



Research Article

Public Expenditure on Primary Education: A Study of Gorkha District, Nepal

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Abstract

The Nepalese education system is more competitive and harmonious although for the lack of funds and resources. The present education system is still in the transition phase. The study has focused on the impact of public expenditure on primary education and try to show how there is increasing government involvement and how it has continued with the rising educational expenditure. The focus of the objective of this article is to show the importance of public expenditure on primary education in the context of Nepal in Gorkha district. The data gathering tool used is secondary methods from the publication of the 'financial and educational structure of Gorkha' and 60 households has been taken. A structural simple statistical method is used in which objectives are well defined and aimed at a specific type of information. Government budget on primary education is taken as dependent variable and income as an independent variable in this study. This research article concludes that the government contribution to primary education is tremendously significant in the development of education in Nepal. To reduce the imbalance, education should provide more incentive to people for educational development.

Introduction

Historical perspectives of education of the world were not aware of public education. The most advanced part of the world as to education-Europe regarded education as a privilege of the wealthy and deprived of education as inevitable for the grassroots. England established tutorial systems and preparatory schools and universities for the children of the prosperous classes' one.

Education in ancient Nepal was regarded as an internal part of religion. It was a sacred consortium of the 'GURU' the 'CHELA' and 'community' with highly pronounced moral and religious overtones. Institutional arrangements were simple 'Ashrams' and the classes were held in the open solitude of woods. During the early period, education was not widespread. The Brahman and Buddhist supported education from the priesthood, alms collected, income from domestic cattle and charities from the community (You Me

Nepal, 2015). The concept of virtue by itself led the pace of education development in ancient Nepal. But this does not mean that there was no assistance for educational development.

The contemporary Nepali education system did not evolve before 1951 when the country began to transition from an absolute monarchy to a more representative political system, despite various political setbacks over the following decades. Since then, access to education has expanded greatly. Reforms such as the 1971 National Education System Plan have created a much more modern and egalitarian education system with compulsory public basic education (Dhungana, 1973). In 2000, while the education was not compulsory throughout Nepal, the country was committed to providing free universal education from grades 1-10.

Nepal has ambitious plans in place to turn education around by 2015 and ensure that every Nepalese child has an equal chance. The current program begins with 5 years of primary school, with pre-primary preparation available only in a few areas. At the end of this period, a standard school leaving certificate examination is prescribed.

By Province, the highest percentages of schools are in Province No. 3 (19.7 percent), and the lowest percentages are in Karnali Province (9.1 percent). Likewise, Province No. 1, Province No. 2, Gandaki Province, Province No. 5, and Sudurpashchim Province possess 19.2 percent, 11.5 percent, 12.3 percent, 16.3 percent and 11.9 percent of schools respectively. Out of 35,601 existing schools of academic year 2017/18, additional 327 schools have been established, 873 schools (community, institutional and religious) have been closed and merged. Therefore, the total number of schools up to academic year 2018/19 remains 35,055 (Table 1).

From the Table 2, we explain that the girl's enrolment in Nepal or girl's enrolment in Gorkha district, there is higher than the boy's enrolment. The Table 2 shows that insufficient schools and teachers are in Nepal.

Government spending on education in Nepal has declined in recent years in entire education in Nepal and the government spent on primary education has also declined these years. Gorkha districts education budget also declined and also declined in primary education too (Table 3).

Table 1: Province Wise Division of Schools

Province	Total School (Units)	Basic Grade (1-5)	Basic Grade (6-8)	Secondary Grade (9-10)	Secondary Grade (11-12)
1	6742	6679	3088	1784	679
2	4042	3985	1547	817	403
3	6911	6795	3806	2656	986
Gandaki	4311	4273	1928	1268	566
5	5698	5632	2555	1494	533
Karnali	3190	3134	1213	627	232
Sudurpashchim	4161	4121	1892	997	403
Total	35055	34619	16029	9643	3802

Source: Ministry of Education, Science and Technology, Educational Report 2017, FY 2018/19

Table 2: Schools, Teachers and Students of Gorakha District in 2017

S. N.	Community Schools	Institutional Schools	Total Schools	Girls Students	Boys Students	Total Students	Approved Teachers	Rahat Teachers	Total Teachers
Nepal	29035	6566	35601	3769124	3622400	7391524	109118	38420	147538
Gorakha District	484	51	535	43141	39260	82401	2072	456	2528

