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An Analysis of Public Expenditure on Education in Pakistan

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I. INTRODUCTION

Achieving economic growth is an important goal of any country. However, in recent years it has increasingly been realised that economic growth is a necessary but not a sufficient condition for human development. Pakistan provides a good example of a country which has historically enjoyed a respectable GDP growth rate and yet failed to translate this positive development into a satisfactory level of human development. Since its independence in 1947, Pakistan's development policies have focused primarily on realising high economic growth and only incidentally on the task of providing social necessities. Such a process has given rise to a structure of production and distribution which has been only indirectly responsive to social goals. However, there is now a growing realisation that we could have done much better had we stressed human resource investments relatively more.

The Education For All (EFA) movement, started more than a decade ago in 1990, accelerated the process of human resource development in many developing countries. The EFA refers to the global commitment to ensure that all children would complete Primary Education of good quality. A decade after, the Millennium Declaration resolved to ensure, by 2015, that all children would be able to complete a course of primary education.

Pakistan, like other developing countries, responded positively to the declaration. Measures like the Education Sector Reforms (ESR) Action Plan for 2001-04 and National Plan of Action (NPA) for education, a long-term framework (2001-15), indicate its commitment with EFA goals. However, the facts contained in the recent Human Development Report reveal an alarming situation regarding current human resource status in Pakistan. According to the Human Development Index (HDI)

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ranking, Pakistan is at the 144th place among 175 countries, lying in the Low Human Development class. Moreover, it occupies the last position in South Asian region and slipped in the low class from Medium class in the last few years. Table 1 presents some indicators reflecting relative position of the country in South Asia.

Table 1

Indicators Showing Relative Positions of South Asian Countries (2001)

Country	GDP Per Capita	HDI	GDP-HDI	HDI Rank
Bangladesh	1,610	0.502	7	139
Bhutan	1,833	0.511	5	136
India	2,840	0.590	-12	127
Maldives	4,798	0.751	7	86
Nepal	1,310	0.499	8	143
Pakistan	1,890	0.499	-7	144
Sri Lanka	3,180	0.730	13	99
Developing	3,850	0.655		
South Asia	2,730	0.582		

Source: Human Development Report 2003.

The table shows that in terms of GDP per capita, which measures the standard of living, Pakistan is better than Nepal, Bangladesh, and Bhutan but lost its position in terms of HDI largely due to low achievements in Education sector. The table further shows the difference between ranking in terms of GDP per capita and HDI. A positive figure indicates that the HDI rank is higher than the GDP per capita rank. It can be seen that India and Pakistan are the two countries in the region showing negative numbers indicating that these countries rank higher in terms of GDP. Nepal and Pakistan are the two countries in the region lying in the low class.

The above facts suggest that serious efforts should be made to improve the status of education sector in the country. Perhaps, the most important factor responsible for this situation is the allocation of inadequate resources by the public sector to education. This study attempts to analyse the priorities accorded to Education by the federal as well as the provincial governments. Since education is in large part a provincial responsibility, a comparative analysis of the performance of the public sector education in the four provinces of Pakistan would be useful to provide feedbacks to the provincial administrations of relative strengths and weaknesses of their educational system. Also, differences in priorities and performance among provinces provide useful insights, and, more importantly, raise many questions for planners. Such an analysis is also necessary for overall resource allocation. The analysis will be extended to district level but confined to Punjab and Sindh due to data constraints. The study will also examine the disparities in budget allocations to education in the two provinces.

II. EXPENDITURES ON EDUCATION IN SOUTH ASIA

We begin our analysis by looking at the trends and patterns of budgetary allocations to education in South Asian nations. Table 2 shows the indicators reflecting priorities to education in these countries.

Table 2

Public Expenditure on Education in South Asian Countries

Country	As % of GDP		As % of Govt. Expenditures	
	1990	1998-2000	1990	1998-2000
Bangladesh	1.5	2.5	10.3	15.7
Bhutan	Na	5.2	na	12.9
India	3.9	4.1	12.2	12.7
Maldives	4.0	3.9	10.0	11.2
Nepal	2.0	3.7	8.5	14.1
Pakistan	2.6	1.8	7.4	7.8
Sri Lanka	2.6	3.1	8.1	8.9

Source: Human Development Report 2003.

