

## Infrastructure Availability in the Public Sector Schools: A Case Study of Sindh Province

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### Abstract

This focus of this study is confined to primary and secondary education in Sindh province. This paper provides a comprehensive review of the facilities available at the primary and secondary schools especially within the context of rural and urban areas. This study investigates 48,865 Government schools in terms of efficient and well-organized allocation and utilization of resources in these schools. This paper is unique as it incorporates a wide range of micro data variables for the year 2011-12. This study will provide an insight of schools in terms of quantity of education in the province of Sindh.

**Key words:** Infrastructure, primary and secondary schools

### Introduction:

Education is one of the vital means of economic development and most important determinant of earnings. It plays an important role in human capital development. Pakistan's progress in improving its human development indicators has been uneven. Education in Pakistan is essentially a provincial responsibility. It is a major challenge in Pakistan, as public spending on education is less than 2.5% of GDP. Only nine countries in the world spend less on education including Pakistan. In the National Education Policy 2009, the government was required to allocate 7% by 2015, while it was supposed to allocate 3.19% for the current financial year.

However, according to the latest data received from the National Commission for Human Development, the government has been able to allocate only 2% for the year 2013-14, which is the lowest spending on education compared with other countries in the region. According to Economic Survey of Pakistan, 70 million children are in the age group of 5 and 19 years, out of which only 27.9 million were enrolled in schools. Unfortunately, the government failed to enforce the relevant laws in the past, despite the fact that an increase in the rate of primary school enrollments was suggested through its various educational and social reform policies.

Pakistan lacks proper implementation mechanism especially in the Education Sector. The poor performance can be judged by analyzing the average number of years of schooling in Pakistan which is 3.9 years in 2009, compared with 6.5 years in Sri Lanka, China, Philippines and Malaysia. Our vocational and technical infrastructure is generally inadequate, irrelevant and qualitatively poor. Consequently, a very small percentage of children at the secondary level enroll in technical education. Besides achieving high literacy rates, most East Asian and Latin America countries have a higher percentage of youth acquiring technical education than south Asian countries. High literacy rates and skilled human resources play an important role in increasing Total factor Productivity (TFP) and, hence, economic growth. A rising TFP helps achieving sustainable and high economic growth. Moreover, there are social benefits to a better-educated population.

The **Constitution of Islamic Republic of Pakistan, 1973** clearly lays down the provision in Article 37 (b) that: **"The State of Pakistan shall... remove illiteracy and provide free and compulsory secondary education within minimum possible period"**.

Section 9 of the constitution (Eighteen Amendment) Act, 2010 inserted a new article 25 (A) in the constitution, with effect from, April 19 2010. It says: **"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"**.

In Article 26 (1), **United Nation Universal Declaration of Human Rights, 1948**, it is clearly laid down that: **"Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education is compulsory."**

In the light of the commitment of the Government of Pakistan to the achievement of Universal Literacy and for the provision of free and compulsory elementary Primary Education as prescribed in the constitution of Pakistan and as outlined under article 26 of the universal declaration of human rights ratified by the United Nation.

Education is the basic fundamental human right of every individual education is the key determinant of economic productivity and earnings. Investment in education is said to be your future investment. Education is

the corner stone of women's employment. It is widely thought that education enables women to respond to opportunities to challenge their traditional roles to their lives. (UNDP 1997).

Since 1947, Pakistan has introduced some 22 policies and action plans. The National Educational Policy (NEP) 2009 is in a series of education policies dating back to the very inception of the country in 1947. The 18<sup>th</sup> Amendment, passed by the Parliament abolishes the "concurrent list" and gives much more provincial autonomy in matters of education health and several others sectors than was earlier available to the provinces.

