

Financial Implications of Article 25-A: Case Study of Islamabad Capital Territory (ICT)





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1. Introduction

Education is recognized by the constitution of Pakistan as the basic right of citizens. Various policy documents have acknowledged the significance of universal education as a fundamental right. Yet, provision¹ of free education for all was not a legal right up until Eighteenth Constitutional Amendment. Free and compulsory education for the children of 5-16 years of age group has been accepted as statutory fundamental right after including Article 25-A 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."

Provision of 'quality education for free' is the objective of Article 25-A. Therefore, inclusion of Article 25-A in the Constitution provides an opportunity for achievement of EFA and MDG goals with the implementation of Article 25-A. But in order to execute Article 25-A, the state will have to make a strategy that is considerate of financial, legal and technical implications of the commitment meted out through Article 25-A.

To address the above mentioned concerns, this study aims to calculate the financial resources required for the implementation of Article 25-A. The case of Islamabad Capital Territory (ICT) has been taken to make an estimate of financial resources required in order to make quality education available for all.

2. Compliance with 25-A: Challenges Ahead

In 2010 total estimated population of ICT was 1.3 million which is 0.01 percent of total population of Pakistan. Out of the total population of ICT, 48.5 percent (i.e 0.65 million) are females. With population density of 880 persons per sq.km, ICT has a total area of 120 sq.km. Presently, ICT faces 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 ICT is following:

2.1 Enrolment Rate 5-16

Currently the GER of ICT is 110 percent at primary level. Table 1 provides stage and gender-wise GER of ICT.

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

Stage/Age-group	Population ³	Enrolment ⁴	GER $(\%)^{5}$
Primary (5-9) ⁶			
Total	135,356	114,390	85
Male	69,675	58,883	85
Female	65,681	55,507	85
Secondary (10-16) ⁷			
Total	158,345	86,232	54
Male	82,271	43,317	53
Female	76,074	42,915	56

Table 1: Stage-wise Gross Participation/Enrolment Rate 2010-11²

Data indicated that the enrolment of girls when compared with boys lags behind by 6 percent and 1 percent at primary and secondary level, respectively. The overall difference of GER from primary to secondary is 31 percent. It is evident that drop-out rate increase from primary to secondary, therefore, quality of instruction and access to continuing education facilities should be improved.

2.2 Out of School Children of 5-16 Year Age Group

In 2010, NIPS estimated 0.14 million children of 5-9 years age group to be out of school which includes 65,681 girls. On the basis of past trend of NER at primary stage, it has been found that 20,966 children of 5-9 years were out of school.

2.3 Number of Schools

Public sector schools at middle, secondary, and higher secondary levels of education for both boys and girls have decreased. Therefore, these areas require prime focus of the government if the targets of Article 25-A are to be achieved. A gender-disaggregated analysis highlights that more number of schools are available for girls than boys at middle and secondary levels of education.

Gender	Primary Schools ⁹	Middle Schools ¹⁰	Secondary Schools ¹¹	Higher Sec. Schools ¹²	Total Schools
Boys	137	23	47	13	220
Girls	69	34	59	13	175
Total	206	57	106	26	395

Table 2: Number of Public Sector Schools by level and gender in 2010-11⁸

² Pakistan Education Statistics 2010-11

⁶ Primary level/ stage means Class-I-V.

³ Calculated from National Institute of Population Studies Estimates

⁴ Pakistan Education Statistics 2010-11 and NEMIS (For Private and Other Public)

⁵ 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.

⁷ Pakistan Education Statistics 2010-11

⁸ Secondary level/ stage means Class IX-X

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

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

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

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

¹³ Pakistan Education Statistics 2010-11

It can be concluded from the table above that for every boy's middle school there are 6 feeding primary schools and for girls this ratio is 1:2.

2.4 Number of Teachers

Data shows that the number of teachers at primary and secondary level is very high compared with the number of teachers for middle and higher secondary schools.

Chart 1: Number of teachers by level in 2010-11



Data also indicates that on average there are 13 teachers in each primary school and 15 in a middle school. Likewise, there are 25 teachers in a secondary school and 37 in a higher secondary school on average.

2.5 Missing Facilities

In ICT, 6 schools are without electricity, 9 schools do not have clean drinking water, 9 schools are void of toilets and boundary wall is absent in 11 schools. Moreover, 102 schools need repairs. With the given data, the situation of basic facilities does not seem dire in the capital but a significant number of schools do require repairs.

Chart 2: Missing Facilities 2010-11¹⁴



¹⁴ Pakistan Education Statistics 2010-11

3. Analysis of Education Budget

To achieve Article 25-A targets, budget needs to be adjusted accordingly. For an accurate budget estimate generation, current pattern of budgetary allocation and expenditure on education at ICT level needs to be comprehended. Therefore, following discussion analyses the education budget of ICT Educational Institutes for fiscal year 2010-11.