It can be seen that in 1990, the starting point of EFA movement, Pakistan was only behind India and the Maldives in terms of allocating resources to education as percent of GDP. Over the decade, however, it has lagged behind every country in the region. A significant drop in the proportion of GDP allocation to education is amasing which casts doubt regarding its commitment with EFA goals. The other countries, in general, have increased allocations to education with Nepal showing the highest increase. The other indicator, allocations to education as percent of Government Expenditures, also shows Pakistan to be in the last position indicating that the country allocates least proportion to education relative to its neighbouring countries. It is worth noting that Nepal, the other country in the region belonging to low human development class showed significant improvements in allocations to education over the decade indicating that the country will soon advance to upper class.

III. RESOURCE ALLOCATIONS TO EDUCATION IN PAKISTAN

The above analysis clearly indicates that Pakistan accords least priority to education sector relative to its fellow countries in South Asia. We now look at the issue closely using National documents. Table 3 provides information on national budgets allocated to education over time.

Table 3

National Education Budget (1995-96 to 2002-03)

Years	As % of GDP	As % of Govt. Exp.	Recurr(%)	Develop(%)
1995-96	2.0	8.2	93.87	6.13
1996-97	2.6	7.9	95.37	4.63
1997-98	2.3	7.7	93.92	6.08
1998-99	2.4	7.6	95.09	4.91
1999-00	1.7	7.6	95.50	4.50
2000-01	1.6	7.9	96.51	3.49
2001-02	1.9	8.2	96.29	3.71
2002-03	1.7	7.8	96.27	3.73

Source: *Economic Survey 2002-03*.

The table shows that prior to the start of new millennium the budgets allocated to education were greater than 2 percent of GDP with highest allocations in 1996-97. A decline in proportion of GDP allocations to education with the start of new millennium is surprising and is not in line with the commitment to attach high priority to education. It is even more surprising in the light of recommendation suggested in the National Education Policy (1998) that allocations to education should be enhanced to more than 3 percent of GDP.

The table further shows that the proportions of education budgets in national budgets remained closed to 8 percent over time. Moreover, an extremely high proportion, more than 95 percent, of education budgets are spent on recurrent heads, particularly on salaries of teaching staff, with negligible proportions remaining for development expenditures.

IV. PROVINCIAL EDUCATION BUDGETS IN PAKISTAN

Education in Pakistan is a provincial subject. According to the National Finance Commission Award, provinces receive funds from the federal divisible pool in accordance with a formula, largely based on the provincial shares of population. The provinces then, along with their own resources, allocate funds across various sectors, depending on their respective priorities. Table 4 provides information regarding provincial budgets allocated to the education sector.

The table shows that at the provincial level allocations to education sector varies between 20 percent –30 percent, Punjab, on average, allocates the highest funds to education followed by NWFP. The table also reveals a general declining trend in allocations to education. It can also be seen from the table that the major proportions of provincial education budgets, like national education budget, are spent on recurrent heads. At present, on average, this proportion ranges between 80 percent in Balochistan to 95 percent in Punjab. As such, little amounts are left for development expenditures. Particularly, in Punjab only 5 percent of the education budget is spent on development heads. On the other hand the proportion is close to 20 percent in Balochistan.

Table 4

Provincial Education Budgets (1998-99 to 2002-03)

Provinces/Years	As % of Total Budget	Recurr. (%)	Develop. (%)
Punjab			
1998-99	31.58	92.10	7.90
1999-00	31.44	95.14	4.86
2000-01	25.36	94.51	5.49
2001-02	24.82	95.64	4.36
2002-03	23.59	95.83	4.17
Sindh			
1998-99	21.75	85.84	14.16
1999-00	21.87	91.35	8.65
2000-01	18.95	91.56	8.44
2001-02	17.46	91.98	8.02
2002-03	19.01	91.52	8.48
NWFP			
1998-99	29.18	85.57	14.43
1999-00	28.89	86.38	13.62
2000-01	24.96	87.59	12.41
2001-02	22.42	92.59	7.41
2002-03	16.41	79.62	20.38
Balochistan			
1998-99	22.18	91.27	8.73
1999-00	23.53	73.96	26.04
2000-01	20.60	84.14	15.86
2001-02	19.64	79.27	20.73
2002-03	26.69	79.39	20.61

Source: Provincial Budget Documents.