Source: Education in Figures 2017 (At a Glance Report), Ministry of Education, Science & Technology (Statistics, Policy and Research Section)

Table 3: Education Budget Flow Trend FY. (2010/011 - 2017/2018) (NPR in thousand)

Fiscal Year Budget	2067/68 (2010/2011)	2068/69 (2011/2012)	2069/70 (2012/2013)	2070/71 (2013/2014)	2071/72 (2014/2015)	2072/73 (2015/2016)	2073/74 (2016/2017)	2074/075 (2017/018)
Total National Budget	-	384900000	404824700	517240000	618100000	819468884	1048921354	1278994855
Share % of Education Budget Compared to National budget	17%	63918839 (16.61%)	63431397 (15.67%)	80958080 (15.65%)	86034055 (13.92%)	98642826 (12.04)	116360649 (11.09)	1266421 (9.90%)
Total Gorakha District Education Budget	-	830284.23	823844.55	1051273.5	1117396.36	1281351.3	1510719.16	1644421.95
Total Gorakha District Primary Education Budget	-	276761.41	274614.85	350457.83	372465.44	427117.1	503573.05	548140.65
Govt. Share in National Budget	77	76	78	77.84	80.11	74.87	91.12	-
Foreign Share in National Budget	23	23.78%	19.63%	22.08%	13.36%	14.68%	8.8%	-

Source: MOEST Financial Admin Section; Budget & Program Section Report; DOE Budget & Program Sec. 2074/075

Table 4: Estimated Per Teacher and Per Student Expenditures in Gorkha in 2017 (NPR in thousand)

Level	No. of Teachers	Annual cost per teacher	Annual Total cost	No. of Students	Annual average cost per Student
Basic (1-5)	1280	480	614400	26200	23
Basic (6-8)	1325	960	12,72,000	33,400	38
Secondary Class (9-10)	192	1,500	1,380,000	12,700	122
Secondary Class (11-12)	180	3,000	390,000	1,300	300
Total Average	3,655	5940	3,656,400	73,000	50

Source: MOEST Financial Admin Section; Budget & Program Section Report; DOE Budget & Program Sec. 2074/075

Primary education typically starts in the first grade with the minimum age of entry being six years and its grade starts from one to grade five. Completion of primary level ordinarily requires five years of schooling. However, entry at minimum age and five years of schooling are not mandatory requirements to complete primary school. In 2017, the annual cost per teacher was 480 thousand and annual total cost of the total teachers at primary level was 614400 thousand in a primary school in Gorkha district. Likewise, the per-student annual cost in primary student was 23 thousand in Gorkha district.

Objectives and Related Literature

Public expenditure on primary education plays a vital role in the economic development of an underdeveloped economy where the private sectors are nearly absent. The basic objectives of the study are to examine the effectiveness of public expenditure on primary education in the context of development in Nepal and to examine the impact of public expenditure on primary education in Nepal.

For the intended study several studies by different institution and individuals relating to educational finance

and expenditure; have been briefly reviewed to fulfil the objectives of the study.

Educational expenditures have become more and more representatives of all national efforts being taken towards there end (Dhungana, 1976). So, in his view, the nature of the trends of educational expenditure depends upon the national efforts of the countries on the field of education.

Theodore (1998) in his article 'Education and Economic Growth' says that if the education expenditure reaches a certain level it represents the standing or prestige of education within society. Such expenditures show only the standard of nations. So according to him, a more advanced education system needs more expenditure in comparison to the less advanced type of education system.

Friedman (2002), in his article, 'The Role of Government in Education' views that educational Expenditure as the amount of money spent on schooling has been rising at an extraordinarily high rate, for faster than our total income. He believes that for better schooling it needs more money to offer more facilities and to pay higher salaries to teachers to attracting more efficient teachers.

Uprety (1965) in his work, 'Financing Elementary Education in Nepal' has endeavoured to show an increasing

trend towards the budgeting by the government of Nepal in support of primary education in Nepal. From his view, we can say that increasing government expenditure in the education sector is felt necessary for educational development in Nepal.

Pant (2014) in his book remarks that the economic classification of the budget attempted after 1960 shows that there have been some obvious improvements- a general increase in expenditure on the economic services. In this view from the fiscal year, 2010-2012 up to the fiscal years 2013-2014 government expenditure in the economic services increased at most three-fold.

