

Role of Education Policies in Bhutan and its Impact on the Economy

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ABSTRACT

Education has had a tremendous impact on economic development both in general and in helping to transform the lives of individuals. There is no doubt that education is a core element of any sector development. However, education is also criticized for creating unemployment and increasing rural-urban migration which created more pressure on employment. Therefore, to have a successful economic transformation, education policies and curriculum should be adopted to match the changing needs of society. This paper portrays the role of education policies in Bhutan and its impact on the economy in stylized facts.

Keyword: Education policies, Education in Bhutan, Human capital development, Economic development

JEL Classification: O15, I20, J00

1. Introduction

There has been a general understanding that improving human capital is an important factor for regional and national development which is reflected in the literature on economic development. An example is Solow (1956) which illustrated how technology can affect economic growth by introducing technology as an exogenous variable not affected by the marginal rate of substitution between capital and labor. Another model proposed by Romer (1990) built on this by endogenizing technology and linked it to human capital, knowledge accumulation and economic growth. Linked to this is the work on regional development; Jacobs (1969) found that as the scale and diversity of cities increases, the increasing network links between economic actors result in more and newer ideas and innovations. On top of this, Andersson (1985) explored the historical role of creativity in regional economic development, examining the importance of culture, communications, creativity and knowledge.

Lucas (1988) put forward that the theory of human capital focuses on the way an individual divides their time over various activities affects their productivity. Benhabib and Spiegel (1994) summarizes this viewpoint, concluding that the accumulation of human capital has long been considered an important factor for economic development. According to Healy and Côté (2001), human capital is potentially of key importance in determining potential positive outcomes, including higher income, life satisfaction, and social cohesion. Further, Benhabib and Spiegel (1994) stated that human capital can affect economic growth through two mechanisms: influencing the rate of local technological innovation, and the capacity of adopting technology from abroad. Florida, Mellander and Stolarick (2008) expanded on this by putting forward two possible issues, the distinction

between educational versus occupational measures of human capital, and the factors that affect its distribution. Benhabib and Spiegel (1994) suggested two alternative routes through which human capital can play a role in economic growth: attracting physical capital, and as a determinant of the magnitude of Solow residual; this was supported to some degree by the empirical evidence.

One of the important questions in the debate on the human capital revolution in the economic literature is that, if education is considered as accumulating capital, then the rate of return needs to be understood and it must provide a clear comparative advantage. Psacharopoulos (1985) found that with regards to levels of schooling, private returns exceed social returns because education is often publicly subsidized. Furthermore, the gap between public and private returns are the greatest in the poorest countries, and in higher levels of education. Conversely, Cypher and Dietz (2008) identified one of the key barriers that thwart economic growth and development being an ineffective educational system, for example low levels of general literacy and an inefficient allocation of resources between primary, secondary, and higher education. Today, many developing countries consider an investment in education as one of the important investments for the economic development. According to Bray (2002), for all developing countries, education is seen as a major investment towards achieving economic and social goals, however he argues that governments routinely underinvests.

Bhutan is a land-locked developing country bordered by China in the North and India in the South, covering an area of 38,394 square kilometers. It opened to the outside world in the early 1960s and modern development followed shortly after. Today, Bhutan has a unique development philosophy: the Gross National Happiness (GNH), a development guiding principle that provides more importance to well-being of its

people over materialistic growth. Hydro power is the backbone of the Bhutanese economy followed by tourism and agriculture. The modern educational system started at the same time as it opened to the modern development in 1960s. Since then, frameworks for the education systems were developed so to achieve education millennium development goals today. In 2003, the country's first university, the Royal University of Bhutan, opened by joining together eight higher education institutes and two teacher training education institutions (Jamtsho & Bullen, 2007).

The objectives of this paper are to: (i) identify the effects of education and economic growth, (ii) review the education policies and (iii) provide policy recommendations.

