%)	244 (12%)
Total	43790	2219	1050

Source: KPK EMIS Data

3. Analysis of Education Budget

In order to generate estimates of budget required to achieve target set in Article 25-A, it is essential to understand the current pattern of budgetary allocations and spending and on education at district and provincial levels. Hence, analysis of education budget of districts and the province, for fiscal year (FY) 2010-11, is presented hereafter.

Like all other provinces the education budget in KPK is allocated at two levels i.e. provincial and district. During the FY 2010- 11, district and provincial education budget was Rs. 40, 272.01 million, comprising Rs.33,156.82 million current budget and Rs.7,115.19 million for development budget. In FY 2011-12, Government of KPK allocated Rs.46,460.20 million to education sector, which includes 85% current budget and 15% development budget (Table 5).

Table 5: Total Education Budget (Provincial and District) Current and Development

	2010-11	2011-12
School Education Budget (Provincial + District)	40,272.01	46,460.20
Current Budget	33,156.82	39,345.20
Development (School Education)	7,115.19	7,115.00

Out of total budget of the province, Government of KPK allocated Rs.46,460.20 million to education sector in FY 2011-12, which comprises 85 % current budget and 15% development budget. As compared to FY 2010-11, current budget increased by 19% and development budget was almost maintained (Table 6).

Table 6: Allocation Trend (Provincial Budget) Current and Development Budgets

Year	Current		Development	
	Rs. Million	Change (%)	Rs. Million	Change (%)
2007-08	1802.49		4843.35	
2008-09	1903.89	6	5507.38	14
2009-10	2246.91	18	6059.35	10
2010-11	3491.35	55	10135.00	67

Moreover, the share of current and development budgets in the overall education budget of KPK has been fluctuating slightly, which underscores the need for steady increase in allocations under different budgetary lines to achieve the targets set in Article 25-A.

At district level, in FY 2010-11, Rs.32,643.56 million were allocated for education. However, in the FY 2011-12, the education budget of districts has increased by 19% over the last year's budget (Table 7).

Table 7: Allocation Trend (District Education) Current and Development Budgets

Year	Current		Total District Education Budget	
	Rs. Million	Change (%)	Rs. Million	Change (%)
2010-11	32,643.56		32,643.56	
2011-12	38,800.00	19%	38,800.00	19%

4. Financial Resources Estimation for Article 25-A

In this section, financial resources have been estimated for achieving objectives of Article 25-A. While estimating following questions and their respective service ratios as practiced in KPK has been used.

1. What would be the unit cost per student per year after inclusion of out of school children in the education system?
2. How many teachers need to be recruited and what would it cost?
3. How many teachers need to be trained and what would it cost?
4. How many non-teaching staff is required and what would it cost?
5. How many schools and classrooms are required and what would it cost?
6. What would it cost to provide missing facilities in all the schools?

4.1. Data Sets

In order to calculate estimates for 25-A, three types of statistical data sets have been used, which include:

- 1.KPK EMIS Data
- 2.National Education Management Information System (NEMIS)
- 3.Pakistan Social Living and Standards Measurement Survey (PSLM)

The reason for using three different datasets stems from the fact that none of the available datasets provides statistics for all required indicators. For example, the NER data has been taken from PSLM for the reason that NER cannot be calculated without conducting a household survey and PSLM is the only data source that conducts household survey. Similarly, stage/level-wise enrollment data for the public, private, and other public sector (Cantt. & Garrison, PAF, Pakistan Railway, etc) institution has been taken from the NEMIS report as it was not available in the KPK EMIS database.

4.2. Methodology and Variables

- a. Estimated financial requirement for compliance with 25-A has been calculated assuming that all 5-16 years old children would be attending school, and education would be available free to all children up to 10th grade. For generation of estimates, year 2010-11 has been taken as base year and estimations have been projected for the next 15 years, i.e., till 2025-26. Therefore, current statistical data and budgetary information was collected and analyzed to grasp the current state of education in the KPK province. On the basis of the current situation, projections have been made for the next 15 years¹⁴.

¹⁴ The baseline of 15 years has been selected on the basis of inputs from the Provincial Education Departments. Moreover a minimum time period of 10 years was suggested during the deliberations of the constitution commission.