Sindh is the second largest province of Pakistan in term of population. It is the province of 42 million people, are projected to be 89.8 million by 2030.<sup>1</sup> It has anonymous wealth of natural resources such as oil, coal and gas reserves, seaport and industries which bring large revenue for the country. The province's agricultural products are the major contributor in supplying food for the country's population. Despite its natural resources and agricultural products Sindh remains a poor province in poverty and education. The main cause of socio-economic backwardness is education and continues deterioration of education standards. Education sector in Sindh is facing a number of challenges in the form of low levels of school enrollments, high dropout rates specially at the primary and the secondary levels and particularly for the girls in the rural areas, poor quality of teaching and learning, teacher absenteeism, shortage of trend and qualified teachers-especially females, poor management and supervision structure, gender and rural urban imbalances, inappropriateness of curricula and pedagogy, lack of vision in community participation process and financial regularities. All these problems justifies a reason, however, no problem is as grave as the low quality of education, the poor morale and the dejected professional status of the government primary and secondary school teachers. Poor governance, weak accountability mechanism, weak institutions and lack of political will hamper efficient and effective public spending and service delivery in education. The Education Department, government of Sindh faces multiple inter-related challenges in the form of large stock of out of school children and illiterate adults, financial constraints and resources requirement, weak coordination between different tiers of governments, limited institutional capacity to design, plan, manage and implement programs and projects. Moreover, weak supervision and monitoring in the provision of text books, stipends, school bags, and other teaching and learning aids, lack of community participation in the form of School Management Committee (SMCs) and parents-teachers association (PTAs).

### **Review of Literature:**

In a UNESCO study for Pakistan (2011), it is emphasize that there are 45044 primary and 2668 middle schools in Sindh which reflect the rural urban disparity. However, the primary NER ratio showed improvement from 48% to 53% from 2004-05 to 2010-11 While the middle NER reflect a slight rise of 1% and reached at 19% during the same year. The physical facilities at both the primary and secondary level schools are quit dismal. It has been exposed that only 28% buildings are satisfactory for learning and teaching. Because of the poor availability of facilities the dropout rate is almost 36% from grade 5 to 6, depicts a huge decline. It is worth mentioning that the available teachers are professionally qualified in terms of their degrees but doesn't guarantee the provision of quality education.

At the secondary level there are 1662 schools. The NER at this level has unfortunately declined from 12% to 11% during 2004-05 and 2010-11 with high level of discrimination between rural-urban as well as male-female. The quality of physical facilities is mostly dismal and only 27% buildings are reported to be in functional condition in Sindh Education Management Information System (SEMIS) 2009-10. The school labs are mostly missing or not updated. While the specialized teachers for specific and prime subjects are short. The public schools only cater 39% of children at the secondary level while the share of private schools is almost 65% of total secondary schools in Sindh.

It has been emphasized that enrollment at primary and secondary schools are directly related with higher income. The primary and secondary enrollment and literacy rate are highly unexpected and undesirable as the government of Pakistan is spending huge amount apart from facilities in the form of free books, uniforms, bags, lunch and stipend. Pakistan is facing one of the lowest educational statuses of women in the world. According to the Ministry Of Women Development, only 19% of females had completed their matriculation degree all this is because of the high dropout rates at the elementary level.

"A mother with a primary education is 5 times (500%) more likely to send her child to school than a mother with no education" UNICEF Analysis<sup>2</sup>. The statistics provided on the government of Sindh website shows that on average 86.5% girls and 72.6% boys living in rural areas are deprived from the schools. This reflects that the education sector is the most neglected sector in Sindh comprising of ghost teachers and schools.

According to Sen (2000), the state has played a major role in expanding basic education across the world the rapid spread of literacy in higher-income countries in the west and East Asia has been through public

<sup>1</sup>"Policy analysis of education in Sindh"—UNESCO Pakistan, Dr. Sajid Ali, November 29.

<sup>2</sup> [homepage.ntlworld.com/myjamro/sindh/education.htm](http://homepage.ntlworld.com/myjamro/sindh/education.htm)

provision rather than through the market.