We note that the expenditure of government on the education sector has been increasing quite rapidly. Between 2014/15 and 2015/16, the expenditure on education increased by about 8 times. He further says that this sort of educational expenditure is quite large compared to the expenditure in the year 2013/14. However, it seems contradictory that comparing this expenditure with other countries, Upadhyaya (2016/17).

Some study is reviewed in this research paper; there has been a consensus of the opinion among writers that educational expenditure has been rising over the years, in national as well as the international field. Though in the context of Nepal, educational expenditures have tremendously increased, still, this is not a substantial increase, compared with that the Asian and other countries.

Research Methodology

The study of public expenditure on primary education of Gorkha district has chosen mainly of the reason for the earthquake centre of 2072. The devastating earthquake of April 25, 2015 had destroyed 513 schools including private and government school buildings in the district. Only 27 Government schools are in this district.

This study is based on secondary data. All data (60 households’ income and public expenditure on primary education) from private (only 3 schools) and public schools (27 schools) have been taken from the district education office of Gorkha through ‘Financial Status and Education Review 2075’. This study also concerns the expenditure on primary education and income differences. In addition to this present study is a concern to the policies and recommendation for increasing expenditure on primary education in the study area.

The models used in the present study of a simple regression equation is,

$$PEB = f(y)..... (i)$$

Where, PEB= Budget on primary education

y = income at current prices

Then simple model is,

$$GPEB = b_0 + b_{iy} + u.....(ii)$$

$$b_0 = \frac{\sum x^2 \sum y^2 - (\sum x)(\sum xy)}{n \sum x^2 - (\sum x)^2}$$

$$b_i = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 - (\sum x)^2}$$

Where, bo = constant and bi = coefficient on y'

$$R^2 = \frac{\text{Regression sum of square}}{\text{Total Sum of Square}}$$

$$R^2 = \frac{\text{Regression sum of square}}{\text{Total Variance}}$$

$$R^2 = \frac{1 - e^2}{y^2}$$

$$t^* = \frac{\text{Regression Coefficient}}{\text{Respective Standard Error}}$$

$$t^* = \frac{b_i}{se(b_i)}$$

Where, bi = Regression Coefficient

Se (bi) = Standard Error of bi.

Research Hypothesis

“Public expenditure on primary education has a positive impact on the economy”.

Analysis and Results

At current prices, average revenue expenditure on primary education of the study area, in 2017, per student is Rs. 23,000. Items of this expenditure include only government primary schools but not includes the expenditure on direction and inspection; primary technique institute; academy for national primary education; implementation and monitoring cell for compulsory non-governmental primary education and so on. Here the govt. expenditure on education includes only the expenditure on textbook and scholarship.

Since two variables are included in our model described above, a simple regression analysis has been applied to explain the relationship between the dependent and independent variables.

We can see the algebraically, which is

$$GPEB = b_0 + b_{iy} + u$$

The dependent and independent data has been presented in APPENDIX-I with the transformed data simple Regression Analysis was done and the values of the estimated parameter were found.

MODEL A

In this model, all the 60 observations relating to independent and dependent variables are used and the estimated results are given below:

$$b_0 = 34334.5$$

$$b_1 = -82.72$$

The estimated Results in non-linear form is

$$GPEB = 34334.5 - 82.92_y$$

$$(1387.81) (16.34)$$

$$t = (3.91) - (0.93)$$

$$n = 36$$

$$R^2 = 0.6373$$

$$R^2 = 0.627$$

d.f.

= 34 with 5% level of significance

We are also known about below

$$GPEB = F(y)$$

Where, GPEB = Government primary Education Budget.

Y = income at current prices.

In our hypothesis, we have supposed that public expenditure on primary education has a positive impact on the economy. Thus, there is a positive relationship between public expenditure on primary education and income. Generally, it is seen that as the private income increases, they start to spend more on education for their child and hence public expenditure on education is reduced. Similarly, if private income decreases, public expenditure on education must be increased in the case of primary education. In this model, we know that the dependent variable is budget on primary education and the independent variable is income at the current price. The result in linear form of the regression equation is shown above where is the constant and is the coefficient on income?