- b. The Gross Enrollment Rate (GER) for 2010-11 has been calculated on the basis of KPK EMIS. Stage/ level-wise enrollment data for the public sector schools, the stage/ level-wise enrollment data for private (KPK EMIS) and other public (Cantt. & Garrison, PAF, Pakistan Railway, etc.) sector institution has been taken from the NEMIS report. The population data (from 2010-25) was taken from the KPK EMIS. The projections have been made accordingly on the basis of improving the class wise transition rates. The data for the Net Enrollment Rate (NER) has been taken from the PSLM report for the base year.
- c. Survival and Dropout Rates have been calculated from the KPK EMIS reports. Number of out of school children of 5-16 year age group for the base year has been calculated on the basis of ER data provided in the KPK EMIS report and for next 15 years it has been projected on the basis of enrollments and population figures.
- d. Establishment of new primary schools has been calculated to accommodate the additional enrolment, out-of-school children (those who are not going to school due to lack of access), and to improve the access at this stage.
- e. Number of schools by level for the year 2010-11 is taken from the KPK EMIS data, and for the years to come, it has been calculated on the basis of need and access. The average number of students in one school for 2010 is calculated from KPK EMIS data, and projection has been made accordingly. Up-gradation of the school from one level to the next is calculated to accommodate the stage-wise additional enrollment and in improving the access to continuing education facilities.
- f. The ratio between Primary and Middle/ Elementary School is 8.9 Primary Schools feed into 1 (One) Middle School after working out the number of schools to be up-graded, its ratio will become 3.7:1 in 2025-26.
- g. The ratio between Middle/ Elementary School and Secondary school is 1.44 Middle Schools for 1 (One) High School after working out the number of schools to be up-graded, its ratio will become 1.64:1 in 2025-25.
- h. As for the private sector is concerned, the contribution rate has been maintained as of base year i.e. 26%. It has not been costed owing to the absence of policy on financing private schools.
- i. Number of classrooms has been calculated from KPK EMIS data. The required additional classrooms have been worked out to accommodate the prescribed policy of forty students per classroom (40:1). The classrooms being added through

establishment of new schools and up-gradation of existing schools has been considered while estimating the requirement of additional classrooms.

- j. The requirement of new teachers has been worked out from KPK EMIS data. Student-teacher ratio at school level for 2010-11 has been calculated from the KPK EMIS data and projected accordingly as per policy, The demand of additional teachers is calculated on the basis of improved Student-Teacher Ratio from 33:1 in 2010-11 to 39:1 in 2025-26.
- k. The ratio for teaching and non-teaching staff has been calculated as 3.5 teachers for 1 non-teaching staff.
- l. The PTA, free textbooks, and stipend cost has been worked out from the budget books of Government of KPK, Finance department, for the year 2010-2011. The required budget estimates for the years to come have been calculated on the basis of constant unit cost.
- m. The inflation rate for 2010-11 was taken from the Economic Survey of Pakistan and this rate has been reduced to 5%.
- n. The benchmarks and assumptions have been established on the basis of service ratios of government of KPK. For example, service ratio of government of KPK for student teacher ratio is 40:1.
- o. Costing has been done using government rates and unit costs. For example, for addition/construction of new schools, construction rate of government has been used. Therefore, any change in service ratio would affect the costing of projections. If we want to make system work more efficiently by changing the service ratio, then financial resources need to be recalculated. Moreover, further improvement in the system to enhance quality of education or expanding the definition and scope of 'free education' would mean additional money, which would require recalculation of financial estimates.
- p. All employee-related expenses (Pay) have been increased by 5% annually on average. This average has been calculated in accordance with the existing government policy of increments on basic pay scales. For example, average salary of school teachers has been calculated from the district budgets. It has been projected for the next 15 years according to number of teachers being added every year and increasing their average annual salary by 5%. Non- salary expenses for schools have been calculated on the almost constant rate in the years to come.

- q. Inefficiency cost has not been calculated. For example, currently teaching and non teaching staff ratio is 3.5:1. The cost of bringing this ratio to international best practice of 10:1 has not been calculated, which can be done for making the system work more efficiently. It is understood that by calculating the inefficiency costs and ridding the system of these costs will improve efficiency of government and will help achieve the compliance with Article 25-A in a more cost effective manner.