During fiscal year 2010-11, Rs. 3,297.17 million was allocated to education sector in ICT, out of which Rs. 3,098.1 million was consumed by current budget leaving Rs. 199.1 million for development budget.

Table 3: Total Education Budget, Current and Development¹⁵

	2010-11 (Rs. Million)
Total Education Budget (ICT)	6,395.25
Current Budget	3,098.08
Salary Budget	2,293.95
Non-salary Budget	804.13
Development Budget	199.09

4. Financial Resources Estimations for Article 25-A

To achieve the objectives of Article 25-A financial resources have been estimated in this section. For estimation, following questions and their respective ratios have 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 schools?

4.1 Methodology and Variables

In order to calculate estimates for Article 25-A, NEMIS data has been used.

- a. The following assumptions have been made to estimate the financial requirement in compliance with Article 25-A; 5-16 years old children would be attending school and education would be available free to all children up to 10th grade. Year 2010-11 has been taken as base year and estimation has been projected over 15 years (till 2025-26). For this purpose, the current budgetary information and statistical data has been collected and analyzed to view the state of education in ICT.
- b. The NEMIS report was used for stage/level-wise enrollment data for the public sector

¹⁵ Budget Books, 2010-11

schools, the stage/level-wise enrollment data for private and other public sector (Cantt. & Garrison, PAF, Pakistan Railway, etc.) While the Gross Enrollment Rate (GER) for 2009 has been calculated on the basis of NEMIS data. The data for the Net Enrollment Rate (NER) has been taken from the PSLM report for the base year. The population data was taken from NIPS (2010-2023). Accordingly, the projections have been made to improve the class wise transition rates (calculated for the public sector only).

- c. Dropout and survival rates have been calculated from the NEMIS reports of the 2000 onwards. The total number of children out of school in the 5-9 years age group has been calculated on the basis of NER data in the PSLM and the next 15 years projections have been on the basis of enrolments and population figures.
- d. In order to accommodate the additional enrolment, out-of-school children (those who are not going to school due to no access), establishment of new primary schools has been calculated.
- e. Number of schools by level has been taken from NEMIS data for the year 2010 and for the future years it has been calculated on the basis of need and access. The average number of students in one school for 2010 is calculated from NEMIS data, the projection is calculated in a similar manner as well. To accommodate the additional enrollment and improving the access to continuing education facilities, up gradation of schools from one level to the next is also calculated.
- f. For the private sector, the contribution rate has been maintained at 40 percent as of the base year. Due to the absence of policy on financing private schools, costing was not possible.
- g. The NEMIS data has been used to calculate the number of classrooms. The additional classrooms required have also been estimated to cover the prescribed policy of forty students per classrooms (40:1). The requirement of additional classrooms includes new classrooms due to establishment of schools and up-gradation of existing schools.
- h. NEMIS data was used to calculate the requirement for new teachers. The same data is used to calculate the student teacher ratio at the school level in 2010. The additional demand for teachers is calculated on the basis of improved student-teacher ratio from the current ratio to 40:1 in 2025-26.
- i. The budget figures for 2010-11 have been taken from Federal Budget Books. The required budget estimates for the years to come have been calculated on the basis of constant unit cost.
- j. The inflation rate was taken from the Economic Survey of Pakistan for 2010-11, which was kept constant for projections.
- k. The benchmark and assumptions have been established on the basis of service ratios of federal government. For example, service ratio of government for student teacher ratio is 40:1.
- 1. The costing is done on government rates and unit costs which mean that any addition of a school would be calculated on construction rate given by the government due to which any change in the service ratio would affect the costing and the projections. But if the system

works more efficiently by changing the service ratio, the financial ratios have to be recalculated. Further improvement in the quality education and enhancing the scope of 'free education' would mean more funds and money needed, which would require recalculation of financial estimates.

- m. There has been a 6 percent increase in employee related expenses on average in accordance with the current basic pay scale policy of the government. It is projected for the next 15 years according to number of teachers being added yearly and the 6 percent rise in average salary. For years to come the non-salary expenses for the schools have been calculated on the constant rate.
- n. Inefficiency cost has not been calculated.

4.2 Projections

Following is the description of achievable targets with affordable costs against a various indicators including population, enrolment, number of teachers, number of schools, infrastructure, basic facilities, unit cost per student, unit cost for professional development, etc.

4.2.1 Population

Projections based on NIPS data indicate an annual increase of more than 10,000 (approx.) populations between 5-16 years of age group.

Chart 3: Population Projection: Children of 5-16 years Age Group



4.2.2 Enrolment

Current enrolment rate is 72 percent for 5-16 years old children. It is projected that by 2025-26, 96 percent enrolment of 5-16 years of population should be achieved. To actualize the plan, the projected education budget increments by 13 percent on average annually in order to achieve the target in next 15 years.