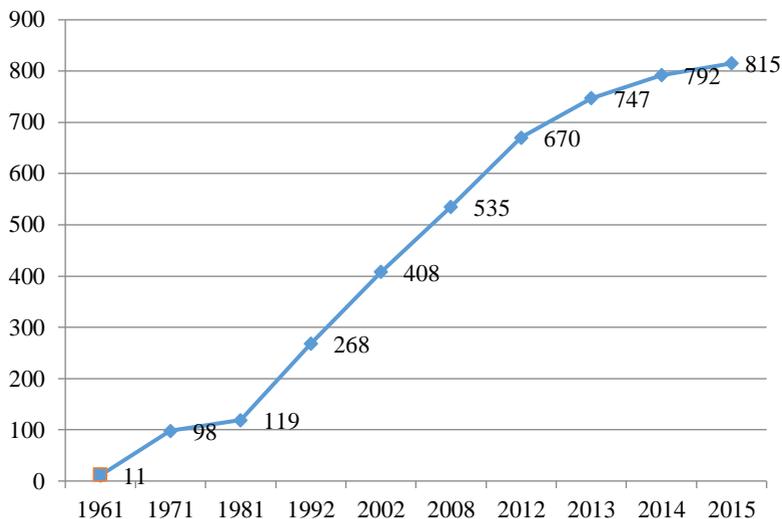
2. Overview of Education Policy

Power (2000) suggested “In the Twenty-first century, nations will become both more competitive and yet more interdependent, and their future ever more dependent on the knowledge, skills and resourcefulness of its people, creating new opportunities and difficulties for education” (p. 152). Education is prerequisite for the central element of the progress and the development of a nation. As such, education is no longer the privilege of the few but a basic right of all our young people.

Since the commencement of formal education 1960's Bhutan has seen remarkable achievements within a few decades. The need for modern education was felt because of the recognition of the importance of human capital development for Bhutan's socio-economic development. Although modern education is very young in Bhutan, it has undergone major transformations in recent years. The significant progress made in education is a clear indication that the country has prioritized development of human resources in

the country. Figure 1 indicates the growth in number of schools and institutes since the first Five Year Plan (FYP).

Figure 1. Growth in number of Schools and Institute



Source: Policy and Planning Division, Bhutan (2015)

Phan and Coxhead (2013) suggested that, particularly in developing economies, there is a strong correlation between education and economic development. This paper will focus on the education policies in Bhutan and discuss the implications for economic development. The Department of Education, Bhutan (2002) stated that “it is important to examine the policies in any given education system, the ways in which they interact and impact upon system performance and other underlying factors that may inhibit or strengthen established policies” (p. 1). As such, the need to review and analyze the policies in education in Bhutan is essential. The way education policies are implemented will determine its

ability to transform the education and learning outcomes in Bhutan. One of the most prominent features of successful educational reforms in other countries is clear guidance provided by a well-informed goal or vision and is proper implementation through careful planning, management, monitoring, and evaluation (Wangchuk, 2015).

2.1 Education structure in general

As indicated in Table 1, 11-year free basic public education is provided in Bhutan from Pre Primary (PP) classes to Grade X. This is comprised of seven years of primary education, starting at the age of six, and four years of middle Secondary Education (VII-X). There is a national board examination (BCSE) upon completion Grade X. After Grade X, students can choose to either continue their general education for two years in Grades XI and XII in Higher Secondary schools, enter technical training institutes, or join the labor market. This is often based on a students' performance in national board examinations. A qualifying percentage is set by the Board of Examination to determine whether a student can continue studying in government schools or look for their own private higher secondary school. Some economically disadvantaged students, who cannot afford to continue in the private schools, exit to enter vocational training institutes. The course offered at vocational institute ranges from six months to two years. After completing Grade XII students can either join the colleges under the Royal University of Bhutan or private colleges

Table 1: General Education System

Level	Pre-school (ECCD)		PP	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	1 st – 4 th Year					
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Age																					
	Early childhood care and development centres			Primary Education				Secondary Education				Higher Education				Tertiary Education					
	Primary School			Lower Secondary School				Middle Secondary School				Higher Secondary School				Undergraduate Courses					
								Non-formal centres				Continuing Education									
												Vocational Educational System									
												Labor Market									

Source: Annual Education Statistics (2015)

abroad. The selection for students in the government colleges is based on the merit ranking of their performance.