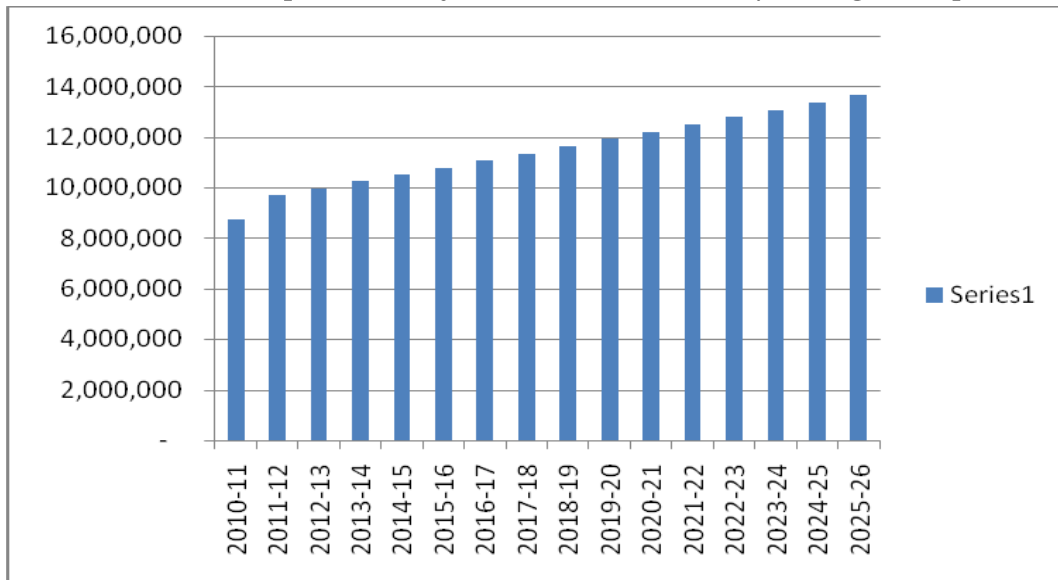
4.3. Projections

The following section describes achievable targets with affordable costs against a wide range of indicators including population, enrolment, number of teachers, number of schools, infrastructure, basic facilities, unit cost per student, unit cost for professional development, etc.

4.3.1 Population

Projections have been made on the basis of KPK B.O.S data, which indicates an annual increase of more than 300,000 (approx.) populations between 5-16 years of age group.