An important role performed by the public schools is that of cross-subsidization of the poorer by the rich. It may be lost when schools are bifurcated in the form of public and private. Under “Elite” sorting, there may be a decline in educational outcomes if there is a “peer effect”, where by all **good** students go to private schools and all bad students are force to remain with in the public system Hsieh and Urquiola, (2002) provide evidence for such sorting in the context of Chilean vouchers. Banerjee and Duflo (2011) find that parent invest in schooling for those children whom they consider to be bright. However, it implies that it is not fair to leave children education to there parent. Moreover, poor children with higher IQ levels are more likely not to attend schools then average-intelligent children from rich families. The quality of education for poor children will also be lower than that for rich ones. Therefore, education in a country like Pakistan can not be persuaded from a purely demand side perspective.

There are numerous ways to highlight inequalities in the public sector schools in terms of infrastructure, net enrollment rate, gender wise, districts wise availability of schools, number of total enrollment availability of teacher class rooms and the student teacher ratio, student school ratio and the student class room ratio including the building ownership of schools. All these variables highlight the different dimension of disparities at different stages of education including indicating access to educational facilities for both males and females in the public sector.

Karachi being the urban center and the city of the educated elite shows a very positive picture in term of availability of schools, class rooms, teacher student ratio, student school ration and student class room ratio.

District	Number of Schools					
	Level					
	Primary	Elementary	Middle	Secondary	Higher Secondary	Total No. of Schools
<b>Badin</b>	2962	12	120	47	9	3150
<b>Dadu</b>	2008	2	68	47	10	2135
<b>Ghotki</b>	1865	13	85	33	4	2000
<b>Hyderabad</b>	903		81	82		1066
<b>Jacobabad</b>	1460	7	59	25	9	1560
<b>Jamshoro</b>	819		30	34	5	888
<b>Kambar-Shahdadkot</b>	1571		67	32	9	1679
<b>Karachi City</b>	2530	203	252	583	40	3608
<b>Kashmore</b>	1374	13	67	44	6	1504
<b>KhairpurMirs</b>	3369	29	166	97	17	3678
<b>Larkana</b>	1222		67	51	10	1350
<b>MirpurKhas</b>	2052	4	119	61	14	2250
<b>Mitiari</b>	946		45	32	2	1025
<b>NausheroFeroze</b>	2222	35	153	48	17	2475
<b>Nawab Shah</b>	2545	12	109	59	10	2735
<b>Sanghar</b>	3152	7	106	62	17	3344
<b>Shikarpur</b>	1255	2	66	47	9	1379
<b>Sukkur</b>	1226	38	36	63	9	1372
<b>Tando Allah Yar</b>	773	1	36	22	4	836
<b>Tando Mohammed Khan</b>	986	16	14	37	2	1055
<b>TharparKar</b>	3872	1	233	40	5	4151
<b>Thatta</b>	3161	4	68	62	10	3305
<b>Umerkot</b>	2187	4	73	46	10	2320
<b>Average</b>	1933.04	22.38	92.17	71.91	10.36	2124.56
<b>TOTAL</b>	44460	403	2120	1654	228	48865

Source: Summarized and Calculated by Authors

#### **Explanation of Table no. 1:**

A total of 48,865 schools were reported in SEMIS. 44,460 were primary which is 91%, 403 elementary which is 0.82%, 2120 Middle which is 4.34%, 1654 secondary which is 3.39% and 228 higher secondary which is only 0.47%. The statistics show the large number of schools at the primary level which points out the fact that the government is only concentrating and focusing the primary education. Tharparkar, being the rural area and one of the poor ridden areas has the highest number of schools 3872, followed by KhairpurMirs and Thatta having

3369 and 3161 Schools. Karachi being the urban center and the metropolitan city has the highest number of middle schools i.e. 203, Tharparkar having 233 and KhairpurMirs having 166 schools. At the secondary level Karachi is again on the top in terms of Physical infrastructure that is building, followed by KhairpurMirs and Hyderabad.