2.2 Primary Education

Target 2.A of the United Nations Millennium Development Goal is to achieve Universal Primary Education by 2015, that is, to ensure that children everywhere, boys and girls alike, will be able to complete a full course of primary schooling¹.

Primary education is proposed as a factor which can contribute to sustainable economic development in the country. Therefore, there should be strong foundation built by primary education. The progress of other sectors depends on the quality of primary education in the country (Annual Education Statistics, 2015).

Table 2. Enrollment ratio since 2008 (in percent)

Year	Gross Primary Enrolment	Net Primary Enrolment		
		Male	Female	Total
2015	112	92.4	98.1	95.2
2014	113	96	94	95
2013	116	95	96	96
2012	118	95	96	96
2011	120	94	96	95
2010	118	93	95	94
2009	116	91	93	92
2008	112	87	89	88

Source: Annual Education Statistics (2015)

¹ <http://www.un.org/millenniumgoals/education.shtml> Accessed 22 March 2018.

Table 2 shows a dramatic increase in enrollment in the primary education between 2008 to 2015 of about 7 %, despite many challenges especially in this area.

2.3 Curriculum

Table 3. Number of students in Tertiary Education by field of study and gender, 2014

Field of study	Male	Female	Total
Architecture and Design	7	8	15
Commerce and Accountancy	683	658	1,341
Education	1,498	1,259	2,757
Engineering and Technology	1,250	510	1,760
Forestry and Agriculture	389	149	538
Language/Literature	943	948	1,891
Management Studies	519	510	929
Medical Technology	71	59	130
Medicine	40	24	64
Nursing	122	145	267
Public Health	16	9	25
Law	38	68	106
Science/ Mathematics	342	167	509
Social Sciences	340	417	757
Total	6,258	4,831	11,089

Source: Annual Education Statistics (2015)

For any country the curriculum would be designed in such a way that it suits the needs of the country's labour market. In Bhutan, the curriculum is designed in such a way that it can provide students with ideas, knowledge, skills and values in realizing GNH and also to make them ready for the job market. Table 3 shows the curriculum taught to students from PP to Grade XII. For the tertiary level education, the Royal University is responsible for implementing the curriculum.

The tertiary education system in Bhutan offers only undergraduate and diploma programs with courses ranging from two to four years. Besides government scholarships, there are various scholarships provided by the donor countries like India, Japan, and Thailand. Students who do not qualify by failing to achieve the required marks, study in the private colleges in the country or abroad.

As per the Annual Education Statistics 2015, the gross enrolment ratio (GER) for tertiary education in Bhutan is estimated at 26.4% with a gender parity index (GPI) figure of 0.79.

2.4 Legal frameworks

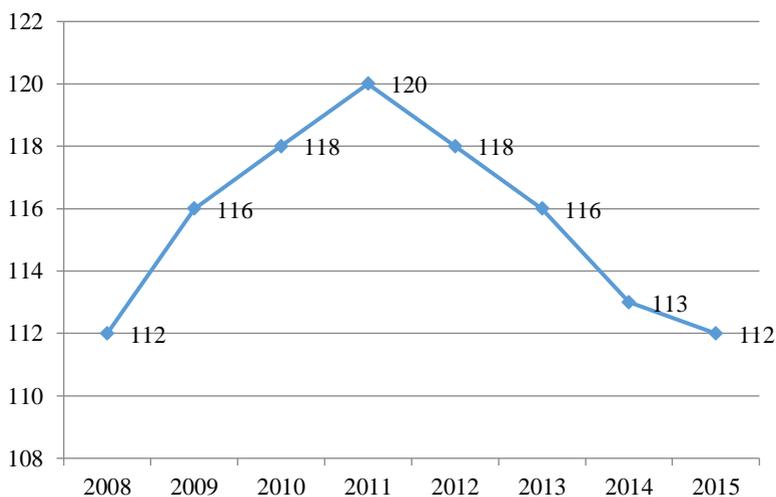
The Constitution kingdom of Bhutan 2008, Article 9 states that:

The state shall endeavor to provide education for the purpose of improving and increasing knowledge, values and skills of the entire population with education being directed towards the full development of the human personality. Article 16, further clarifies that the state shall provide free education to all children of school going age to tenth standard and ensure that technical and professional education is made generally available

and that higher education is equally accessible to all on basis of merit (p.31).