Chart 2: Population Projection: Children of 5-16 years Age Group



4.3.2 Enrollment

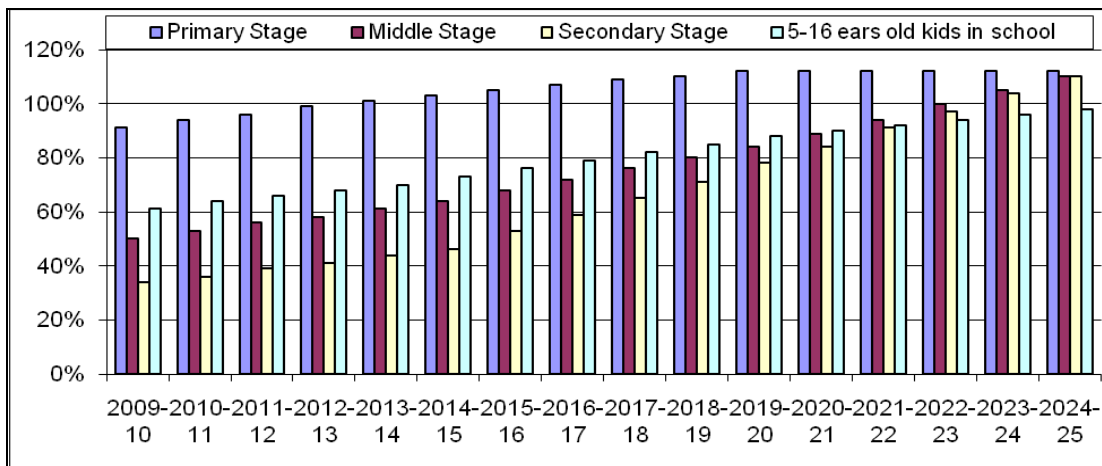
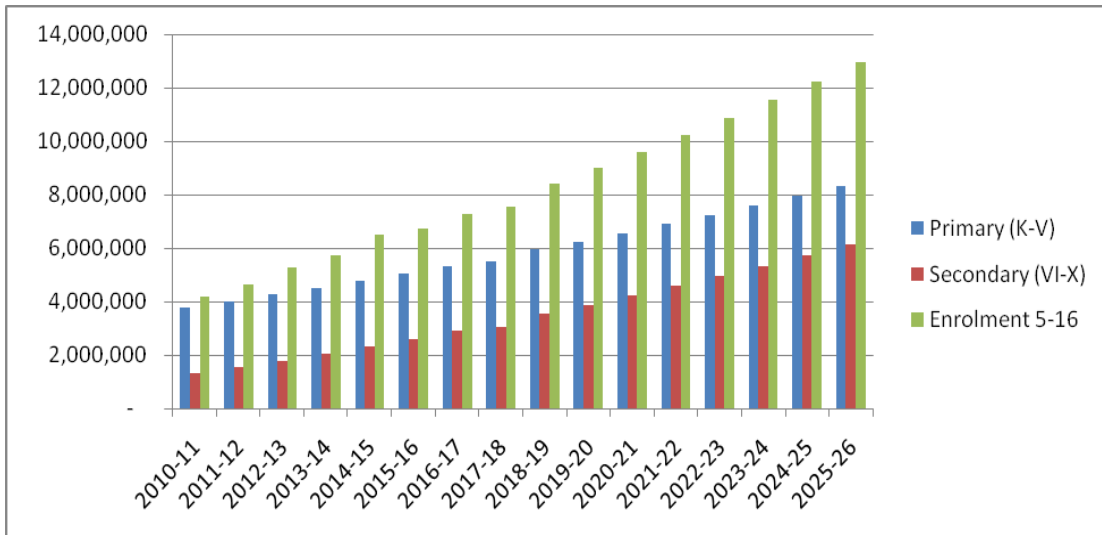
Currently, enrollment rate of 5-16 years old children is 48%. Projections are made to achieve the 95% enrollment of 5-16 years of population by 2025-26. In this case, the projected budget for education elevates to an annual average of 14% to achieve the target in coming 15 years (Table 8).

Table 8: Projection

Enrolment Rate (5-16)	Base Year (2010-11)	Projection (2025-26)
		48%
Projection	Average Annual Increase in Budgetary Allocation	
Achieving target by 2025-26	14%	

With 14% average annual increase in education budget, KPK can achieve 95% Net Enrollment Rate (5-16 years age group) till 2025-26 (Chart 3).

Chart 3: Projected Increase in Enrollment based on GER



The costs of textbooks, PTAs, and stipends would increase due to provision of stipends and free textbooks to more students.

4.3.3 Unit Cost Per Student Per Year

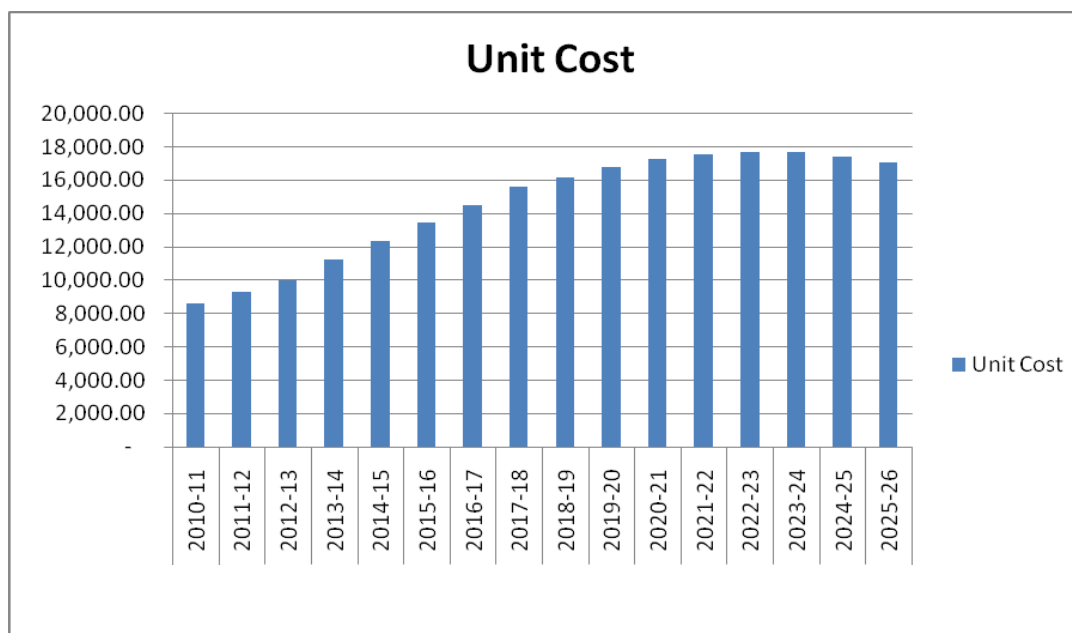
It is assumed that owing to increase in salary cost and number of teachers, projection would elevate the unit cost per child per year to the level of Rs.18,995.77 by 2025-26 (Table 9).