<b>Table 2: Number of Schools according to Gender</b>				
<b>District</b>	<b>Number of Schools</b>			
	<b>Gender</b>			
	<b>Mixed</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Dadu</b>	1233	506	396	2135
<b>Ghotki</b>	1001	742	257	2000
<b>Hyderabad</b>	581	263	235	1079
<b>Jacobabad</b>	834	448	278	1560
<b>Jamshoro</b>	479	212	197	888
<b>Kambar-Shahdadkot</b>	996	377	306	1679
<b>Karachi City</b>	1623	1078	907	3608
<b>Kashmore</b>	766	538	200	1504
<b>KhairpurMirs</b>	1638	1424	616	3678
<b>Larkana</b>	840	218	292	1350
<b>MirpurKhas</b>	1335	497	418	2250
<b>Mitiari</b>	740	131	154	1025
<b>NausheroFeroze</b>	1341	734	400	2475
<b>Nawab Shah</b>	1778	482	475	2735
<b>Sanghar</b>	2128	779	437	3344
<b>Shikarpur</b>	561	563	255	1379
<b>Sukkur</b>	679	430	263	1372
<b>Tando Allah Yar</b>	541	156	139	836
<b>Tando Mohammed Khan</b>	655	244	156	1055
<b>Tharparkar</b>	2902	620	629	4151
<b>Thatta</b>	1405	1394	506	3305
<b>Umerkot</b>	1226	623	479	2328
<b>Total</b>	27519	12929	8444	48892
<b>Average</b>	1196.48	562.13	367.13	2125.74

Source: Summarized and Calculated by Authors

#### **Explanation of Table no. 2:**

A total of 48,892 schools were reported according to gender in SEMIS. 27,519 were mixed gender schools which are 56.3%, 26.44% are male schools while 17.27% are female schools. The statistics show around 12,929 schools belongs to male, and only 8,444 schools belong to female which shows discrimination. It is important to mention, that in a patriarchal and traditional society specifically in rural Sindh where the females can't commute to any place without their elders and mostly they observed pardah how can they freely travel to their educational institutes. It is also surprising that the numbers of co education schools are huge in numbers specifically in rural Sindh. It can easily be analyzed that the number of schools never matters whether it is co education or only female schools nor the enrollment ratio depict the true picture of female education. The key point is to observe the dropout rates from primary and secondary education. There exists wide gender disparity in gross enrollment ratio in all levels of education and across income group.

<b>Table 3: Number of Schools district and status wise – Sindh</b>			
<b>District</b>	<b>Number of Schools</b>		
	<b>Status</b>		
	<b>Functional</b>	<b>Closed</b>	<b>Total</b>
<b>Dadu</b>	1997	135	2132
<b>Ghotki</b>	1997	3	2000
<b>Hyderabad</b>	1072	7	1079
<b>Jacobabad</b>	1416	144	1560
<b>Jamshoro</b>	768	120	888
<b>Kambar-Shahdadkot</b>	1529	150	1679
<b>Karachi City</b>	3555	53	3608
<b>Kashmore</b>	1375	129	1504
<b>KhairpurMirs</b>	3387	291	3678
<b>Larkana</b>	1350	N.A.	1350
<b>MirpurKhas</b>	2125	125	2250
<b>Mitiari</b>	933	92	1025
<b>NausheroFeroze</b>	2274	201	2475
<b>Nawab Shah</b>	2514	221	2735
<b>Sanghar</b>	2938	406	3344
<b>Shikarpur</b>	1048	331	1379
<b>Sukkur</b>	1235	137	1372
<b>Tando Allah Yar</b>	731	105	836
<b>Tando Mohammed Khan</b>	988	67	1055
<b>Tharparkar</b>	3420	731	4151
<b>Thatta</b>	2560	745	3305
<b>Umerkot</b>	1987	341	2328
<b>Total</b>	44037	4846	48883
<b>Average</b>	1914.65	22.27	2125.35