Children in Bhutan have traditionally relied on their parents and relatives for protection but with changes brought about by modernization, there is a need to enact legislation and policies on issues concerning children (Education for all: Mid-decade assessment in Bhutan). In this regard, The Convention on Rights of Children (CRC) was signed in June 1990 and ratified in August 1990 by the Royal government of Bhutan. This was to signal that Bhutan would endeavor to ensure survival, protection, development and participation of all children. With this legislation in place Bhutan’s enrolment stands at 106.61%.

Figure 2. Gross Primary enrollment (in percent)



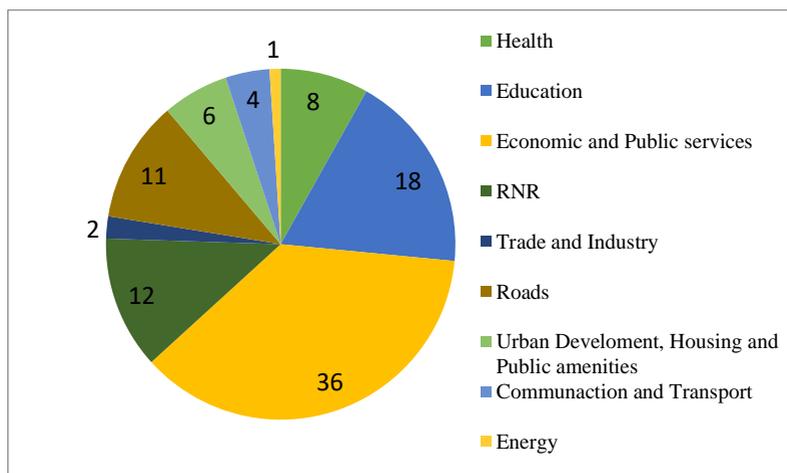
Source: Annual Education Statistics (2015)

2.5 Financial commitment

Given the fact that education helps to open doors, provide opportunities and gives liberty to people and most importantly it also helps nations to foster peace and reduce poverty through economic growth. Therefore, the commitment made to education in many countries is of the highest importance and this can be seen through the share of budget allocated. Likewise, in Bhutan, the share of budget allocation in education is one of the highest. Public education expenditure stood at 7.3 percent of GDP and 16.7 percent of total government spending (Ministry of Finance, Bhutan, 2015).

As per the record of Annual Education Statistics (2014), in the financial year 2013-14, a total amount of Nu 5,701.3 million (revised budget) was allocated for the education sector. Of this budget allocation, Nu 5,370.3 million was spent by the education sector in the financial year 2013-2014.

Figure 3. Sector Allocation for FY 2015-16



Source: National Budget for the Financial Year 2015 -16

2.6 Decentralization

According to the report Education Policy Research Series, Discussion Document No. 5, 2014, it is expected that decentralization would reduce the financial burden on the central government, while at the same time improve the relevance, efficiency and effectiveness of education provided. Decentralization and transferring of decision making is amongst the most intriguing recent school reforms (Hanushek, et al., 2011).

Policy planning and administration is done at the ministry level. Responsibilities such as supply of teaching learning materials, teacher deployment and policy implementation are borne by the districts and the report is to be submitted to the ministry. With the launch of Autonomous schools in 19 state schools as a pilot test in 2015, the schools were given more power in decision making. According to Operational Guidelines for Central Schools, 2014, “The key areas of autonomy are staffing, budget, curriculum and assessment practices, schedule and governance. While each autonomous school can choose to exercise the flexibilities, they are also obliged to meet a number of mandated responsibilities”. With schools functioning as an Autonomous entity, it is expected that they would improve the quality of their education as well as increase their efficiency.