Table 9: Projected Unit Cost Per Student per Year

	Base Year (2010-11)	Projection (2025-26)
Unit Cost (Rs. per child per year)*	8,614.07	34,562.42
*At all levels from pre-primary to secondary and includes non-salary costs of administration too		

The projected unit cost per student per year is shown in the chart 4 below:

Chart 4: Projected Unit Cost Per Student per Year



4.3.4 Classroom Construction

To accommodate additional enrollment and out-of-school children, more classrooms and schools would be required. By taking 2010-11 as base year, projection indicates that 178,497 additional classrooms and 4443 additional schools would be required by 2025-26 to adjust more students in the classrooms. There is also a need to reduce classroom-students ratio to 1:40 in the next 15 years, which is currently 1:44.

Table 10: Projected Increase in Number of Classrooms and Schools

Increase in	Base Year (2010-11)	Projection (2025-26)
Number of Classrooms	89655	196961
Number of Schools	27,207	31,650

4.3.5 Basic Facilities

The projection for basic facilities has been made on the assumption that infrastructure backlog and missing facilities will be taken care of approximately within 2 years span. Projection has been worked out for provision of basic facilities in all those schools, which are without basic facilities, with an estimated cost of Rs.15.7 billion by year 2014-15. Once this backlog is taken care of the resources will be used for up-gradation of existing schools and inclusion of new schools in the system.

4.3.6 Teacher Demand and Supply

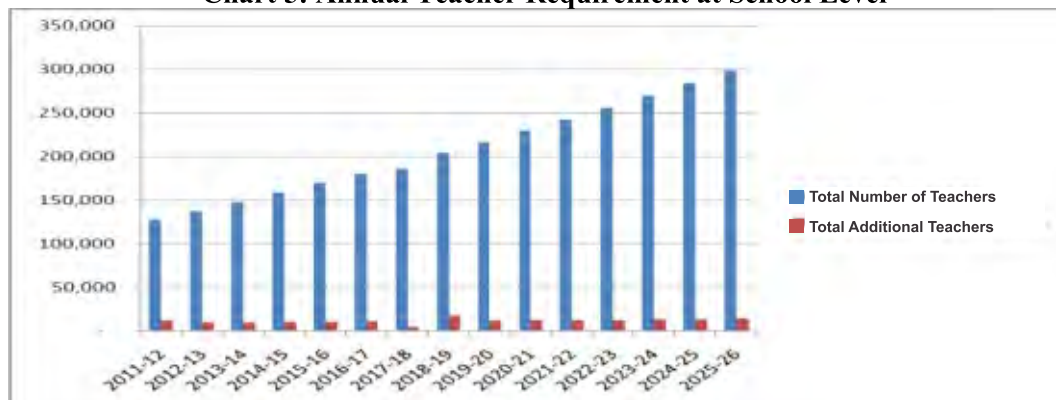
The projection shows a direct proportion between enrolment rate and teacher demand, as increase in enrollment of children would result in an increased demand for teachers. (Table 11) However, availability, recruitment, and training of such a huge human resource in itself are serious challenges for the government.

Table 11: Projected Increase in Number of Teachers

Increase in	Base Year (2010-11)	Projection (2025-26)
Number of Teachers	115714	298181

Therefore, for compliance with 25-A in view of government service ratio, 182467 additional teachers would be required to bring the student-teacher ratio at 40:1 in the next 15 years.