Source: Summarized and Calculated by Authors

### **Explanation of Table no. 3:**

A total of 48,883 schools were reported according to status in SEMIS. 44,037 schools are functional which are 90.09% and 4,846 schools are closed which are 9.91%. The statistics show that around 10% schools are closed, in this situation where education level is so low 4,846 closed schools means a lot. The phenomenon of Ghost schools and ghost teachers is prevalent especially in rural areas of Sindh which deprived children from decent education. It is worth mentioning that in July 2012, the chairman NAB had taken notice of alleged 41,000 ghost schools and 100,000 ghost teachers in Sindh. These ghost/closed schools are being used as store houses, cattle pens or even as sitting rooms for the feudal lords and others taken over by various vested interest group. However, in February 2013 it has been mentioned by the former education Minister Sindh, that 17000 building structures were constructed in the name of schools and found abundant in various part of the province which had been expunged from the list of 5700 non-functional schools. The preliminary inquires had revealed that those school were constructed on the request of influential people during the previous regime. It was also revealed out of 5700 closed schools that had succeeded in reopening 1400 schools and had ensured teaching staff and other facilities for students. These Ghost/closed schools are highest in Thatta and Tharparkar districts. Among the total schools of 4151 only 3420 schools are functional and 731 are closed in Tharparkar. Out of 3305 schools of Thatta 745 are closed and 2560 are functional which shows a pathetic condition of schools in these districts. The population of district Tharparkar is dispersed throughout the districts. The population of the same district is very

poor even the facility of safe drinking water is not available to the people living in that area. It is thought provoking exercise to think that the people have an access of brackish water for drinking have no proper houses but have highest number of schools (ghost schools).

<b>Table 4: Number of Total Enrollment, Teachers, Class rooms, and schools - Sindh</b>				
<b>District</b>	<b>Total</b>	<b>Total</b>	<b>Total no. of</b>	<b>Total No.</b>
	<b>Enrolment</b>	<b>Teachers</b>	<b>Class Rooms</b>	<b>of Schools</b>
Badin	185828	6105	4944	3150
Dadu	251534	7189	4719	2135
Ghotki	216901	4551	3888	2000
Hyderabad	169467	8635	4801	1066
Jacobabad	162808	4774	2860	1560
Jamshoro	81874	2765	2590	888
Kambar-Shahdadkot	195774	4185	3800	1679
Karachi City	567897	27049	22549	3608
Kashmore	107773	3056	1970	1504
KhairpurMirs	331884	9265	8014	3678
Larkana	225919	6840	4286	1350
MirpurKhas	160690	5846	4326	2250
Mitiari	91348	3490	2808	1025
NausheroFeroze	255973	6727	5590	2475
Nawab Shah	206704	6134	5441	2735
Sanghar	262338	9051	6243	3344
Shikarpur	130355	4429	3727	1379
Sukkur	156560	5182	4236	1372
Tando Allah Yar	69291	1940	2177	836
Tando Mohammed Khan	60990	2181	2026	1055
Tharparkar	221203	5420	5416	4151
Thatta	162663	5457	5508	3305
Umerkot	127219	3807	3865	2320
<b>Total Sindh</b>	<b>4402993</b>	<b>144078</b>	<b>115784</b>	<b>48865</b>

Source: Summarized and Calculated by Authors (data take from SEMIS 2011-12)

**Explanation of Table no. 4:**

Out of the total of 48,865 schools, 44,02,993 numbers of students are enrolled, 1,44,078 teachers are available, 1,15,784 class rooms are available to adjust 44.02,993 students and only 44,037 schools are functional which shows dismal picture of the schooling system in Sindh. Apart from Karachi, Khairpur Mir has the highest number of enrollments which is 331884 while Sanghar has 262338 enrollments followed by Dadu and Larkana.