V. ALLOCATIONS TO EDUCATION AT THE DISTRICT LEVEL

With the start of the devolution plan in recent years now districts receive funds from the respective provinces in accordance with a formula. The districts then, along with their own resources, allocate funds across various sectors, including Education sector. Table 5 provides information regarding allocations to the education sector at the district level for the year 2001-02.

Table 5

Districts Education Budgets for the Year 2001-02

Districts	As % of Total Budget	Recurr. (%)	Develop. (%)
Punjab			
Rawalpindi	59.54	94.76	5.24
Sahiwal	63.66	95.95	4.05
Pakpattan	50.28	89.88	10.12
Khushab	54.80	90.61	9.39
Kasur	57.16	95.37	4.63
Sheikhupura	62.88	95.81	4.19
Bahawalpur	60.84	93.76	6.24
Faisalabad	64.20	96.57	3.43
Mandi Bahauddin	56.38	90.68	9.32
Multan	63.38	97.05	2.95
Chakwal	55.43	93.83	6.17
Gujranwala	63.77	94.59	5.41
Bhakkar	50.16	91.21	8.79
Lahore	67.04	96.78	3.22
Attock	56.80	94.36	5.64
Gujrat	63.58	95.02	4.98
Bahawalnagar	60.31	95.61	4.39
Narowal	60.29	93.24	6.76
R.Y. Khan	62.50	95.91	4.09
Layyah	55.73	89.99	10.01
T.T. Singh	57.65	95.63	4.37
Jhelum	54.79	93.44	6.56
Rajanpur	49.77	90.11	9.89
Mianwali	54.20	93.54	6.46
Hafizabad	62.97	91.07	8.93
Muzaffargarh	56.61	93.76	6.24
Sargodha	56.61	94.18	5.82
Okara	60.17	94.93	5.07
Vehari	58.23	95.80	4.20
D.G.Khan	52.60	93.66	6.34
Jhang	63.80	95.60	4.40
Khanewal	64.15	94.26	5.74
Lodhran	54.91	91.41	8.59
Sialkot	63.32	97.02	2.98
Sindh			
Karachi	72.14	92.44	7.56
Ghotki	62.75	96.06	3.94
N.Feroze	65.19	94.28	5.72
Sukkur	63.34	94.35	5.65
Larkana	69.87	96.92	3.08
Khairpur	66.15	97.38	2.62
Nawabshah	61.94	96.83	3.17
Thatta	56.62	95.62	4.38
Hyderabad	58.89	94.61	5.39
Badin	57.68	94.06	5.94
Shikarpur	57.16	96.23	3.77
Dadu	54.58	98.07	1.93
Jacobabad	65.17	97.81	2.19
Mithi	43.96	88.88	11.12
Sanghar	51.91	94.82	5.18
Mirpurkhas	59.82	96.02	3.98

Source: District Budget Reports 2001-02.

It can be seen that at the district level education gets an allocation, in general, close to 60 percent. The range varies between 50 percent—67 percent in Punjab and 44 percent –72 percent in Sindh. However, the major proportions of budgets are spent on recurrent heads leaving little amount for development expenditures. In general, about 5 percent of education budgets are spent in development heads whereas, the proportion is as little as 1.93 percent in Dadu. Only 2 of 34 districts in Punjab and 1 of 16 districts in Sindh allocates more than 10 percent of education budgets in development heads.

The relative positions of districts regarding allocations to education can be examined with the help of Representation Indices and Gini coefficients.