3. Positive impact of education on economy

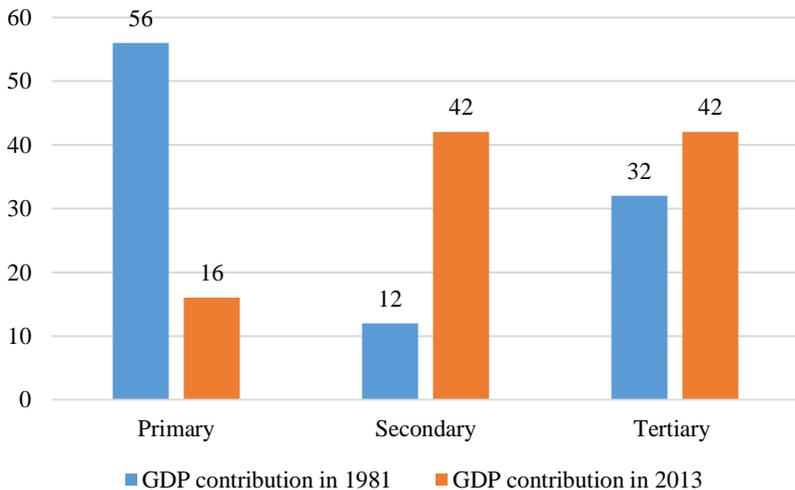
Bhutan clearly sees education as a main driving force for the country’s economy. The report of Unemployed Youth Perception Survey, 2014 stated that Bhutan’s economy is one of the fastest growing in the world and is ranked fourth by the IMF in terms of the speed of growth. The average growth rate has been at 8% since 2000, GDP per capita has more than tripled from US\$780 in 2000, to US\$2,460 in 2013. Social

progress, especially in health, education and poverty has met almost all of the Millennium Development Goals. Amongst them, education was very progressive with increasing net enrolment in primary schools from 84% to 91.5% by 2007. This manifestation of high achievement in education is a potential reason why Bhutan was able to make such a huge progress in economic development in a short period of time. As mentioned by Psacharopoulos, (1994) “people educated in states with high quality schools exhibit higher returns to additional years of schooling”. The main purpose of higher education is to prepare students for the job market (Harvey, 2000), and education helps to find better job opportunity and contribute to the economic development of a country. As pointed out by Sanyal (1987): “Whatever the political ideology of a government, the employment of graduates from institutions of higher education is considered an essential element of national development”. Thus, the government budgeted a substantial amount to the Education sector in Bhutan as mentioned previously. Education has been and is the means and to create employment and bring economic development to a country. A large part of modern economic growth (70%) is contributed by an increase in the knowledge embodied in technological advancement which is human capital. Therefore, it is not surprising to see that governments place so much importance on education and on skills development for human capital.

Higher economic growth in Bhutan is accompanied by an increase in the productivity of the factors of production driven by an increase in the education attainment. Since 1981, the Bhutanese economy has experienced structural changes that are usually considered to be a major feature of modern economic growth which took place with the start of modern education. The current formal education system was introduced in the first Five Year Plan in 1961 and has since

been expanded to develop the necessary human resources required for socio-economic development of the country, as well as improving overall welfare (Annual Education Statistics, 2015). An indication of economic progress can be seen in the shift of occupational structure from the primary sector to the secondary and tertiary sectors and the share of GDP contribution from each sector. In 1981, the primary sector contributed to 56% to the GDP, while it has declined to 16% in 2013. Corresponding to the decline in share of primary sector, share of secondary and tertiary sector increased by 42%. (National Statistics Bureau, 2013). These structural changes are one of the measures of the fact that the growth process has an education influence on the economy. Figure 4 shows the view of share of different sectors in 2013.