<b>Table 5: Student ratio per teacher, school and class room –Sindh</b>			
<b>District</b>	<b>Ratio</b>		
	<b>Student/Teacher</b>	<b>Student/School</b>	<b>Student/Class Room</b>
Badin	30.44	58.99	37.59
Dadu	34.99	117.81	53.3
Ghotki	47.66	108.45	55.79
Hyderabad	19.63	158.97	35.3
Jacobabad	34.1	104.36	56.93
Jamshoro	29.61	92.20	31.61
Kambar-Shahdadkot	46.78	116.60	51.52
Karachi City	21	157.40	25.19
Kashmore	35.27	71.65	54.71
KhairpurMirs	35.82	90.23	41.41
Larkana	33.03	167.34	52.71
MirpurKhas	27.49	71.41	37.15
Mitiari	26.17	89.12	32.53
NausheroFeroze	38.05	103.42	45.79
Nawab Shah	33.7	75.57	37.99
Sanghar	28.98	78.45	42.02
Shikarpur	29.43	94.53	34.98
Sukkur	30.21	114.11	36.96
Tando Allah Yar	35.72	82.88	31.83
Tando Mohammed Khan	27.96	57.81	30.1
Tharparkar	40.81	53.29	40.84
Thatta	29.81	49.21	29.53
Umerkot	33.42	54.83	32.92
<b>Average</b>	<b>32.61</b>	<b>94.29</b>	<b>40.38</b>

Source: Summarized and Calculated by Authors

#### **Explanation of Table no. 5:**

Above table shows student to teacher, student to school and student to class room ratios. The lowest student to teacher ratio is in Hyderabad which is 19.63 students per teacher. Student to teacher ratio is in Karachi which is 21 students per teacher. These two cities have lowest students to teacher ratio so naturally quality of education in both districts is high as compare to other districts. Average students to teacher ratio are 32.61. Tharparkar and Ghotki have highest students to teacher ratio which is 40.81 and 47.66 respectively. So naturally quality of education in both districts as compare to other districts is relatively low.

The lowest student to school ratio is in Tharparkar which is 53.29 students per school. Average students to school ratio are 94.29. Karachi district is one of the mega districts according to population and have second highest students to school ratio which is 157.4 and Hyderabad has 158.97 students to school ratio.

The lowest student to school ratio is in Karachi which is 25.19 students per Class Rooms. Average students per Class Room ratio are 40.38 Jacobabad district have highest students to Class Room which is 56.93.

#### **Conclusion and Recommendations:**

In the nutshell, primary, secondary and higher education system of Sindh hugely suffer on account of the host of policies, management and implementation issues besides; corruption and vested interest remain at the center of the problem. On the part of the government, despite of the involvement of multiple donor agencies the government has failed to achieve the pronounced goals and objectives of the part of the government.

It is therefore recommended that it's not the infrastructure or buildings that can enhance the literacy rate.

Rather it is the quality of teaching and education that can improve overall literacy rate. We all have to change the mindset of the people, so that the real fruits and happiness could be enjoyed by the whole society.

- 1) It is being recommended that no new school to be constructed and the condition of the existing schools may improve in term of infrastructure, facilities, teaching and labs.
- 2) The government may take severe actions against the ghost teachers along with ghost schools.
- 3) The so called “public school mafias” may be dealt with strict punishment.
- 4) The existing school buildings in the rural areas may be utilized and consumed for educational and vocational activities.
- 5) We must clearly focus on quality, gender equality, and improvement in literacy, learning opportunities for the young and adults, free and compulsory basic education and early childhood education. The early childhood education provides an essential basis for whole of the education.
- 6) In Pakistan, the disparity in quality of education is prominent in inter-regional variations across Sindh which needs to be address on urgent basis.
- 7) There is dire need to revise, review and set target in the budget allocation framework. Intra and inter-department accountability is essential for the judicious utilization of funds.

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