Representation Index

The Representation Index (RI) shows the degree of representation of a particular group or area with respect to some standardised level. For example, in allocation of resources to education sector by a district, a district can be under or over-represented relative to provincial level. Specifically, for any district,

$$RI = \frac{(E_i / E)}{(T_i / T)}$$

Where

E = total provincial budget on education

P = total provincial budget

E_i = i th's District budget on education

T_i = i th's District total budget

In other words, $RI = \frac{\text{Percent budget on education in district } i}{\text{Percent of total budget in district } i}$

Gini Coefficients

The Gini coefficient is a single statistic that summarises relative inequality across all groups or areas. The possible range of Gini coefficient is from 0.0, representing absolute proportionality or equality, to 1.0 representing complete inequality.

Table 6 contains the statistics for Punjab and Sindh.

The table shows that slightly more than half of the districts in Punjab and Sindh are underrepresented districts in terms of budget allocation to education sector. The low Gini coefficients indicate that there seem to be no disparities among districts in the allocation of resources to the education sector.

Table 6

Representation Indices and Ginis for Punjab and Sindh

Punjab	R.I.	Sindh	R.I.
Rajanpur	0.832	Mithi	0.701
Bhakkar	0.838	Sanghar	0.828
Pakpattan	0.841	Dadu	0.870
D.G.Khan	0.879	Thatta	0.903
Mianwali	0.906	Shikarpur	0.912
Jhelum	0.916	Badin	0.920
Khushab	0.916	Hyderabad	0.939
Lodhran	0.918	Murpurkhas	0.954
Chakwal	0.927	Nawabshah	0.988
Layyah	0.932	Ghotki	1.001
Mandi Bahauddin	0.943	Sukkur	1.010
Sargodha	0.946	Jacobabad	1.039
Muzaffargarh	0.946	Naushero Feroze	1.040
Attock	0.949	Khairpur	1.055
Kasur	0.956	Larkana	1.114
T.T.Sing	0.964	Karachi City	1.151
Vehari	0.973		
Rawalpindi	0.995		
Okara	1.006		
Narowal	1.008		
Bahawalnagar	1.008		
Bahawalpur	1.017		
R.Y.Khan	1.045		
Sheikhupura	1.051		
Hafizabad	1.053		
Sialkot	1.059		
Multan	1.059		
Gujrat	1.063		
Sahiwal	1.064		
Gujranwala	1.066		
Jhang	1.067		
Khanewal	1.072		
Faisalabad	1.073		
Lahore	1.121		
Gini	0.041		0.065

VI. EDUCATION BUDGETS AND LITERACY

The low priority accorded to the education sector, especially in development expenditures, may cause variations in the literacy levels among various districts. It is possible that expenditures on education and literacy levels are interdependent with each other. The study by Husain and Qasim (2003) shows that there exist large disparities in Punjab and Sindh in terms of literacy rates. Districts like Rajanpur, Muzaffargarh, Lodhran, D. G. Khan, etc., in Punjab and Mithi, Thatta, Badin, etc. in Sindh which are highly illiterate also allocates less budgets to education relative to others. To see the possible correlation between the literacy level and the expenditure on education by districts we calculated rank correlation between the two and the Spearman's rank correlation for Punjab and Sindh came out 40 percent and 51 percent respectively. Furthermore the rank correlation test is significant at 5 percent for the two provinces. The positive and significant correlation between district's literacy rates and district's allocation of funds to education implies that without a significant increase in allocation of funds to education especially, for development purposes, the attainment of EFA goals would be a nightmare.

VII. CONCLUSIONS

The study analysed the allocation of funds to the education sector at various levels. At the provincial level allocations to the education sector as percentage of total budget stands between 20 percent to 30 percent. The major proportion of provincial education budget is used to meet the recurring expenditures, the expenditures meant for the maintenance of existing national assets. The development expenditures, necessary to generate future national assets, on the other hand are less than ten percent for Sindh and Punjab where as for NWFP and Balochistan it is 15 percent to 20 percent of the total education budget. The allocation of resources at the districts of Punjab and Sindh depict the similar picture as for the provincial level. There is no disparities between the districts on allocation of funds to the education sector. It is, however, noticed that there is a positive correlation between the district's literacy rates and the district's allocation of funds to education sector. It is recommended that to meet the EFA goals, allocations to the education sector, especially for development expenditures, needs to be enhanced.

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