Figure 4: Percentage share of GDP by major sectors (1980 and 2013)



Source: National Statistics Bureau, 1981 and 2013

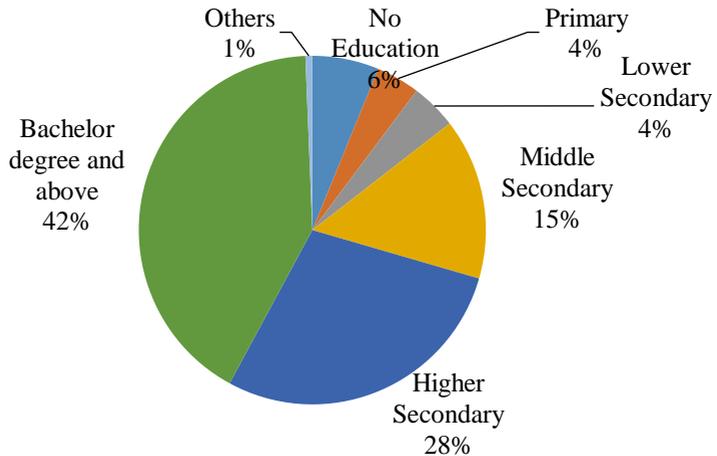
4. Drawbacks of education on employment

Although education is seen as one of the most important factors for economic development, it may also be partly responsible for creating an unemployment problem as graduates may have suffered from an irrelevant curriculum and lack of job opportunity in the market. According to Sanyal (1987), the expansion of higher education may have created as many problems as it has solved, such as: (i) the lack of relevance in the content and structure of the system of higher education with respect to national needs, (ii) lack of confidence in the institutions of higher education by production sectors in the economy due to lack of interaction between the two areas; (iii) rural migration caused by the location of these institutions in urban areas; (iv) the students' increased expectations, which could not be met; and (v) most importantly, a mismatch in number and quality between graduates produced by the system and opportunities in the labour market.

Most of the people viewed education as a guarantor of employment, so the problem sprouted in the form of unemployment and underemployment among most university graduates in Bhutan.

According to the Unemployed Youth Perception Survey Report of Bhutan (2014), youth unemployment amongst those aged 15-24 was 9.6 percent, which is marginally higher than the national unemployment average. The report states that amongst the unemployed, 1.2% had Masters Degrees or higher, while 48.5% had undergraduate degrees. A little over 36% had completed secondary education, while those with Grade X qualifications consist of 12.1%. Youth with only Grade IX and below education represented 1.2% as shown in Figure 5.

Figure 5. Percentage share of unemployed by Educational Attainment



Source: Labor force survey (2015)

From the figure, we can question the relevancy of tertiary curriculum in Bhutan to the job market as the youth with undergraduate degrees form the highest unemployed group.

Traditionally when there was no modern education, the definition of unemployment was not known to Bhutan. With the onset of modern education, the ideas of education in all the minds of the people are merely to provide employment opportunities. With every youth passing out from the universities, they start to look for the white collar jobs and occupations in the agriculture sector was neglected, which was also responsible for a rural-urban migration. The youth who passed out from the universities are reluctant to go back to villages and work. In most of the cases in every country, it was found out that education did not prepare them adequately for work and hence they remain unemployed. Therefore, policymakers should pay special attention to increase the rigor,

relevance, and engagement of the school curriculum. Although the link between education and employment is now recognized, the inherent interrelationship was forgotten and academics had been separated from employment markets. With the demand for graduates exceeding supply, attention was focused on fields in which graduates were in short supply with little thought was given to unemployment (Sanyal, 1987). When education fails to address the relevancy of job market, it can cause a stagnation in economic growth, potentially for a long time. If such high youth unemployment continues in a long term, the education and skills of Bhutan's youth would not be put to productive use and would limit the development possibilities for the country.

5. Policy recommendations

- i) Policies should be reassessed on a regular basis to match the needs of the economy.
- ii) Coordination is required across the public and private sector to make the best of higher education institutions.
- iii) The education system should be tailored to become more relevant in changing social needs in the world of work.
- iv) Policies to boost youth employment have to fit the country's development needs across the different areas of growth, and address the industrialization and servicification of the economy.
- v) Education policy should address skills deficiencies in the labour market by ensuring that skills training in the education system match the needs in the future.

6. Conclusion

Education has tremendous impact on the economic development in general and particularly education in itself has helped to transform the life of individuals. There is no doubt that education is the core element of any sector development. However, education is also criticized for creating unemployment and increasing rural-urban migration which created more pressure on employment problems. Therefore, to have a successful economic transformation, education policies and curriculum should be adopted to the changing needs of the society.

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