Table 4: Projection

Enrolment Rate (5-16 years)	Base Year (2010-11)	Projection (2025-26)
	72%	96%
Projection	Average Annual Increase	in Budgetary Allocation
Achieving target by 2024-25	13%	

Chart 4: Projected Increase in Enrolment based on GER (Primary I-V and Secondary VI-X)



The costs of text books, school councils and stipends would increase due to provision of stipends and free text books to more students.

4.2.3 Unit Cost Per Student Per Year

Due to the increase in salaries and number of teachers, it is projected that unit cost per child per year will rise to Rs. 16,846.59 by 2025-26.

Table 5: Projected	Unit	Cost per	Student	per	Year
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	Base Year (2010-11)	Projection (2025-26)			
Unit Cost (Rs. per child per year)*	12,983.98	16,846.59			
*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 below.

Chart 5: Projected Unit Cost per Student per Year



4.2.4 Classroom Construction

In order to adjust out of school children and additional enrolment in schools, more classrooms and schools will be required. If we take 2010-11 as base year, projection indicates that 5,282 additional classrooms and 160 additional schools need to be constructed by 2025-26 so that the increased number of students can be accommodated. Classroom-student ratio also needs to be reduced from 1:56 to 1:40 in next 15 years.

Table 6: Projected Increase in Number of Classrooms and Schools

Increase in	Base Year (2010-11)	Projection (2025-26)
Number of Classrooms	4,515	9,797
Number of Schools	395	555

Unit cost is Rs. 2.5 million for constructing a building of primary school, Rs. 5.01 million for upgradation of primary to middle school and Rs. 5 million for up-gradation of middle to secondary school.

4.2.5 Basic Facilities

The requirement for the basic facilities has been made on the assumption that the missing facilities and the backlog of the infrastructure will be taken care within 2 years. These projections are for the school where basic facilities are available. Once this backlog has been cleared, the resources will be used for the up gradation of the existing school and addition of new schools into the system.

4.2.6 Teacher Demand and Supply

The estimates show a proportionate positive relationship between the students enrolled and the teacher demand. But with the increasing number of student enrollment and consequential rise in the teacher demand, the training, recruitment and availability of such a large resource is a serious challenge for the government.

Therefore, to bring the student-teacher ratio to 40:1 in the next 15 years according to Article 25-A, 3,384 more teachers would be required.

Table 7: P	rojected	Increase	in 1	Number	of	Teachers
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Increase in	Base Year (2010-11)	Projection (2025-26)				
Number of Teachers	7,178	10,562				
Note: The data does not include principal and subject specialist (SS)						

	Primary School	2,683
	Middle Schools	856
2010-11	Secondary Schools	2,681
	Higher Secondary School	958
	Total	7,178
	Drimowy School	
	Middle Schoole	2,814
2015 16	Milule Schools Secondary Schools	94/
2015-16	Higher Secondary School	2,812
	Tigher Secondary School	1,219
	Total	7,792
	Primary School	2,981
	Middle Schools	1,078
2020-21	Secondary Schools	3,472
	Higher Secondary School	1,548
	Total	9,079
	Drimory School	5 317
	Middle Schoole	1,224
2025 26	Milule Schools Secondary Schools	1,224
2025-20	Higher Secondary School	1 922
	Total	1,722
	Total	10,002

Chart 6: Annual Teacher Requirement at School Level

4.3 Budget Projections

Estimates indicate that on the whole allocation of Rs. 98.2 billion will be required for ICT for achieving 96 percent enrolment rate by 2025-26. This shows that in 2025-26 there will be a need to allocate at least an estimated amount of Rs. 9,549 million for ICT budget.

Table 8: ICT Education Budget (in Rs. million)

	Base Year (2010-11)	Projection (2025-26)
Current Budget	3,098.08	9,321.22
Development Budget	199.09	227.81
Total	3,297.17	9,549.04

Hence, it is estimated that on average Rs. 6.5 billion will be required each year for the next 15 years.

Chart 7: Projected Increase in Education Budget ICT in Rs. million (2010-25)



5. Conclusion

To reach the requirements of Article 25-A, the financial resources required to achieve a 96% enrollment rate of the population of age group 5-16 years is Rs.98.2 billion by 2025-26. The budget is broken down to Rs.94.6 billion current development budgets and Rs.3.7 billion development budgets. The achievement of targets is related to the resource absorptive capacity since an annual

increase of 13% in education budget is required to meet the targets under the article. Research shows that the system lacks the capability to absorb additional resources which needs to be improved in order to make full use of the 18^{th} amendment which gives more power to the provincial governments. This power can be used by the provincial governments to work along with the international partners and the federal government to achieve higher goals.

In compliance with Article 25-A cost effectiveness would increase if inefficiently costs are identified and curtailed but as of now these costs are not taken into account in the projections.