So, the above result shows that there exists a positive relationship between the dependent and independent variable because the public expenditure on primary education and income is the inverse relationship between these two. The coefficient on income indicates that Rs. 100 increase in income is followed by Rs. -0.8272. reduce the budget on primary education. So the t value of the coefficient on income is significant at 95percent confidence level. R^2 shows 63.73 percent of the variation is explained by the variable significant. The values of the adjusted coefficient of determination (R^2) is 0.627, it means 62.7 percent of the total variance, is explained by the fitted regression analysis.

The earlier discussion has already made clear that there is an educational expenditure which has a rapid rise in Government expenditure on primary education and the rapid rise in private expenditure on primary education. But

here we can show the ratio between Government expenditure and private expenditure on primary education which is shown in ANNEX-I.

Findings and Conclusion

Before concluding, we want to show the general and overall education system. The study has focused on the impact of public expenditure on primary education, or it tried to show how there was increasing government involvement and how it has to cope-up with the rising educational expenditure. Further attainment at forecasting the government expenditure on the primary level of education, was made, by drawing up a relationship between income and primary education. And it was found that a hundred Rs 100 increases in income brought Rs. -0.008272 reduce in the primary educational budget on Nepal.

Hence the overall conclusion is that the contribution, of education, is helpful in the development of education in Nepal. But yet it is not fully satisfactory. Similarly, to reduce regional imbalance, education should provide more incentive to people for education development. It should give more emphasis on employment and skill knowledge, which may fulfil the objectives of Educational policy.

Recommendations

1. The very high ratio of government primary education budget and private education budget ratio that we find have to go a long way in increasing the government primary education budget in primary school and this issue has to be considered very seriously.
2. Scholarship system should be increased in schools.
3. As we see the negligence in supervision by the government, so the government should check the supervision system through district education, from time to time.
4. Public expenditure on primary education should be increased every year.
5. By highlighting the comparative results of private and public schools, the public schools should be encouraged.

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ANNEX-I

Annex Table 1: Financial Status of Income and Expenditure of Selected Households in Gorakha District 2075 (2018/2019)

S. No.	Per Household Private Expenditure (Tuition+ Text books+Boarding +Other) Rs.	Per Household Govt. Exp. on PE (Rs.)	Income = Consumption +Production +Livestock+ Saving-Loan) Rs.
1	288	56.60	27,856
2	240	-	48,860.86
3	-	-	27,166.85
4	3900	-	86,339.5
5	-	-	24,427
6	-	-	42,417
7	-	52.80	-554.8
8	540	-	50660
9	--	175.60	28167.81
10	70	109.4	6210.71
11	-	-	1602
12	60	94.9	21865.82
13	-	0	26138.53
14	-	205	-
15	216	130.1	8,090.57
16	30	162.2	47,765.6
17	100	-	1256.74
18	-	-	16,414.24
19	54	-	50613
20	-	-	24065.44
21	-	-	39176.3
22	-	56.60	18511.63
23	110	52.80	31,496.62
24	1392	-	53264.35
25	-	169.80	12698
26	110	38.30	24893.88
27	240	-	34621.36
28	-	224.60	29474.02
29	100	148.4	16206.78
30	170	-	22892.68
31	-	56.60	35069.00
32	465	-	45884
33	-	158.4	-
34	420	56.60	13752
35	720	109.4	56,660
36	140	91.80	16432.5
37	-	-	8457
38	195	319.5	-47055.96
39	-	-	10705.84
40	850	-	25799.62
41	-	175.6	18212.34
42	300	52.8	11172.64
43	60	-	18201.35
44	-	38.30	29102.64
45	360	256.6	14733.88
46	360	52.8	44788.11
47	60	285	17494.33
48	450	-	- 3015
49	-	-	20385.32
50	720	56.6	-10135.07
51	1600	91.8	20378.37
52	192	56.6	26097.93
53	60	91.8	22179.67

Annex Table 1: Financial Status of Income and Expenditure of Selected Households in Gorakha District 2075 (2018/2019)

S. No.	Per Household Private Expenditure (Tuition+ Text books+Boarding +Other) Rs.	Per Household Govt. Exp. on PE (Rs.)	Income = Consumption +Production +Livestock+ Saving-Loan) Rs.
54	-	-	35281.03
55	720	105.6	51709.35
56	300	50.6	63813
57	240	91.8	-7327.13
58	460	180.00	31506.68
59	230	50.60	94,786.34
60	120	119.00	27706.67
Total	. 16642	4242.9	1206854.39

Source: District Education Office Gorkha, 'Financial Status and Education Review 2075'.