Chart 5: Annual Teacher Requirement at School Level



4.3.7 In-Service Teacher Training

In-service teacher training is essential for professional development of teachers and for provision of quality education to students. KPK has institutionalized the in-service teacher-training programme. For this purpose, finances are being provided through development and current budget where major part of budget is utilized for salary of trainers. According to projection, Rs.4832.7 per teacher would be required.

4.3.8 Teaching-Non-Teaching Staff

The estimations have also encompassed the case of non-teaching staff, which is currently 3.5:1. It means that currently for every 3.5 teachers there is one person available from non-teaching staff. These ratios have been calculated for schools only, and do not include the staff working at district and provincial levels. Cautious estimates indicate that inclusion of non-teaching staff at district and provincial level would take this ratio down further to 3:1.

The same ratio has been maintained in the projection. However, costing can be done if Government of KPK desires to improve situation by increasing the teaching-non-teaching staff ratio to 10:1. This ratio (10:1) is closer to international best practice and would result in cost saving.

4.4. Budget Projections

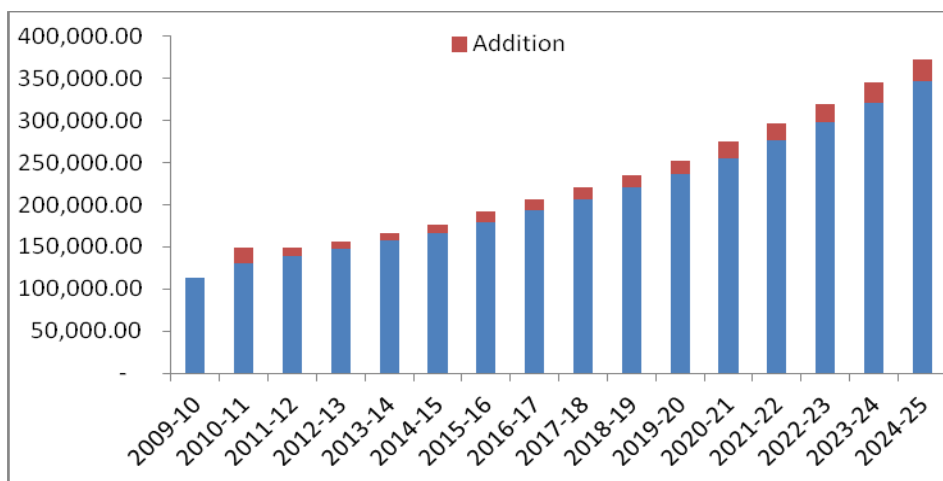
Estimates indicate that on the whole allocation of Rs.2057.97 billion, with an average increase of 12.15%, will be required under district and provincial education budgets for achieving 95% enrollment rate by 2025-26. This shows that in 2025-26 there will be need to allocate at least an estimated amount of Rs.220,153.96 million under district and provincial education budgets (Table 12 and Chart 6).

Table 12: District and Provincial Education Budget

	Base Year (2010-11)	Projection (2025-26)
Current Budget (Rs. Millions)	33156.82	197589.59
Development Budget (Rs. Millions)	7115.19	22564.36
Total	40272.01	220153.96

With an average increase of 8% in the total education budget of the province it is estimated that on average Rs. 137 billion will be required each year for next 15 years.

Chart 6: Increase in District and Provincial Education Budget over the Last Year Budget (2010-25)



4.5. Conclusion

In order to be compliant with the requirement of Article 25-A, the required financial resources are estimated to be Rs.2058 billion for achieving 95% enrolment rate of 5-16 years of population by 2025-26. It includes Rs.1830.1billion current and Rs.228 billion development budgets. On average, a 12.15% annual increase over the previous years in education budget is required for achieving the targets under 25-A. The achievement of targets is closely linked with the resource absorptive capacity. Various researches have proved that system lacks capacity to efficiently absorb even the available financial resources. This capacity deficit needs to be bridged to effectively manage the additional resources and to seize the opportunities available after the 18th Amendment. Provinces should make sector plans and come up with calculations to engage federal government and international partners for additional targets to achieve the target set in Article 25-A.

Inefficiency costs of system have not been calculated in the projections given in this section. If inefficiency cost is calculated and curtailed it will help get rid of the system inefficiency thus ensuring compliance with Article 25-A in a more cost effective manner.



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